Financial reporting developments
Share-based payment
Revision August 2010
To our clients and other friends


We have designed this publication as a resource to help you become familiar with the accounting for share-based payments and assess the impact that share-based payments will have on your company's financial statements. Chapter 1 provides a high-level overview of the accounting for share-based payments. The remainder of this publication describes the accounting for share-based payments in considerable detail. Throughout this publication we have included the actual text from ASC 718 and other ASC topics (presented in shaded boxes) followed by our interpretations of that guidance (EY comments made within the guidance are included in bracketed text).

This fifth edition has been updated to reflect the latest guidance. We expect to continue to update this publication as additional questions and implementation issues arise.

Our accounting, tax, and human capital professionals are available to assist you in understanding and complying with the accounting requirements for share-based payments and to help you consider the possible impact on your company's compensation strategy and plan design.

Ernst & Young LLP

August 2010
## Contents

### S1 Overview

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1.1</td>
<td>Background</td>
<td>1</td>
</tr>
<tr>
<td>S1.2</td>
<td>Scope</td>
<td>1</td>
</tr>
<tr>
<td>S1.3</td>
<td>The modified grant-date approach</td>
<td>2</td>
</tr>
<tr>
<td>S1.4</td>
<td>Measurement of share-based awards</td>
<td>3</td>
</tr>
<tr>
<td>S1.4.1</td>
<td>Option valuation</td>
<td>4</td>
</tr>
<tr>
<td>S1.4.1.1</td>
<td>Considerations for nonpublic companies</td>
<td>5</td>
</tr>
<tr>
<td>S1.5</td>
<td>Employee stock purchase plans</td>
<td>5</td>
</tr>
<tr>
<td>S1.6</td>
<td>Recognition of compensation cost</td>
<td>6</td>
</tr>
<tr>
<td>S1.6.1</td>
<td>Determining the requisite service period</td>
<td>6</td>
</tr>
<tr>
<td>S1.6.2</td>
<td>Estimating forfeitures</td>
<td>7</td>
</tr>
<tr>
<td>S1.6.3</td>
<td>Recognition of compensation cost – awards with graded vesting</td>
<td>7</td>
</tr>
<tr>
<td>S1.7</td>
<td>Modifications</td>
<td>8</td>
</tr>
<tr>
<td>S1.8</td>
<td>Cash settlements</td>
<td>8</td>
</tr>
<tr>
<td>S1.9</td>
<td>Liabilities</td>
<td>9</td>
</tr>
<tr>
<td>S1.9.1</td>
<td>Classification</td>
<td>9</td>
</tr>
<tr>
<td>S1.9.2</td>
<td>Measurement of liabilities – public companies</td>
<td>10</td>
</tr>
<tr>
<td>S1.9.3</td>
<td>Measurement of liabilities – nonpublic companies</td>
<td>10</td>
</tr>
<tr>
<td>S1.10</td>
<td>Income taxes</td>
<td>10</td>
</tr>
<tr>
<td>S1.10.1</td>
<td>Recognition of excess tax benefits when those benefits do not reduce current income taxes payable</td>
<td>12</td>
</tr>
<tr>
<td>S1.10.2</td>
<td>Presentation of excess tax benefits in the statement of cash flows</td>
<td>12</td>
</tr>
</tbody>
</table>

### S2 Scope

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>S2.1</td>
<td>Transactions subject to ASC 718</td>
<td>13</td>
</tr>
<tr>
<td>S2.1.1</td>
<td>Issued in exchange for goods or services</td>
<td>13</td>
</tr>
<tr>
<td>S2.1.2</td>
<td>Based on or settled in the issuer’s stock</td>
<td>13</td>
</tr>
<tr>
<td>S2.1.3</td>
<td>Awards to employees and nonemployees</td>
<td>14</td>
</tr>
<tr>
<td>S2.1.4</td>
<td>Employee stock ownership plans</td>
<td>14</td>
</tr>
<tr>
<td>S2.2</td>
<td>Definition of “employee”</td>
<td>15</td>
</tr>
<tr>
<td>S2.2.1</td>
<td>Definition of “control”</td>
<td>15</td>
</tr>
<tr>
<td>S2.2.2</td>
<td>Part-time employees</td>
<td>16</td>
</tr>
<tr>
<td>S2.2.2.1</td>
<td>Leased employees and co-employment arrangements</td>
<td>17</td>
</tr>
<tr>
<td>S2.2.3</td>
<td>Nonemployee directors</td>
<td>18</td>
</tr>
<tr>
<td>S2.2.3.1</td>
<td>Directors of subsidiaries</td>
<td>19</td>
</tr>
<tr>
<td>S2.2.3.2</td>
<td>Example – stock options granted to nonemployee directors</td>
<td>20</td>
</tr>
<tr>
<td>S2.2.3.3</td>
<td>Example – awards granted to members of advisory board</td>
<td>20</td>
</tr>
<tr>
<td>S2.2.3.4</td>
<td>Example – large grants to nonemployee directors</td>
<td>21</td>
</tr>
</tbody>
</table>
### Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>S2.2.4</td>
<td>Awards to employees of partnerships and similar entities</td>
<td>22</td>
</tr>
<tr>
<td>S2.3</td>
<td>Certain transactions with related parties and other economic interest holders</td>
<td>23</td>
</tr>
<tr>
<td>S2.3.1</td>
<td>Definition of “economic interest”</td>
<td>24</td>
</tr>
<tr>
<td>S2.3.2</td>
<td>Definition of “related party”</td>
<td>25</td>
</tr>
<tr>
<td>S2.3.3</td>
<td>Awards granted between companies in a consolidated group</td>
<td>25</td>
</tr>
<tr>
<td>S2.3.3.1</td>
<td>Consolidated financial statements</td>
<td>26</td>
</tr>
<tr>
<td>S2.3.3.2</td>
<td>Separate financial statements</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Awards between entities under common control</td>
<td>26</td>
</tr>
<tr>
<td>S2.4</td>
<td>Awards granted to employees of an equity method investee</td>
<td>29</td>
</tr>
<tr>
<td>S2.4.1</td>
<td>Accounting by the investor</td>
<td>29</td>
</tr>
<tr>
<td>S2.4.2</td>
<td>Accounting by the investee</td>
<td>29</td>
</tr>
<tr>
<td>S2.4.3</td>
<td>Accounting by the other investors</td>
<td>29</td>
</tr>
<tr>
<td>S2.5</td>
<td>Awards by an employer based on another company’s stock</td>
<td>30</td>
</tr>
<tr>
<td>S2.6</td>
<td>Employee stock purchase plans (including look-back options)</td>
<td>31</td>
</tr>
<tr>
<td>S2.7</td>
<td>Escrowed share arrangements (or placing vesting requirements on previously issued shares)</td>
<td>31</td>
</tr>
<tr>
<td>S2.8</td>
<td>Trusts related to employee benefits</td>
<td>32</td>
</tr>
<tr>
<td>S2.8.1</td>
<td>Rabbi trusts</td>
<td>32</td>
</tr>
<tr>
<td>S2.8.2</td>
<td>Other “employee benefit trusts” (e.g., “flexitrusts,” “SECTs”)</td>
<td>34</td>
</tr>
<tr>
<td>S2.9</td>
<td>Determining whether a company is public or nonpublic</td>
<td>35</td>
</tr>
<tr>
<td>S2.9.1</td>
<td>Private equity investees</td>
<td>36</td>
</tr>
<tr>
<td>S2.9.2</td>
<td>Subsidiaries of companies with equity securities traded on a foreign exchange</td>
<td>37</td>
</tr>
<tr>
<td>S2.9.3</td>
<td>Transition from nonpublic to public status</td>
<td>37</td>
</tr>
</tbody>
</table>

### S3 Measurement of equity awards granted to employees

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>S3.1</td>
<td>Objective</td>
<td>38</td>
</tr>
<tr>
<td>S3.2</td>
<td>Measurement basis</td>
<td>38</td>
</tr>
<tr>
<td>S3.2.1</td>
<td>Employee services received versus equity instruments issued</td>
<td>38</td>
</tr>
<tr>
<td>S3.2.2</td>
<td>Fair-value-based measurement</td>
<td>39</td>
</tr>
<tr>
<td>S3.2.3</td>
<td>If a company cannot reasonably estimate fair value</td>
<td>41</td>
</tr>
<tr>
<td>S3.2.4</td>
<td>Exception for nonpublic entities that cannot estimate expected volatility</td>
<td>42</td>
</tr>
<tr>
<td>S3.2.4.1</td>
<td>Calculated value</td>
<td>42</td>
</tr>
<tr>
<td>S3.2.4.2</td>
<td>Change from calculated value to fair value</td>
<td>44</td>
</tr>
<tr>
<td>S3.3</td>
<td>Measurement date</td>
<td>44</td>
</tr>
<tr>
<td>S3.3.1</td>
<td>Definition of “grant date”</td>
<td>45</td>
</tr>
<tr>
<td>S3.3.1.1</td>
<td>Mutual understanding of key terms and conditions</td>
<td>46</td>
</tr>
<tr>
<td>S3.3.1.1.1</td>
<td>Practical accommodation regarding the concept of mutual understanding</td>
<td>46</td>
</tr>
<tr>
<td>S3.3.1.2</td>
<td>Substantive terms of the plan</td>
<td>48</td>
</tr>
</tbody>
</table>
S3.3.1.2 Employee begins to benefit from or be adversely affected by a change in the stock price .................. 49
S3.3.1.3 All necessary approvals must be obtained ............. 50
S3.3.1.4 Must meet the definition of an employee .................. 51
S3.3.1.5 Service inception date ........................................ 51
S3.4 Effect of service, performance, and market conditions on measurement ........ 52
S3.4.1 Overview ............................................................ 52
S3.4.2 Service conditions .................................................. 53
S3.4.3 Performance conditions ............................................. 54
S3.4.3.1 Definition .......................................................... 54
S3.4.3.1.1 Requires the employee to render service .................. 55
S3.4.3.1.2 Based on the operations or activities of the employer or activities of the employee .................. 56
S3.4.3.1.3 May be defined by reference to other groups or entities .................. 57
S3.4.3.2 Performance conditions that affect vesting (or exercisability) of an award .................. 57
S3.4.3.3 Performance (or service) conditions that affect factors other than vesting or exercisability ............. 59
S3.4.3.4 Performance conditions to be established at a future date .................. 61
S3.4.4 Market conditions .................................................... 62
S3.4.5 Other conditions ..................................................... 63
S3.4.6 Multiple conditions ................................................. 63
S3.5 Reload options and contingent features .................................. 64
S3.5.1 Reload options ................................ ..................... 64
S3.5.2 Contingent features ................................................... 65
S3.6 Dividend-protected awards ................................................ 68
S3.6.1 Dividend equivalents paid on equity instruments prior to vesting .................. 68
S3.6.2 Dividend equivalents paid on liability instruments .............. 70
S3.6.3 Dividend equivalents that reduce the exercise price .............. 70
S3.6.4 Implications of dividend equivalents on Earnings per Share (EPS) .................. 70
S3.7 Nonrecourse notes .......................................................... 70
S3.7.1 Recourse notes may be substantively nonrecourse ............... 72
S3.8 Early exercise of employee stock options and similar share purchases ......... 73
S3.9 Changes in employment status ........................................ 75
S3.9.1 Individual changes employment status and continues to vest under the original terms of the award .................. 76
S3.9.1.1 A nonemployee becomes an employee .................. 76
S3.9.1.2 An employee becomes a nonemployee............................77
S3.9.1.3 An individual ceases to provide substantive service and continues to vest in an award.................................78
S3.9.2 A modification is required for the individual to continue to vest in the award..........................................................79
S3.10 Balance sheet presentation of equity awards..............................................79

S4 Recognition of compensation cost..........................................................80
S4.1 Overview.................................................................................................80
S4.1.1 Deferred compensation cost is not recognized.................................80
S4.1.2 Compensation cost is recognized only if the requisite service is provided.................................................................81
S4.1.2.1 Must estimate the number of instruments for which the requisite service will be provided ........81
S4.1.3 Compensation cost is capitalized in certain circumstances............82
S4.1.4 Recognizing the change in fair value or intrinsic value for certain awards ...............................................................83
S4.2 Requisite service period..........................................................................85
S4.2.1 Definition of requisite service period and requisite service condition ........................................................................85
S4.2.2 Cannot immediately recognize cost of an award with a service condition ........................................................................87
S4.2.3 Employment agreements and other arrangements should be considered when determining the requisite service period ..........87
S4.2.4 Requisite service period for employee stock purchase plans ..........87
S4.3 Service inception date..............................................................................87
S4.3.1 Service inception date may precede the grant date ......................87
S4.3.1.1 No substantive service requirement subsequent to the grant date ........................................................................89
S4.3.1.2 Performance or market condition must be satisfied prior to the grant date .................................................................90
S4.3.1.3 Bonuses settled partly or entirely in shares .................................................91
S4.3.2 Accounting for an award when the service inception date precedes the grant date .........................................................94
S4.3.3 Service inception date cannot occur prior to obtaining all necessary approvals .................................................................95
S4.3.4 Grant date may precede the service inception date ......................95
S4.4 Effect of service, performance, and market conditions on recognition of compensation cost .............................................96
S4.4.1 Service conditions .................................................................................97
S4.4.1.1 Requisite service period generally is the explicit service period ........................................................................97
S4.4.1.2 Nonsubstantive service conditions (e.g., acceleration on retirement) .................................................................98
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>S4.4.1.2.1</td>
<td>Nonsubstantive service periods due to retirement provisions</td>
<td>98</td>
</tr>
<tr>
<td>S4.4.1.2.2</td>
<td>Noncompete arrangement as an in-substance service condition</td>
<td>99</td>
</tr>
<tr>
<td>S4.4.1.3</td>
<td>Estimating forfeitures</td>
<td>104</td>
</tr>
<tr>
<td>S4.4.1.4</td>
<td>Accounting for awards subject to graded vesting</td>
<td>105</td>
</tr>
<tr>
<td>S4.4.1.5</td>
<td>Accounting for an award with graded vesting and all substantive terms are not known at the agreement date</td>
<td>107</td>
</tr>
<tr>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
<td>109</td>
</tr>
<tr>
<td>S4.4.2</td>
<td>Performance conditions</td>
<td>120</td>
</tr>
<tr>
<td>S4.4.2.1</td>
<td>Implicit service period</td>
<td>121</td>
</tr>
<tr>
<td>S4.4.2.2</td>
<td>Compensation cost is recognized if it is probable that the performance condition will be achieved</td>
<td>121</td>
</tr>
<tr>
<td>S4.4.2.2.1</td>
<td>Performance conditions based on IPOs, change in control and other liquidity events</td>
<td>122</td>
</tr>
<tr>
<td>S4.4.2.3</td>
<td>Changes in estimate of the probability of achievement of the performance condition</td>
<td>123</td>
</tr>
<tr>
<td>S4.4.2.4</td>
<td>Performance conditions that affect factors other than vesting or exercisability</td>
<td>124</td>
</tr>
<tr>
<td>S4.4.2.4.1</td>
<td>Multiple performance conditions that affect the number of instruments that will vest</td>
<td>124</td>
</tr>
<tr>
<td>S4.4.2.4.2</td>
<td>Performance conditions that affect the fair value of instruments that vest</td>
<td>128</td>
</tr>
<tr>
<td>S4.4.2.4.3</td>
<td>Multiple independent performance conditions established at the inception of the arrangement</td>
<td>130</td>
</tr>
<tr>
<td>S4.4.2.4.4</td>
<td>Multiple performance conditions established subsequent to the inception of the arrangement</td>
<td>131</td>
</tr>
<tr>
<td>S4.4.2.4.5</td>
<td>Performance conditions dependent on satisfaction of previous performance conditions</td>
<td>132</td>
</tr>
<tr>
<td>S4.4.2.5</td>
<td>Impact of performance conditions on cost attribution (accelerated attribution)</td>
<td>132</td>
</tr>
<tr>
<td>S4.4.3</td>
<td>Market conditions</td>
<td>133</td>
</tr>
<tr>
<td>S4.4.3.1</td>
<td>Derived service period</td>
<td>133</td>
</tr>
<tr>
<td>S4.4.3.2</td>
<td>Deeply out-of-the-money options</td>
<td>135</td>
</tr>
<tr>
<td>S4.4.3.2.1</td>
<td>Modifications of deeply out-of-the-money options</td>
<td>136</td>
</tr>
</tbody>
</table>
S4.4.3.3 Recognizing compensation cost for an award with a market condition ........................................ 137
S4.4.3.4 Impact of market conditions on cost attribution (accelerated attribution) ........................................ 138
S4.4.4 Service, performance, and market conditions that affect factors other than vesting or exercisability ............. 138
S4.4.5 Multiple conditions ................................................................. 139
S4.4.5.1 Determining the requisite service period for an award that has multiple conditions ....................... 140
S4.4.5.2 Example – Share-based payment award with market and service conditions (TARSAP) .................... 140
S4.4.5.3 Example – Award that “vests” based on the achievement of a performance condition or a market condition ................................................................. 143
S4.4.5.4 Example – Options that become exercisable on a liquidity event resulting in a specified return to shareholders ........................................................................ 144
S4.5 Accounting for changes in the requisite service period ................................................................. 145
S4.5.1 Adjusting the requisite service period based on a service or performance condition ........................................ 145
S4.5.2 Adjusting the requisite service period based on a market condition ................................................................. 146
S4.5.3 Adjusting the requisite service period for awards with a market condition and a performance or service condition ................................................................. 147
S4.5.4 Changes in the requisite service period that are recognized in the current period ................................................................. 148
S4.5.4.1 Condition becomes probable of being satisfied ........... 149
S4.5.4.2 A different condition becomes probable of being satisfied resulting in a different number of instruments expected to vest .................................................. 149
S4.5.4.3 A different condition becomes probable of being satisfied resulting in a different grant-date fair value ........................................................................ 149
S4.5.5 Changes in the requisite service period that are recorded prospectively ................................................. 150
S5 Accounting for liability instruments ................................................................. 151
S5.1 Measurement objective and measurement date for liabilities ................................................................. 151
S5.2 Criteria for classifying awards as liabilities ......................................................................................... 151
S5.2.1 Options and similar instruments that allow for cash settlement .... 152
S5.2.1.1 Accounting for contingently redeemable options and similar instruments ................................................. 152
S5.2.1.2 Temporary equity classification considerations ........ 155
S5.2.1.3 Options to acquire liability instruments ................................................................. 155
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S5.2.2</td>
<td>Applying the classification criteria in ASC 480</td>
</tr>
<tr>
<td>S5.2.2.1</td>
<td>Example – Application of classification guidance to book (formula) value stock purchase plan</td>
</tr>
<tr>
<td>S5.2.3</td>
<td>Classification of awards that include share repurchase features</td>
</tr>
<tr>
<td>S5.2.3.1</td>
<td>Employee has the right to put shares</td>
</tr>
<tr>
<td>S5.2.3.2</td>
<td>Employer has the right to call shares</td>
</tr>
<tr>
<td>S5.2.3.3</td>
<td>Repurchase right is contingent</td>
</tr>
<tr>
<td>S5.2.3.4</td>
<td>Repurchase feature equivalent to a forfeiture provision</td>
</tr>
<tr>
<td>S5.2.3.5</td>
<td>Application of ASR 268 (temporary equity) by SEC registrants</td>
</tr>
<tr>
<td>S5.2.3.5.1</td>
<td>Vested versus nonvested awards</td>
</tr>
<tr>
<td>S5.2.3.5.2</td>
<td>Redeemable stock options or redeemable shares</td>
</tr>
<tr>
<td>S5.2.3.5.3</td>
<td>Contingent redemption</td>
</tr>
<tr>
<td>S5.2.3.5.4</td>
<td>Accounting for changes in amounts classified as temporary equity</td>
</tr>
<tr>
<td>S5.2.3.5.5</td>
<td>Examples</td>
</tr>
<tr>
<td>S5.2.3.5.6</td>
<td>Exceptions to the requirements of distinguishing liabilities from equity</td>
</tr>
<tr>
<td>S5.2.3.5.7</td>
<td>Application of ASR 268 to nonemployee awards</td>
</tr>
<tr>
<td>S5.2.4</td>
<td>Awards with conditions other than market, performance, or service conditions</td>
</tr>
<tr>
<td>S5.2.4.1</td>
<td>Options that can be exercised in a foreign currency</td>
</tr>
<tr>
<td>S5.2.5</td>
<td>Substantive terms may cause liability classification</td>
</tr>
<tr>
<td>S5.2.5.1</td>
<td>Awards for which the employer can choose cash or share settlement</td>
</tr>
<tr>
<td>S5.2.6</td>
<td>Broker-assisted cashless exercises and minimum statutory withholding requirements</td>
</tr>
<tr>
<td>S5.2.6.1</td>
<td>Net-share settlement and broker-assisted cashless exercises</td>
</tr>
<tr>
<td>S5.2.6.2</td>
<td>Tendering shares to satisfy minimum statutory withholding requirements</td>
</tr>
<tr>
<td>S5.2.6.2.1</td>
<td>Hypothetical minimum statutory withholding for ex-patriot employees</td>
</tr>
<tr>
<td>S5.2.7</td>
<td>Awards that may be settled partially in cash</td>
</tr>
<tr>
<td>S5.2.7.1</td>
<td>Guarantees of the value of stock underlying an option grant</td>
</tr>
<tr>
<td>S5.2.7.2</td>
<td>Awards settled partially in cash and partially in shares</td>
</tr>
</tbody>
</table>
**Contents**

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>S5.3</td>
<td>Subsequent accounting for certain freestanding financial instruments</td>
<td>190</td>
</tr>
<tr>
<td>S5.3.1</td>
<td>Determining when an award becomes subject to other accounting literature</td>
<td>190</td>
</tr>
<tr>
<td>S5.3.2</td>
<td>Measurement of awards subject to other accounting literature</td>
<td>192</td>
</tr>
<tr>
<td>S5.3.3</td>
<td>Accounting for modifications of share-based payments that become subject to other literature</td>
<td>193</td>
</tr>
<tr>
<td>S5.4</td>
<td>Public entities – Measurement and recognition of liability awards</td>
<td>194</td>
</tr>
<tr>
<td>S5.4.1</td>
<td>Comprehensive example of accounting for a share-based liability</td>
<td>195</td>
</tr>
<tr>
<td>S5.5</td>
<td>Nonpublic entities – Measurement and recognition of liability awards</td>
<td>198</td>
</tr>
<tr>
<td>S5.6</td>
<td>Awards of profits interests and similar interests</td>
<td>199</td>
</tr>
<tr>
<td>S6</td>
<td>Estimating fair value-based measurements</td>
<td>202</td>
</tr>
<tr>
<td>S6.1</td>
<td>Definition of fair value</td>
<td>202</td>
</tr>
<tr>
<td>S6.2</td>
<td>Fair-value hierarchy</td>
<td>202</td>
</tr>
<tr>
<td>S6.3</td>
<td>How various terms are incorporated into the valuation</td>
<td>204</td>
</tr>
<tr>
<td>S6.3.1</td>
<td>Nontransferability and nonhedgeability during the vesting period</td>
<td>204</td>
</tr>
<tr>
<td>S6.3.2</td>
<td>Nontransferability or nonhedgeability after the vesting period</td>
<td>205</td>
</tr>
<tr>
<td>S6.3.2.1</td>
<td>Impact of nontransferability or nonhedgeability of shares</td>
<td>206</td>
</tr>
<tr>
<td>S6.3.2.2</td>
<td>Impact of nontransferability or nonhedgeability of options</td>
<td>207</td>
</tr>
<tr>
<td>S6.3.2.3</td>
<td>Impact of nontransferability or nonhedgeability of shares underlying options</td>
<td>207</td>
</tr>
<tr>
<td>S6.3.3</td>
<td>Market conditions</td>
<td>207</td>
</tr>
<tr>
<td>S6.3.4</td>
<td>Reload features</td>
<td>210</td>
</tr>
<tr>
<td>S6.3.5</td>
<td>Certain contingent features (e.g., clawbacks)</td>
<td>211</td>
</tr>
<tr>
<td>S6.4</td>
<td>Valuing nonvested stock</td>
<td>212</td>
</tr>
<tr>
<td>S6.4.1</td>
<td>Definition of “nonvested stock”</td>
<td>212</td>
</tr>
<tr>
<td>S6.4.2</td>
<td>Stock awards with vesting conditions</td>
<td>212</td>
</tr>
<tr>
<td>S6.4.3</td>
<td>Stock awards with post-vesting restrictions</td>
<td>212</td>
</tr>
<tr>
<td>S6.4.4</td>
<td>Stock awards that do not pay dividends during the vesting period</td>
<td>212</td>
</tr>
<tr>
<td>S6.4.5</td>
<td>Valuing stock awards by nonpublic companies</td>
<td>213</td>
</tr>
<tr>
<td>S6.5</td>
<td>Stock options and stock appreciation rights</td>
<td>215</td>
</tr>
<tr>
<td>S6.5.1</td>
<td>Stock options and SARs granted by nonpublic companies</td>
<td>216</td>
</tr>
<tr>
<td>S6.5.1.1</td>
<td>Use of “calculated value”</td>
<td>216</td>
</tr>
<tr>
<td>S6.5.1.2</td>
<td>Use of intrinsic value</td>
<td>216</td>
</tr>
<tr>
<td>S6.5.2</td>
<td>Valuation of employee stock purchase plans</td>
<td>217</td>
</tr>
<tr>
<td>S6.6</td>
<td>Change in valuation methodology</td>
<td>217</td>
</tr>
</tbody>
</table>
S7 Using option-pricing models to value employee stock options .................................. 218

S7.1 Valuation of employee stock options ................................................................. 218
S7.1.1 Market price for employee stock options ...................................................... 218

S7.2 Use of option-pricing models ............................................................................. 220
S7.2.1 Overview of the Black-Scholes-Merton formula ............................................ 225
S7.2.2 Overview of lattice models ............................................................................. 227
S7.2.2.1 Implementing lattice models ..................................................................... 228

S7.2.3 Selecting an option-pricing model ................................................................. 229
S7.2.3.1 Use of different option-pricing models for options with substantively different terms .......... 233
S7.2.3.2 Changing option-pricing models or input assumptions ................................ 233

S7.3 Selecting option-pricing model input assumptions ............................................ 235
S7.3.1 Expected term of the option ........................................................................... 240
S7.3.1.1 Exercise behavior under lattice models .................................................... 246
S7.3.1.2 Expected term under the Black-Scholes-Merton formula ............................. 248
S7.3.1.3 Expected term of awards with graded vesting ......................................... 253

S7.3.2 Expected stock volatility ................................................................................. 254
S7.3.2.1 Historical realized volatility ...................................................................... 254
S7.3.2.1.1 Length of measurement period ......................................................... 255
S7.3.2.1.2 Excluding periods from measurement of historical realized volatility ............... 256
S7.3.2.2 Implied volatilities ..................................................................................... 258
S7.3.2.3 Changes in corporate structure and capital structure .................................. 261
S7.3.2.4 Limitations on availability of historical data ............................................ 262
S7.3.2.5 Guideline companies ............................................................................... 262
S7.3.2.6 Historical data intervals ............................................................................ 264
S7.3.2.6.1 Method of measuring historical realized volatility .................................. 265
S7.3.2.7 Weighting of items for consideration ......................................................... 265
S7.3.2.7.1 Exclusive reliance on implied volatility ............................................... 267
S7.3.2.7.2 Exclusive reliance on historical realized volatility .................................... 268
S7.3.2.8 Disclosures relating to estimates of expected volatility ................................ 269
S7.3.2.9 Expected volatility under lattice models .................................................... 270
S7.3.2.10 Expected volatility under the Black-Scholes-Merton formula ..................... 270
S7.3.3 Expected dividends .......................................................... 271
  S7.3.3.1 Expected dividends under lattice models ................. 272
  S7.3.3.2 Expected dividends under the Black-Scholes-Merton formula ......................... 272
S7.3.4 Risk-free interest rate .................................................. 273
  S7.3.4.1 Risk-free interest rate under lattice models .......... 274
  S7.3.4.2 Risk-free interest rate under the Black-Scholes-Merton formula ......................... 274
S7.3.5 Lattice models – number of time steps ......................... 274
S7.3.6 Dilution ..................................................................... 275
S7.3.7 Credit risk .................................................................. 276
S7.3.8 Frequency of valuation ................................................ 276
S7.4 Valuing certain employee stock options ......................... 277
  S7.4.1 Inability to estimate fair value .................................... 277
  S7.4.2 Use of “calculated value” for employee stock options granted by nonpublic companies ........................................ 277
    S7.4.2.1 When calculated value should be used ................. 277
    S7.4.2.2 How to determine an appropriate industry sector index .................................. 279
    S7.4.2.3 Changing the industry sector index ....................... 280
    S7.4.2.4 How to calculate volatility used in the calculated value ............................... 280
    S7.4.2.5 Example of use of calculated value .................... 281
  S7.4.3 Valuation of awards that contain reload features .......... 282
  S7.4.4 Options on restricted stock ......................................... 282
  S7.4.5 Stock options with indexed exercise prices .................. 283
  S7.4.6 Tandem plans ................................................................ 286
  S7.4.7 Employee stock purchase plans (including look-back options).......................... 289
  S7.4.8 Dividend-protected awards ........................................... 289
S8 Accounting for modifications, exchanges, and settlements ......... 291
  S8.1 Accounting for modifications .......................................... 291
    S8.1.1 Modifications to provide for transferability of employee stock options ......................... 293
    S8.1.2 Examples of modifications to share-based payments ........................................ 294
      S8.1.2.1 Modification of vested stock options ......................... 294
      S8.1.2.2 Modification of nonvested stock options ......................... 296
    S8.1.3 Modifications of deeply out-of-the-money options .................. 298
    S8.1.4 Modifications of incentive stock options ...................... 299
  S8.2 Modifications of vesting conditions ................................. 299
    S8.2.1 Type I (probable-to-probable) modification ................. 301
    S8.2.2 Type II (probable-to-improbable) modification .......... 304
    S8.2.3 Type III (improbable-to-probable) modification ........... 306
### Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>S8.2.3.1</td>
<td>Modification to accelerate vesting in connection with employee’s termination</td>
<td>307</td>
</tr>
<tr>
<td>S8.2.3.2</td>
<td>Modification to accelerate vesting with no change in fair value</td>
<td>307</td>
</tr>
<tr>
<td>S8.2.4</td>
<td>Type IV (improbable-to-improbable) modification</td>
<td>308</td>
</tr>
<tr>
<td>S8.2.5</td>
<td>Modification to accelerate vesting on a change in control</td>
<td>310</td>
</tr>
<tr>
<td>S8.3</td>
<td>Modifications of market conditions</td>
<td>311</td>
</tr>
<tr>
<td>S8.4</td>
<td>Modifications that change an award’s classification</td>
<td>312</td>
</tr>
<tr>
<td>S8.4.1</td>
<td>Modification that changes classification from equity to a liability</td>
<td>312</td>
</tr>
<tr>
<td>S8.4.1.1</td>
<td>Example – modification that changes classification from equity to a liability that continues to be indexed to employer’s shares</td>
<td>316</td>
</tr>
<tr>
<td>S8.4.1.2</td>
<td>Example – Modification that changes classification from equity to a liability not indexed to the company’s shares</td>
<td>320</td>
</tr>
<tr>
<td>S8.4.2</td>
<td>Modification that changes classification from a liability to equity</td>
<td>322</td>
</tr>
<tr>
<td>S8.4.2.1</td>
<td>Example – modification that changes classification from a liability to equity</td>
<td>322</td>
</tr>
<tr>
<td>S8.4.3</td>
<td>Exchange of share-based payments for a combination of cash and modified equity instruments</td>
<td>323</td>
</tr>
<tr>
<td>S8.4.3.1</td>
<td>Example – All options are vested before modification; options and cash are vested after modification</td>
<td>323</td>
</tr>
<tr>
<td>S8.4.3.2</td>
<td>Example – Options were nonvested before modification; cash consideration is vested</td>
<td>324</td>
</tr>
<tr>
<td>S8.4.3.3</td>
<td>Options were nonvested before modification, cash consideration is subject to vesting</td>
<td>325</td>
</tr>
<tr>
<td>S8.5</td>
<td>Inducements</td>
<td>326</td>
</tr>
<tr>
<td>S8.6</td>
<td>Equity restructurings</td>
<td>326</td>
</tr>
<tr>
<td>S8.6.1</td>
<td>Modification to add an antidilution protection to an award</td>
<td>328</td>
</tr>
<tr>
<td>S8.6.2</td>
<td>Awards are adjusted and original award does not contain antidilution provisions or award provides for discretionary adjustment</td>
<td>329</td>
</tr>
<tr>
<td>S8.6.3</td>
<td>Original award contains antidilution provisions</td>
<td>331</td>
</tr>
<tr>
<td>S8.6.3.1</td>
<td>Adjustments in connection with a spinoff</td>
<td>332</td>
</tr>
<tr>
<td>S8.6.4</td>
<td>Awards to individuals who are no longer employees as a result of a spinoff</td>
<td>334</td>
</tr>
<tr>
<td>S8.7</td>
<td>Repurchases or cancellations of awards of equity instruments</td>
<td>335</td>
</tr>
<tr>
<td>S8.8</td>
<td>Cancellation and replacement of awards of equity instruments</td>
<td>336</td>
</tr>
<tr>
<td>S8.8.1</td>
<td>Exchanges of options in business combinations</td>
<td>337</td>
</tr>
</tbody>
</table>
S8.8.1.1 Recognition of payroll taxes on options exchanged in a business combination ........................................... 337
S8.9 Implications of frequent modifications ................................................. 338
S8.10 Modifications and settlements of awards granted prior to the adoption of ASC 718 ................................................................. 339
  S8.10.1 Modified prospective and modified retrospective adopters .............. 339
  S8.10.2 Prospective adopters ...................................................................... 339
S8.11 Modifications of awards held by former employees .................................. 340

S9 Accounting for share-based payment transactions with nonemployees .......... 341
  S9.1 Share-based payments to nonemployees .............................................. 341
    S9.1.1 Excess tax benefits must be presented as financing cash flows ....... 341
    S9.1.2 Application of ASC 718 to nonemployee awards by analogy ........ 341
      S9.1.2.1 Measurement of share-based liabilities .................................... 342
      S9.1.2.2 Classification of share-based payments to nonemployees .............. 342
  S9.2 Overview of ASC 505-50 .................................................................. 345
  S9.3 Measurement date ........................................................................... 346
    S9.3.1 Performance commitment ............................................................. 347
      S9.3.1.1 Performance commitments on long-term sales contracts .......... 348
    S9.3.2 Completed performance ............................................................... 348
  S9.4 Measurement approach .................................................................... 349
    S9.4.1 Accounting prior to the measurement date ..................................... 350
    S9.4.2 Changes in quantity or terms subsequent to the measurement date ............................................................................. 351
      S9.4.2.1 Changes resulting from market conditions ................................. 351
        S9.4.2.1.1 Measurement on and prior to the measurement date ............. 351
        S9.4.2.1.2 Accounting after the measurement date ............................... 351
      S9.4.2.2 Changes resulting from performance conditions ...................... 352
        S9.4.2.2.1 Measurement on and prior to the measurement date ............. 352
        S9.4.2.2.2 Accounting after the measurement date ............................... 352
      S9.4.2.3 Changes resulting from both market conditions and performance conditions ................................................................. 353
        S9.4.2.3.1 Measurement on and prior to the measurement date ............. 353
        S9.4.2.3.2 Accounting after the measurement date ............................... 353
S9.5 Period and manner of recognition ................................................................. 353
S9.5.1 Balance sheet presentation ........................................................................... 354
S9.5.1.1 Balance sheet presentation of nonvested equity instruments .................. 354
S9.5.1.2 Balance sheet presentation of vested equity instruments ......................... 355
S9.5.1.3 Application of ASR 268 to nonemployee awards ................................. 355
S9.6 Illustrative examples ...................................................................................... 356

S10 Income tax accounting considerations ......................................................... 361
S10.1 Tax effects of awards that normally result in a tax deduction ...................... 361
S10.1.1 Calculating deferred taxes for deductible awards ...................................... 362
S10.1.2 Balance sheet classification of deferred tax assets arising from share-based payments ................................................................. 363
S10.1.3 The effect on deferred tax assets of the IRC Section 162(m) limitation ........ 363
S10.1.3.1 Section 162(m)(6) limitations for certain health insurance providers ...... 365
S10.2 Valuation allowances on deferred tax assets ................................................. 367
S10.3 Realization of tax benefits ............................................................................ 369
S10.3.1 Tax deduction exceeds recognized compensation cost ............................ 369
S10.3.1.1 Presentation of excess tax benefits in the statement of cash flows ........... 370
S10.3.2 Tax deduction is less than recognized compensation cost ....................... 371
S10.3.2.1 Determining the pool of excess tax benefits ........................................... 372
S10.3.2.2 Entities to be included in the pool of excess tax benefits ....................... 374
S10.3.2.3 Net unrealized excess tax benefits acquired in a purchase business combination ......................................................................................... 375
S10.3.3 Determining when an excess tax benefit is realized and measuring the excess tax benefit ................................................................. 375
S10.3.3.1 Identifying and measuring deductions realized during the period .......... 376
S10.3.3.2 Identifying and measuring excess tax benefits in foreign jurisdictions ...... 378
S10.3.3.3 Realization of tax benefits on awards subject to graded vesting ................................. 379
S10.3.3.4 Tax effects of liability awards and Section 83(b) elections ..................... 380
S10.4 Examples of the accounting for the tax consequences of nonqualified stock options ......................................................................................... 381
S10.4.1 Example 10-1 – Tax deduction exceeds the amount of cumulative compensation cost recognized ................................. 381
S11.2.2.2 Out-of-the-money options for which adjustments to assumed proceeds results in an “in-the-money option” ................................................................. 421
S11.2.3 Effect of forfeitures on diluted EPS ................................................................. 422
S11.2.4 Example calculation of the dilutive effect of employee stock options .......................................................................................................................... 423
S11.3 Nonvested stock that vests based on service conditions ........................................... 426
S11.4 Awards that vest or become exercisable based on the achievement of performance or market conditions ................................................................. 427
S11.5 Awards that may be settled in stock or cash .................................................................. 430
S11.6 Awards of subsidiary stock or stock options .............................................................. 431
S11.7 Employee stock purchase plans .................................................................................. 433
S11.8 Participating share-based payment awards and the two-class method .......... 434
  S11.8.1 Determining whether a nonvested share-based payment award is a participating security ................................................................. 435
  S11.8.2 Allocation of earnings and losses ............................................................................. 436
  S11.8.3 Earnings per nonvested share-based payment award ................................................. 436
  S11.8.4 Changes in forfeiture rates ....................................................................................... 437
  S11.8.5 Diluted EPS ........................................................................................................... 437
  S11.8.6 Illustrative example ................................................................................................. 438
  S11.8.7 Dividend equivalents paid on participating share-based liabilities .......................................................................................................................... 442
  S11.8.8 Quarterly and year-to-date calculations .................................................................. 443
  S11.8.9 Equity restructurings .............................................................................................. 443
  S11.8.10 Discontinued operations ....................................................................................... 443
S12 Employee stock purchase plans .................................................................................. 446
  S12.1 Noncompensatory plans .......................................................................................... 447
    S12.1.1 Terms of the plan are available to all stockholders ..................................................... 448
    S12.1.2 Discount does not exceed the estimated issuance costs for a public offering ................................................................................................................ 449
    S12.1.3 Substantially all employees may participate on an equitable basis .......................................................................................................................... 450
    S12.1.4 The plan incorporates no option features .................................................................. 451
  S12.2 Valuation of ESPPs (including look-back options) ....................................................... 452
  S12.3 Requisite service period for ESPPs .......................................................................... 461
  S12.4 Changes in withholdings and rollovers ..................................................................... 461
    S12.4.1 Increase in withholdings .......................................................................................... 462
    S12.4.2 Decrease in withholdings .......................................................................................... 465
    S12.4.3 Rollover of plan withholdings ..................................................................................... 465
  S12.5 ESPPs with a fixed monetary value .......................................................................... 466
  S12.6 Accounting for disqualifying dispositions ................................................................. 466
  S12.7 Earnings per share ..................................................................................................... 466
S13 Effective date and transition

S13.1 Effective date

S13.1.1 Public entities

S13.1.2 Small business issuers

S13.1.3 Nonpublic entities

S13.1.4 Transition dates

S13.2 Transition alternatives

S13.2.1 Public entities and certain nonpublic entities

S13.2.2 Nonpublic entities

S13.3 Modified-prospective transition

S13.3.1 Awards granted, modified, or settled subsequent to adoption date

S13.3.2 Awards granted prior to adoption date

S13.3.2.1 Valuation of awards granted prior to the adoption of ASC 718

S13.3.2.2 Recognition of compensation cost for awards with graded vesting

S13.3.2.3 Recognition of forfeitures

S13.3.2.4 Recognition of dividends paid on instruments that are not expected to vest

S13.3.2.5 Deferred tax balances

S13.3.3 Example 13-1 – Modified-prospective transition

S13.4 Modified-retrospective transition

S13.4.1 Full restatement

S13.4.1.1 Example 13-2 – Modified-retrospective transition

S13.4.2 Partial restatement

S13.5 Prospective transition

S13.6 Other transition considerations

S13.6.1 Nonpublic entities that become public entities

S13.6.1.1 Effective date for nonpublic entities that become public entities

S13.6.1.2 Transition methods for nonpublic entities that become public entities

S13.6.1.3 Transition method for companies that went public before the adoption of ASC 718

S13.6.2 Opinion 25 variable awards

S13.6.2.1 Opinion 25 variable equity awards

S13.6.2.2 Awards classified as liabilities under Statement 123

S13.6.2.3 Awards classified as equity under Statement 123 but as liabilities under ASC 718

S13.6.2.4 Adjustments to capitalized compensation cost
S13.6.3 Awards granted prior to adoption for which fair value could not be determined ................................................................. 490
S13.6.4 Credits in additional paid-in capital that are available for future deferred tax asset write-offs ........................................ 490
S13.6.5 Capitalization of compensation cost on transition to ASC 718 ...... 491
S13.6.6 Statement of cash flows ................................................................. 492

S14 Presentation and disclosure ............................................................... 495
S14.1 Presentation .................................................................................. 495
S14.1.1 Income statement presentation .................................................. 495
S14.1.2 Presentation in the statement of cash flows ................................. 495
S14.2 Disclosure requirements ............................................................... 496
S14.3 Interim disclosure requirements ..................................................... 501
S14.4 Disclosures required for accounting changes ................................. 501
S14.5 Disclosure in management’s discussion and analysis ....................... 502
S14.6 Non-GAAP financial measures ...................................................... 504

Appendix A: Abbreviations used in this publication ................................. 507
Appendix B: Index of ASC References in this publication ........................ 508
Appendix C: IRS Revenue Ruling 87-41 common law employee guidelines .... 530
Appendix D: Required disclosures ........................................................... 533
Appendix E: Building a lattice model ...................................................... 539
Notice to readers:

This publication includes excerpts from and references to the FASB Accounting Standards Codification (“the Codification” or “ASC”). The Codification is the single source of authoritative nongovernmental US generally accepted accounting principles (US GAAP), with the exception of guidance issued by the SEC, and is effective for interim and annual periods ending after 15 September 2009. The Codification comprises all US GAAP issued by a standard setter, excluding those standards for state and local governments, and supersedes previously issued accounting standards.

The Codification uses a hierarchy that includes Topics, Subtopics, Sections and Paragraphs. Each Topic includes an Overall Subtopic that generally includes pervasive guidance for the topic, and additional Subtopics, as needed, with incremental or unique guidance. Each Subtopic includes Sections which in turn include numbered Paragraphs. Thus, a codification reference includes the Topic (XXX), Subtopic (YY), Section (ZZ) and Paragraph (PP). Throughout this publication references to guidance in the codification are shown using these reference numbers. For example, references to specific Topics within the Codification are presented as ASC XXX, references to specific Subtopics are presented as ASC XXX-YY and references to specific Paragraphs are shown as ASC XXX-YY-ZZ-PP. Certain content from pre-codification standards (e.g., basis for conclusions) is excluded from the Codification. Throughout this publication, references are made to certain pre-codification standards (and specific sections or paragraphs of pre-codification standards) in situations in which the content being discussed is excluded from the Codification.

Appendix A of this publication provides abbreviations for accounting standards used throughout this publication. Appendix B of this publication provides an index of specific Codification paragraphs and the relevant sections within this publication in which those paragraphs are included or discussed.

Portions of FASB Statements of Financial Accounting Standards, Accounting Principles Board Opinions and other FASB Publications reprinted with permission. Copyright Financial Accounting Standards Board, 401 Merritt 7, P.O. Box 5116, Norwalk, CT 06856-5116, U.S.A. Copies of complete documents are available from the FASB.
S1 Overview

S 1.1 Background
In December 2004, the FASB issued Statement No. 123 (revised 2004), Share-Based Payment (Statement 123(R)), which was a revision of FASB Statement No. 123, Accounting for Stock-Based Compensation (Statement 123). Statement 123(R) superseded APB Opinion No. 25, Accounting for Stock Issued to Employees, and its related interpretations, and amended FASB Statement No. 95, Statement of Cash Flows. The approach for accounting for share-based payments in Statement 123(R) was similar to the approach in Statement 123. However, Statement 123(R) required all share-based payments to employees, including grants of employee stock options, to be recognized in the income statement based on their fair values. Pro forma disclosure was no longer an alternative to financial statement recognition.

Subsequent to the issuance of Statement 123(R), the FASB staff issued several FASB Staff Positions (FSPs) and the SEC staff issued Staff Accounting Bulletins (SAB Topics) related to Statement 123(R).

Statement 123(R) was subsequently codified in FASB Accounting Standards Codification Topic 718, Compensation-Stock Compensation. ASC 718 not only addresses the accounting for employee share-based compensation previously addressed in Statement 123(R) and related FSPs and SAB Topics, but also incorporates the accounting for employee stock ownership plans previously addressed in AICPA Statement of Position 93-6, Accounting for Employee Stock Ownership Plans (the accounting for employee stock ownership plans is not discussed in this publication).

The guidance in ASC 718 and IFRS 2, Share-Based Payment, is largely converged. The more significant differences between ASC 718 and IFRS 2 are described in our separate document, the US GAAP/IFRS Accounting Differences Identifier Tool. This separate document is updated periodically.

S1.2 Scope
Generally, share-based payments granted to common law employees and most independent directors (for their services as directors) are subject to the accounting model for employee awards in ASC 718. The accounting for employee stock ownership plans (ESOPs) is addressed in ASC 718-40.

Other nonemployee awards are subject to the guidance in ASC 505-50, Equity-Equity-Based Payments to Non-Employees (formerly EITF Issue No. 96-18, “Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services”). Awards issued to non-employees are discussed in detail in Chapter 9. Currently, equity awards to nonemployees typically are remeasured at fair value at each reporting date until the award vests. The final measurement for most nonemployee awards is on the date the award vests, rather than the grant-date measurement specified for most employee awards classified as equity under ASC 718. As a result, share-based payments to nonemployees can result in significant volatility in the amount of cost recognized based on changes in the grantor’s stock price between the award’s grant date and its vesting date.
The scope of ASC 718 is discussed in greater detail in Chapter 2.

**S1.3 The modified grant-date approach**

ASC 718 utilizes a “modified grant-date” approach in which the fair value of an equity award (the accounting for liability awards is discussed in Section S1.9 and Chapter 5) is estimated on the grant date without regard to service or performance conditions. The fair value is recognized (generally as compensation expense) over the requisite service period for all awards that vest. Compensation cost\(^1\) is not recognized for awards that do not vest\(^2\) because service or performance conditions are not satisfied.

For example, a company grants an employee options on 100 shares with a fair value of $10 per option ($1,000 in total) subject to a requirement that the individual remain employed for two years to earn the award (i.e., vesting is subject to an explicit service condition). Under the modified grant-date approach, the likelihood of the award vesting does not impact the estimated fair value of the award, but does impact whether that fair value ultimately is recognized in the financial statements. If the award vests, the employer recognizes $1,000 in compensation cost ratably over the two-year requisite service period. If the options qualify for a tax deduction on exercise, the tax benefit associated with the recognized compensation cost is recognized as a reduction to income tax expense and a deferred tax asset over the two-year service period. If the award does not vest (because the employee fails to provide service for the requisite two-year period), no compensation cost or tax benefit is recognized.

The measure of compensation cost to be recognized over the service period can be expressed as the price (i.e., fair value) of each award times the quantity of awards expected to vest. For equity awards, service conditions do not impact the price ($10 in our example), but do impact the quantity of awards recognized (100 options, in our example). Quantity is adjusted as the estimate of the number of awards that will vest changes. In our example, because the grant involved only one employee, the quantity of awards that ultimately will be recognized is either zero or 100. However, as discussed in Section S1.6.2, companies must estimate the number of awards that will vest and recognize compensation cost only for those awards. Those estimates must be evaluated each reporting period and adjusted, if necessary, by recognizing the cumulative effect of the change in estimate on compensation cost recognized in prior periods (to adjust the compensation cost recognized to date to the amount that would have been recognized if the new estimate of forfeitures had been used since the grant date).

---

\(^1\) We use the term “compensation cost” rather than “compensation expense” throughout this publication because in some cases the compensation cost from a share-based payment to an employee is capitalized (e.g., in inventory or a self-constructed fixed asset).

\(^2\) We use the term “vest” in this context to mean the point in time at which the employee has provided the requisite service. In certain circumstances, the requisite service period can differ from the service or performance vesting periods, as discussed later in this Chapter.
Some equity awards provide that they will vest or become exercisable only if specified performance conditions are satisfied. The performance condition could be a function of the individual employee’s performance, or the financial performance of the employer (or a portion of the employer’s operations). Similar to service vesting conditions, performance vesting conditions also generally impact the quantity of awards recognized rather than price. That is, failure to satisfy the performance condition will result in no compensation cost being recognized by the company. In some cases, performance conditions may affect other terms of an award (e.g., the exercise price) and in those cases, the achievement of performance conditions could affect the fair value or price of the award (see Section S4.4.2.4).

If exercisability is dependent on the achievement of a specified stock price or return on the stock price (e.g., stock-price appreciation plus dividends), either in absolute terms or relative to the stock price or stock return of other companies, that condition (defined as a “market” condition in ASC 718) is incorporated into the grant-date valuation of the award (the price) and not in determining the quantity of awards for which compensation cost is recognized. Compensation cost based on that fair value is recognized even if the market condition is not satisfied and the award never becomes exercisable (as long as the requisite service has been provided). This is very different from the accounting for awards with service or performance conditions that are not achieved, in which case no compensation cost is recognized for that award. However, the grant-date valuation (price) of an award with a market condition is less than the value of an otherwise comparable award without a market condition (i.e., the price is discounted for the possibility that the market condition will not be achieved).

The accounting for share-based payments becomes more complex when the terms include a combination of service, performance, or market conditions. Chapter 4 provides detailed guidance on the recognition of share-based payments under ASC 718.

S1.4 Measurement of share-based awards

As noted above, ASC 718 provides that the fair value of equity instruments issued to employees generally should be estimated on the grant date. Although the objective of ASC 718 is to recognize the value of the services to be received in exchange for share-based payments to employees, the fair value of the share-based payment is more readily determinable than the fair value of the employee services to be received. Further, compensation cost should be measured on the grant date because, among other reasons, (a) a conditional promise to issue an equity instrument exists on the grant date and (b) it is on the grant date that the parties have a mutual understanding of the terms of the award.

The measurement date for share-based payments is discussed in greater detail in Chapter 3. The valuation of share-based payments is discussed in Chapter 6. The use of option-pricing models to value employee stock options is discussed in more detail in Chapter 7.
S1.4.1 Option valuation

While fair value may be readily determinable for certain awards of stock, market quotes are not available for long-term, nontransferable stock options. Because observable market prices of identical or similar instruments in active markets are not available for employee stock options, the fair value of a stock option awarded to an employee generally must be estimated using an option-pricing model.

ASC 718 does not prescribe the use of a specific option-pricing model, but does require that companies use an option-pricing model that takes into account, at a minimum, the following six inputs:

► The exercise price of the option
► The expected term of the option, taking into account both the contractual term of the option and the effects of employees’ expected exercise and expected post-vesting termination behavior
► The current price of the underlying share
► The expected volatility of the price of the underlying share
► The expected dividends on the underlying share
► The risk-free interest rate(s) for the expected term of the option

The requirement to use the six input assumptions above has led many companies to use the Black-Scholes-Merton formula to estimate the fair value of employee stock options. However, the Black-Scholes-Merton formula or other closed-form option-pricing models, that require the use of single estimates of expected term, expected volatility, the risk-free interest rate, and expected dividends, may not be the best methods to estimate the fair value of an employee stock option.

Closed-form option-pricing models are commonly used to value transferable stock options. However, employee stock options typically are not transferable, and employees frequently exercise them prior to expiration for numerous reasons, including a desire to diversify their risk and the need to finance personal expenditures. While closed-form option-pricing models may be adapted to address the characteristics of employee stock options, such adaptations typically require simplifying assumptions that could result in measurement error.

Additionally, closed-form option-pricing models do not allow for the use of dynamic assumptions about expected term, interest rates, expected volatility, and expected dividends. Instead, a single input must be used for each of these assumptions.

Because of the limitations of closed-form models, ASC 718 indicates that the use of a more complex lattice model (e.g., a binomial model) that will take into account employee exercise patterns based on changes in the company’s stock price and other variables, and allow for the
use of other dynamic assumptions, may result in a better valuation of the typical employee stock option when the data necessary to develop the inputs for the calculations is available.

Lattice models and the Black-Scholes-Merton formula are conceptually the same. The key difference between a lattice model and a closed-form model, such as the Black-Scholes-Merton formula, is the flexibility of the former. For example, the likelihood of early exercise of an employee stock option increases as the intrinsic value of that option increases. Additionally, many employees choose to exercise options with significant intrinsic value shortly after those options vest. Also, because the term of most employee stock options truncates when an employee is terminated (e.g., on termination, the employee may have 90 days to exercise a vested option), employee terminations also result in early exercises. As a final example, some employees may be subject to “blackout” periods during which the employee cannot exercise his or her options. All of these factors can be modeled using a lattice model, which allows for the use of dynamic assumptions about employees’ expected exercise behavior and expected post-vesting termination behavior, as well as other assumptions used in option-pricing models (e.g., the term structures of interest rates and volatilities can be incorporated into such models). Because of this flexibility, the FASB believes that lattice models often will provide a better estimate of an employee stock option’s fair value than a closed-form model such as the Black-Scholes-Merton formula.

S1.4.1.1 Considerations for nonpublic companies
ASC 718 also requires that nonpublic companies value equity awards to employees at fair value unless it is not possible to make a reasonable estimate of fair value. If a nonpublic company cannot reasonably estimate the expected volatility of its stock, it must use an alternative method (defined as “calculated value”) that incorporates each of the inputs required by ASC 718, with the exception of the expected volatility of its stock. Rather than use the expected volatility of the company’s own stock, the historical volatility of an appropriate industry sector index would be used. ASC 718 specifies a rigid approach for measuring the volatility of the appropriate industry sector index based on daily historical values of the index over a period equal to the expected term of the option being valued.

S1.5 Employee stock purchase plans
Employee stock purchase plans (“ESPPs”) generally provide a broad group of employees the right to acquire employer stock through payroll deductions. A typical plan (e.g., one that qualifies for favorable tax treatment under Section 423 of the Internal Revenue Code: a “Section 423 Plan”) allows employees to buy the employer’s stock over a period of time (e.g., two years) at a discount from the market price at the date of grant. Many ESPPs provide for (a) purchases at a discount from the current stock price and (b) option features. ASC 718 provides specific criteria to determine whether an ESPP would be considered compensatory or noncompensatory. These criteria and the accounting for compensatory ESPPs are discussed in Chapter 12.
S1.6  Recognition of compensation cost

ASC 718 requires the cost of share-based payments to employees to be recognized over the requisite service period. As that cost is recognized, equity or a liability is credited for a like amount. That is, the equity instrument or liability is only recognized as services are rendered (recognizing the full fair value of the instrument and an offsetting deferred compensation contra-equity or contra-liability account is not permitted). The requisite service period is the period of time over which an employee must provide service in exchange for an award under a share-based payment arrangement and generally is presumed to be the vesting period. However, if performance or market conditions (see Section S1.3) affect either the exercise price or the vesting date, the service period used for attribution purposes must be consistent with the assumptions used in estimating the fair value of the award (e.g., the estimated time frame that will be required to achieve the performance or market condition). Estimating the requisite service period and other issues dealing with the recognition of compensation cost are discussed in greater detail in Chapter 4.

S1.6.1  Determining the requisite service period

The requisite service period must be determined based on an analysis of all terms and conditions included in an equity-based award. The requisite service period may be:

- **Explicit** – that is, directly stated in the terms of the agreement (e.g., if the award vests after three years of continuous service, the explicit service period is three years).

- **Implicit** – that is, inferred from the terms of the arrangement, usually from a performance condition (e.g., if the award vests when earnings per share increases by a specified amount, and it is expected to take four years to achieve that level of earnings per share, the implicit service period is four years) or other terms of an award that render the explicit service period nonsubstantive (e.g., an award provides for acceleration of vesting on retirement and the employee currently is eligible for retirement or will become eligible for retirement prior to the end of the explicit service period).

- **Derived** – that is, derived from the valuation technique used to value an award with a market condition (e.g., if an option becomes exercisable when the stock price achieves a specified level, and it is expected to take five years to achieve that level, the derived service period is five years).

A share-based payment may have more than one explicit, implicit, or derived service period, but will have only one requisite service period for accounting purposes. That is, if an award has multiple conditions and related service periods, the entity must determine the period of time over which compensation cost will be recognized.

When the initial estimate of the requisite service period is based on an explicit or implicit service period, the requisite service period is adjusted for changes in the expected outcomes of the related service or performance conditions. Such a change is recognized prospectively.
over the remaining requisite service period, unless the fair value or number of awards expected to vest also changes (e.g., as a result of a change in the performance condition expected to be achieved when achievement of different performance conditions results in the vesting of different quantities of shares). In this case, the cumulative effect of the change on past and current periods is recognized in the period of the change in estimate. However, derived requisite service periods are never changed even if the grantor’s estimate of the expected period required to achieve the market condition changes, except that if the market condition is achieved (and the award vests or becomes exercisable) prior to the end of the requisite service period, any remaining unrecognized compensation cost is recognized immediately when the market condition is achieved.

S1.6.2 Estimating forfeitures
ASC 718 requires that employers estimate forfeitures (resulting from the failure to satisfy service or performance conditions) when recognizing compensation cost. An employer’s estimate of forfeitures should be adjusted as actual forfeitures differ from its estimates, resulting in the recognition of compensation cost only for those awards that actually vest. The effect of a change in estimated forfeitures is recognized through a cumulative catch-up adjustment (i.e., the cumulative effect of applying the change in estimate retrospectively is recognized in the period of change) that is included in compensation cost in the period of the change in estimate. That is, cumulative compensation cost recognized to date is adjusted to the amount that would have been recognized if the new estimate of forfeitures had been used since the grant date.

S1.6.3 Recognition of compensation cost – awards with graded vesting
Many employee awards are subject to graded vesting (i.e., portions of the award vest at different times during the vesting period, as opposed to cliff vesting, in which all awards vest at the end of the vesting period). Under ASC 718, an entity may elect either the accelerated recognition method or a straight-line recognition method for awards subject to graded vesting based on a service condition, regardless of how the fair value of the award is measured (i.e., each vesting tranche is valued as a separate award or all vesting tranches in the aggregate are valued as one award using an average expected term). However, compensation cost recognized to date must be at least equal to the measured cost of the vested tranches. The choice of attribution method is a policy decision that should be applied consistently to all share-based payments subject to service conditions. However, this choice does not extend to awards that are subject to performance or market conditions. The measured compensation cost for an award subject to performance or market conditions must be recognized ratably for each vesting tranche from the service inception date to the end of the requisite service period.
S1.7 Modifications

ASC 718 indicates that a modification to the terms of an award should be treated as an exchange of the original award for a new award with total compensation cost equal to the grant-date fair value of the original award plus the incremental value of the modification to the award. Under ASC 718, the calculation of the incremental value is based on the excess of the fair value of the new (modified) award based on current circumstances over the fair value of the original option measured immediately before its terms are modified based on current circumstances. That is, the original (pre-modification) option will be valued based on current assumptions, without regard to the assumptions made on the grant date and, therefore, the expected term used to measure the value of the pre-modification option is not limited to the remainder of the expected term estimated on the grant date.

The model described above must be further expanded to deal with the modification of vesting conditions, which, as discussed earlier, are not incorporated into the estimate of fair value. That model generally provides for the recognition of compensation cost based on the grant-date fair value of the original award or the modification-date fair value of the modified award, depending on whether the original or modified vesting conditions are expected to be met. ASC 718 states that the measured cost of a modified award generally cannot be less than the grant-date fair value of an equity award to an employee. An exception to that requirement is provided for a modification to a vesting condition when the award was not expected to vest pursuant to the original terms. In that case, the fair value of the modified award is recognized if the modified award eventually vests. The fair value of the original award is no longer relevant, even if the original vesting conditions are satisfied.

The accounting for modifications of share-based payments is discussed further in Chapter 8.

S1.8 Cash settlements

A cash settlement of a share-based payment award classified as an equity instrument is accounted for as the repurchase of an equity instrument at its fair value. Any excess of the amount paid by the employer to settle such an award over the settlement-date fair value of the award (based on current assumptions, including the currently estimated expected term) is recognized as additional compensation cost. Further, if the settled award was not fully vested, the settlement would effectively accelerate vesting and require the recognition of any unrecognized compensation cost associated with the award. Finally, a pattern of cash settling equity awards may suggest that the substantive terms of the awards provide for cash settlement and, as a result, liability (variable) accounting may be required.

The accounting for cancellations and settlements of share-based payments is discussed in greater detail in Chapter 8 and Section S5.2.5.
S1.9 Liabilities

S1.9.1 Classification

As discussed in the preceding section, a practice of settling awards for cash could also result in liability classification. In addition, ASC 718 requires that certain other types of employee awards also be classified as liabilities. Those awards include:

- Awards containing conditions that affect vesting, exercisability, or other conditions relevant in measuring fair value that are not market, performance, or service conditions (e.g., an award with an exercise price indexed to the price of gold or some other commodity, even if the commodity is used in or an output of the grantor’s operations).

- Awards that are accounted for as liabilities under ASC 480, Distinguishing Liabilities from Equity (formerly FASB Statement No. 150, Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity) (e.g., a freestanding written put option that allows the employee to require the employer to purchase shares at a specified price and forward purchase contracts that require the employer to purchase and the employee to sell shares at a specified price), except as described below.

- Certain awards subject to repurchase features. In connection with some share-based payments, the instrument, or the shares underlying the instrument, may be subject to repurchase as a result of employee put rights or employer call rights. The award must be classified as a liability under ASC 718 if either: (a) the repurchase feature permits the employee to avoid bearing the risks and rewards normally associated with equity share ownership for a reasonable period of time (generally six months) from the date the share is issued or vests, or (b) it is probable that the employer would prevent the employee from bearing those risks and rewards for a reasonable period of time (generally six months) from the date the share is issued or vests. If neither of these conditions is met, the award initially is classified as equity. Also, if the employee has the right to require the company to purchase an award for cash and the award is classified as equity under ASC 718 (e.g., the employee has a fair value put on shares underlying an option that may not be exercised until at least six months after option exercise), the SEC’s guidance in Accounting Series Release No. 268, Redeemable Preferred Stocks, and SAB Topic 14.E require “temporary equity” classification of the redemption value of that award. The accounting for awards classified as temporary equity is discussed in more detail in Section S5.2.3.5.

The determination of whether or not an award should be classified as a liability and the accounting for such awards is discussed in more detail in Chapter 5.
S1.9.2  Measurement of liabilities – public companies

ASC 718 requires that public companies measure share-based awards classified as liabilities at *fair value* at each reporting date. For example, a cash-settled stock appreciation right (i.e., a commitment by the employer to pay the employee in cash an amount by which the employer’s stock price on a specified future date exceeds a stated strike price), effectively a net-cash settled written call option, is classified as a liability. The same option-pricing approach is used to estimate the fair value of that cash-settled stock appreciation right as is used for an economically equivalent stock option. That fair value is remeasured each reporting period and the pro-rata vested portion of the award is recognized as a liability. Over its term, the time value of the stock appreciation right will decay (i.e., at settlement, the employee will receive only intrinsic value). Accordingly, under the model in ASC 718, the time value of a liability initially will be recognized as compensation cost, but will be reversed over time (albeit by an irregular pattern reflecting the changes in time and the volatility of the underlying stock) as the settlement date approaches. At expiration, cumulative compensation cost will not differ from that which would result under the intrinsic-value method, although the amounts recognized in any single period will differ.

S1.9.3  Measurement of liabilities – nonpublic companies

Nonpublic entities may elect to account for liability awards using (1) the fair-value method (or the calculated-value method described previously, using an appropriate industry sector index to estimate volatility, if the company cannot reasonably estimate its own volatility) or (2) the intrinsic-value method. Regardless of the measurement method used, the liability award must be remeasured at each reporting date until the award is settled. The choice of measurement method is an accounting policy decision and should be applied consistently to all awards accounted for as liabilities.

S1.10  Income taxes

The accounting for income taxes is one of the most complex areas of related to the accounting for share-based payments. Under ASC 718, the income tax effects of share-based payments are recognized for financial reporting purposes only if such awards would result in deductions on the company’s income tax return. Generally, the amount of income tax benefit recognized in any period is equal to the amount of compensation cost recognized multiplied by the employer’s statutory tax rate. An offsetting deferred tax asset also is recognized.

---

3 In the U.S. nonqualified stock options result in a tax deduction to the employer, while incentive stock options (ISOs) typically do not. Under a nonqualified stock option plan in the U.S., an employer generally receives a tax deduction in an amount equal to the excess of the market price of the stock on the date of exercise over the exercise price (i.e., the intrinsic value).
For example, if an option with a fair value of $100 is granted at the beginning of a fiscal year and vests at the end of two years, the annual journal entries (assuming no forfeitures and a 40% statutory income tax rate) would be as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation expense</td>
<td>$50</td>
</tr>
<tr>
<td>Additional paid-in capital</td>
<td>$50</td>
</tr>
<tr>
<td>Deferred tax asset</td>
<td>20</td>
</tr>
<tr>
<td>Deferred tax asset</td>
<td>20</td>
</tr>
</tbody>
</table>

If the tax deduction reflected on the company’s income tax return for an award (generally at option exercise or share vesting) exceeds the cumulative amount of compensation cost recognized in the financial statements for that award ($100 in our example), the excess tax benefit is recognized as an increase to additional paid-in capital. Assuming the tax deduction is $120, the tax benefit of the deduction that exceeds the $100 compensation cost, is $8 (($120 − $100) × 40%), and the $8 benefit is recognized by reducing taxes payable and increasing additional paid-in capital.

Alternatively, the tax deduction reported in the tax return may be less than the cumulative compensation cost recognized for financial reporting purposes. For example, assuming that the tax deduction was $60, the tax benefit is $24 ($60 × 40%) and, therefore, $16 (($100 − $60) × 40%) of the deferred tax asset must be written off. The write-off of the deferred tax asset in excess of the benefit of the tax deduction is recognized:

1. In equity to the extent that additional paid-in capital has been recognized for excess tax deductibles from previous employee share-based payments accounted for under Statement 123’s fair value method (regardless of whether or not an entity elected to recognize compensation cost in the financial statements or only in pro forma disclosures)\(^4\) or under ASC 718, and

2. In operations (income tax expense), to the extent the write-off exceeds previous excess tax benefits recognized in equity.

\(^4\) The calculation of the credit for prior excess tax benefits, including an alternative simplified method to calculate the transitional pool of excess tax benefits, is discussed further in Chapter 10 and Chapter 13.
S1.10.1  Recognition of excess tax benefits when those benefits do not reduce current income taxes payable

ASC 718 specifies that if the grantor will not benefit from the excess tax benefit deduction taken at the time of the taxable event (e.g., option exercise or share vesting) because, for example, it has a net operating loss carryforward that is increased by the excess tax benefit, then the tax benefit and the credit to additional paid-in capital would not be recognized until the deduction actually reduces current taxes payable.

S1.10.2  Presentation of excess tax benefits in the statement of cash flows

Cash retained as a result of excess tax benefits relating to share-based payments to employees, as well as to nonemployees, must be presented in the statement of cash flows as a financing cash inflow. It should be noted that the calculation of excess tax benefits that must be presented as a financing cash flow must be performed on an option-by-option basis. That is, while the credits recognized in additional paid-in capital during a reporting period (see Section S1.10) may be reduced by write-offs of deferred tax assets to additional paid-in capital (i.e., presented net), the amount of realized excess tax benefits presented in the statement of cash flows as a financing activity is based on a gross calculation without offset from any deferred tax asset write-offs to additional paid-in capital.

The write-off of deferred tax assets relating to the excess of recognized compensation cost over the tax deduction resulting from the award would be reflected within operating cash flows.
S2  Scope

S2.1  Transactions subject to ASC 718

<table>
<thead>
<tr>
<th>Excerpt from Accounting Standards Codification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation – Stock Compensation – Overall</td>
</tr>
<tr>
<td>Scope and Scope Exceptions</td>
</tr>
<tr>
<td>718-10-15-3</td>
</tr>
<tr>
<td>The guidance in the Compensation – Stock Compensation Topic applies to all share-based payment transactions in which an entity acquires employee services by issuing (or offering to issue) its shares, share options, or other equity instruments or by incurring liabilities to an employee that meet either of the following conditions:</td>
</tr>
<tr>
<td>a. The amounts are based, at least in part, on the price of the entity’s shares or other equity instruments. (The phrase at least in part is used because an award of share-based compensation may be indexed to both the price of an entity’s shares and something else that is neither the price of the entity’s shares nor a market, performance, or service condition.)</td>
</tr>
<tr>
<td>b. The awards require or may require settlement by issuing the entity’s equity shares or other equity instruments.</td>
</tr>
<tr>
<td>718-10-15-5</td>
</tr>
<tr>
<td>The guidance in this Topic does not apply to the following payment transactions:</td>
</tr>
<tr>
<td>a. Share-based transactions for other than employee services (see Subtopic 505-50 for guidance on those transactions).</td>
</tr>
<tr>
<td>718-10-15-7</td>
</tr>
<tr>
<td>The guidance in the Overall Subtopic does not apply to equity instruments held by an employee stock ownership plan.</td>
</tr>
</tbody>
</table>

S2.1.1  Issued in exchange for goods or services

ASC 718 only applies to share-based payments issued in exchange for goods or services. Accordingly, it does not apply to equity or liability instruments issued in exchange for cash or other financial assets.

S2.1.2  Based on or settled in the issuer’s stock

ASC 718 applies not only to grants of stock or stock options, but also to liabilities that are based, at least in part, on the price of the issuer’s shares (e.g., stock appreciation rights payable in cash). As a result of the use of the term “in part,” we believe that ASC 718 may apply to certain liabilities that are not settled in shares. For example, a company may agree to pay an employee $10,000 if the company’s stock price is above $20 per share in two years. The fixed amount of cash is not based on the fair value of the employer’s shares. However, whether or not the $10,000 is paid is based on the fair value of the employer’s shares.
Accordingly, we believe that the arrangement in question must be accounted for as a liability under ASC 718. Because the liability is subject to a market condition, the market condition must be incorporated into the estimate of the fair value of the award.

ASC 718 also applies to any obligation to issue equity instruments in exchange for goods or services. For example, ASC 718 applies to an obligation to grant shares with a fixed value on the issuance date (e.g., stock-settled debt, which would be classified as a liability as discussed in Section S5.2.2).

Finally, the obligation need not be indexed solely to the issuer’s shares to be subject to ASC 718. For example, an award indexed to both the value of the issuer’s shares and the value of a commodity or some other variable would be within the scope of ASC 718. Further, as discussed in Section S5.2.4, if the other variable does not meet the definition of a service, performance, or market condition, the award would be accounted for as a liability under ASC 718.

**S2.1.3 Awards to employees and nonemployees**

Share-based payments to employees generally are granted in exchange for employee services and, therefore, are within the scope of ASC 718 unless determined to be noncompensatory (see Section S2.6). Share-based payments granted to nonemployees in exchange for goods or services are excluded from the scope of ASC 718 and are accounted for following the guidance in ASC 505-50. As discussed in Section S9.1.2, if specific guidance does not exist in ASC 505-50 for certain accounting issues involving share-based payments granted to nonemployees, then the guidance in ASC 718 is applied by analogy.

Determining whether the grantee is an employee or nonemployee is important to the accounting for the award. ASC 718 generally requires that equity awards to an employee be measured based on the fair value of the award on the grant date. ASC 505-50 in many cases requires the cost of a nonemployee award to be measured on the vesting date (see further discussion in Chapter 9). Because of the resulting volatility in compensation cost resulting from the remeasurement of nonemployee awards at each reporting date, companies should carefully evaluate the status of the award recipient. The definition of an employee is discussed in detail in Section S2.2.

**S2.1.4 Employee stock ownership plans**

The accounting for employee stock ownership plans (ESOPs) are excluded from the scope of the general share-based payment literature in ASC 718. ESOPs are U.S. tax-qualified employee stock benefit plans designed to invest primarily in the stock of the sponsoring corporation. In effect, an ESOP is a deferred compensation plan (defined contribution pension plan) similar to a profit-sharing plan in that each participant has a separate account. Periodic employer contributions and plan earnings are allocated to those separate accounts. Unlike profit-sharing plans, however, ESOP benefits usually are distributable in stock of the employer company. ASC 718-40 provides guidance on the accounting for ESOPs. Grants of
awards through vehicles that are similar to ESOPs but do not qualify as such under U.S. tax law are accounted for under the general share-based payment accounting literature in ASC 718.

### S2.2 Definition of “employee”

Generally, share-based payments granted to common law employees and directors (for their services as directors) that are elected by shareholders are subject to the accounting model for employee awards in ASC 718.

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Overall*

**Glossary**

**Employee**

An individual over whom the grantor of a share-based compensation award exercises or has the right to exercise sufficient control to establish an employer-employee relationship based on common law as illustrated in case law and currently under U.S. Internal Revenue Service (IRS) Revenue Ruling 87-41. A reporting entity based in a foreign jurisdiction would determine whether an employee-employer relationship exists based on the pertinent laws of that jurisdiction. Accordingly, a grantee meets the definition of an employee if the grantor consistently represents that individual to be an employee under common law. The definition of an employee for payroll tax purposes under the U.S. Internal Revenue Code includes common law employees. Accordingly, a grantor that classifies a grantee potentially subject to U.S. payroll taxes as an employee also must represent that individual as an employee for payroll tax purposes (unless the grantee is a leased employee as described below). A grantee does not meet the definition of an employee solely because the grantor represents that individual as an employee for some, but not all, purposes. For example, a requirement or decision to classify a grantee as an employee for U.S. payroll tax purposes does not, by itself, indicate that the grantee is an employee because the grantee also must be an employee of the grantor under common law.

**S2.2.1 Definition of “control”**

The FASB concluded that the accounting model for employee awards should apply only to awards to individuals who qualify as employees under “common law” (with certain exceptions, refer to Sections S2.2.2 through S2.2.4), which also is the basis for the distinction between employees and nonemployee service providers under the current U.S. Internal Revenue Code. While meeting the definition of an employee for purposes of U.S. payroll taxes is indicative of employee status, it is not determinative. That is, if an individual is classified as an employee for U.S. payroll tax purposes, that fact alone does not indicate that the individual is an employee under ASC 718 because the individual must also be a common law employee of the company.
The FASB concluded that an individual is an employee if the company exercises (or has the right to exercise) control over that individual to establish an employer-employee relationship. That relationship should be determined in the U.S. based on common law as illustrated in case law and Internal Revenue Service (IRS) Revenue Ruling 87-41. In other countries, the determination whether an employee-employer relationship exists should be made based on the laws of that country. The FASB noted that a company also should consistently represent an individual as an employee for all other common law purposes, including U.S. payroll taxes, if applicable. Additionally, we believe that to qualify as a common law employee, the employee services provided must be substantive. For example, if the employer can exercise “control” over an individual prior to the start of full-time employment, but the individual is not expected to be asked to provide significant services, we believe that the individual would not qualify as an employee prior to beginning full-time employment.

Because there are numerous court cases, revenue rulings, and private letter rulings that would establish precedence in applying the common law rules in the U.S., considerable judgment, as well as consideration of all the relevant facts and circumstances, is necessary to determine whether an individual is a common law employee. Therefore, it is recommended that companies consult their legal counsel in making such a determination. IRS Revenue Ruling 87-41 provides 20 factors, designed as guidelines, for determining whether an employer-employee relationship has been established in the U.S. (Refer to Appendix C for those guidelines.)

As indicated earlier, the FASB rejected relying solely on the classification of an individual as an employee for payroll tax purposes because the definition for payroll tax purposes includes certain service providers who are not common law employees. For example, many full-time insurance agents do not qualify as employees under the common law employee definition, even though these agents may qualify as employees for payroll tax purposes and for participation in various company-sponsored benefit plans. In those circumstances, the awards should be accounted for under ASC 505-50.

**S2.2.2 Part-time employees**

An individual can provide different services for two different employers and qualify as a common law employee for both employers. This may be the case, for example, when an individual works part-time for two different employers. In some circumstances, an individual may qualify as a common law employee of more than one employer for the same set of services (such as in a leased employee situation, which is discussed further in Section S2.2.2.1). In the latter situation, the FASB believes that, in substance, only one employer compensates the worker for that set of services. Consequently, when applying ASC 718, only one company can qualify as the employer for purposes of granting share-based payments for that set of services.
S2.2.2.1 Leased employees and co-employment arrangements

Under lease or co-employment arrangements, a company (e.g., a professional employer organization) leases employees to another company (the lessee). In many situations, the lessor organization is the employer of record for payroll tax purposes. It is not uncommon for leased employees to be granted options by the lessee company. In fact, in some situations the leased employees originally were employees of the lessee until the co-employment arrangement was executed. The FASB acknowledged that if certain criteria are met, the lessee should be able to grant options to the leased employee and account for them as awards to employees even though all of the usual employee-employer attributes are not in place (e.g., the lessee does not remit payroll taxes to the governmental authorities).

In a lease or co-employment arrangement, the classification of an individual as an employee for payroll tax purposes is not relevant in determining whether the individual is an employee of the lessee for purposes of applying ASC 718. Rather, in such situations ASC 718 prescribes specific conditions that must be met for the lessee to account for share-based payments to leased or co-employed individuals as awards to employees.

Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Overall

Glossary

Employee

A leased individual is deemed to be an employee of the lessee if all of the following requirements are met:

a. The leased individual qualifies as a common law employee of the lessee, and the lessor is contractually required to remit payroll taxes on the compensation paid to the leased individual for the services provided to the lessee.

b. The lessor and lessee agree in writing to all of the following conditions related to the leased individual:

1. The lessee has the exclusive right to grant stock compensation to the individual for the employee service to the lessee.

2. The lessee has a right to hire, fire, and control the activities of the individual. (The lessor also may have that right.)

3. The lessee has the exclusive right to determine the economic value of the services performed by the individual (including wages and the number of units and value of stock compensation granted).

4. The individual has the ability to participate in the lessee’s employee benefit plans, if any, on the same basis as other comparable employees of the lessee.

5. The lessee agrees to and remits to the lessor funds sufficient to cover the complete compensation, including all payroll taxes, of the individual on or before a contractually agreed upon date or dates.
If all of the above criteria are met, the lessee’s relationship with the leased individual is essentially the same as its relationship with its employees. Under those circumstances the lessee is deemed to be the employer for purposes of applying ASC 718.

S2.2.3 Nonemployee directors
Companies frequently grant stock options to nonemployee members of their board of directors in exchange for the directors’ services. While nonemployee directors do not meet the definition of an employee described above, the FASB decided to provide an exception in ASC 718, which requires share-based payments to qualifying nonemployee directors to be accounted for as employee awards under certain circumstances.

**Excerpt from Accounting Standards Codification**

*Compensation — Stock Compensation — Overall*

*Glossary*

*Employee*

A nonemployee director does not satisfy this definition of employee. Nevertheless, nonemployee directors acting in their role as members of a board of directors are treated as employees if those directors were elected by the employer’s shareholders or appointed to a board position that will be filled by shareholder election when the existing term expires. However, that requirement applies only to awards granted to nonemployee directors for their services as directors. Awards granted to those individuals for other services shall be accounted for as awards to nonemployees.

The FASB’s practical exception cannot be extended by analogy to other nonemployees and does not apply to awards granted to individuals for advisory or consulting services in a non-elected capacity or to nonemployee directors for services outside their role as a director (e.g., legal advice, investment banking advice, or loan guarantees).
S2.2.3.1 Directors of subsidiaries

Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Overall
Implementation Guidance and Illustrations

718-10-55-91
Nonemployee directors acting in their role as members of an entity’s board of directors shall be treated as employees if those directors were elected by the entity’s shareholders or appointed to a board position that will be filled by shareholder election when the existing term expires. However, that requirement applies only to awards granted to them for their services as directors. Awards granted to those individuals for other services shall be accounted for as awards to nonemployees in accordance with Section 505-50-25.

Additionally, consolidated groups may have multiple boards of directors; this guidance applies only to either of the following:

a. The nonemployee directors acting in their role as members of a parent entity’s board of directors

b. Nonemployee members of a consolidated subsidiary’s board of directors to the extent that those members are elected by shareholders that are not controlled directly or indirectly by the parent or another member of the consolidated group.

Based on our discussions with the FASB staff, we understand that the guidance provided in 718-10-55-91 only applies to the directors of a consolidated subsidiary in the consolidated financial statements of the parent. That is, if the directors of a subsidiary receive share-based payments of the parent or subsidiary for services provided as a director of the subsidiary, that individual must have been appointed or elected by the minority shareholders of the subsidiary for the awards to be accounted for as employee awards in the consolidated financial statements. We understand that to conclude that the individual was elected or appointed by the minority shareholders, the majority shareholder must be precluded from voting for the director.

If the subsidiary director was not appointed or elected by the minority shareholders of the subsidiary, the awards for services as a director of the subsidiary should be accounted for as awards to a nonemployee in the parent’s consolidated financial statements. However, in the subsidiary’s separate financial statements, if that director was elected by the subsidiary’s shareholders, which can include the controlling shareholder, the awards to that director for services as a director should be accounted for as awards to an employee.

Note that the fact that an employee of the parent or subsidiary serves as the director of a subsidiary does not necessarily require that all awards to that individual be accounted for as an award to a nonemployee. Awards to that individual in connection with the individual’s responsibilities as an employee of the parent or subsidiary would be accounted for as awards to an employee in the consolidated financial statements, as discussed in Section S2.3.3.
S2.2.3.2 Example – stock options granted to nonemployee directors

Company X has four nonemployee members on its board of directors. Members of the board have several years of business experience and possess specific knowledge and expertise within Company X’s industry. The nonemployee directors are elected by Company X’s shareholders for a three-year term and meet four times a year. Company X grants each nonemployee director 500 stock options for each meeting he or she attends. Company X would account for the stock options as employee awards because they were granted to elected nonemployee directors for their services as directors.

In addition, one of the nonemployee directors is also an environmental attorney. During the year, Company X is named as a Potentially Responsible Party (PRP) at a Superfund site. Internal counsel has limited experience with environmental remediation and confers numerous times with the nonemployee director. Prior to presenting the motion to dismiss Company X as a PRP, the nonemployee director spends approximately 100 hours consulting with internal counsel. Ultimately, Company X is successful and is dismissed as a PRP. Company X grants the nonemployee director 7,500 options for his consulting services. Company X would account for the 7,500 stock options under ASC 505-50 because the nonemployee director received stock options for services unrelated to his service as a director.

S2.2.3.3 Example – awards granted to members of advisory board

Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Overall

Implementation Guidance and Illustrations

718-10-55-90

This Topic defines employee as an individual over whom the grantor of a share-based compensation award exercises or has the right to exercise sufficient control to establish an employer-employee relationship based on common law as illustrated in case law and currently under U.S. Internal Revenue Service (IRS) Revenue Ruling 87-41. An example of whether that condition exists follows. Entity A issues options to members of its Advisory Board, which is separate and distinct from Entity A’s board of directors. Members of the Advisory Board are knowledgeable about Entity A’s industry and advise Entity A on matters such as policy development, strategic planning, and product development. The Advisory Board members are appointed for two-year terms and meet four times a year for one day, receiving a fixed number of options for services rendered at each meeting. Based on an evaluation of the relationship between Entity A and the Advisory Board members, Entity A concludes that the Advisory Board members do not meet the common law definition of employee. Accordingly, the awards to the Advisory Board members are accounted for as awards to nonemployees under the provisions of this Topic.
S2.2.3.4 Example – large grants to nonemployee directors

Company X has three nonemployee members on its board of directors and has recently changed its bylaws to increase that number to four. Members of the board have several years of business experience and possess specific knowledge and expertise within Company X’s industry. The nonemployee directors are elected by Company X’s shareholders for a three-year term. To entice another individual to join its board, Company X offered the individual 50,000 stock options in the director’s initial year of service to the board. However, Company X otherwise only grants each nonemployee director 10,000 stock options on an annual basis. Company X must determine how many of the 50,000 stock options issued to this nonemployee director were for his or her services as a director and how many, if any, were for other services that he or she may provide. Whether Company X accounts for all or a portion of the stock options as awards to an employee will depend on the specific facts and circumstances.

Factors that Company X should consider in determining what portion of the 50,000 stock options is for services as a nonemployee director or for other services include the following:

1. Whether or not the nonemployee director provides services in a capacity other than as a director and, if so, the amount of other compensation provided for those services and the fair value of those services.

2. Any formal company policies that establish the number of options which directors are entitled to receive for their services. (Companies may establish the number of options to be granted based on: (a) a specified number per year of service, (b) the number of board meetings attended, (c) the number and nature of board committee meetings attended, or (d) other director responsibilities.)

3. The number, terms, and timing of option awards received by other directors.

4. Management’s and the board’s understanding and representation of the services to be provided by the director and the approval process required for the award.

In this example, assume that the director does not provide any nonemployee service to the company. In that case, we generally would presume that all of the options should be accounted for under the employee model. However, if the director also provides nonemployee services to the company, the company would have to consider all of the above factors in determining whether and how many of those awards should be accounted for as awards to a nonemployee.
S2.2.4 Awards to employees of partnerships and similar entities

ASC 718’s definition of “share-based payment (or compensation) arrangement” includes the following concept:

Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Overall

Glossary

Shared-Based Arrangements

An arrangement under which either of the following conditions is met:

a. One or more suppliers of goods or services (including employees) receive awards of equity shares, equity share options, or other equity instruments.

b. The entity incurs liabilities to suppliers that meet either of the following conditions:

1. The amounts are based, at least in part, on the price of the entity’s shares or other equity instruments. (The phrase at least in part is used because an award may be indexed to both the price of the entity’s shares and something other than either the price of the entity’s shares or a market, performance, or service condition.)

2. The awards require or may require settlement by issuance of the entity’s shares.

The term shares includes various forms of ownership interest that may not take the legal form of securities (for example, partnership interests), as well as other interests, including those that are liabilities in substance but not in form. Equity shares refers only to shares that are accounted for as equity.

Also called share-based compensation arrangements.

As a result, the definition of shares includes instruments that represent a legal equity interest in a partnership, limited liability partnership, or limited liability corporation (LLC). For purposes of accounting for equity-based compensation (e.g., awards of capital interests or profits interests) granted by a pass-through entity (e.g., partnership or LLC), an individual who provides services to the pass-through entity is considered an employee of the pass-through entity if the individual qualifies as a common law employee of that entity. For purposes of making that determination, the fact that the pass-through entity does not classify the individual as an employee for payroll tax purposes (because the grantee is an “owner” of such pass-through entities) is not relevant. Refer to Section S5.6 for further discussion on awards of profit interests and similar interests granted by a pass-through entity.
S2.3 Certain transactions with related parties and other economic interest holders

Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Overall

Scope and Scope Exceptions

718-10-15-4

Share-based payments awarded to an employee of the reporting entity by a related party or other holder of an economic interest in the entity as compensation for services provided to the entity are share-based payment transactions to be accounted for under this Topic unless the transfer is clearly for a purpose other than compensation for services to the reporting entity. The substance of such a transaction is that the economic interest holder makes a capital contribution to the reporting entity, and that entity makes a share-based payment to its employee in exchange for services rendered. An example of a situation in which such a transfer is not compensation is a transfer to settle an obligation of the economic interest holder to the employee that is unrelated to employment by the entity.

It is difficult to evaluate a related party’s intent when they enter into an arrangement addressed by ASC 718-10-15-4. However, regardless of the intent, the company also benefits from the arrangement by retention of, and possibly improved performance by, the employee. Ultimately, the benefits to an economic interest holder and to the company generally are impossible to separate. Therefore, the economic substance of this type of plan is the same, regardless of whether the plan is adopted by the company or a related party or other economic interest holder.

The concept described above is similar to the accounting requirements prior to ASC 718, except that those requirements only applied to instruments granted or otherwise transferred to an employee by a principal shareholder of the entity. The FASB believed that the scope of the prior accounting requirements for such transfers should be expanded to encompass transfers from any shareholder. Further, the FASB believes that holders of other forms of economic interests in an entity, such as holders of convertible debt or other creditors, might conclude that a sufficient indirect benefit would result from compensating the employees of an investee and, therefore, the concepts described above should apply to the holder of any economic interest. However, the FASB intended the provisions of ASC 718-10-15-4 “to be applied by analyzing transactions in which a related party or a holder of an economic interest in the reporting entity transfers (or offers to transfer) share-based payment of the entity to an employee of the entity to determine whether the entity benefits from the transfer. If so, the transfer should be accounted for as share-based compensation to the employee and a capital contribution received from the transferring party. In broadening that requirement, the Board noted its belief that such a transfer is most likely to be made by a major shareholder or another holder of a significant economic interest in an entity.” The following additional
guidance included in prior accounting literature for share-based payments might suggest that an arrangement should not be accounted for as compensation in the financial statements of the investee: 5

- The relationship between the shareholder and the company’s employee is one that would normally result in generosity (e.g., an immediate family relationship).
- The shareholder has an obligation to the employee, which is completely unrelated to the latter’s employment (e.g., the stockholder transfers shares to the employee because of personal business relationships in the past, unrelated to the present employment situation).
- The company clearly does not benefit from the transaction (e.g., the stockholder transfers shares to a low-level employee with whom he or she has had a close relationship over a number of years).

S2.3.1 Definition of “economic Interest”

Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Overall

Glossary

Economic Interest

Any type or form of pecuniary interest or arrangement that an entity could issue or be a party to, including equity securities; financial instruments with characteristics of equity, liabilities, or both; long-term debt and other debt-financing arrangements; leases; and contractual arrangements such as management contracts, service contracts, or intellectual property licenses.

5 While this guidance was not included in ASC 718, we believe it is generally consistent with the concept described in ASC 718 and might be helpful in evaluating transactions between employees and economic interest holders in the employer.
S2.3.2 Definition of “related party”

Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Overall

Glossary

Related Party

Related parties include:

a. Affiliates of the entity

b. Entities for which investments in their equity securities would be required, absent the election of the fair value option under the Fair Value Option Subsection of Section 825-10-15, to be accounted for by the equity method by the investing entity

c. Trusts for the benefit of employees, such as pension and profit-sharing trusts that are managed by or under the trusteeship of management

d. Principal owners of the entity and members of their immediate families

e. Management of the entity and members of their immediate families

f. Other parties with which the entity may deal if one party controls or can significantly influence the management or operating policies of the other to an extent that one of the transacting parties might be prevented from fully pursuing its own separate interests

g. Other parties that can significantly influence the management or operating policies of the transacting parties or that have an ownership interest in one of the transacting parties and can significantly influence the other to an extent that one or more of the transacting parties might be prevented from fully pursuing its own separate interests.

S2.3.3 Awards granted between companies in a consolidated group

Parent companies often grant stock options to employees of a consolidated subsidiary. Alternatively, a consolidated subsidiary may grant options in its stock to employees of the parent company or to the employees of a brother/sister subsidiary within the consolidated group. As discussed earlier, the FASB concluded that the employee accounting model in ASC 718 applies only to stock compensation awards granted to individuals who qualify as common law employees of the grantor company. The FASB addressed, in prior accounting literature for share-based payments, whether the employee accounting model applies to awards granted by a company to the employees of other entities within the same consolidated group; specifically addressing the applicability of the employee accounting model in both the consolidated company financial statements, as well as in the separate financial statements of the parent and the subsidiary. While these issues were not explicitly addressed in ASC 718, we believe the concepts in the prior accounting literature (Interpretation 44 and Issue 00-23) also should be applied under ASC 718, as discussed below.
S2.3.3.1 Consolidated financial statements
The FASB concluded in Interpretation 44 that the employee accounting model applies in the consolidated financial statements as long as the recipient of the stock-based award qualifies as a common law employee of any entity within the consolidated group. Therefore, for the consolidated company financial statements, the evaluation of whether the individual is an employee is made at the consolidated group level.

S2.3.3.2 Separate financial statements
Even though the FASB concluded that subsidiary employees technically are not employees of a parent, the FASB concluded in Interpretation 44 that the employee accounting model should apply to parent company stock awards granted to employees of a consolidated subsidiary in that subsidiary's separate financial statements. As a basis for this limited exception, the FASB acknowledged that some value of a parent company stock award is derived from the subsidiary's (employer's) results of operations. Furthermore, the FASB observed that employees are now frequently transferred between a parent company and a subsidiary and may provide services to both companies during the vesting period.

Compensation cost related to the grant of parent company awards to employees of a consolidated subsidiary are recognized in the subsidiary’s separate financial statements with a corresponding credit to equity, representing the parent company’s capital contribution. The parent company is considered an economic interest holder in the subsidiary and, therefore, as explained earlier in this section, the subsidiary should account for the plan in the same manner as if the subsidiary adopted the compensatory plan.

S2.3.3.3 Awards between entities under common control
As discussed in the preceding section, the FASB provided a practical exception in Interpretation 44 that the employee accounting model should apply to parent company stock awards granted to employees of a consolidated subsidiary in that subsidiary's separate financial statements. However, the FASB decided that the employee accounting model would not apply in the separate financial statements of a subsidiary to awards granted by that subsidiary (in its stock) to the employees of the parent or of another subsidiary within the consolidated group (nor would the employee accounting model apply to the accounting by the subsidiary for stock compensation granted to its employees in the stock of another entity within the consolidated group). For example, the employee accounting model does not apply to awards granted by Subsidiary A to the employees of the parent or to the employees of Subsidiary B in either Subsidiary A’s separate financial statements or in Subsidiary B’s separate financial statements. While not explicitly addressed in ASC 718, we believe a similar model should be applied.

Interpretation 44 did not indicate what accounting model would apply to the awards described in the preceding paragraph. Therefore, the EITF in Issue 00-23 clarified the accounting for the grantor (Subsidiary A) and the employer (Subsidiary B) in their respective
separate financial statements when an entity grants options on its stock to employees of another entity within the same control group. We also believe that the guidance in Issue 00-23 should be applied to awards accounted for under ASC 718.

Because the controlling entity (parent) always can direct a controlled entity (Subsidiary A) to grant stock compensation to its employees and to employees of other members of the control group (Subsidiary B), the EITF concluded in Issue 21 of Issue 00-23 that the grantor (Subsidiary A) should measure the fair value of the option or award at the grant date (i.e., the same measurement date for equity instruments granted to employees under ASC 718) and recognize that amount as a dividend to the controlling entity. The EITF believed that recognizing this transaction as a dividend reflects the economics of the arrangement because it may not be clear that the entity granting the stock compensation has received goods or services in return for that grant, or, if the entity has received goods or services, whether the fair value of those goods or services approximates the value of the awards. However, to the extent that the parent or its employees provide services to the subsidiary, the subsidiary should consider the guidance in SAB Topic 1.B, Allocation Of Expenses And Related Disclosure In Financial Statements Of Subsidiaries, Divisions Or Lesser Business Components Of Another Entity.

In Issue 22 of Issue 00-23, the EITF concluded that the employer (Subsidiary B) should account for the options or awards as compensation cost under the fair value model with a corresponding credit to equity to reflect a capital contribution from, or on behalf of, the controlling entity (parent). However, the EITF did not specify how “the fair-value method” should be applied. Specifically, it is not clear whether the employer should apply the fair-value guidance in: (a) ASC 718 for awards to employees (fair value measured at the grant date), (b) ASC 505-50 for awards to nonemployees, or (c) ASC 815 (fair value at the date the options are exercised, are forfeited, or expire).

In Issue 21 of Issue 00-23, the EITF concluded that in its separate financial statements, the grantor should measure the stock options and resulting dividend at the fair value at the date of grant, without regard to whether the options are subject to vesting provisions. While this is not consistent with the measurement model for stock-based compensation granted to nonemployees described in ASC 505-50 (which would require a final measurement of the grant when it vests), the departure from ASC 505-50 is not unreasonable given that Issue 21 addresses the measurement of a capital transaction (a dividend) rather than compensation. However, with regard to the separate financial statements of the employer, the issue is the measurement of compensation cost and Issue 21 does not apply.

Stock-based compensation arrangements addressed in ASC 718 are excluded from the scope of ASC 815. However, these options are not equity of the employer, rather they represent options written by the employer on the equity of a different company (see further discussion in Section 2.5). Therefore, we believe that ASC 815 would apply (assuming the award meets the definition of a derivative in ASC 815). Although ASC 815 requires a written option to be
marked to fair value through earnings, we believe that the resulting compensation cost to be recognized prior to vesting should be recognized based on the guidance in ASC 718 for the accounting for liability awards. As such, the fair value of the award would be measured each reporting period and would be recognized over the requisite service period as compensation cost. After vesting, the employer would continue to mark the written option to fair value with changes in fair value recognized as compensation cost until the award is exercised or expires.

The following table summarizes the above guidance regarding the accounting method for awards granted among companies that are part of a consolidated group in both the company’s consolidated financial statements and the separate financial statements of the parent company and its subsidiaries:

<table>
<thead>
<tr>
<th>Award based on stock of:</th>
<th>Accounting model to be applied to the share-based payments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent to employees of a consolidated Subsidiary A</td>
<td>[Consolidated financial statements] Employee</td>
</tr>
<tr>
<td>Consolidated Subsidiary A to employees of parent</td>
<td>[Separate financial statements of parent] Employee</td>
</tr>
<tr>
<td>Consolidated Subsidiary A to employees of consolidated Subsidiary B</td>
<td>[Separate financial statements of subsidiary A] Employee</td>
</tr>
</tbody>
</table>

(1) Parent-only financial statements generally are required as supplemental disclosure to audited financial statements in filings with the SEC and prepared in a manner that accounts for investments in consolidated subsidiaries as a single line item in the balance sheet and income statement (i.e., the financial statements literally do not comply with GAAP for full financial statements). Net income is the same in the parent-only financial statements as in the parent’s GAAP consolidated financial statements. Accordingly, because the presentation of the subsidiaries does not change the fact that those entities are controlled and must be consolidated in the parent’s GAAP financial statements, we believe it is appropriate to account for awards by a member of the consolidated group to employees of another member of the consolidated group under the employee model pursuant to ASC 718 in parent-only financial statements, consistent with the accounting for the awards in the parent’s consolidated financial statements.

(2) The stock-based award would be measured at fair value at the grant date and that amount would be recognized as a dividend to the parent.

(3) The EITF did not specify whether the employer should apply the fair-value method as interpreted by ASC 505-50 or ASC 815. We believe that ASC 815-10 generally would apply (this treatment is consistent with the accounting for options granted to employees in unrestricted, publicly traded shares of an unrelated entity, as discussed in Section S2.5).

The guidance above only applies to members of a consolidated group, and does not apply to unconsolidated investees (even if the investor owns over 50% of an investee but does not consolidate the investee due to participating minority veto rights that preclude consolidation, as discussed in ASC 810-10). In those situations, the accounting described in Section S2.4 below would apply.
S2.4 Awards granted to employees of an equity method investee

In some situations, an investor may grant share-based payments based on its stock to employees of an equity method investee or joint venture. Issues arise as to both the accounting by the investor and the investee for this transaction.

The FASB decided in Question 3 of Interpretation 44 that the employee accounting model does not apply to the accounting by a corporate investor for stock compensation it grants to employees of an investee or joint venture accounted for under the equity method. The reason behind this conclusion is that the award recipients are not common law employees of the investor. Because the definition of an employee in ASC 718 is essentially the same as the definition in Interpretation 44, we believe that share-based payments by an investor to employees of an equity method investee also should be accounted for as nonemployee awards under ASC 718.

ASC 323-10 requires that an investor recognize its share of the earnings or losses of an investee in the periods that such amounts are reported by the investee in its financial statements. ASC 323-10 provides guidance on the accounting for awards of stock-based compensation to an equity investee when no proportionate funding by the other investors occurs and the investor does not receive any increase in the investor’s relative ownership percentage of the investee. ASC 323-10 further assumes that the compensation cost incurred on behalf of the investee was not agreed to in connection with the investor’s acquisition of the interest in the investee.

S2.4.1 Accounting by the investor

ASC 323-10 confirms that an investor should recognize the full cost of share-based payments incurred on behalf of an investee (that is, 100% of the costs even if the investor holds a 40 percent investment in the investee) as incurred (i.e., in the same period the costs are recognized by the investee, which is discussed in Section S2.4.2) to the extent that the investor’s claim on the investee’s book value has not been increased. The cost should be measured based on the fair-value method under ASC 505-50. Under ASC 505-50, the fair value of the award generally would be remeasured until the award ultimately vests.

S2.4.2 Accounting by the investee

Similarly, the investee should recognize the costs of the share-based payments incurred by the investors on its behalf and a corresponding capital contribution, as the costs are incurred on its behalf (i.e., in the same period(s) as if the investee had paid cash to its employees). That cost also should be measured based on the fair-value method under ASC 505-50.

S2.4.3 Accounting by the other investors

Other (noncontributing) investors should recognize income equal to the amount by which their interest in the net book value of the investee has increased (i.e., their percentage share of the contributed capital recognized by the investee) as a result of the disproportionate
funding of the compensation costs. Further, other investors should recognize their percentage share of earnings or losses in the investee (inclusive of any expense recognized by the investee for the stock-based compensation funded on its behalf).

For investors that are SEC registrants, income or expense resulting from the application of this guidance should be classified in the same income statement caption as the equity in earnings (or losses) of the investee.

A detailed example of the accounting for stock-based compensation granted to employees of an equity method investee is included in ASC 323-10-55-20 through 55-26.

**S2.5 Awards by an employer based on another company’s stock**

In some cases, an employer company may grant awards to its employees that are based on the stock of another company. For example, assume Company A grants stock awards to its employees in the stock of unrelated Company B. These awards are not within the scope of ASC 718 because the value of the award is not based on the employer's shares nor is the award settled in the employer's shares.

ASC 815-10 addresses the accounting for grants of stock options in an unrelated, publicly-traded entity's stock and concludes that the option meets the definition of a derivative in ASC 815. Therefore, these awards should be accounted for by the employer as a derivative. Pursuant to ASC 815, the option should be recognized at its fair value at inception. Subsequent changes in the fair value would be included in the determination of net income. The option would continue to be accounted for as a derivative under ASC 815 after the vesting date. ASC 815-10-45-10 provides that the employer should account for the changes in fair value of the option award prior to the vesting date as compensation cost. We believe it is reasonable to recognize and amortize the recognized value of the award as compensation cost over the requisite service period, similar to the accounting for share-based liabilities subject to service vesting. Changes in fair value after vesting are not required to be recognized as compensation cost (e.g., the changes in fair value could be reported in the statement of operations where other derivatives gains and losses are reported).

Further, even if the option is outside the scope of ASC 815-10 and does not meet the definition of a derivative (e.g., if the option or award cannot be net settled, and the underlying cannot be readily converted into cash as would be the case if the unrelated entity is privately owned), the SEC staff has indicated that written options generally should be remeasured at fair value at each balance sheet date, with changes in fair value recognized in earnings. The written option and the underlying security, if owned or acquired by the employer, should be accounted for separately (i.e., the underlying security is accounted for in accordance with the guidance for equity method investments in ASC 323-10, certain investments in debt or equity securities in ASC 320 or derivatives in ASC 815).
S2.6 Employee stock purchase plans (including look-back options)

ASC 718 provides certain criteria that must be satisfied for an ESPP to be considered noncompensatory. The criteria are described in detail in Section S12.1. Shares sold through plans that are noncompensatory are treated as any other sale of the company’s equity instruments. Plans that do not satisfy the criteria and are deemed to be compensatory are accounted for in accordance with the provisions of ASC 718-50.

The accounting for ESPPs is discussed further in Chapter 12 of this publication.

S2.7 Escrowed share arrangements (or placing vesting requirements on previously issued shares)

In order to facilitate an IPO, an underwriter may request that some or all shareholders (some or all of whom may be employees) of the privately held company place a portion of their shares in an escrow account or otherwise subject those shares to a vesting requirement. The escrowed or restricted shares generally are legally outstanding and may continue to have voting and dividend rights. The shares are to be released from escrow based either on the (a) attainment by the company of certain performance measures in subsequent periods, such as specified earnings or market price levels or (b) continuous employment of specific individuals for a specified period of time. The conditions described in (a) above are most common when there are differing views about the value of the entity. The conditions described in (b) above are most common when the specified individuals are considered key to the newly public company’s success. In either case, if the conditions are not achieved the escrowed shares are returned to the company and canceled.

Even though these shares are legally outstanding and are reported as such on the face of the balance sheet, according to ASC 718-10-S99-2 the SEC staff has historically expressed the view that escrowed share arrangements involving the release of shares to promoters based on certain performance criteria are presumed to be tantamount to reverse stock splits followed by the grant of nonvested stock subject to performance, market or service conditions (see Chapters 3 and 4). As such, these arrangements were presumed to be compensatory. Accordingly, in this circumstance, compensation cost generally is measured based on the fair value of the shares at the grant date and recognized over the requisite service period (see Chapter 4).

Under ASC 718-10-S99-2, the SEC staff noted that in evaluating whether the presumption of compensation may be overcome for escrowed share arrangements, entities should consider the substance of the transaction(s), including whether the transaction(s) are unrelated to employment. For example, as a condition of the transaction, investors may request specific significant shareholders who may also be officers or directors to participate in an escrowed share arrangement. If the escrowed shares will be released or canceled without regard to continued employment, the arrangement may be more appropriately viewed as an inducement to facilitate the transaction on behalf of the company rather than as
compensation. In these circumstances, the arrangement generally would be recognized and measured according to its nature and reflected as a reduction of the proceeds allocated to the newly issued securities.

The SEC staff also stated in ASC 718-10-S99-2 that an escrowed share arrangement in which the shares are automatically forfeited if employment terminates is compensation, consistent with the principle articulated in ASC 805-10-55-25(a).

**S2.8 Trusts related to employee benefits**

With the exception of qualifying Employee Stock Ownership Plans (see Section S2.1.4), the use of trusts to fund share-based payments generally will not change the measurement or recognition of those payments because, in most cases, the trust will be consolidated by the sponsoring employer or be considered an economic interest holder of the employer (see Section S2.3). The following sections provide specific guidance with respect to several arrangements using trusts.

**S2.8.1 Rabbi trusts**

Certain deferred compensation arrangements allow amounts earned by employees to be invested in the stock of the employer and placed in a “rabbi trust.” Additionally, some companies have implemented stock option deferral transactions in which the receipt of the net shares on exercise of an option is deferred, often by placing those shares into a rabbi trust.

A rabbi trust is a funding vehicle sometimes used to protect promised deferred executive compensation benefits from events other than bankruptcy. Thus, the funded benefits would be protected against hostile takeover ramifications and disagreements with management, but not against the claims of general creditors in the event of bankruptcy. Rabbi trusts provide important, although not all-inclusive, protection while deferring income taxes for the executives.

Certain plans that use a rabbi trust allow the employee to immediately diversify into nonemployer securities or to diversify after a holding period (for example, six months). Other plans do not allow for diversification. The deferred compensation obligation of some plans may be settled in: (a) cash by having the trust sell the employer stock (or the diversified assets) in the open market, (b) shares of the employer’s stock, or (c) diversified assets. In other plans, the deferred compensation obligation may be settled only by delivery of the shares of the employer’s stock.

ASC 710-10 includes the following conclusions regarding the accounting for deferred compensation arrangements where amounts earned are held in a rabbi trust:

1. The accounts of the rabbi trust should be consolidated with the accounts of the employer in the financial statements of the employer. Note that if the rabbi trust is a variable interest entity (“VIE”), the consolidation guidance in ASC 810 may apply. However, as discussed in FAQ 4-12 “Deferred Compensation Trusts” of our Financial Reporting
Developments publication *Consolidation of Variable Interest Entities*, we generally believe a rabbi trust will be a VIE and the employer will be the VIE's primary beneficiary. A rabbi trust that is not a VIE should be consolidated pursuant to ASC 710-10. The consolidation guidance may not be applicable in instances in which financial assets are transferred to the rabbi trust because the financial assets may not be derecognized pursuant to the provisions of ASC 860.

2. Employer stock should be classified and accounted for in equity, in a manner similar to the manner in which treasury stock is accounted for, in the consolidated financial statements of the employer (i.e., changes in fair value are not recognized), regardless of whether the deferred compensation obligation may be settled in cash, shares of the employer's stock, or diversified assets.

3. Diversified assets should be accounted for in accordance with GAAP for the particular asset (e.g., if the diversified asset is a marketable equity security, that security would be accounted for in accordance with the accounting for certain investments in debt or equity securities in ASC 320).

4. For deferred compensation arrangements in which diversification is not permitted and the deferred compensation obligation is required to be settled by delivery of shares of the employer's stock, the deferred compensation obligation should be accounted for as a grant of nonvested stock and accounted for in accordance with ASC 718.

5. Except as noted in 4. above, and in 6. below, the deferred compensation obligation should be classified as a liability and adjusted, with a corresponding charge (or credit) to compensation cost, to reflect changes in the fair value of the amount owed to the employee. Changes in the fair value of the deferred compensation obligation should not be recorded in other comprehensive income, even if changes in the fair value of the assets held by the rabbi trust are recognized, pursuant to ASC 320, in other comprehensive income (e.g., if the assets are classified as available-for-sale securities). At acquisition, securities held by the rabbi trust may be classified in trading (thus, changes in the fair value of these securities would be recognized in income and effectively would offset changes in the fair value of the deferred compensation obligation). Refer to the Ernst & Young Financial Reporting Developments: *Fair Value Measurements*, for further discussion regarding the measurement objective for the deferred compensation obligation.

6. As discussed in Section S5.2.3, nonvested shares subject to repurchase features are not required to be classified as liabilities as long as the grantee will be subject to the risks and rewards of share ownership for a reasonable period of time (generally six months) after the shares vest. Because shares held in a rabbi trust are not considered to be issued to the employee until they are released from the trust, we believe that liability classification of the obligation is not required as of the grant of the shares subject to deferral into a rabbi trust if diversification is not permitted until at least six months after share vesting. However, as discussed in SAB Topic 14.E and Section S5.2.3.5, temporary equity
classification is required. Of course, once the employee requests diversification, the obligation no longer meets the definition of an equity instrument and liability classification will be required.

S2.8.2 Other “employee benefit trusts” (e.g., “flexitrusts,” “SECTs”)

Investment bankers and others have designed various special purpose grantor trusts to purchase significant blocks of company stock to be used over many years to fund a number of company benefit plans (e.g., 401(k) match, other postretirement benefits). Often each plan designer has its own name for the trusts, such as “flexitrust” or “SECT” (Stock Employee Compensation Trust). The purchase of shares may be from the open market or from the company, in which case the company may contemplate subsequent repurchases from the open market. The trusts generally are financed by a loan, often from the employer, and the shares are released to the designated employee benefit plans as the loan is paid down through contributions or forgiveness from the employer, dividends, etc.

The objectives of forming such a trust might include the pre-funding of benefits, placing a significant number of shares in friendly hands, possibly improving rating agency treatment, and, in some circumstances, increasing certain tax benefits. Although these arrangements resemble leveraged ESOPs, they are not ESOPs, and thus generally neither receive the benefits of, nor are they subject to the restrictions of, ESOPs. Because these arrangements are not leveraged ESOPs, the staff of the SEC has stated that the arrangements are not subject to ESOP accounting.

As discussed in preceding sections, the trust generally will be consolidated and acquired shares would be accounted for as treasury shares. Compensation cost for benefit plans funded by the trust is calculated without reference to the trust (as it is just a funding vehicle). Effectively, this results in measuring compensation cost for shares released from the trust at fair value on the date the shares are granted, assuming the awards qualify for equity classification. Trusts that provide for reallocation of terminated employee shares to the remaining employees in the trust rather than being returned to the company would result in a new grant with a new grant date on the date that shares are reallocated to remaining employees. These types of trusts are often referred to as tontine trusts, where the last employee in the trust wins or loses by virtue of being the last in line.

Shares in the trust are not treated as outstanding for accounting purposes and, thus, there is no dilution until shares are granted. “Dividends” on unreleased shares, even if used to reduce trust debt, do not reduce benefit expense otherwise calculated.
## S2.9 Determining whether a company is public or nonpublic

ASC 718 provides different measurement and classification alternatives for public and nonpublic companies, which are summarized below:

<table>
<thead>
<tr>
<th>Public companies</th>
<th>Nonpublic companies</th>
</tr>
</thead>
</table>
| **Measurement of employee stock options and similar equity securities (Sections S3.2.2 through S3.2.4)** | Fair value (if fair value is not reasonably estimable, measure at intrinsic value and remeasure until settlement) | Based on the following hierarchy:  
   a. Fair value  
   b. If expected volatility is not reasonably estimable, calculated value  
   c. If neither fair value nor calculated value are reasonably estimable, measure at intrinsic value and remeasure until settlement |
| **Measurement of liabilities (Sections S5.4 and S5.5)** | Fair value (if fair value is not reasonably estimable, measure at intrinsic value and remeasure until settlement) | May elect either fair value (or calculated value if expected volatility is not reasonably estimable) or remeasurement of intrinsic value until settlement |
| Classification of mandatorily redeemable instruments (and options thereon) that are not redeemable on fixed dates for amounts that are fixed or based on an external index (Section S5.2.2) | Liabilities | Equity |
| **Formula value stock purchase plans (Section S5.2.2.1)** | Liabilities | May be classified as equity in certain circumstances |

Because of these significant differences, determining whether an entity is public or nonpublic is important to appropriately applying ASC 718.
Glossary
Nonpublic Entity
Any entity other than one that meets any of the following criteria:

a. Has equity securities that trade in a public market either on a stock exchange (domestic or foreign) or in an over-the-counter market, including securities quoted only locally or regionally

b. Makes a filing with a regulatory agency in preparation for the sale of any class of equity securities in a public market

c. Is controlled by an entity covered by the preceding criteria.

An entity that has only debt securities trading in a public market (or that has made a filing with a regulatory agency in preparation to trade only debt securities) is a nonpublic entity.

Based on this definition, if an entity is controlled by a public entity, the controlled entity also is considered a public entity. We believe that is the case regardless of whether there are controlled entities in the ownership chain between the reporting entity and the ultimate parent.

S2.9.1 Private equity investees

Normally, control will be evident because the results of the controlled entity will be consolidated within the reported results of the ultimate parent. However, this may not be the case in some circumstances. For example, a public entity may have a controlling investment in a private equity fund that, in turn, owns a controlling investment in an operating company that has no publicly traded shares outstanding. The private equity fund may account for its investment in the operating company at fair value pursuant to the investment industry guidance in ASC 946. Based on current practice, the public parent company may continue to account for its controlling investment in the operating company at fair value, rather than by consolidating the results of the private equity fund and its controlled investee. Although the results of the operating company are not consolidated into those of the public parent company, the operating company is nonetheless controlled, albeit indirectly, by the public parent company and, therefore, is considered to be a public entity as defined in ASC 718. Accordingly, the operating company must follow the measurement and transition guidance for public companies. Because of the significance of this determination, any entities that are controlled by a single company will have to determine whether that controlling company, or any companies that control the controlling company, are public entities.
S2.9.2 Subsidiaries of companies with equity securities traded on a foreign exchange

The definition of a nonpublic entity is clear that if the controlling entity has equity securities traded on any stock exchange, whether in the U.S. or in a foreign country, the controlled entity is a public entity for purposes of applying ASC 718. For example, assume a U.S. company is a subsidiary of a parent company whose shares are publicly traded in Japan. The parent company is considered a public entity under ASC 718 and, therefore, the controlled subsidiary also is a public entity for purposes of ASC 718.

S2.9.3 Transition from nonpublic to public status

As indicated in the definition of a nonpublic entity above, a nonpublic entity becomes a public entity when it makes a filing with a regulatory agency in preparation for an offering of equity securities. Further, as discussed in Section S2.9.1, once a public entity acquires a controlling interest in a nonpublic entity, the formerly nonpublic entity becomes a public company on the date of acquisition. Once a company files its initial registration statement in connection with an initial public offering of equity securities, the compensation cost of grants made after the filing date must be measured based on fair value. Similarly, any awards granted after the date a controlling interest in a formerly nonpublic entity is acquired by a public entity must be remeasured based on fair value. The transition from a nonpublic entity to a public entity is discussed further in Section S13.6.1.
S3 Measurement of equity awards granted to employees

S3.1 Objective
The objective of accounting for equity instruments granted to employees is to measure the cost of employee services received (compensation cost) in exchange for an award of equity instruments, based on the fair value of the award on the grant date, and to recognize that measured compensation cost in the financial statements over the requisite service period. ASC 718 uses a modified-grant-date approach, under which fair value is measured on the grant date without regard to service or performance conditions. Compensation cost generally is recognized only for awards for which the requisite service is rendered. That is, compensation cost is not recognized in the financial statements for those awards that do not vest because the service or performance conditions are not satisfied.

Compensation cost resulting from share-based payments should be recognized (expensed or capitalized) in the employer’s financial statements in the same manner as cash compensation. For example, share-based payments granted to employees involved in the production process should be capitalized into inventory to the same extent as any cash compensation paid to those employees.

The following sections of this chapter discuss: (a) the measurement basis; (b) the measurement date, and (c) the effect of service, performance, and market conditions on the measurement of compensation cost associated with share-based payments to employees. Chapter 4 provides detailed guidance on recognizing the measured compensation cost in the employer’s financial statements. Chapters 6 and 7 provide detailed guidance on estimating the fair value of a share-based payment.

S3.2 Measurement basis
S3.2.1 Employee services received versus equity instruments issued
The following excerpt from ASC 718 establishes the objective that compensation cost resulting from share-based payment transactions with employees be measured based on the value of the employee services received in exchange for the equity instruments:

**Excerpt from Accounting Standards Codification**

*Compensation-Stock Compensation – Overall*

Objectives

718-10-10-1

The objective of accounting for transactions under share-based payment arrangements with employees is to recognize in the financial statements the employee services received in exchange for equity instruments issued or liabilities incurred and the related cost to the entity as those services are consumed. This Topic uses the terms compensation and payment in their broadest senses to refer to the consideration paid for employee services.
Although ASC 718-10-10-1 establishes that compensation cost recognized in the financial statements should be based on the goods or services received in exchange for the share-based payments, the FASB concluded that it is not feasible to measure directly the fair value of those employee services (i.e., the amount for which those services would be exchanged in the marketplace). As a result:

**Excerpt from Accounting Standards Codification**

*Compensation-Stock Compensation – Overall*

**Initial Measurement**

718-10-30-2

A share-based payment transaction with employees shall be measured based on the fair value (or in certain situations specified in this Topic, a calculated value or intrinsic value) of the equity instruments issued.

This decision is consistent with the measurement basis for other forms of employee compensation, including cash and pension benefits, which are measured at the fair value of the asset transferred to the employee or the liability incurred by the employer. The FASB concluded that there was no compelling reason to measure share-based compensation on a different basis.

**S3.2.2 Fair-value-based measurement**

ASC 718 requires both public and nonpublic entities to value the equity instruments exchanged for employee services based on the fair value of those instruments. However, certain alternatives (discussed later in this chapter) are available for instances in which fair value cannot reasonably be estimated. ASC 718-10-30-3 establishes the fair-value-based method as the measurement basis for share-based payment arrangements entered into with employees:
Excerpt from Accounting Standards Codification

**Compensation-Stock Compensation – Overall**

**Initial Measurement**

918-10-30-3

An entity shall account for the compensation cost from share-based payment transactions with employees in accordance with the fair-value-based method set forth in this Topic. That is, the cost of services received from employees in exchange for awards of share-based compensation generally shall be measured based on the grant-date fair value of the equity instruments issued or on the fair value of the liabilities incurred. The cost of services received by an entity as consideration for equity instruments issued or liabilities incurred in share-based compensation transactions with employees shall be measured based on the fair value of the equity instruments issued or the liabilities settled. The portion of the fair value of an instrument attributed to employee service is net of any amount that an employee pays (or becomes obligated to pay) for that instrument when it is granted. For example, if an employee pays $5 at the grant date for an option with a grant-date fair value of $50, the amount attributed to employee service is $45.

918-10-30-4

However, this Topic provides certain exceptions (see paragraph 918-10-30-21) to that measurement method if it is not possible to reasonably estimate the fair value of an award at the grant date. A nonpublic entity also may choose to measure its liabilities under share-based payment arrangements at intrinsic value (see paragraphs 918-10-30-20 and 918-30-30-2)

**Compensation-Stock Compensation – Awards classified as liabilities**

**Subsequent Measurement**

918-30-35-1

The fair value of liabilities incurred in share-based payment transactions with employees shall be remeasured at the end of each reporting period through settlement.

ASC 918 refers to the required measurement basis as the *fair-value-based* method because the measurement method described in the standard conceptually is not fair value. Although the fair-value-based method uses fair value measurement techniques, the required measurement specifically excludes the effects of: (a) service conditions, performance conditions, and other restrictions that apply only during the requisite service period; (b) reload features that may be included in the terms of the award; and (c) contingent features that may require the employee to return the equity instruments (or the realized gain from the sale of the equity instruments) at some point in the future. Such conditions, restrictions, and features would be considered in a true fair-value measurement.
ASC 718 and this publication refer to the required measure as fair value, both for convenience and to distinguish it from other measures, such as intrinsic value and calculated value. Any reference to fair value in ASC 718 and in this publication should be read to mean “fair-value-based measure determined in accordance with the requirements of ASC 718.” This should not be confused with a strict definition of fair value or with any definition of fair value included in other sources of generally accepted accounting principles. Share-based payments are specifically excluded from the scope of ASC 820.

Chapter 6 of this publication provides guidance on applying the fair-value-based method to measure share-based payments to employees. Chapter 7 describes various valuation techniques (e.g., Black-Scholes-Merton formula and lattice models) for estimating the fair value of stock options and similar instruments (e.g., stock appreciation rights).

S3.2.3 If a company cannot reasonably estimate fair value

Although it should be possible to reasonably estimate the fair value of most equity instruments at the grant date, ASC 718 recognizes that, in rare circumstances, the terms of an equity instrument may make it impossible to estimate the instrument’s fair value on the date it is granted. ASC 718-10-30-21 and 718-20-35-1 provide the following guidance for accounting for equity instruments in these situations:

<table>
<thead>
<tr>
<th>Excerpt from Accounting Standards Codification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Compensation-Stock Compensation – Overall</strong></td>
</tr>
<tr>
<td>Initial Measurement</td>
</tr>
<tr>
<td>718-10-30-21</td>
</tr>
<tr>
<td>It should be possible to reasonably estimate the fair value of most equity share options and other equity instruments at the date they are granted. Section 718-10-55 illustrates techniques for estimating the fair values of several instruments with complicated features. However, in rare circumstances, it may not be possible to reasonably estimate the fair value of an equity share option or other equity instrument at the grant date because of the complexity of its terms.</td>
</tr>
<tr>
<td>Subsequent Measurement</td>
</tr>
<tr>
<td>718-20-35-1</td>
</tr>
<tr>
<td>An equity instrument for which it is not possible to reasonably estimate fair value at the grant date shall be remeasured at each reporting date through the date of exercise or other settlement. The final measure of compensation cost shall be the intrinsic value of the instrument at the date it is settled. Compensation cost for each period until settlement shall be based on the change (or a portion of the change, depending on the percentage of the requisite service that has been rendered at the reporting date) in the intrinsic value of the instrument in each reporting period. The entity shall continue to use the intrinsic value method for those instruments even if it subsequently concludes that it is possible to reasonably estimate their fair value.</td>
</tr>
</tbody>
</table>
The FASB considered whether awards for which the fair value could not be estimated at the grant date should be measured at intrinsic value at each reporting date until such time that the fair value could be reasonably estimated. At that time, the equity instruments would be measured at fair value (i.e., a final measurement of compensation cost was made when the fair value became estimable). However, the FASB was concerned that permitting the final measurement of compensation cost to occur at the earliest date at which an entity determines fair value can be reasonably estimated could result in unintended consequences. An entity might attempt to justify a measurement date when its share price is lower than at the grant date, thereby reducing reported compensation cost. Additionally, the FASB believes it would be unusual for fair value to become reasonably estimable at some future date when it was not reasonably estimable on the grant date. As a result, the FASB decided to require remeasurement based on intrinsic value until settlement for all compensatory equity instruments for which it is not possible to reasonably estimate fair value at the grant date.

**S3.2.4 Exception for nonpublic entities that cannot estimate expected volatility**

**S3.2.4.1 Calculated value**

As described in Section S3.2.2, ASC 718 requires both public and nonpublic entities to measure compensation cost associated with equity awards using the fair-value-based method. However, ASC 718 provides an exception for nonpublic entities that cannot estimate fair value because it is not practicable to estimate the expected volatility of the entity’s share price:

*Excerpt from Accounting Standards Codification*

**Compensation-Stock Compensation – Overall**

**Initial Measurement**

718-10-30-20

A nonpublic entity may not be able to reasonably estimate the fair value of its equity share options and similar instruments because it is not practicable for it to estimate the expected volatility of its share price. In that situation, the entity shall account for its equity share options and similar instruments based on a value calculated using the historical volatility of an appropriate industry sector index instead of the expected volatility of the entity’s share price (the calculated value). Throughout the remainder of this Topic, provisions that apply to accounting for share options and similar instruments at fair value also apply to calculated value. Paragraphs 718-10-55-51 through 55-58 and Example 9 (see paragraph 718-20-55-76) provide additional guidance on applying the calculated value method to equity share options and similar instruments granted by a nonpublic entity.
It is important to note that nonpublic entities do not have a free choice between the fair-value-based method and the calculated-value method when measuring share-based payments. **The calculated-value method may be used only when a nonpublic entity cannot estimate the expected volatility of its share price.** ASC 718-10-55-51 provides the following guidance for estimating the expected volatility of a nonpublic entity’s share price:

**Excerpt from Accounting Standards Codification**

**Compensation-Stock Compensation – Overall**

**Implementation Guidance and Illustrations**

**718-10-55-51**

Nonpublic entities may have sufficient information available on which to base a reasonable and supportable estimate of the expected volatility of their share prices. For example, a nonpublic entity that has an internal market for its shares, has private transactions in its shares, or issues new equity or convertible debt instruments may be able to consider the historical volatility, or implied volatility, of its share price in estimating expected volatility. Alternatively, a nonpublic entity that can identify similar public entities for which share or option price information is available may be able to consider the historical, expected, or implied volatility of those entities’ share prices in estimating expected volatility. Similarly this information may be used to estimate the fair value of its shares or to benchmark various aspects of its performance (see paragraph 718-10-55-25).

ASC 718 is clear that a nonpublic entity may be able to estimate the volatility of the share price of its own stock by considering the historical, implied, or expected volatility of the stock of similar public entities. We would expect that in many cases a nonpublic entity that is able to identify an appropriate industry sector index for purposes of using the calculated-value method would be able to extract from that index similar entities on which to base an estimate of its own share price volatility, and, therefore, would be required to use the fair-value-based method (as opposed to the calculated-value method). When attempting to identify similar public entities within that industry sector index, the nonpublic entity should consider each entity’s life cycle stage, size, financial leverage, products, and other characteristics that distinguish certain entities from others in the same industry sector.

Equity awards to nonemployees must be measured at fair value pursuant to ASC 505-50. Accordingly, calculated value may not be used to value equity awards to nonemployees. Further, if the company measures nonemployee options at fair value, it cannot assert that it is unable to estimate the expected volatility of its stock (because that expected volatility must be estimated for purposes of estimating the value of the options granted to the nonemployees). **Accordingly, we believe that companies that grant stock options to nonemployees must measure the compensation cost of employee options based on fair value.**
S3.2.4.2  Change from calculated value to fair value

A nonpublic entity may change its measurement technique from calculated value to fair value either because it becomes a public entity or because it determines that it can estimate expected volatility of its own shares. ASC 718-10-55-27 indicates that the change in either the valuation technique or the method of determining the appropriate assumptions (in this case, the change from the calculated-value method to the fair-value-based method) is a change in estimate under ASC 250, that may be applied only prospectively (such changes are discussed in Section S6.6). That is, compensation cost for nonvested awards granted prior to the change must continue to be recognized based on the calculated value that was measured on the date of grant. All share-based payments granted subsequent to the change must be measured using the fair-value-based method.

Because (a) the fair-value-based method is expected to produce a better estimate of fair value, and (b) it would be difficult to assert that an entity that previously could estimate its expected volatility no longer can do so, an entity generally would not be permitted to change its method of estimating the value of employee stock options from the fair-value-based method to the calculated-value method.

S3.3  Measurement date

Excerpt from Accounting Standards Codification

Compensation-Stock Compensation – Overall

Glossary

718-10-20

The date at which the equity share price and other pertinent factors, such as expected volatility, that enter into measurement of the total recognized amount of compensation cost for an award of share-based payment are fixed.

Accordingly, the measurement date is an important concept in the accounting for share-based payments. The measurement date differs for awards classified as equity and those classified as liabilities, and for those granted to employees and those granted to nonemployees. The measurement date for a grant of equity instruments to an employee generally is the grant date. The measurement date for awards classified as liabilities is the settlement date, which is discussed further in Section S5.1. The measurement date for awards granted to nonemployees is discussed in Section S9.3.
The FASB concluded that equity instruments subject to service or performance conditions are not issued until the company receives consideration for those instruments. However, the FASB believes that at the grant date, when the company becomes obligated to issue the equity instruments (contingent on the employee’s satisfaction of the service or performance conditions), the employee receives an equity interest in the company. The consideration for the equity instruments is the requisite future employee service. The FASB believes that a company’s contingent obligation to issue equity instruments supports measurement of equity instruments granted to employees at the grant date.

In its Basis for Conclusions to Statement 123(R), the FASB indicated that in deciding whether and on what terms to exchange equity instruments for employee services, both parties to the agreement presumably base their decisions on the current fair value of the instrument to be exchanged — not its possible value at a future date. This conclusion also was an important factor in leading the FASB to conclude that the grant date is the appropriate measurement date for a grant of an equity instrument to an employee.

**S3.3.1 Definition of “grant date”**

**Excerpt from Accounting Standards Codification**

**Compensation-Stock Compensation — Overall**

**Glossary**

**718-10-20**

The date at which an employer and an employee reach a mutual understanding of the key terms and conditions of a share-based payment award. The employer becomes contingently obligated on the grant date to issue equity instruments or transfer assets to an employee who renders the requisite service. Awards made under an arrangement that is subject to shareholder approval are not deemed to be granted until that approval is obtained unless approval is essentially a formality (or perfunctory), for example, if management and the members of the board of directors control enough votes to approve the arrangement. Similarly, individual awards that are subject to approval by the board of directors, management, or both are not deemed to be granted until all such approvals are obtained. The grant date for an award of equity instruments is the date that an employee begins to benefit from, or be adversely affected by, subsequent changes in the price of the employer’s equity shares. Paragraph 718-10-25-5 provides guidance on determining the grant date.

We address each of the key requirements of this definition in the Sections that follow.
S3.3.1.1 Mutual understanding of key terms and conditions

The definition of grant date requires that an employer and an employee have a mutual understanding of the key terms and conditions of the share-based payment. A mutual understanding of the key terms and conditions means that both the employer and the employee have enough information to understand the nature of the relationship established by the award, including the compensatory relationship and the equity relationship subsequent to the date of the grant (the equity relationship is discussed further in Section S3.3.1.2 below).

S3.3.1.1.1 Practical accommodation regarding the concept of mutual understanding

Prior to applying ASC 718, many companies historically measured compensation cost resulting from share-based payments on the date the board of directors or other authorized parties approved the grant, regardless of whether the terms of the award were communicated to the individual grantees on that date. For purposes of applying ASC 718, the question arose as to whether the employer and employee can have a mutual understanding of the key terms and conditions of an award (and therefore a measurement date) prior to the key terms and conditions of an award being communicated to the employee.

Based on discussions with the FASB staff, we and others initially had concluded that the significant terms of an award (including the number of awards to be granted to the individual employee) had to be communicated to the grantee to achieve a grant date and, therefore, a measurement date under ASC 718. Absent a change to ASC 718, the common practice of measuring compensation cost from share-based payments on the date of approval would not have been appropriate under ASC 718 unless the terms of the award also were communicated to the employee prior to or on that date.

Based on input from various constituents, the FASB concluded that the requirement to communicate the terms of the award to the employee before achieving a measurement date for an equity award to an employee raised numerous practical issues, particularly for companies that have managers personally or orally communicate to the employees the terms of their awards (e.g., in connection with annual performance reviews). Accordingly, ASC 718-10-25-5 provides an exception to the application of the concept of “mutual understanding” in the determination of whether a grant date (and, for an equity award, a measurement date) has occurred. The exception permits companies to measure compensation cost for equity awards to employees on the board approval date (or, if awards are approved by a committee of the board or some other group rather than the full board, when approved by that committee or group) provided that the other requirements of the definition of the grant date are met and:

a. The award is a unilateral grant and, therefore, the recipient does not have the ability to negotiate the key terms and conditions of the award with the employer, and

b. The key terms and conditions of the award are expected to be communicated to an individual recipient within a relatively short time period from the date of approval.
The FASB made clear that this exception should not be applied by analogy to transactions other than share-based payments.

Note that for a grant date to occur on the approval date, the terms of specific awards to individual employees must be approved. For example, approving an aggregate number of awards that subsequently will be allocated to individual employees in the future is not sufficient to establish a grant date. In this circumstance, the grant date would occur when those with the appropriate authority approve a final allocation of awards to individual employees and the significant terms of those awards have been established.

Regarding criteria (a), above, the number and other terms of a share-based payment to an employee normally are established by appropriate levels of management and approved by the board of directors, its compensation committee, or another authorized committee. These terms normally are not negotiated with individual employees. However, in certain circumstances, employees may be in a position to negotiate the terms of the award. For example, senior executives may be in a position to negotiate with the board or compensation committee the terms of their awards. Similarly, new hires may be in a position to negotiate the terms of their initial awards. In such circumstances, we do not believe a grant date can occur for an equity award prior to the date when the terms of the award are agreed to by both parties. Accordingly, management, with the assistance of human resources personnel, must evaluate the company’s procedures for granting share-based payments to determine which employees, if any, are entitled to negotiate the terms of their awards. We expect that in many cases this will not present a significant issue as senior executives likely would negotiate the terms of their award before approval is sought and would be informed of the terms of their awards at the time of the board or compensation committee meeting, or very shortly after the meeting. Similarly, new hires that can negotiate the terms of their initial awards likely would have negotiated the terms prior to the necessary approvals being obtained. In those circumstances, when approval is communicated to the grantee and the grantee meets the definition of an employee in ASC 718-10-20, a grant date occurs.

Regarding criteria (b), above, questions may arise as to what constitutes a “relatively short time period.” ASC 718 provides the following guidance in that regard:

Excerpt from Accounting Standards Codification

<table>
<thead>
<tr>
<th>Compensation-Stock Compensation – Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognition</td>
</tr>
<tr>
<td>718-10-25-5</td>
</tr>
</tbody>
</table>

A relatively short time period is that period in which an entity could reasonably complete all actions necessary to communicate the awards to the recipients in accordance with the entity’s customary human resource practices.
Accordingly, the duration of a “relatively short time period” is dependent on the manner in which a company communicates the terms of awards to employees. For a company that communicates the terms of awards through the grantee’s supervisor in connection with an annual performance evaluation, a reasonable period of time may be several weeks. On the other hand, for a company that communicates the terms of an award via an employee benefits website, the period likely would be limited to the time that the company could reasonably populate the website with specific information and announce the availability of the information (which may take just a few days). We believe that determination of whether the time period is relatively short is a matter of judgment that should consider all of the relevant facts and circumstances (e.g., communication methods, locations of employees, number of employees receiving awards). However, in cases where companies have established reasonable communication mechanisms and continue to make adequate progress in completing those communications, we generally believe the time period would be considered reasonable. On the other hand, if, for example, during the two weeks after the terms of the awards have been approved no action is taken to begin the communication process, we believe it is unlikely that the communication period would be viewed as “relatively short.”

While not explicitly addressed in ASC 718, if an employer meets the above requirements for concluding that a grant date has occurred on the approval date, any change to the terms of the award between the approval date and the communication date would be accounted for under the modification model in ASC 718 (because a measurement date had occurred on the approval date). See Section S8.1 for a detailed discussion of the accounting for modifications of share-based payments.

**S3.3.1.1.2 Substantive terms of the plan**

ASC 718-10-55-81 provides that the key terms of the share-based payment arrangement “may be established through a formal, written agreement; an informal, oral arrangement; or established by an entity’s past practice.” Generally, formal written agreements provide the best evidence of the key terms of an award. However, oral agreements or past practices also may suggest that the terms of an award differ from the formal arrangement. For example, a company may grant employee stock options that provide only for physical settlement (i.e., the employee pays the full exercise price and receives the specified number of shares). However, if the company has reached an oral agreement to cash settle an option award, or has a practice of cash settling an option award whenever an employee requests cash settlement, the oral agreement or past practice may suggest that the award is a liability award rather than an equity instrument (Section S5.2.5 discusses this example in further detail). However, if an option agreement does not specify the exercise price, the number of shares, or the vesting conditions, we do not believe that informal agreements or past practices normally could provide an appropriate basis for concluding that those key terms are understood. Under those circumstances, neither the grant date, nor the measurement date, has occurred.

Additional guidance on the requirement to have a mutual understanding of the terms and conditions of an award that includes performance conditions is provided in Section S3.4.3.4.
S3.3.1.2 Employee begins to benefit from or be adversely affected by a change in the stock price

The FASB recognized that entities will have to apply the concept of “a mutual understanding of key terms and conditions” to a wide variety of share-based payments, and that for some awards it may be difficult to determine when the employee and employer have reached a mutual understanding of the key terms and conditions. In order to clarify the application of this concept, the definition of grant date includes a requirement that the grant date does not occur before the employee begins to benefit from or be adversely affected by changes in the price of the equity underlying the share-based award.

In order to meet this criteria, the employee must either benefit from or be adversely affected by subsequent changes in the price of the employer’s stock. The following example from the implementation guidance in ASC 718 illustrates how this concept is applied to help determine if the parties have a mutual understanding of the key terms and conditions:

Excerpt from Accounting Standards Codification

**Compensation—Stock Compensation – Overall**

**Implementation Guidance and Illustrations**

**718-10-55-83**

The determination of the grant date shall be based on the relevant facts and circumstances. For instance, a look-back share option may be granted with an exercise price equal to the lower of the current share price or the share price one year hence. The ultimate exercise price is not known at the date of grant, but it cannot be greater than the current share price. In this case, the relationship between the exercise price and the current share price provides a sufficient basis to understand both the compensatory and equity relationship established by the award; the recipient begins to benefit from subsequent changes in the price of the employer’s equity shares. However, if the award’s terms call for the exercise price to be set equal to the share price one year hence, the recipient does not begin to benefit from, or be adversely affected by, changes in the price of the employer’s equity shares until then. Therefore, a grant date would not occur until one year hence. Awards of share options whose exercise price is determined solely by reference to a future share price generally would not provide a sufficient basis to understand the nature of the compensatory and equity relationships established by the award until the exercise price is known.

Although the employee receiving the look-back option would not be adversely affected by a decrease in the share price, the employee would benefit from an increase in the share price because the exercise price will be set at the lower of the current share price or the share price one year from that date. This provides sufficient basis for the employee and the employer to understand both the compensatory and equity relationship established by this award.
The second example in ASC 718-10-55-83 illustrates when an equity relationship has not been established and, therefore, there is not a grant date or a measurement date. In the example provided, the exercise price will be set equal to the share price in one year. The FASB indicated that the employee neither benefits from increases nor is adversely affected by decreases in the share price during the initial one-year period. While this is true from an intrinsic-value perspective (because the intrinsic value will be zero on the grant date), it is not true from a fair-value perspective. All other things being equal, the fair value of an at-the-money option on a $50 share of stock is worth more than an at-the-money option on a $10 share of stock. Because of the FASB’s conclusion in this regard, we believe in determining whether an equity relationship exists (and a grant date has occurred), the assessment of the equity relationship must be made on an intrinsic-value basis.

**S3.3.1.3 All necessary approvals must be obtained**

By definition, the grant date cannot occur before all necessary approvals have been obtained, including shareholder approval for the share-based compensation plan (if required) and board approval for individual awards pursuant to a share-based compensation plan. However, this requirement can be overcome if shareholder, board, or compensation committee approval is deemed to be a formality or perfunctory. For example, if the management team and the board of directors that developed the share-based compensation plan control enough votes to ensure shareholder approval, approval of the plan by shareholders would be deemed perfunctory. In addition, shares held by outsiders (e.g., a single shareholder owning a large block of stock) can be included in the assessment that approval is essentially a formality only if an irrevocable proxy is obtained. However, if approval is essentially a formality, a company also should consider whether any evidence exists contrary to the expectation that management and the members of the board of directors will continue to control the company through the date of the shareholder vote. For example, the ownership percentage of management and the members of the board of directors could be diluted if the company anticipates a secondary offering prior to the shareholder vote or if those individuals plan to sell shares of the employer prior to the shareholder vote.

An assessment that it is probable that the shareholders will approve the plan is not sufficient to make approval essentially a formality. That is, even if prior experience indicates that it is rare that proposed plans or awards are not approved through a shareholder vote, the company cannot conclude that approval is essentially a formality absent control of the outcome. Control should be based on all shares eligible to vote, not solely on those expected to vote. Consequently, in most cases, required shareholder approval must be obtained in order to conclude that a grant date and, therefore, a measurement date, for an award has occurred.
If shareholder or other required approvals have not been obtained, ASC 718-10-55-108 clarifies that “compensation cost would not be recognized before receiving all necessary approvals unless approval is essentially a formality (or perfunctory).”

**S3.3.1.4 Must meet the definition of an employee**

ASC 718-10-55-82 states that in order “to have a grant date for an award to an employee, the recipient of that award must meet the definition of employee.” For example, on signing an employment agreement on 1 January 2009, an individual is granted stock options that are subject to a three-year service condition. However, the individual does not begin to work for the employer until 15 February 2009. The individual does not meet the definition of an employee, and the grant date cannot occur, until 15 February 2009. Compensation cost relating to the stock options granted on 1 January 2009 would be measured on 15 February 2009, and recognized ratably over the period from 15 February 2009, through 31 December 2011, because the service inception date, as discussed in detail in Section S4.3, cannot occur before service is being provided.

In some circumstances, an award may be granted to an individual that vests based on service either as a nonemployee consultant or as an employee. If that were the case in the example in the preceding paragraph, and the employee was providing substantive consulting services during the period from 1 January 2009, to 15 February 2009, we believe it would be appropriate to account for the award as an award to a nonemployee through 15 February 2009, and then to account for the award as an award to an employee after 15 February 2009. The accounting for awards to nonemployees is discussed in detail in Chapter 9. The accounting implications of changes in employee status are discussed further in Section S3.9.

The definition of *employee* for purposes of applying the provisions of ASC 718 is discussed in detail in Section S2.2.

**S3.3.1.5 Service inception date**

ASC 718-10-20 defines the service inception date as “the date at which the requisite service period begins.” ASC 718 requires compensation cost to be recognized over the requisite service period. Therefore, the service inception date (as opposed to the grant date) is the date on which the company begins to recognize compensation cost relating to the share-based payment. The service inception date generally is the same as the grant date; however, under certain circumstances described in Sections S4.3.1 and S4.3.4, the service inception date may precede the grant date or occur after the grant date.
S3.4 Effect of service, performance, and market conditions on measurement

S3.4.1 Overview

Equity instruments transferred to an employee in a share-based payment arrangement may include market, performance, or service conditions. Those conditions could affect the award’s exercise price, contractual term, quantity, or conversion ratio. The impact of these conditions on the accounting for share-based payments is described as follows:

Excerpt from Accounting Standards Codification

Compensation-Stock Compensation – Overall

Initial Measurement

718-10-30-12

Awards of share-based employee compensation ordinarily specify a performance condition or a service condition (or both) that must be satisfied for an employee to earn the right to benefit from the award. No compensation cost is recognized for instruments that employees forfeit because a service condition or a performance condition is not satisfied (that is, instruments for which the requisite service is not rendered).

718-10-30-14

Some awards contain a market condition. The effect of a market condition is reflected in the grant-date fair value of an award. (Valuation techniques have been developed to value path-dependent options as well as other options with complex terms. Awards with market conditions, as defined in this Topic, are path-dependent options.) Compensation cost thus is recognized for an award with a market condition provided that the requisite service is rendered, regardless of when, if ever, the market condition is satisfied.

718-10-30-27

Performance or service conditions that affect vesting are not reflected in estimating the fair value of an award at the grant date because those conditions are restrictions that stem from the forfeitability of instruments to which employees have not yet earned the right. However, the effect of a market condition is reflected in estimating the fair value of an award at the grant date (paragraph 718-10-30-14). For purposes of this Topic, a market condition is not considered to be a vesting condition, and an award is not deemed to be forfeited solely because a market condition is not satisfied.

Subsequent Measurement

718-10-35-4

An entity shall reverse previously recognized compensation cost for an award with a market condition only if the requisite service is not rendered.
Market, performance, and service conditions included in the terms of an equity-based award must be analyzed to: (a) determine if the conditions should be considered when measuring fair value, (b) determine whether compensation cost should be reversed if the condition is not met (or should not be recognized if the condition is not expected to be met), and (c) identify the requisite service period over which compensation cost is to be recognized. The following sections describe service, performance, and market conditions and address when those conditions, or a combination of those conditions, affect the estimate of fair value and the recognition of compensation cost. The effect of service, performance, and market conditions on the requisite service period is described in Chapter 4.

S3.4.2 Service conditions

A service condition is a condition that requires the individual to remain employed by the company for a stated period of time in order to earn the right to the related equity instrument (i.e., to vest). ASC 718 defines a service condition as follows:

Excerpt from Accounting Standards Codification

| Compensation-Stock Compensation – Overall |
| Glossary |
| 718-10-20 |

A condition affecting the vesting, exercisability, exercise price, or other pertinent factors used in determining the fair value of an award that depends solely on an employee rendering service to the employer for the requisite service period. A condition that results in the acceleration of vesting in the event of an employee’s death, disability, or termination without cause is a service condition.

As previously discussed, service conditions (as well as performance conditions) that affect whether or not an award vests or becomes exercisable are not directly incorporated into the estimate of fair value at the grant date (although the length of the vesting period can indirectly affect that fair value of an option because the expected term of the option cannot be less than the vesting period). However, substantive service conditions usually impact whether measured compensation cost is recognized. If the requisite service period of an award is based on a service condition, compensation cost will be recognized only to the extent that the service condition is satisfied. Compensation cost will not be recognized, and any previously recognized compensation cost will be reversed, if the service condition is not satisfied.

For example, a company grants 100 shares with a fair value of $1,000 to an employee subject to a requirement that the individual remains employed for one year to earn the award (i.e., vesting is subject to an explicit service condition). The likelihood of the award vesting does not impact the estimated fair value of the award, but does impact whether that fair value ultimately is recognized in the financial statements as compensation cost. If the award vests, the employer recognizes $1,000 in compensation cost. If the award does not vest, no compensation cost is recognized. The measure of total compensation cost to be recognized...
over the requisite service period can be expressed as the price (i.e., fair value) of the individual instruments times the quantity of the instruments that vest. For equity awards, service conditions do not impact the price, but do impact the quantity. The quantity is adjusted as the estimate of the number of awards that will vest changes (see Section S4.4.1.3). The price is not adjusted for equity awards after the initial grant date measurement (unless the terms and conditions of the award are modified or the award is settled or the fair value of the award can be reasonably estimated).

Chapter 4 describes the determination of the requisite service period and the recognition of compensation cost for awards that include explicit service conditions.

**S3.4.3 Performance conditions**

**S3.4.3.1 Definition**

A *performance condition* is a condition that is based on the operations or activities of the employer. The condition may relate to the performance of the entire company, a division, or an individual employee. ASC 718 defines a *performance condition* as follows:

**Excerpt from Accounting Standards Codification**

*Compensation-Stock Compensation – Overall*

**Glossary**

718-10-20

A condition affecting the vesting, exercisability, exercise price, or other pertinent factors used in determining the fair value of an award that relates to both of the following:

a. An employee’s rendering service for a specified (either explicitly or implicitly) period of time

b. Achieving a specified performance target that is defined solely by reference to the employer’s own operations (or activities).

Attaining a specified growth rate in return on assets, obtaining regulatory approval to market a specified product, selling shares in an initial public offering or other financing event, and a change in control are examples of performance conditions. A performance target also may be defined by reference to the same performance measure of another entity or group of entities. For example, attaining a growth rate in earnings per share (EPS) that exceeds the average growth rate in EPS of other entities in the same industry is a performance condition. A performance target might pertain either to the performance of the entity as a whole or to some part of the entity, such as a division or an individual employee.

It is important to carefully assess conditions (other than service conditions) inherent in an award to determine if they meet the definition of performance conditions. If they do not, they likely will represent either market conditions (see Section S3.4.4) or other conditions (see Section S3.4.5), which are subject to very different accounting from performance conditions. The key provisions of the above definition are discussed below.
S3.4.3.1.1 **Requires the employee to render service**

A condition meets the definition of a performance condition only if the employee must provide service to the employer for a specified period of time. Typically, a performance award will specify such a service period either explicitly (by specifying a period of time that the employee must work to vest) or implicitly (by providing for forfeiture of the award on termination prior to the achievement of the performance condition). Although not common in practice, an award could specify that no continuing service is required such that if the employee terminates prior to the achievement of the performance condition, they still vest in a performance award. In this unusual case, the condition may not meet the definition of a performance condition because no future service is required. For example:

**Example 1: Recipients are not currently retirement eligible.**

A company grants a share-based payment award that will vest on the satisfaction of a performance condition (cumulative net income over five years). The company determines that it is probable that the performance condition will be achieved. The recipient of the award will be eligible to retire in two years. The terms of the award state that when an employee retires, any nonvested awards will continue to vest based on the original terms of the award. That is, if the performance condition is achieved after the employee retires, the award will vest. If the performance condition is never satisfied, the award will not vest.

**Example 2: Recipients are currently retirement eligible.**

Assume all the same facts as above, however, on the date of grant the employee is currently eligible to retire.

The Statement 123(R) Resource Group (the Resource Group) concluded that a condition meets the definition of a performance condition only if the employee must provide service to the employer during the performance period. Accordingly, they questioned whether the condition in the above examples should be considered a performance condition. The Resource Group considered several alternatives:

a. The vesting condition is similar to a restriction on resale or a market condition (that does not require employee service through the period the market condition is met), as discussed in Sections S6.3.2 and S4.4.3, respectively, that would be incorporated into the valuation of the award, but not into the determination of whether compensation cost would be recognized or the estimate of the requisite service period. In this circumstance, the likelihood of the vesting condition being achieved would be incorporated into the estimate of fair value on the grant date and that fair value would not subsequently be adjusted. Similar to a market condition that is not met, the compensation cost measured at the grant date would be recognized even if the “performance” target ultimately is not met.
b. The vesting condition is a condition other than a service, performance or market condition (see Section S5.2.4) that requires that the award be classified as a liability and remeasured at fair value. The other condition would not impact the estimated requisite service period, but would impact whether compensation cost is recognized by virtue of the remeasurement at fair value until settlement.

c. The vesting condition would be considered a performance condition, but the performance period does not affect the requisite service period. Compensation cost would not be recognized if the performance condition is not met. That is, compensation cost is recognized over the required service period if it is probable that performance condition will be met. If that assessment of the probability of the performance condition being met changes, the company would recognize the impact of the change in estimate in the period of the change. If the requisite service has been provided prior to the change in estimate, the effect of the change in estimate would be recognized immediately.

The Resource Group was unable to reach a consensus. Unless further guidance is received from the FASB staff or the FASB, we believe that any of the above approaches would be acceptable. If awards subject to “performance” conditions that do not require employee service are significant, the employer should disclose its accounting policy for those awards and apply that policy consistently.

S3.4.3.1.2 Based on the operations or activities of the employer or activities of the employee

To qualify as a performance condition, the condition must be based on one of the following:

- **Operations or activities of the employer** – Operations of the employer could include financial metrics (e.g., revenues, earnings, earnings per share, operating cash flows, earnings before interest, taxes, depreciation, and amortization), operating metrics (e.g., number of stores opened, number of items produced, number of defects in output, regulatory approval of a product), or specific actions of the company (e.g., an initial public offering, change in control). The metrics or targets may be based on the consolidated entity or any component of that entity (e.g., subsidiary, segment, product line).

- **Activities of the employee** – Performance conditions based on the activities of the employee could include conditions based on sales by the employee, complaints lodged against the employee, volume of goods produced or services provided, performance evaluations, etc. We believe that for a grant date (and measurement date) to have occurred for an award with a performance condition based on the employee’s individual performance evaluation, the performance evaluation process must be well controlled, reasonably objective, and serve as a basis for promotion and other compensation decisions. If that is not the case, we believe that the performance evaluation condition may be overly subjective and not provide for a mutual understanding of the terms and conditions of the award and, therefore, a grant date (and measurement date) would not
occur until the performance evaluation is completed. However, as discussed in Section S4.3.1, the service inception date may precede the grant date in certain circumstances. In that case, “variable” accounting (i.e., remeasurement of the fair value of the award each reporting period) would be applied until the grant date occurs. If the service inception date does not precede the grant date, no compensation cost would be recognized until the grant date.

- Conditions that do not meet one of the above requirements (e.g., an award with a payout indexed to the rate of inflation) or the definition of a market condition would in most cases be considered an “other” condition that causes liability classification (see Section S5.2.4).

**S3.4.3.1.3 May be defined by reference to other groups or entities**

The requirement that a performance target be based on the operations or activities of the employer or employee does not preclude defining the target by reference to other entities or groups. For example, we believe the following conditions would be viewed as performance conditions:

- A target based on exceeding the earnings per share of a peer group of companies by a specified percentage
- A target based on defect rates below an industry average
- A target based on an individual employee’s production exceeding the mean production of a specified group of employees

However, as discussed in the definition of a performance condition, the designated metric of the reference company or group must be the same metric specified for the employer or employee. For example, we do not believe that a condition requiring the employer’s net income to exceed 10% of the revenues of a competitor would meet the requirements to be considered a performance condition and, therefore, would fall within the accounting specified for “other conditions” in Section S3.4.5 below.

A performance condition may affect (a) the vesting (or exercisability) of an award or (b) other terms of an award. The accounting differs for each of these two types of performance conditions, as discussed further below.

**S3.4.3.2 Performance conditions that affect vesting (or exercisability) of an award**

To the extent performance conditions affect the vesting or exercisability of an award (i.e., determines whether the award may be exercised), the conditions should not be considered in the determination of the fair value of the award. However, if the performance condition must be met for the award to vest, compensation cost will be recognized only if the performance condition is satisfied. Compensation cost will not be recognized, and any previously recognized compensation cost would be reversed, if the performance condition is not
satisfied. The estimated quantity of awards for which it is probable that the performance conditions will be achieved must be reevaluated each reporting period and adjusted as discussed in Section S4.4.2.3.

**Example – Performance conditions that affect the number of instruments that will vest**

The following example from the implementation guidance in ASC 718 illustrates the accounting for an award that contains a performance condition that affects the number of options that will vest:

**Excerpt from Accounting Standards Codification**

*Compensation-Stock Compensation – Overall*

*Implementation Guidance and Illustrations*

*718-20-55-36*

This Example shows the computation of compensation cost if Entity T grants an award of share options with multiple performance conditions. Under the award, employees vest in differing numbers of options depending on the amount by which the market share of one of Entity T’s products increases over a three-year period (the share options cannot vest before the end of the three-year period). The three-year explicit service period represents the requisite service period. On January 1, 20X5, Entity T grants to each of 1,000 employees an award of up to 300 10-year-term share options on its common stock. If market share increases by at least 5 percentage points by December 31, 20X7, each employee vests in at least 100 share options at that date. If market share increases by at least 10 percentage points, another 100 share options vest, for a total of 200. If market share increases by more than 20 percentage points, each employee vests in all 300 share options. Entity T’s share price on January 1, 20X5, is $30 and other assumptions are the same as in Example 1 [See Section S4.4.1.6]. The grant-date fair value per share option is $14.69. While the vesting conditions in this Example and in Example 1 (see paragraph 718-20-55-4) are different, the equity instruments being valued have the same estimate of grant-date fair value. That is a consequence of the modified grant-date method, which accounts for the effects of vesting requirements or other restrictions that apply during the vesting period by recognizing compensation cost only for the instruments that actually vest. (This discussion does not refer to awards with market conditions that affect exercisability or the ability to retain the award as described in paragraphs 718-10-55-60 through 55-63.)
The compensation cost of the award depends on the estimated number of options that will vest. Entity T must determine whether it is probable that any performance condition will be achieved, that is, whether the growth in market share over the 3-year period will be at least 5 percent. Accruals of compensation cost are initially based on the probable outcome of the performance conditions — in this case, different levels of market share growth over the three-year vesting period — and adjusted for subsequent changes in the estimated or actual outcome.

If Entity T determines that no performance condition is probable of achievement (that is, market share growth is expected to be less than 5 percentage points), then no compensation cost is recognized; however, Entity T is required to reassess at each reporting date whether achievement of any performance condition is probable and would begin recognizing compensation cost if and when achievement of the performance condition becomes probable.

Chapter 4 describes the determination of the requisite service period and discusses the recognition of compensation cost for awards with performance conditions in greater detail.

**S3.4.3.3 Performance (or service) conditions that affect factors other than vesting or exercisability**

ASC 718 provides the following guidance for accounting for awards with performance conditions that affect factors other than vesting or exercisability:

**Excerpt from Accounting Standards Codification**

*Compensation-Stock Compensation – Overall*

**Initial Measurement**

718-10-30-15

Market, performance, and service conditions (or any combination thereof) may affect an award’s exercise price, contractual term, quantity, conversion ratio, or other factors that are considered in measuring an award’s grant-date fair value. A grant-date fair value shall be estimated for each possible outcome of such a performance or service condition, and the final measure of compensation cost shall be based on the amount estimated at the grant date for the condition or outcome that is actually satisfied.

Performance conditions — and, less commonly, service conditions — may affect the exercise price, contractual term, or other factors that may affect the fair value of an award. ASC 718 requires that all performance conditions that affect terms other than vesting or exercisability be accounted for in a similar manner. A grant-date fair value must be estimated for each possible outcome. The compensation cost recognized in the financial statements will be based on the grant-date fair value of the award that ultimately vests (i.e., based on the performance condition that is ultimately satisfied). The probability that the performance condition will be satisfied is not taken into account when estimating fair value, but is taken into account when determining which award is probable of vesting, and, therefore, which award (and related fair value) must be recognized as compensation cost.
Example – Performance conditions that affect the exercise price of an award

The following example from the implementation guidance in ASC 718 illustrates the accounting for an award that contains a performance condition that affects the exercise price of the award:

Excerpt from Accounting Standards Codification

*Compensation-Stock Compensation – Overall*

Implementation Guidance and Illustrations

**718-20-55-42**

This Example shows the computation of compensation cost if Entity T grants a share option award with a performance condition under which the exercise price, rather than the number of shares, varies depending on the level of performance achieved. On January 1, 20X5, Entity T grants to its CEO 10-year share options on 10,000 shares of its common stock, which are immediately vested and exercisable (an explicit service period of zero). The share price at the grant date is $30, and the initial exercise price also is $30. However, that price decreases to $15 if the market share for Entity T’s products increases by at least 10 percentage points by December 31, 20X6, and provided that the CEO continues to be employed by Entity T and has not previously exercised the options (an explicit service period of 2 years, which also is the requisite service period).

**718-20-55-43**

Entity T estimates at the grant date the expected level of market share growth, the exercise price of the options, and the expected term of the options. Other assumptions, including the risk-free interest rate and the service period over which the cost is attributed, are consistent with those estimates. Entity T estimates at the grant date that its market share growth will be at least 10 percentage points over the 2-year performance period, which means that the expected exercise price of the share options is $15, resulting in a fair value of $19.99 per option. Option value is determined using the same assumptions noted in paragraph 718-20-55-7 except the exercise price is $15 and the award is not exercisable at $15 per option for 2 years.
Total compensation cost to be recognized if the performance condition is satisfied would be $199,900 (10,000 × $19.99). Paragraph 718-10-30-15 requires that the fair value of both awards with service conditions and awards with performance conditions be estimated as of the date of grant. Paragraph 718-10-35-3 also requires recognition of cost for the number of instruments for which the requisite service is provided. For this performance award, Entity T also selects the expected assumptions at the grant date if the performance goal is not met. If market share growth is not at least 10 percentage points over the 2-year period, Entity T estimates a fair value of $13.08 per option. Option value is determined using the same assumptions noted in paragraph 718-20-55-7 except the award is immediately vested.

Total compensation cost to be recognized if the performance goal is not met would be $130,800 (10,000 × $13.08). Because Entity T estimates that the performance condition would be satisfied, it would recognize compensation cost of $130,800 on the date of grant related to the fair value of the fully vested award and recognize compensation cost of $69,100 ($199,900 – $130,800) over the 2-year requisite service period related to the condition. Because of the nature of the performance condition, the award has multiple requisite service periods that affect the manner in which compensation cost is attributed.

During the two-year requisite service period, adjustments to reflect any change in estimate about satisfaction of the performance condition should be made, and, thus, aggregate cost recognized by the end of that period reflects whether the performance goal was met.

Chapter 4 describes in further detail how to recognize the compensation cost associated with share-based payment awards that contain performance conditions which affect factors other than vesting or exercisability.

**S3.4.3.4 Performance conditions to be established at a future date**

In some cases, a company may wish to grant performance awards that will vest or become exercisable based on the achievement of performance targets that will be specified in the future. For example, a company may grant options on 300 shares that vest in three tranches (100 each) based on the achievement of earnings targets for each year. Initially, the award specifies the first year’s earnings target, but not the targets for years two and three. Those targets will be established prior to the beginning of each period in which the performance condition will be measured. In this example, we believe that a grant date has been achieved only for the first vesting tranche (100 options). Because vesting conditions are significant terms of an award, and because the vesting terms for the second and third years are not initially known, we believe that a grant date does not occur (see discussion in Section S3.3.1.1) until the vesting conditions are established and communicated to the employee for the remaining 200 options. Similarly, if the performance condition is described in the award as a requirement to exceed budgeted earnings by a designated amount, and budgets for the
second and third years have not been established when the employee is informed of the award, the grant date cannot occur until the budgets are established. In both of these examples, compensation cost for the second and third tranches is not measured until the vesting conditions are determined (based on establishing an explicit vesting condition or the budget that drives the vesting condition). As a result, compensation cost will be measured based on the fair value of the options on the date that the specific vesting terms are established and mutually understood.

S3.4.4 Market conditions

The exercisability or other terms of share-based payment may be dependent on achieving a specified stock price or a specified return on the stock price (e.g., price appreciation plus dividends). ASC 718 refers to such conditions as market conditions. ASC 718 defines a market condition as follows:

**Excerpt from Accounting Standards Codification**

*Compensation-Stock Compensation – Overall*

**Glossary**

718-10-20

A condition affecting the exercise price, exercisability, or other pertinent factors used in determining the fair value of an award under a share-based payment arrangement that relates to the achievement of:

(a) A specified price of the issuer’s shares or a specified amount of intrinsic value indexed solely to the issuer's shares

(b) A specified price of the issuer’s shares in terms of a similar (or index of similar) equity security (securities). The term similar as used in this definition refers to an equity security of another entity that has the same type of residual rights. For example, common stock of one entity generally would be similar to the common stock of another entity for this purpose.

Examples of market conditions would include those in which exercisability is dependent on or other terms are affected by:

- The employer’s stock price achieving a specified level.
- Achieving a specified return on the employer’s stock, the calculation of which is based on both stock price appreciation and dividends on the stock.
- The employer’s stock price increasing by a greater percentage than the average increase of the stock price of a group of peer companies.
A specified stock return, which is based on both stock-price appreciation and dividends on the stock that exceeds the average return on the S&P 500.

An option with an exercise price that varies with an index of the share prices of a group of entities in the same industry (an example of such an award is provided in Section S7.4.5).

Market conditions must be considered in the estimate of the grant-date fair value of share-based payments (i.e., the price in the previously discussed compensation cost measurement of “price × quantity”). As discussed in more detail in Section S7.2.3, it will be necessary to use a lattice model to estimate the value of many awards with market conditions (although it may be possible to estimate the fair value of the award in the example in the last bullet above using a Black-Scholes-Merton formula, as described in Section S7.4.5). Used appropriately, lattice models generally can be used to estimate the fair value of an award because it can incorporate the possibility that the market condition may not be satisfied.

Compensation cost related to an award with a market condition will be recognized regardless of whether the market condition is satisfied, provided that the requisite service has been provided. That is, the compensation cost will not be reversed solely because the market condition is not satisfied. The recognition of compensation cost for awards with market conditions is described in greater detail in Chapter 4.

### S3.4.5 Other conditions

If a condition that affects the terms of a share-based payment is not a service, performance, or market condition (described above), the award is classified as a liability. For example, if the exercise price were indexed to the price of gold, the instrument would be classified as a liability, even if the grantor were a gold producer. ASC 718 requires that liability awards be remeasured at fair value at each reporting date with changes in fair value recognized in earnings. The accounting for share-based payments classified as liabilities is described in detail in Chapter 5.

### S3.4.6 Multiple conditions

The accounting for share-based payment awards becomes more complex when the terms include a combination of service, performance, or market conditions. The basic principle is that compensation cost is recognized if the requisite service is rendered, and no compensation cost is recognized if the requisite service is not rendered. While that concept appears to be a simple one, complexity arises in determining when the requisite service is rendered. ASC 718 requires that all terms and conditions (including any service, performance, or market conditions) must be considered when determining the requisite service period over which compensation cost is to be recognized. The following is an example provided in ASC 718 of how the existence of multiple conditions can affect the requisite service period:
Excerpt from Accounting Standards Codification

Compensation-Stock Compensation – Overall

Implementation Guidance and Illustrations

718-10-55-102

On January 1, 20X5, Entity T grants an executive 200,000 share options on its stock with an exercise price of $30 per option. The award specifies that vesting (or exercisability) will occur upon the earlier of:

a. The share price reaching and maintaining at least $70 per share for 30 consecutive trading days [and/or]
b. The completion of 8 years of service

718-10-55-103

That award contains an explicit service period of eight years related to the service condition and a derived service period related to the market condition.

When an award has multiple conditions that affect vesting or exercisability, the company must assess all conditions when determining the appropriate requisite service period. Section S4.4.5 describes how to determine the requisite service period for an award that contains multiple service, performance, and market conditions.

S3.5    Reload options and contingent features

S3.5.1    Reload options

Some share-based payment awards contain reload features that provide for a new grant of at-the-money options in an amount equal to the number of shares tendered to satisfy the exercise price of an existing option. ASC 718 provides the following guidance for accounting for awards that contain reload features:

Excerpt from Accounting Standards Codification

Compensation-Stock Compensation – Overall

Initial Measurement

718-10-30-23

The fair value of each award of equity instruments, including an award of options with a reload feature (reload options), shall be measured separately based on its terms and the share price and other pertinent factors at the grant date. The effect of a reload feature in the terms of an award shall not be included in estimating the grant-date fair value of the award. Rather, a subsequent grant of reload options pursuant to that provision shall be accounted for as a separate award when the reload options are granted.
The FASB's Option Valuation Group (OVG)\textsuperscript{6} indicated that the reload feature (i.e., the possibility that additional options may be issued in the future) is a feature of the original option and can be incorporated into the estimate of the grant-date fair value of a stock option using a lattice model. However, because the exercise price of a reload option is not established until the original option is exercised, the FASB concluded that the reload option does not establish an equity relationship and therefore has not been granted (see Section S3.3.1.2) until the original option is exercised and the reload option's terms are known. Accordingly, the fair value of a reload feature is not incorporated into the estimate of the grant-date fair value of an award. Instead, subsequent grants of reload options under the reload feature must be accounted for as new awards and measured at fair value on the grant date of each new award. The impact of reload features on the value of employee stock options is discussed further in Section S7.4.3.

S3.5.2 Contingent features

Some share-based payments contain provisions that require the employee to return equity instruments or any gains from the sale of equity instruments on the occurrence of certain future events. These provisions, commonly characterized as “clawback provisions,” are usually triggered by noncompete, nonsolicitation, or fraudulent behavior provisions. ASC 718 provides the following accounting treatment for this type of contingent feature:

\begin{quote}
Excerpt from Accounting Standards Codification

\textit{Compensation-Stock Compensation – Overall}

\textbf{Initial Measurement}

71810-30-24

A contingent feature of an award that might cause an employee to return to the entity either equity instruments earned or realized gains from the sale of equity instruments earned for consideration that is less than fair value on the date of transfer (including no consideration), such as a clawback feature (see paragraph 718-10-55-8), shall not be reflected in estimating the grant-date fair value of an equity instrument.

\textbf{Implementation Guidance and Illustrations}

718-10-55-47

Instead, the effect of such a contingent feature shall be accounted for if and when the contingent event occurs.
\end{quote}

\textsuperscript{6} The Option Valuation Group is a group of valuation experts and compensation consultants established by the FASB to provide information and advice on measuring the fair value of stock options and similar instruments issued to employees in exchange for employee services.
If a clawback feature is triggered such that the employee (or former employee) must return shares in exchange for consideration in an amount less than their current fair value, or must return the gain realized on exercise of an option or sale of shares, the consideration received by the company should be recognized with a debit in the appropriate balance sheet account (e.g., cash or treasury stock) based on the fair value of the consideration received. ASC 718-10-55-47 provides that a credit, which represents a contingent gain, should be recognized in the income statement in an amount equal to the lesser of (a) the recognized compensation cost related to the share-based payment that contains the contingent feature and (b) the current fair value of the consideration received. Any difference between the fair value of the consideration received and the amount recorded in the income statement must be recorded as additional paid-in capital. ASC 718 provides the following basis for recognizing a contingent gain:

**Excerpt from Accounting Standards Codification**

*Compensation-Stock Compensation – Overall*

**Implementation Guidance and Illustrations**

*718-10-55-47*

The event is recognized in the income statement because the resulting transaction takes place with an employee (or former employee) as a result of the current (or prior) employment relationship rather than as a result of the employee’s role as an equity owner.

While the FASB does not explicitly prescribe the appropriate income statement classification for a gain recognized on the exercise of a clawback, the illustration from ASC 718, reproduced below, recognizes the credit in the income statement as “other income.” We believe that presentation is appropriate because the employee previously provided the requisite service. Otherwise, the clawback would have been accounted for as a forfeiture, and the employer would have continued to recognize compensation cost through the clawback expiration date (see further discussion in Section S4.4.1.2.2). Accordingly, the compensation cost associated with that service should not be reversed.
The following example from ASC 718-20-55-85 illustrates the accounting for a clawback feature when the contingent event occurs:

**Excerpt from Accounting Standards Codification**

*Compensation-Stock Compensation – Overall*

**Implementation Guidance and Illustrations**

**718-20-55-85**

On January 1, 20X5, Entity T grants its chief executive officer an award of 100,000 shares of stock that vest upon the completion of 5 years of service. The market price of Entity T’s stock is $30 per share on that date. The grant-date fair value of the award is $3,000,000 (100,000 × $30). The shares become freely transferable upon vesting; however, the award provisions specify that, in the event of the employee’s termination and subsequent employment by a direct competitor (as defined by the award) within three years after vesting, the shares or their cash equivalent on the date of employment by the direct competitor must be returned to Entity T for no consideration (a clawback feature). The chief executive officer completes five years of service and vests in the award. Approximately two years after vesting in the share award, the chief executive officer terminates employment and is hired as an employee of a direct competitor. Paragraph 718-10-55-8 states that contingent features requiring an employee to transfer equity shares earned or realized gains from the sale of equity instruments earned as a result of share-based payment arrangements to the issuing entity for consideration that is less than fair value on the date of transfer (including no consideration) are not considered in estimating the fair value of an equity instrument on the date it is granted. Those features are accounted for if and when the contingent event occurs by recognizing the consideration received in the corresponding balance sheet account and a credit in the income statement equal to the lesser of the recognized compensation cost of the share-based payment arrangement that contains the contingent feature ($3,000,000) and the fair value of the consideration received. This guidance does not apply to cancellations of awards of equity instruments as discussed in paragraphs 718-20-35-7 through 35-9. The former chief executive officer returns 100,000 shares of Entity T’s common stock with a total market value of $4,500,000 as a result of the award’s provisions. The following journal entry accounts for that event:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treasury stock</td>
<td>$ 4,500,000</td>
</tr>
<tr>
<td>Additional paid-in capital</td>
<td>$ 1,500,000</td>
</tr>
<tr>
<td>Other income</td>
<td>$ 3,000,000</td>
</tr>
</tbody>
</table>

To recognize the receipt of consideration as a result of the clawback feature.
If instead of delivering shares to Entity T, the former chief executive officer had paid cash equal to the total market value of 100,000 shares of Entity T's common stock, the following journal entry would have been recorded:

```
Cash $ 4,500,000
Additional paid-in capital $ 1,500,000
Other income $ 3,000,000
```

To recognize the receipt of consideration as a result of the clawback feature.

In the preceding example, the requisite service period was determined to be a function of the five-year vesting period. The clawback feature in this example is not deemed to establish a service or performance condition (and is not reflected in the determination of grant-date fair value). It should be noted, however, that a contingent feature such as a clawback may, in rare circumstances, represent a substantive employee service condition that would be incorporated into the determination of the requisite service period. If that is the case, the actual clawback generally would be accounted for as a forfeiture, rather than as a contingent gain. The impact of noncompete and other clawback provisions is discussed further in Section S4.4.1.2.2.

### Dividend-protected awards

This Section discusses the accounting for share-based payments to employees that include dividend-protection features, such as dividend payments or adjustments to the exercise price for dividends declared. Dividend-protection features also have implications for the valuation of awards, which are discussed in Section S7.4.8.

#### Dividend equivalents paid on equity instruments prior to vesting

The impact of a dividend feature on the calculation of earnings per share is discussed in Section S3.6.4. The accounting for dividends on share-based payments classified as equity is described in ASC 718 as follows:

**Excerpt from Accounting Standards Codification**

**Compensation-Stock Compensation — Overall**

**Implementation Guidance and Illustrations**

**718-10-55-45**

In certain situations, employees may receive the dividends paid on the underlying equity shares while the option is outstanding. Dividends or dividend equivalents paid to employees on the portion of an award of equity shares or other equity instruments that vests shall be charged to retained earnings. If employees are not required to return the dividends or dividend equivalents received if they forfeit their awards, dividends or dividend equivalents paid on instruments that do not vest shall be recognized as additional compensation cost. The estimate of compensation cost for dividends or dividend equivalents paid on instruments that are not expected to vest shall be consistent with an entity’s estimates of forfeitures.
In some cases an employee will receive dividends on an award from the date the award is granted—even though the award is subject to vesting requirements. Dividends or dividend equivalents on the portion of the equity instruments that vest are recognized as charges to retained earnings. Nonforfeitable dividend equivalents and similar payments on the portion of an equity instrument that does not vest are recognized as additional compensation expense.

The reason for the difference in accounting for dividends on equity instruments that vest versus those that do not is that the present value of future dividends is reflected in the estimate of the grant-date fair value of an award. For example, the fair value of a share of stock conceptually is equal to the present value of payments to be received on that share of stock, including dividend payments and any payments on liquidation. Accordingly, recognizing dividends as compensation cost and recognizing the grant-date fair value of the instrument as compensation cost would effectively double-count the dividends paid during the vesting period as compensation cost. Therefore, if the grant-date fair value of the award is recognized as compensation cost, the dividends are recognized as charges to retained earnings. If the grant-date fair value is not recognized as compensation cost (because the instrument is forfeited or is expected to be forfeited), then dividends on those awards are charged to compensation cost and there is no double-counting of expense. This principle applies to dividends paid on any form of share-based payment classified as an equity instrument, including dividends paid on stock options and “restricted stock units.” Valuation principles for dividend paying awards are discussed in Section S7.4.8.

The accounting model for dividends requires that estimates be made for awards that are expected to vest, possibly requiring adjustments between retained earnings and compensation cost. For example, a reclassification may be necessary from retained earnings to compensation expense for the amount of dividends on awards originally expected to vest that ultimately are forfeited. As described in ASC 718-10-55-45, the estimate of the number of awards that will vest for purposes of accounting for nonforfeitable dividends must be consistent with the estimate of awards that will vest for purposes of recognizing compensation cost (i.e., forfeitures).

Forfeitable dividends must be returned (or are never paid) unless the underlying shares vest. For awards that provide for forfeitable dividends, the dividends are always charged to retained earnings as they will only ultimately be paid on awards that vest.

We believe that the accounting model described above would apply whether the dividends were in the form of cash dividends or share-based awards of equivalent value. For example, assume a company grants 10,000 shares of nonvested stock that will cliff vest at the end of five years, and the awards provide for the payment of dividend equivalents that will be settled with stock awards that will vest on the same date as the original award. If at the end of year 1, a $1 per share dividend is paid to all shareholders (and the stock price is $50 per share on the record date), the employee would receive an additional 200 shares of stock that would vest over the remaining four years. If the dividends are settled in stock with a fair value on
the record date of the dividend equal to the cash that otherwise would have been paid, we believe the dividends would be accounted for in a manner similar to cash dividends (except that instead of a credit to cash, the credit would be to APIC).

**S3.6.2 Dividend equivalents paid on liability instruments**

While not explicitly addressed in ASC 718, we believe that, consistent with the requirements of ASC 480, all dividend equivalents paid on share-based liabilities must be accounted for as compensation cost.

**S3.6.3 Dividend equivalents that reduce the exercise price**

Rather than remitting cash dividends directly to the option holder, the terms of some share-based payment arrangements provide for a reduction in the exercise price equal to the per-share dividends paid on issued shares during the term of the option. Changes in the exercise price resulting from dividends are not recognized in the financial statements. However, such provisions do impact the valuation of an option, as discussed in Section S7.4.8.

**S3.6.4 Implications of dividend equivalents on Earnings per Share (EPS)**

ASC 260 requires companies with multiple classes of common stock or with securities other than common stock that participate in dividends (participating securities) to use the two-class method of computing EPS. The two-class method is an earnings allocation approach that determines EPS for each class of common stock and participating security according to dividends declared (or accumulated) and participation rights in undistributed earnings. In some cases, a dividend protection feature may cause a share-based payment to be subject to the two-class method, with the potential for significant dilution to both basic and diluted EPS. ASC 260-10-65-1 further clarifies that nonvested share-based payment awards containing nonforfeitable rights to dividends or dividend equivalents (whether paid or unpaid) are considered participating securities and are included in the computation of EPS pursuant to the two-class method. The implications of share-based payments on the calculation of EPS are discussed in Chapter 11. Section S11.8 specifically discusses the application of the two-class method to share-based payments.

**S3.7 Nonrecourse notes**

Sometimes an employer may provide financing to employees for the purchase of stock or the exercise of stock options. These loans may be structured in a number of different ways, but the accounting for these loans (and the shares sold) differs significantly depending on whether the loans are considered recourse or nonrecourse.

Loans made to employees to exercise options or purchase shares often are nonrecourse, which means that the loan is collateralized only by the stock purchased and the employer’s only recourse is to the stock itself. If the loan is nonrecourse, the employee could choose not to pay the loan and merely return the stock in full satisfaction of the loan. The purchase of stock in exchange for a nonrecourse loan effectively is the same as granting a stock option.
because, if the value of the underlying shares falls below the loan amount, the employee will relinquish the stock in lieu of repaying the loan. In that event, the employee is in the same position as if he or she never exercised the original stock option or purchased the stock. This point was specifically made in ASC 718:

Excerpt from Accounting Standards Codification

*Compensation-Stock Compensation – Overall*

**718-10-25-3**

The accounting for all share-based payment transactions shall reflect the rights conveyed to the holder of the instruments and the obligations imposed on the issuer of the instruments, regardless of how those transactions are structured. For example, the rights and obligations embodied in a transfer of equity shares to an employee for a note that provides no recourse to other assets of the employee (that is, other than the shares) are substantially the same as those embodied in a grant of equity share options. Thus, that transaction shall be accounted for as a substantive grant of equity share options.

**718-10-25-4**

Assessment of both the rights and obligations in a share-based payment award and any related arrangement and how those rights and obligations affect the fair value of an award requires the exercise of judgment in considering the relevant facts and circumstances.

*Initial Measurement*

**718-10-30-5**

The terms of a share-based payment award and any related arrangement affect its value and, except for certain explicitly excluded features, such as a reload feature, shall be reflected in determining the fair value of the equity or liability instruments granted. For example, the fair value of a substantive option structured as the exchange of equity shares for a nonrecourse note will differ depending on whether the employee is required to pay nonrefundable interest on the note.

The accounting for and valuation of shares sold in exchange for a nonrecourse note can be complicated because the amount of nonrecourse principal and interest is considered part of the exercise price of an option. For example, if shares are sold subject to a nonrecourse note that charges nonrecourse interest at 6% of the loan balance, then that option has an exercise price that increases over time at a rate of 6%. The employer should not recognize interest income on the note as that “interest” is included in the exercise price of the option. However, the valuation of the option should incorporate this increasing exercise price (see the discussion of indexed stock options in Section S7.4.5). Further, because the shares sold subject to the nonrecourse note are considered an option for accounting purposes, the employer would not record a note or shares outstanding on the balance sheet (except perhaps for a reclassification of the par amount of the shares from additional paid-in capital.
to common stock, and an indication in the disclosure of shares authorized, issued and outstanding that such shares are legally issued), but instead would measure compensation cost for the stock option based on its fair value on the grant date and recognize that compensation cost over the requisite service period with an offsetting credit to additional paid-in capital.

**S3.7.1 Recourse notes may be substantively nonrecourse**

If an employee purchases stock in exchange for a recourse loan, that transaction may not be subject to the guidance referenced above in Section S3.7 (i.e., because an exercise of a stock option or purchase of shares with a recourse note is considered to be a substantive exercise or purchase). However, while the form of a loan may be that of a recourse note (i.e., it does not limit the lender's recourse to the underlying stock), in some cases, the substance of the loan may be that of a nonrecourse note. This happens frequently with loans to employees because the employer may not intend to collect on the “recourse” loan in full if the stock is worth less than the loan balance.

To characterize a loan as recourse, the company must be able, and clearly intend, to foreclose on the employee's other assets in the event of default by the employee. This is especially true when the market price of the stock has declined below the face amount of the loan. However, any significant practice of a company not collecting recourse loans renders the recourse provisions of the loan nonsubstantive, and any recourse loans may be more appropriately characterized as nonrecourse.

While ASC 718 supersedes Issue 00-23, we believe that the concepts described in Issue 34 of Issue 00-23 remain relevant and should be considered in accounting for employee loans. The EITF confirmed in Issue 34 that the legal form of a recourse note should be respected (i.e., the stock option is considered to be exercised in exchange for a recourse note) unless any one of the following conditions is met:

- The employer has legal recourse to the employee's other assets but does not intend to seek repayment beyond the shares issued.
- The employer has a history of not demanding repayment of the loan amounts in excess of the fair value of the shares.
- The employee does not have sufficient assets or other means (e.g., future cash flows) beyond the value of the shares to justify the recourse nature of the loan.
- The employer has accepted a recourse note on exercise and subsequently converted the recourse note to a nonrecourse note.

If any of the above conditions is met, the recourse character of the note is not considered substantive (i.e., the employer's only recourse is against the stock). In this case, the arrangement should be accounted for in accordance with its substance (i.e., as a stock
option) because the note should be viewed as nonrecourse. However, in addition to the above criteria, all relevant facts and circumstances should be evaluated in determining whether the note should be considered nonrecourse.

S3.8 Early exercise of employee stock options and similar share purchases

Stock option plans may provide employees with the ability to “early exercise” stock options. Early exercise allows employees to exercise a stock option (i.e., remit cash consideration or a recourse note to the company for the exercise price) in exchange for stock before the requisite service is provided (e.g., before the award is vested). Usually, early exercise is used to achieve a more favorable tax position (i.e., for US federal income tax purposes, exercising nonvested stock options for cash generally results in deemed ownership of all shares received when the exercise occurs). Under US tax law, the holding period begins on the exercise date. In the US, once the shares are held for the required period, any realized appreciation on shares sold is taxed at the capital gains rate rather than the ordinary income rate, which may be beneficial to the employee.

Although on early exercise the employee is deemed to own the resulting shares for tax purposes, the employee has exercised the stock option award before he or she actually vests in the award under its original terms. Consequently, the restricted stock received by the employee contains a repurchase provision (i.e., an employer call option) contingent on the employee’s termination. The call option enables the company to recover the shares without transferring any appreciation to the employee if the employee terminates employment before the end of the original vesting period. These arrangements may be structured such that the repurchase price is the original exercise price, or the lesser of the original exercise price or fair value of the stock on the call date (i.e., if the stock declines in value and the employee terminates before the vesting period expires, the employer is able to repurchase the stock at its fair value at the termination date). The latter structure establishes a stronger tax argument that the employee is the owner of the underlying shares from the date the stock option award is exercised because the employee shares in the risks of stock ownership.

Similar economics result from the outright sale of shares subject to repurchase rights similar to those discussed above. Essentially, such a sale is equivalent to the grant and immediate early exercise of a stock option.

The accounting for early exercises and other sales of stock subject to repurchase features is addressed in ASC 718-10-55-31, which states that “Under some share option arrangements, an option holder may exercise an option prior to vesting (usually to obtain a specific tax treatment); however, such arrangements generally require that any shares received on exercise be returned to the entity (with or without a return of the exercise price to the holder) if the vesting conditions are not satisfied. Such an exercise is not substantive for accounting purposes.”
As discussed in Issue 33 of Issue 00-23 (although superseded by ASC 718, Issue 33 provides useful analogous guidance that generally is consistent with ASC 718-10-55-31), the employer is expected to exercise the repurchase right when the employee terminates regardless of whether the stock price is greater than or less than the exercise price at the date the employee terminates. Consequently, the early exercise is not considered to be a substantive exercise for accounting purposes, and, therefore, the payment received by the employer for the exercise price should be recognized as a liability. Additionally:

1. The contingent employer call essentially is a forfeiture provision that enables the employer to reacquire shares if the employee terminates employment within the original vesting period (i.e., the employee is not subject to the risk or rewards of stock ownership), if the employee early exercises the stock option and the resulting employer call: (a) expires at the end of the original vesting period for the stock option, (b) becomes exercisable only if a termination event occurs that would have caused the stock option to be forfeited, and (c) has a strike price equal to the original exercise price or the lower of the original exercise price of fair value at the time of the repurchase. For accounting purposes, the employer call should be combined with the stock, resulting in a nonvested stock option.

We believe the estimate of the fair value of the option subject to the repurchase at cost or fair value should incorporate the likelihood of early exercise into the expected term. However, because the employee’s exercise subject to repurchase at cost is not considered an exercise for accounting purposes until the repurchase feature expires, the expected term cannot be less than the repurchase/vesting term. However, if all options were expected to be early exercised (perhaps an unlikely scenario), the expected term of the options would be equal to the repurchase/vesting term.

2. A modification of a stock option to permit early exercise is not an acceleration of vesting because the options are not deemed exercised for accounting purposes.

3. Shares issued on early exercise are not considered outstanding (before the employer call lapses) for purposes of computing basic EPS because the employee is not entitled to the rewards of stock ownership. Those shares are excluded from basic EPS until the employer call lapses and the shares are no longer subject to a repurchase feature. However, if the shares receive nonforfeitable dividends during the vesting period, those shares may be viewed as participating securities subject to the two-class method of allocating earnings for purposes of calculating EPS (see further discussion in Section S11.8). Further, the shares are included in the calculation of diluted EPS using the treasury stock method as described in Section S11.2. Note that if the employee already has paid the exercise price in cash, we believe that the exercise price should not be included in the proceeds when applying the treasury stock method.
If the employee terminates employment and the employer exercises its repurchase right, the stock option has been forfeited and the employer simply has returned the prepaid exercise price. If the employer fails to exercise its call on the employee’s termination during the requisite service period, the failure to exercise the call effectively represents a modification to accelerate vesting. The employer should account for such a modification as a “Type III” modification (i.e., a modification of a vesting condition that was improbable of achievement to a vesting condition that is probable of achievement). As such, compensation cost should be recognized for the modified award based on its fair value on the modification date, even if the fair value on the modification date is less than the grant date fair value. Type III modifications are discussed further in Section S8.2.3.

**S3.9 Changes in employment status**

The concepts discussed in this Section relate to awards granted to an individual who changes status from an employee to a nonemployee service provider, or vice versa. Sometimes an employee terminates from a company but continues to provide services as, for example, a consultant. In other circumstances, an outside consultant who was granted stock options may subsequently be hired by a company as an employee. In both of these examples, a change in employment status has occurred.

A change in employment status also can arise because of a change in status of the company granting the stock option to or from an employer. For example, assume a company reduces its ownership interest in a consolidated subsidiary (e.g., from 80% to 25%) so that the company now accounts for its investment using the equity method. In this situation, a change in status occurs with respect to the employees of the investee because the individuals no longer are considered employees of the company.

As discussed in Chapter 9, ASC 718 does not provide guidance for determining the measurement date for awards granted to nonemployees. ASC 505-50 provides that the measurement date for equity awards granted to nonemployees is the earlier of (a) the performance commitment date or (b) the date the services required under the arrangement have been completed (i.e., the instrument has vested). Accordingly, for nonemployee awards, the measurement date often is not the grant date. For awards granted to individual nonemployees, the measurement date usually is the vesting date (because an individual rarely would accept the potential for a large cash penalty, which normally is required to have a performance commitment). Because the measurement date — and therefore the measurement of compensation cost — will often differ between share-based payments granted to employees and those granted to nonemployees, it is important to determine if the recipient of an award is an employee. Guidance on determining if an individual is an employee is provided in Chapter 2.

---

7 The change in status accounting model does not apply if a modification to an award is made in connection with the termination of the employee when the former employee will not provide future service as a nonemployee. In that situation, the modification is considered compensation for prior service as an employee.
Because of the different measurement date guidance for equity awards to employees and nonemployees, a change in the recipient’s employment status will have an accounting consequence. ASC 718 does not provide guidance on accounting for share-based payments when the recipient’s employment status changes. As a result, we believe it is reasonable to analogize to the guidance previously provided in Interpretation 44 and Issue 00-23 as discussed below.

S3.9.1 Individual changes employment status and continues to vest under the original terms of the award

The provisions of a share-based payment may allow the recipient to continue to vest after a change in status. For example, an individual may be granted options in exchange for consulting services under an arrangement that permits the individual to continue vesting in that award if the individual becomes an employee. Alternatively, the individual might be granted options in exchange for services as an employee under an arrangement that permits the individual to continue vesting in that award if the individual ceases to be an employee but continues to provide specified services as a nonemployee.

If a grantee (who continues to provide services) changes status to or from that of an employee and an outstanding stock option or award is retained by the grantee without a modification to the award’s terms, compensation cost be measured using a measurement date as if the award was granted at the date of the change in status. However, only that portion of the newly measured cost attributable to the remaining requisite service period is recognized as compensation cost prospectively from the date of the change in status. This approach was previously addressed in Interpretation 44 and is illustrated in the following paragraphs.

S3.9.1.1 A nonemployee becomes an employee

The fair value of a share-based payment to a nonemployee that is classified in equity is remeasured at each reporting date until the earlier of (a) the performance commitment date or (b) the date the services required under the arrangement have been completed. However, the fair value of a share-based payment to an employee that is classified in equity generally is fixed on the grant date. When a nonemployee becomes an employee and continues to vest in the award, the fair value of the award should be remeasured on the date the individual becomes an employee. The fair value of the award subsequently will not be remeasured unless the award is modified or settled.

A company grants an independent contractor 10,000 at-the-money options on 31 December 20X1, with an exercise price of $15 per option. The options cliff vest at the end of five years. Assume that a measurement date as defined in ASC 718-10-20 does not occur until performance is complete and, therefore, the options would continue to be revalued until they fully vest on 31 December 20X6. On 1 January 20X5 (the beginning of the fourth year), the independent contractor becomes an employee and continues to provide services. Under the terms of the original options, the individual retains the options on a change in status, and the options are not otherwise modified.
Assume that on the date of change in status, the fair value of the award is $13 per option. Because the original terms of the grant provided for retention of the award, the fair value would be measured and the company would begin to recognize compensation cost for 40% (2/5) of the fair value over the remaining vesting period of two years. The fair value of the stock options at the date of the change in status would be equal to $130,000 ($13 × 10,000 options). The compensation cost that was recognized during the first three years of the vesting period under the fair value method (cumulatively, $78,000 or 60% of $13 × 10,000) is not adjusted. In addition to previously recognized nonemployee compensation cost, 40% of the option’s fair value, remeasured on the change in status date (i.e., the end of year three), would be recognized as employee compensation cost as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Fair Value Stock Options</th>
<th>Percentage of Consulting Service Rendered</th>
<th>Compensation Cost Previously Recognized</th>
<th>E=(AxBxC)-D</th>
</tr>
</thead>
<tbody>
<tr>
<td>20X5</td>
<td>$130,000</td>
<td>50%</td>
<td>-</td>
<td>$26,000</td>
</tr>
<tr>
<td>20X6</td>
<td>130,000</td>
<td>100%</td>
<td>$26,000</td>
<td>26,000</td>
</tr>
</tbody>
</table>

### S3.9.1.2 An employee becomes a nonemployee

If an employee becomes a nonemployee and continues to vest in an award pursuant to the award’s original terms, that award will be treated as an award to a nonemployee prospectively, provided the individual is required to continue providing services to the employer (such as consulting services). The award will be accounted for prospectively under ASC 505-50-30-11 such that the fair value of the award will be remeasured at each reporting date until the earlier of (a) the performance commitment date or (b) the date the services required under the arrangement have been completed. Generally, the award will be remeasured until the vesting date. However, only the portion of this remeasured compensation cost equal to the proportion of service provided as a nonemployee to the total requisite service period would be recognized prospectively. Compensation cost recognized while the individual was an employee would not be adjusted. Compensation cost ultimately recognized in the financial statements will be the sum of (a) the compensation cost recognized during the period of time that the individual was an employee (based on the grant-date fair value) plus (b) the fair value of the award determined on the measurement date determined in accordance ASC 505-50 for the pro-rata portion of the vesting period in which the individual was a nonemployee. This accounting is illustrated in the following example:

A company grants an employee 10,000 at-the-money options on 31 December 20X1, that cliff vest at the end of five years. Using an appropriate valuation technique, the company estimates the grant-date fair value of the award to be $100,000 ($10 per option). The company recognizes $60,000 of compensation cost over the first three years ($20,000 each year). At the beginning of the fourth year, on 1 January 20X5, the employee terminates from the company but continues to provide services as a consultant and retains
the options pursuant to the option’s original terms (i.e., the options are not modified). For purposes of this example, a measurement date as defined in ASC 505-50 does not occur until vesting is complete at 31 December 20X6. As a result, fair value must be remeasured in 20X5 and 20X6 because the individual is now a nonemployee. Using an appropriate valuation technique, the company estimates that the fair value of the options as of 31 December 20X5, and 31 December 20X6, is $17 and $24, respectively.

Because the terms of the original grant provided that the individual would retain the options on a change in employment status (and the options were not otherwise modified), the fair value of the option would be measured on the date of the status change. The company would begin to recognize compensation cost for 40% (2/5) of the fair value over the remaining vesting period of two years. However, because the individual is now a nonemployee, the option would continue to be revalued at each reporting date in accordance with ASC 505-50-30 until there is a measurement date that meets the criteria of ASC 505-50-30. (Note: For purposes of this illustration, remeasurement is shown only at year-end; however, public entities would be required to remeasure fair value at each quarterly reporting date starting in the first quarter of 20X5). In addition to the $60,000 of compensation cost previously recognized, 40% of the option’s fair value on the measurement date (i.e., the end of year five) would be recognized as compensation cost as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>A: Fair Value Stock Options</th>
<th>B: Remaining Vesting Period After Status Change</th>
<th>C: Percentage of Consulting Service Rendered</th>
<th>D: Compensation Cost Previously Recognized</th>
<th>E=(AxBxC)-D</th>
</tr>
</thead>
<tbody>
<tr>
<td>20X5</td>
<td>$170,000</td>
<td>40%</td>
<td>50%</td>
<td>–</td>
<td>$34,000</td>
</tr>
<tr>
<td>20X6</td>
<td>240,000</td>
<td>40%</td>
<td>100%</td>
<td>$34,000</td>
<td>62,000</td>
</tr>
</tbody>
</table>

Total compensation cost recognized for this award is $156,000 ($60,000 for the period of time the individual was an employee and $96,000 for the period of time during which the individual was a nonemployee).

S3.9.1.3 An individual ceases to provide substantive service and continues to vest in an award

If the individual could change status and would not be required to provide additional substantive services, the EITF previously concluded in Issue 19 of Issue 00-23 that the service condition included in the award would be considered nonsubstantive. In such an instance, the compensation cost would be recognized immediately on issuance as there was never a substantive service condition. This conclusion is consistent with the FASB’s conclusion in the example in ASC 718-10-55-87 and 718-10-55-88 (as discussed in Section S4.4.1.2), in which the service period is not substantive because the employee could retire and retain the award. Accordingly, we believe the concepts within Issue 19 of Issue 00-23 still apply.
S3.9.2  A modification is required for the individual to continue to vest in the award

If the company modifies the award in order for the individual to continue vesting subsequent to a change in status (i.e., the individual would have forfeited the award absent the modification), the modified award will be treated as a new award, and the original award is considered to be forfeited (and any compensation cost is reversed when the award is no longer expected to vest). As the original grant date measurement of compensation cost is no longer relevant, the full fair value of the new award on the modification date (remeasured as appropriate for nonemployee awards) must be recognized over the remaining requisite service period. Such a modification is essentially a Type III modification of a vesting condition, which is discussed further in Section S8.2.3.

S3.10  Balance sheet presentation of equity awards

Consistent with guidance for nonemployee awards provided by the SEC staff in ASC 505-50- S99-1, an equity instrument is not recognized until the compensation cost related to that instrument is recognized. These journal entries are illustrated in Section S4.4.1.6.

Pursuant to Rule 5-02 of Regulation S-X, an SEC registrant must disclose on the face of its balance sheet the number of shares issued or outstanding for each class of stock. When a company issues nonvested shares, a question arises as to whether the nonvested shares should be considered issued or outstanding for disclosure purposes under Rule 5-02. While we believe this is a legal determination, the payment of dividends and the conveyance of voting rights may be indicators of whether the nonvested shares are issued or outstanding. Further, the nonvested shares, while not considered issued or outstanding from an accounting perspective, may be considered issued or outstanding for legal purposes. As discussed in Chapter 11, the nonvested shares are excluded from the computation of basic earnings per share (unless they are considered “participating securities”), but are included in computing diluted earnings per share.
S4 Recognition of compensation cost

S4.1 Overview
Consistent with the manner in which other forms of compensation (e.g., cash, benefits) are recognized, ASC 718 requires that compensation cost relating to share-based payments exchanged for employee services be recognized over the period in which the employee provides the required services. ASC 718 calls that period the *requisite service period*:

Excerpt from Accounting Standards Codification

**Compensation – Stock Compensation – Overall**

**Subsequent Measurement**

718-10-35-2

The compensation cost for an award of share-based employee compensation classified as equity shall be recognized over the requisite service period, with a corresponding credit to equity (generally, paid-in capital). The requisite service period is the period during which an employee is required to provide service in exchange for an award, which often is the vesting period. The requisite service period is estimated based on an analysis of the terms of the share-based payment award.

Determining the appropriate requisite service period is an important concept in accounting for share-based payments. The requisite service period not only determines the period over which to recognize compensation cost, but, as discussed in Section S4.1.2, also determines whether compensation cost is ultimately recognized (i.e., whether an award has been forfeited and, therefore, no compensation cost is recognized for the award).

The requisite service period generally is presumed to be the stated vesting period (an “explicit service condition”) and begins on the “service inception date” (discussed in Section S4.3). However, if performance or market conditions (see Chapter 3 for a definition of these types of conditions) affect the terms of the award, the service period used for recognition purposes must be consistent with the assumptions used in estimating the fair value of the award (i.e., consistent with the estimated time frame that will be required to achieve the performance or market condition). The majority of this chapter discusses how to estimate the requisite service period and recognize compensation cost over that service period.

S4.1.1 Deferred compensation cost is not recognized

When companies recognized compensation cost under Opinion 25 for awards of nonvested stock, they generally recorded the full fair value of the shares in stockholders’ equity and recorded an offsetting deferred compensation balance within equity for the unrecognized compensation cost. ASC 718 prohibits this “gross-up” of stockholders’ equity (see further discussion in Section S3.10). Under ASC 718, an equity instrument is not considered to be
issued until the instrument vests. As a result, compensation cost is recognized over the requisite service period with an offsetting credit to equity (generally additional paid-in capital), and the full fair value of the share-based payment is not recognized until the instrument is vested.

S4.1.2 Compensation cost is recognized only if the requisite service is provided

As previously indicated, compensation cost relating to share-based payments is recognized only for instruments for which the requisite service is provided.

S4.1.2.1 Must estimate the number of instruments for which the requisite service will be provided

When recognizing compensation cost under ASC 718, an entity must estimate the total number of instruments that will be forfeited as a result of a failure to provide the requisite service:

---

Excerpt from Accounting Standards Codification

*Compensation – Stock Compensation – Overall*

Subsequent Measurement

718-10-35-3

The total amount of compensation cost recognized at the end of the requisite service period for an award of share-based compensation shall be based on the number of instruments for which the requisite service has been rendered (that is, for which the requisite service period has been completed). An entity shall base initial accruals of compensation cost on the estimated number of instruments for which the requisite service is expected to be rendered. That estimate shall be revised if subsequent information indicates that the actual number of instruments is likely to differ from previous estimates. The cumulative effect on current and prior periods of a change in the estimated number of instruments for which the requisite service is expected to be or has been rendered shall be recognized in compensation cost in the period of the change. Previously recognized compensation cost shall not be reversed if an employee share option (or share unit) for which the requisite service has been rendered expires unexercised (or unconverted).

---

8 Throughout this chapter, we will use the term “vest” as shorthand to indicate that the requisite service has been provided. This distinction is important because some equity compensation plans use the term “vest” to mean that the employee obtains the right to exercise an option or receive a share. However, as discussed in Chapter 3, a market condition is not considered a vesting condition, although the plan document may characterize it as such. While a market condition may impact the determination of the requisite service period, the failure to achieve a market condition does not result in the reversal of recognized compensation cost. This concept is discussed in greater detail later in this chapter.
For awards that vest based solely on either a service or performance condition, the requisite service is not provided if the employees do not vest in the awards (with regard to performance conditions, while the employee may have remained employed and provided service during the requisite service period, that service was not sufficient to achieve the performance condition and therefore the requisite service was not provided). Compensation cost initially is recognized based on an estimate of instruments expected to vest. Each reporting period the company must reevaluate its estimate of the number of instruments that ultimately will be forfeited if the requisite service has not been or is not expected to be provided. The effect of this change in estimated forfeitures is accounted for as a cumulative effect of a change in an accounting estimate in the period that the estimate is revised. The accounting for this change in estimate is discussed in greater detail in Section S4.4.1.3.

At the end of the requisite service period, the entity must true up the estimate of forfeitures to reflect actual forfeitures. Compensation cost will have been recognized only for awards for which the requisite service was provided. As discussed previously, compensation cost is not reversed if an award is forfeited because a market condition (see Section S3.4.4 for a definition of a market condition) was not satisfied, provided that the requisite service was rendered. Similarly, compensation cost is not reversed for vested awards that are cancelled or expire unexercised, provided the requisite service has been rendered.

Employee termination rates may vary significantly among different groups of employees. For example, turnover rates may be significantly higher for entry-level employees than for managers or executives. Accordingly, companies may need to develop historical forfeiture information for homogeneous employee groups in order to estimate appropriate forfeiture rates. These employee groups should generally be consistent with the employee groupings used when estimating fair value as discussed in Section S7.3.1.

**S4.1.3 Compensation cost is capitalized in certain circumstances**

Compensation cost should be recognized in a manner similar to all other forms of compensation paid to the recipient of the share-based payment (e.g., cash, benefits). Compensation cost generally is recognized as compensation expense; however, if a portion of the employee’s salary is capitalized as part of an asset (e.g., inventory, loan origination costs, deferred acquisition costs in the insurance industry, internally developed software costs, capitalized exploration costs in the oil and gas industry), compensation cost resulting from share-based payments generally should be capitalized in the same manner.
In SAB Topic 14.I, the SEC staff addressed certain questions about the processes and related internal controls that companies may implement to capitalize costs of share-based payments:

**Excerpt from SAB Topic 14.I**

**Facts:** Company K is a manufacturing company that grants share options to its production employees. Company K has determined that the cost of the production employees' service is an inventoriable cost. As such, Company K is required to initially capitalize the cost of the share option grants to these production employees as inventory and later recognize the cost in the income statement when the inventory is consumed. 94

**Question:** If Company K elects to adjust its period end inventory balance for the allocable amount of share-option cost through a period end adjustment to its financial statements, instead of incorporating the share-option cost through its inventory costing system, would this be considered a deficiency in internal controls?

**Interpretive Response:** No. Statement of Financial Accounting Standards No. 123R (ASC 718) does not prescribe the mechanism a company should use to incorporate a portion of share-option costs in an inventory-costing system. The staff believes Company K may accomplish this through a period end adjustment to its financial statements. Company K should establish appropriate controls surrounding the calculation and recording of this period end adjustment, as it would any other period end adjustment. The fact that the entry is recorded as a period end adjustment, by itself, should not impact management's ability to determine that the internal control over financial reporting, as defined by the SEC's rules implementing Section 404 of the Sarbanes-Oxley Act of 2002, 95 is effective.

[Footnotes 94 and 95 omitted.]

**S4.1.4 Recognizing the change in fair value or intrinsic value for certain awards**

This chapter primarily focuses on how to estimate the requisite service period and the recognition of compensation cost for share-based payments measured at fair value on the grant date. Certain share-based payment awards granted to employees must be remeasured (at fair value, calculated value, or intrinsic value) at each reporting date (e.g., instruments classified as liabilities as discussed in Chapter 5 and instruments for which fair value cannot be reasonably estimated as discussed in Section S3.2.3). In general, the compensation cost relating to awards that are remeasured at each reporting date is recognized in a manner similar to awards measured at grant-date fair value. ASC 718-30-35-2 provides the following guidance for accounting for the change in fair value, calculated value, or intrinsic value at each reporting date:
Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Awards Classified as Liabilities

Subsequent Measurement

718-30-35-2

Changes in the fair value (or intrinsic value for a nonpublic entity that elects that method) of a liability incurred under a share-based payment arrangement that occur during the requisite service period shall be recognized as compensation cost over that period. The percentage of the fair value (or intrinsic value) that is accrued as compensation cost at the end of each period shall equal the percentage of the requisite service that has been rendered at that date. Changes in the fair value (or intrinsic value) of a liability that occur after the end of the requisite service period are compensation cost of the period in which the changes occur. Any difference between the amount for which a liability award is settled and its fair value at the settlement date as estimated in accordance with the provisions of this Subtopic is an adjustment of compensation cost in the period of settlement. Example 1 (see paragraph 718-30-55-1) [see Section S5.4.1] provides an illustration of accounting for a liability award from the grant date through its settlement.

As discussed in Chapters 1 and 3, the measurement of the fair value (i.e., the price) of the award incorporates market conditions, while service and performance conditions affect the quantity of awards for which compensation cost will be recognized (and when those conditions affect terms other than quantity of awards, they determine which possible award is recognized). Accordingly, when remeasuring a liability award, the effect of the market condition also is remeasured each reporting period, and the quantity expected to vest is separately estimated, such that new prices and new quantities are estimated each reporting period. The accounting for liabilities is discussed in greater detail in Section S5.4 (which also includes an example-1 that illustrates this remeasurement process).
S4.2 Requisite service period

S4.2.1 Definition of requisite service period and requisite service

As discussed in Section S4.1, ASC 718 requires that compensation cost be recognized over the requisite service period. Requisite service period and requisite service are defined as follows:

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Overall*

**Glossary**

718-10-20

The period or periods during which an employee is required to provide service in exchange for an award under a share-based payment arrangement. The service that an employee is required to render during that period is referred to as the requisite service. The requisite service period for an award that has only a service condition is presumed to be the vesting period, unless there is clear evidence to the contrary. If an award requires future service for vesting, the entity cannot define a prior period as the requisite service period. Requisite service periods may be explicit, implicit, or derived, depending on the terms of the share-based payment award.

The requisite service period is not the same as the expected term used in the valuation of the option. The requisite service period is the period of time that the employee must provide service in order to earn the right to exercise the options or receive the shares. On the other hand, the expected term is the period of time from the grant date to the expected exercise date of an option. By definition, the expected term must be equal to, or longer than, the requisite service period of an option.

An entity must examine all service, performance, and market conditions included in the terms of an award to determine if the award has one or more explicit, implicit, or derived service periods. Although an award may have multiple explicit, implicit, or derived service periods, generally an award can only have one requisite service period over which compensation cost is recognized:
The requisite service period may be explicit or it may be implicit, being inferred from an analysis of other terms in the award, including other explicit service or performance conditions. The requisite service period for an award that contains a market condition can be derived from certain valuation techniques that may be used to estimate grant-date fair value (see paragraph 718-10-55-71). An award may have one or more explicit, implicit, or derived service periods; however, an award may have only one requisite service period for accounting purposes unless it is accounted for as in-substance multiple awards. An award with a graded vesting schedule that is accounted for as in-substance multiple awards is an example of an award that has more than one requisite service period (see paragraph 718-10-35-8). Paragraphs 718-10-55-69 through 55-79 and 718-10-55-93 through 55-106 provide guidance on estimating the requisite service period and provide examples of how that period shall be estimated if an award's terms include more than one explicit, implicit, or derived service period.

The determination of the requisite service period can be complex when there are multiple service, performance, or market conditions in an award. At a high level, the concepts appear relatively straightforward. An explicit service period is usually characterized as a vesting period in the option agreement or plan document. An award may not have an explicit service period, but instead may include a performance condition that requires that the employee be employed at the time the performance condition is achieved. This is what is meant by an “implicit” service period, and it generally is the period of time that it is expected to take to satisfy the performance condition. Alternatively, an award may include only a market condition, which typically is a condition based on the employer's stock price or other stock prices. If the market condition is a specific stock price, and if an employee must be employed by the company on the date the market condition is achieved in order for the award to vest or become exercisable, the “derived” service period is derived from the valuation technique (usually a lattice model) used to estimate the fair value of the award. That derived service period generally is the estimated period that it will take, on average, for the market condition to be achieved. When an award has multiple conditions, the analysis becomes much more complex. The accounting for awards with multiple conditions is discussed in Section S4.4.5.
S4.2.2 Cannot immediately recognize cost of an award with a service condition
The definition of requisite service period states that “if an award requires future service for vesting, the entity cannot define a prior period as the requisite service period.” Even if an award is for past services, compensation cost should be recognized entirely over the explicit, substantive service vesting period that extends after the grant date.

S4.2.3 Employment agreements and other arrangements should be considered when determining the requisite service period
While a share-based payment agreement and related plan documents often specify all the terms of a share-based payment, other agreements between the employee and employer also should be reviewed to determine whether those agreements affect the terms of a share-based payment. For example, an executive may have an employment contract that effectively amends the share-based payment. The employment contract may specify that vesting will be accelerated in certain circumstances (e.g., a change in control) or may provide for “clawbacks” on violation of noncompete agreements (see discussion in Section S4.4.1.2.2). A separate retirement plan agreement may provide for the acceleration of or continuation of vesting on retirement for employees meeting certain conditions (see discussion in Section S4.4.1.2). Other agreements should be carefully evaluated to determine whether they impact the requisite service period.

S4.2.4 Requisite service period for employee stock purchase plans
Determining the requisite service period for employee stock purchase plans is discussed in Section S12.3 of this publication.

S4.3 Service inception date
The service inception date is defined as the date on which the requisite service period begins and, therefore, the date that the employer begins to recognize compensation cost. However, the FASB supplemented that brief definition with additional guidance. Generally, the service inception date is the grant date. However, in certain circumstances, the service inception date may precede the grant date, or the grant date may precede the service inception date. This section provides guidance to facilitate the determination of the service inception date.

S4.3.1 Service inception date may precede the grant date
The grant date is discussed in detail in Section S3.3.1, and is defined as “the date at which an employer and an employee reach a mutual understanding of the key terms and conditions of a share-based payment award... The grant date for an award of equity instruments is the date that an employee begins to benefit from, or be adversely affected by, subsequent changes in the price of the employer’s equity shares.” [ASC 718-10-20]
As discussed in ASC 718-10-55-108, the service inception date may precede the grant date only if the following criteria are satisfied:

1. The award is authorized (as discussed in Section S3.3.1.3, if an award is not authorized, neither a grant date nor a service inception date has occurred and no compensation cost is recognized for the award). However, in certain circumstances we understand that the SEC staff will not object to a broader interpretation of the “authorization” requirement such that for purposes of ASC 718-10-55-108 only the authorization requirement would be met if the overall plan that determines the pool of consideration for employees is approved. That is, under this broad interpretation of authorized, the specifics of an individual award need not be authorized (This is true only for purposes of determining the service inception date, not for determining a grant date). This broader interpretation of the “authorization” requirement is described in Section S4.3.1.3;

2. The recipient of the award begins providing service before there is a mutual understanding of the key terms and conditions of the award (e.g., the exercise price will be established based on a future stock price and the employee provides service before that date), and

3. Either of the following criteria is satisfied:
   a. The terms of the award do not include a substantive future service period that exists at the grant date (i.e., the award is vested on the grant date), or
   b. The award contains a market or performance condition that, if not satisfied during the service period between the inception of the arrangement and the grant date, results in the forfeiture of the award.

The following examples illustrate the two types of circumstances (i.e., one in which condition 3.a., above, is met, and the other in which condition 3.b., above, is met) in which the service inception date precedes the grant date. A third example provides guidance on interpreting the requirements of ASC 718-10-55-108 with respect to a bonus plan that will be settled at least partially in shares.
S4.3.1.1 No substantive service requirement subsequent to the grant date

If an award does not contain a substantive service requirement subsequent to the grant date, the service inception date may precede the grant date. The following example illustrates the application of this rule:

<table>
<thead>
<tr>
<th>Excerpt from Accounting Standards Codification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation – Stock Compensation – Overall</td>
</tr>
<tr>
<td>Implementation Guidance and Illustrations</td>
</tr>
<tr>
<td>718-10-55-113</td>
</tr>
</tbody>
</table>

If an award’s terms do not include a substantive future requisite service condition that exists at the grant date, the service inception date can precede the grant date. For example, on January 1, 20X5, an employee is informed that an award of 100 fully vested options will be made on January 1, 20X6, with an exercise price equal to the share price on January 1, 20X6. All approvals for that award have been obtained as of January 1, 20X5. That individual is still an employee on January 1, 20X6, and receives the 100 fully vested options on that date. There is no substantive future service period associated with the options after January 1, 20X6. Therefore, the requisite service period is from the January 1, 20X5 service inception date through the January 1, 20X6 grant date, as that is the period during which the employee is required to perform service in exchange for the award. The relationship between the exercise price and the current share price that provides a sufficient basis to understand the equity relationship established by the award is known on January 1, 20X6. Compensation cost would be recognized during 20X5 in accordance with the preceding paragraph.

Note that in the above example the grant date is 1 January 20X6, because the exercise price of the options is not established until that date and, therefore, the employee is not subject to the risks and rewards of share price changes between 1 January 20X5, and 1 January 20X6 (see further discussion in Section S3.3.1.2). The concept behind the conclusion that the service inception date is 1 January 20X5, is that service must be provided for a period to earn the award, and, because the award is vested as of the grant date, the service period must be prior to the grant date.

Conceptually, it could be argued that the company should reach a similar conclusion with regard to the service inception date in the above example if one year of service were required after the 1 January 20X6, grant date. That is, the requisite service period might be the two-year period from 1 January 20X5, to 31 December 20X6. However, due in part to challenges in articulating a principle that would result in consistent practice, the FASB established a rule to address circumstances in which the service inception date precedes the grant date. Therefore, under our alternative example of a post-grant-date service period of one year, the service inception date is the grant date (1 January 20X6). However, as noted in the following section, if the pre-grant-date period includes a performance or market condition in addition to the service condition, then the service inception date would precede the grant date (again, as a result of a rule rather than a consistent principle).
S4.3.1.2 Performance or market condition must be satisfied prior to the grant date

The service inception date may precede the grant date if the award requires substantive future service after the grant date only if the award also contains a performance or market condition that must be satisfied during the period between the inception of the arrangement and the grant date in order for the employee to retain the award. The following example illustrates the application of this rule:

Excerpt from Accounting Standards Codification

*Compensation — Stock Compensation — Overall*

Implementation Guidance and Illustrations

718-10-55-114

If an award contains either a market or a performance condition, which if not satisfied during the service period preceding the grant date and following the date the award is given results in a forfeiture of the award, then the service inception date may precede the grant date. For example, an authorized award is given on January 1, 20X5, with a two-year cliff vesting service requirement commencing on that date. The exercise price will be set on January 1, 20X6. The award will be forfeited if Entity T does not sell 1,000 units of product X in 20X5. In this Example, the employee earns the right to retain the award if the performance condition is met and the employee renders service in 20X5 and 20X6. The requisite service period is two years beginning on January 1, 20X5. The service inception date (January 1, 20X5) precedes the grant date (January 1, 20X6). Compensation cost would be recognized during 20X5 in accordance with paragraph 718-10-55-112.

718-10-55-115

In contrast, consider an award that is given on January 1, 20X5, with only a three-year cliff vesting explicit service condition, which commences on that date. The exercise price will be set on January 1, 20X6. In this Example, the service inception date cannot precede the grant date because there is a substantive future requisite service condition that exists at the grant date (two years of service). Therefore, there would be no attribution of compensation cost for the period between January 1, 20X5, and December 31, 20X5, neither during that period nor cumulatively on January 1, 20X6, when both the service inception date and the grant date occur. This is consistent with the definition of requisite service period, which states that if an award requires future service for vesting, the entity cannot define a prior period as the requisite service period. The requisite service period would be two years, commencing on January 1, 20X6.

The employee in the preceding example clearly must provide service during 20X5 to ultimately vest in the award. However, the rule described in ASC 718-10-55-108 prohibits the employer from defining the service inception date prior to the grant date because there is a substantive future service condition existing at the grant date.
S4.3.1.3 Bonuses settled partly or entirely in shares

Certain compensation arrangements provide that the compensation committee may elect to settle an obligation to pay a monetary amount in a combination of cash and shares. For example, a company may have a bonus program in which it pays a certain percentage (e.g., 5%) of its annual profits in bonuses at the end of the period in a combination of cash and stock (the bonus payment may be subject to further service vesting). The amount of bonus to be paid to individual employees will be determined by the compensation committee (or its designee) at the end of the performance period and, therefore, a grant date normally does not occur until the compensation committee approves specific awards to individual employees.

The portion of the arrangement to be settled in cash would be subject to other generally accepted accounting principles, including ASC 710 and ASC 270 provided that the value of the cash to be paid is not affected by the issuer’s share price. The portion of the arrangement to be settled in equity would be subject to ASC 718. In circumstances in which the proportion to be settled in shares has not been determined at the inception of the arrangement, a company with a history with this type of compensation arrangement should first estimate the portion of the fixed monetary amount of compensation that will be settled in equity, considering factors such as the terms of the arrangement and past settlement practices.

The portion of the arrangement expected to be settled in shares is subject to ASC 718 and should be analyzed using the criteria in ASC 718-10-55-108 to assess whether a service inception date has been established at the inception of the arrangement.

We have discussed specific examples of these arrangements with the SEC staff, and the SEC staff did not object to the following analysis of ASC 718-10-55-108 suggested by specific registrants:

ASC 718-10-55-108(a) – The award is authorized

The SEC staff accepted a view that the authorization requirement may be interpreted “narrowly” or “broadly,” as described below. A company’s decision regarding the interpretation of the authorization requirement is an accounting policy decision and should be applied consistently to all awards. Professional judgment, based on the relevant facts and circumstances, is necessary under either approach to determine whether the authorization requirement has been met.

Under a “narrow” interpretation of authorization, consistent with ASC 718-10-55-108, authorization is the date that all approval requirements are completed (e.g., action by the compensation committee approving the award and the number of options, shares of restricted stock, or other equity instrument to be issued to individual employees). Under the narrow interpretation of authorization for these awards, the requirements for authorization are consistent with the approvals required to achieve a grant date.
Under a “broad” interpretation of authorization, the specific terms at the individual employee level need not be known to conclude that the award has been authorized. The SEC staff believes the following factors, at a minimum, should be present to conclude that the awards have been authorized:

► The board of directors or compensation committee has approved an overall compensation plan or strategy that includes the stock-based-compensation awards.

► The employees understand the compensation plan or strategy, including an awareness that the employees are working towards certain goals and an expectation that awards will be granted (e.g., granting of the awards is dependent on the company achieving performance metrics and the employees have an understanding of those performance metrics).

Additional factors that may be important to the analysis might include:

► Whether the compensation plan or strategy summarizes the process of how awards will be allocated to the employees and how the number of awards or monetary amount of the awards will be determined (e.g., based on certain performance metrics that are defined or understood by the compensation committee either through a formally authorized policy or established practices).

► The substance of the approval process subsequent to the performance period, including the amount of discretion that the compensation committee uses to deviate from the compensation strategy previously approved and understood (as described in the preceding bullets). That is, the more discretion involved in determining each employee’s compensation, the less likely that the “authorized” criterion has been met.

► ASC 718-10-55-108(b) – Recipient Begins to Provide Services

► Generally, if the conditions described above to achieve authorization are met (specifically, the second bullet), the requirements of ASC 718-10-55-108(b) would be met.

**ASC 718-10-55-108(c) – Either of the following conditions applies:**

1. The award’s terms do not include a substantive future requisite service condition that exists at the grant date

This condition will be met for awards that do not have a post-grant vesting period, or if the post-grant vesting period is not substantive (e.g., the awards were made to retirement-eligible employees and the awards “continue to vest” after retirement – see further discussion in Section S4.4.1.2.1).
(2) The award contains a market or performance condition that if not satisfied during the service period preceding the grant date and following the inception of the arrangement results in forfeiture of the award.

For awards that do not meet condition ASC 718-10-55-108(c)(1), above, an analysis of whether the awards contain a market or performance condition is necessary. This analysis includes consideration of whether the value of the award is based on the company’s performance or share price and, if so, whether the performance measure or market condition is sufficiently defined on the authorization date to create a performance or market condition.

The analysis of whether an award meets this condition requires judgment. In the SEC staff’s view, the application of either a “broad” or “narrow” interpretation of this requirement would be acceptable and, consistent with the election on criteria ASC 718-10-55-108(a), represents an accounting policy election that must be applied consistently. Under a “narrow” interpretation, awards to individual employees must contain a performance (or market) condition, as defined in ASC 718, to meet this criterion. Under a “broad” view, the performance (or market) condition, as defined in ASC 718, can be contained within the terms of the overall compensation plan to meet this criterion and does not have to specifically describe how the allocation to individuals will be determined. Rather, the criterion could be met if the performance or market condition determines the pool of awards that will be allocated to eligible employees. However, under both views, a specified performance target or market condition, as defined by ASC 718, is necessary to conclude that a performance or market condition exists.

Because some portion of the employee population (e.g., retirement-eligible employees) may satisfy criterion ASC 718-10-55-108(c)(1), while others (e.g., employees that are not retirement eligible) may be required to meet criterion ASC 718-10-55-108(c)(2), it is possible for a company to reach a conclusion that awards to retirement-eligible employees have a service inception date in advance of the grant date (broad interpretation of criterion ASC 718-10-55-108(a)) while awards to non-retirement eligible employee do not (e.g., because the company uses the narrow interpretation of criterion ASC 718-10-55-108(c)(2) and concludes that the award does not have a market or performance condition). Companies could also elect to apply the broad interpretation of both criteria ASC 718-10-55-108(a) and ASC 718-10-55-108(c)(2) and, therefore, awards to both retirement-eligible and non-retirement eligible employees may have a service inception date in advance of the grant date.

If a company elected the narrow interpretation accounting policy for criterion ASC 718-10-55-108(a) for awards that are not subject to a substantive post-grant date service requirement, then it would immediately recognize the fair value of the equity awards as compensation cost on the grant date. However, if the company has elected the broad interpretation accounting policy for criterion ASC 718-10-55-108(a), it would recognize the compensation cost over the period from the service inception date to the grant date (ultimately measured on the grant date).
If a company elected the “broad-broad” accounting policy for awards subject to substantive post-grant date service requirements (i.e., a broad interpretation of both criteria ASC 718-10-55-108(a) and ASC 718-10-55-108(c)(2)), the requisite service period would begin with the service inception date and end when the requisite service period ends. Because the “broad-broad” view is based on a conclusion that the award includes a performance condition, a company with a “broad-broad” policy under ASC 718-10-55-108 would be precluded from electing a straight-line attribution accounting policy under ASC 718-10-35-8 for awards with graded vesting (i.e., the straight-line method of attribution is not available for awards with performance or market conditions). In this scenario, the company would be required to use the attribution model outlined in Section S4.4.2.5 under which compensation cost for each vesting tranche is recognized as if each vesting tranche were a separate award.

**S4.3.2 Accounting for an award when the service inception date precedes the grant date**

When the requisite service period begins prior to the grant date (because the service inception date occurs prior to the grant date), the company is required to begin recognizing compensation cost before there is a measurement date (i.e., the grant date). ASC 718 provides the following guidance for accounting for a share-based payment when the service inception date precedes the grant date:

---

**Excerpt from Accounting Standards Codification**

\*Compensation — Stock Compensation — Overall*

**Subsequent Measurement**

**718-10-35-6**

The service inception date is the beginning of the requisite service period. If the service inception date precedes the grant date (see paragraph 718-10-55-108), accrual of compensation cost for periods before the grant date shall be based on the fair value of the award at the reporting date. In the period in which the grant date occurs, cumulative compensation cost shall be adjusted to reflect the cumulative effect of measuring compensation cost based on fair value at the grant date rather than the fair value previously used at the service inception date (or any subsequent reporting date). Example 6 (see paragraph 718-10-55-107) illustrates the concept of service inception date and how it is to be applied.

Compensation cost recognized in periods prior to the grant date will be based on the fair value of the award at the end of each reporting period and will be remeasured at each reporting date until the grant date occurs. For example, often the service inception date will precede the grant date when the exercise price of an option is to be established based on the underlying stock price at a specific date in the future. When the employer measures (and remeasures) the fair value of the award, that measurement should be based on an exercise...
Recognition of compensation cost

The fair value of the award will be fixed once the grant date occurs. Total recognized compensation cost for an award in which the service inception date precedes the grant date will be based on the grant-date fair value for those instruments for which the requisite service has been provided.

S4.3.3 Service inception date cannot occur prior to obtaining all necessary approvals

ASC 718's rules for determining if the service inception date precedes the grant date indicate that the service inception date cannot occur until all necessary approvals have been obtained. The following example illustrates this concept:

Excerpt from Accounting Standards Codification

*Compensation — Stock Compensation — Overall*

*Implementation Guidance and Illustrations*

**718-10-55-111**

If necessary board approval of the award described in the preceding paragraph was obtained on August 5, 20X5, two months after substantive employment begins (June 2, 20X5), both the service inception date and the grant date would be August 5, 20X5, as that is the date when all necessary authorizations were obtained. If the market price of Entity T's stock was $38 per share on August 5, 20X5, the grant-date fair value of the share award would be $380,000 (10,000 × $38). Additionally, Entity T would not recognize compensation cost for the shares for the period between June 2, 20X5, and August 4, 20X5, neither during that period nor cumulatively on August 5, 20X5, when both the service inception date and the grant date occur. This is consistent with the definition of requisite service period, which states that if an award requires future service for vesting, the entity cannot define a prior period as the requisite service period. Future service in this context represents the service to be rendered beginning as of the service inception date.

In limited circumstances, a service inception date may occur before an award to a specific employee is approved if the terms of the overall plan have been approved. See further discussion in Section S4.3.1.3.

S4.3.4 Grant date may precede the service inception date

Under certain circumstances, the grant date may precede the service inception date. For example, assume a share-based payment has a separate defined performance condition for each of the next five years and each condition is not dependent on the satisfaction of any previous condition (e.g., each vesting tranche is based on operating earnings for that year only). Assume also that on the day the employee and the employer enter into the
arrangement (at the beginning of the first year), the criteria for a grant date have been satisfied for the entire award. Because the performance required to satisfy each performance condition is unique to each year, there is a separate service inception date—and, therefore, a separate requisite service period—relating to each performance condition. The fair value of each award must be measured at the grant date; however, the compensation cost of each vesting tranche will be attributed separately over each of the five one-year requisite service periods. The example in Section S4.4.2.4.3 illustrates this concept.

### S4.4 Effect of service, performance, and market conditions on recognition of compensation cost

The terms and conditions included in a share-based payment award affect the determination of the requisite service period. All conditions must be considered when determining the requisite service period over which compensation cost will be recognized:

---

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Overall*

**Recognition**

718-10-25-21

If an award requires satisfaction of one or more market, performance, or service conditions (or any combination thereof), compensation cost shall be recognized if the requisite service is rendered, and no compensation cost shall be recognized if the requisite service is not rendered. Paragraphs 718-10-55-60 through 55-63 provide guidance on applying this provision to awards with market, performance, or service conditions (or any combination thereof).

**Implementation Guidance and Illustrations**

718-10-55-61

Analysis of the market, performance, or service conditions (or any combination thereof) that are explicit or implicit in the terms of an award is required to determine the requisite service period over which compensation cost is recognized and whether recognized compensation cost may be reversed if an award fails to vest or become exercisable (see paragraph 718-10-30-27). If exercisability or the ability to retain the award (for example, an award of equity shares may contain a market condition that affects the employee’s ability to retain those shares) is based solely on one or more market conditions compensation cost for that award is recognized if the employee renders the requisite service, even if the market condition is not satisfied. An award containing one or more market conditions may have an explicit, implicit, or derived service period. Paragraphs 718-10-55-69 through 55-79 provide guidance on explicit, implicit, and derived service periods. If exercisability (or the ability to retain the award) is based solely on one or more market conditions, compensation cost for that award is reversed if the employee does not render the requisite service, unless the market condition is satisfied prior to the end of the requisite service period, in which case...
any unrecognized compensation cost would be recognized at the time the market condition is satisfied. If vesting is based solely on one or more performance or service conditions, any previously recognized compensation cost is reversed if the award does not vest (that is, the requisite service is not rendered). Examples 1 through 4 (see paragraphs 718-20-55-4 through 55-50) provide illustrations of awards in which vesting is based solely on performance or service conditions.

We discuss the impact of each type of condition individually:

- Section S4.4.1 discusses awards that have only service conditions
- Section S4.4.2 discusses awards that have only performance conditions
- Section S4.4.3 discusses awards that have only market conditions

We will then discuss conditions that affect terms other than vesting or exercisability (Section S4.4.4), awards with multiple conditions (Section S4.4.5) and, finally, changes in estimates of the requisite service period (Section S4.5).

**S4.4.1 Service conditions**

A service condition (described more fully in Section S3.4.2) is a condition that requires the recipient of the award to remain employed for a stated period of time in order to earn the right to the share-based payment (i.e., vest). Service conditions that affect whether or not an award vests or becomes exercisable will affect the determination of the requisite service period as well as the determination of whether or not compensation cost ultimately is recognized. Compensation cost for an award that contains only a service condition will be recognized only if the requisite service is provided.

**S4.4.1.1 Requisite service period generally is the explicit service period**

The requisite service period of a share-based payment with only a service condition generally is the vesting period. That is, if the terms of the award state that the award will vest after three years of continued service, and the award does not contain any other service, performance, or market conditions (and other agreements, such as employment agreements or retirement plans do not affect the terms of the award), the requisite service period over which compensation cost will be recognized is three years. ASC 718 defines an explicit service period as:

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Overall*

**Glossary**

718-10-20

A service period that is explicitly stated in the terms of a share-based payment award. For example, an award stating that it vests after three years of continuous employee service from a given date (usually the grant date) has an explicit service period of three years.
S4.4.1.2 **Nonsubstantive service conditions (e.g., acceleration on retirement)**

An explicit service vesting condition is not the requisite service period if the stated service period is nonsubstantive. For example, assume a share-based payment has an explicit vesting condition (e.g., the award will vest in three years) and the terms of the award do not include any performance or market conditions. If the terms of the award provide that the individual will continue to “vest” in the award over the same vesting schedule even if the individual is no longer employed, the vesting condition is not a service condition. The vesting condition is merely a delayed exercisability provision. In this example, the award does not have a service, performance, or market condition, and, as a result, the compensation cost must be fully recognized on the grant date.

S4.4.1.2.1 **Nonsubstantive service periods due to retirement provisions**

ASC 718 provides the following example of an explicit service period that is considered nonsubstantive due to retirement provisions:

*Excerpt from Accounting Standards Codification*

**Compensation — Stock Compensation — Overall**

**Implementation Guidance and Illustrations**

**718-10-55-87**

Assume that Entity A uses a point system for retirement. An employee who accumulates 60 points becomes eligible to retire with certain benefits, including the retention of any nonvested share-based payment awards for their remaining contractual life, even if another explicit service condition has not been satisfied. In this case, the point system effectively accelerates vesting. On January 1, 20X5, an employee receives at-the-money options on 100 shares of Entity A’s stock. All options vest at the end of 3 years of service and have a 10-year contractual term. At the grant date, the employee has 60 points and, therefore, is eligible to retire at any time.

**718-10-55-88**

Because the employee is eligible to retire at the grant date, the award’s explicit service condition is nonsubstantive. Consequently, Entity A has granted an award that does not contain a performance or service condition for vesting, that is, the award is effectively vested, and thus, the award’s entire fair value should be recognized as compensation cost on the grant date. All of the terms of a share-based payment award and other relevant facts and circumstances must be analyzed when determining the requisite service period.

A number of questions have arisen about the guidance provided in ASC 718-10-55-87 through 88. Many companies grant share-based payments with terms that are affected by retirement or other events. For example, it is not uncommon for companies to provide that vesting of share-based payments accelerates, in part or in full, on an employee’s retirement. Alternatively, an award may “continue to vest” after retirement, even though the employee no longer is providing services to the employer (essentially, the award is vested at retirement
but delivery of shares or exercisability of the option is delayed). In either circumstance, the accounting result under ASC 718 for employees that become eligible to retire during the explicit service period is the same; the explicit service period is considered “nonsubstantive” for any portion of the award that vests on or “continues to vest” after retirement, and compensation cost should be recognized over the period through the date that the employee first becomes eligible to retire and is no longer required to provide service to earn part or all of the award.

To illustrate the circumstances under which an explicit service period would be nonsubstantive, assume an employee stock option grant provides for three-year cliff vesting (a service condition), but also provides that the employee “continues to vest” after a qualifying retirement as defined in the company’s retirement plans. When an employee becomes eligible for retirement, he or she is no longer required to provide service to the company in order to retain the benefits of the award. As a result, the explicit service period is no longer substantive. If an employee is eligible for retirement on the grant date, compensation cost should be recognized immediately because the employee is not required to work during the explicit service period to earn the right to exercise the award. If the employee is eligible to retire one year after the grant date and the award includes a three-year cliff vesting condition, compensation cost would be recognized over a one-year period (i.e., the period that the employee is required to provide service in order to retain the benefits of the award).

Companies should review their share-based payment plans to determine whether they include a feature that provides for acceleration of vesting or “continued vesting” on retirement. However, because agreements to accelerate vesting on retirement or a change in control are not always included in the document relating to a specific award or compensation plan, care should be taken to review all employment agreements, collective bargaining agreements, and any other contracts between the employer and the employees to determine whether features of those other contracts should be considered in accounting for a share-based payment.

**S4.4.1.2.2 Noncompete arrangement as an in-substance service condition**

Some share-based payment awards to employees contain noncompete provisions that require the recipient to return the equity instruments (or the gain from the sale of equity instruments) if the employee goes to work for a competitor within a specified period of time (often characterized as a “clawback”). As discussed in Section S6.3, the accounting for share-based payments should reflect all the rights conveyed to the recipient of the award and all the obligations imposed on the issuer of the award. While clawbacks generally are ignored in the initial measurement and recognition of a share-based payment (Section S3.5.2), ASC 718 provides that the entity must consider whether a clawback feature relating to a noncompete agreement results in an in-substance employee service condition, which must then be considered in determining the requisite service period.
The following examples from ASC 718 illustrate how an entity would consider the relevant facts and circumstances to determine the appropriate requisite service period for an award that is subject to a noncompete arrangement:

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Awards Classified as Equity*

**Implementation Guidance and Illustrations**

718-20-55-88

Entity K is a professional services firm in which retention of qualified employees is important in sustaining its operations. Entity K’s industry expertise and relationship networks are inextricably linked to its employees; if its employees terminate their employment relationship and work for a competitor, the entity's operations may be adversely impacted.

718-20-55-89

As part of its compensation structure, Entity K grants 100,000 restricted share units to an employee on January 1, 20X6. The fair value of the restricted share units represents approximately four times the expected future annual total compensation of the employee. The restricted share units are fully vested as of the date of grant, and retention of the restricted share units is not contingent on future service to Entity K. However, the units are transferred to the employee based on a 4-year delayed-transfer schedule (25,000 restricted share units to be transferred beginning on December 31, 20X6, and on December 31 in each of the 3 succeeding years) if and only if specified noncompete conditions are satisfied. The restricted share units are convertible into unrestricted shares any time after transfer.

Although the terms of the award state that the RSUs are fully vested (i.e., no service is required), Entity K must examine all other terms of the award when determining the requisite service period (i.e., whether the explicit service period is nonsubstantive).

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Awards Classified as Equity*

**Implementation Guidance and Illustrations**

718-20-55-90

The noncompete provisions require that no work in any capacity may be performed for a competitor (which would include any new competitor formed by the employee). Those noncompete provisions lapse with respect to the restricted share units as they are transferred. If the noncompete provisions are not satisfied, the employee loses all rights to any restricted share units not yet transferred. Additionally, the noncompete provisions stipulate that Entity K may seek other available legal remedies, including damages from the employee. Entity K has determined that the noncompete is legally enforceable and has legally enforced similar arrangements in the past.
The nature of the noncompete provision (being the corollary condition of active employment), the provision's legal enforceability, the employer's intent to enforce and past practice of enforcement, the delayed-transfer schedule mirroring the lapse of noncompete provisions, the magnitude of the award's fair value in relation to the employee's expected future annual total compensation, and the severity of the provision limiting the employee's ability to work in the industry in any capacity are facts that provide a preponderance of evidence suggesting that the arrangement is designed to compensate the employee for future service in spite of the employee's ability to terminate the employment relationship during the service period and retain the award (assuming satisfaction of the noncompete provision). Consequently, Entity K would recognize compensation cost related to the restricted share units over the four-year substantive service period.

The following is an example provided in ASC 718 of a circumstance in which a noncompete period is not considered a substantive service period:

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Awards Classified as Equity*

**Implementation Guidance and Illustrations**

**718-20-55-85**

On January 1, 20X5, Entity T grants its chief executive officer an award of 100,000 shares of stock that vest upon the completion of 5 years of service. The market price of Entity T's stock is $30 per share on that date. The grant-date fair value of the award is $3,000,000 (100,000 × $30). The shares become freely transferable upon vesting; however, the award provisions specify that, in the event of the employee’s termination and subsequent employment by a direct competitor (as defined by the award) within three years after vesting, the shares or their cash equivalent on the date of employment by the direct competitor must be returned to Entity T for no consideration (a clawback feature). The chief executive officer completes five years of service and vests in the award. Approximately two years after vesting in the share award, the chief executive officer terminates employment and is hired as an employee of a direct competitor. Paragraph 718-10-55-8 states that contingent features requiring an employee to transfer equity shares earned or realized gains from the sale of equity instruments earned as a result of share-based payment arrangements to the issuing entity for consideration that is less than fair value on the date of transfer (including no consideration) are not considered in estimating the fair value of an equity instrument on the date it is granted. Those features are accounted for if and when the contingent event occurs by recognizing the consideration received in the corresponding balance sheet account and a credit in the income statement equal to the lesser of the
recognized compensation cost of the share-based payment arrangement that contains the contingent feature ($3,000,000) and the fair value of the consideration received. This guidance does not apply to cancellations of awards of equity instruments as discussed in paragraphs 718-20-35-7 through 35-9. The former chief executive officer returns 100,000 shares of Entity T’s common stock with a total market value of $4,500,000 as a result of the award’s provisions. The following journal entry accounts for that event.

| Treasury stock                  | $ 4,500,000 |
| Additional paid-in capital      | $ 1,500,000 |
| Other income                    | $ 3,000,000 |

Example 10 (see paragraph 718-20-55-84) provides an illustration of another noncompete agreement. That Example and this one are similar in that both noncompete agreements are not contingent upon employment termination (that is, both agreements may activate and lapse during a period of active employment after the vesting date). A key difference between the two Examples is that the award recipient in that Example must provide five years of service to vest in the award (as opposed to vesting immediately). Another key difference is that the award recipient in that Example receives the shares upon vesting and may sell them immediately without restriction as opposed to the restricted share units, which are transferred according to the delayed-transfer schedule. In that Example, the noncompete provision is not deemed to be an in-substance service condition. In making a determination about whether a noncompete provision may represent an in-substance service condition, the provision’s legal enforceability, the entity’s intent to enforce the provision and its past practice of enforcement, the employee’s rights to the instruments such as the right to sell them, the severity of the provision, the fair value of the award, and the existence or absence of an explicit employee service condition are all factors that shall be considered. Because noncompete provisions can be structured differently, one or more of those factors (such as the entity’s intent to enforce the provision) may be more important than others in making that determination. For example, if Entity K did not intend to enforce the provision, then the noncompete provision would not represent an in-substance service condition.

We discussed the issue of noncompete provisions representing in-substance service conditions with the FASB staff at a Resource Group meeting. The FASB staff indicated that the concept of a noncompete arrangement representing an in-substance service condition in certain circumstances (as shown in the excerpt above) was intended to be an anti-abuse provision that would apply only in limited circumstances. In a subsequent communication from the FASB staff, the staff provided the following additional guidance on this issue:

A principle underlying ASC 718 is that the cost of employee services received in exchange for an award of equity instruments should be recognized over the period during which an employee is required to provide service in exchange for the award. Vesting periods are generally indicative of this requisite service period. However, some awards may contain
provisions that act like vesting periods while not being nominally called vesting periods. *Such provisions may compel an employee to remain in active service to receive the award, despite the absence of an explicit vesting period, beyond any compulsion normally associated with such provisions.* [Emphasis added]

ASC 718-20-55-89 through 91 includes an example of such a provision. In this example, an entity issues a fully vested award with a 4-year delayed transfer schedule that mirrors the lapsing of non-compete provisions included therein. Considering this structure along with, among other indicators, the nature of the entity’s operations, industry, and employee relationships, the magnitude of the award’s value in relation to the employee’s other compensation, and the severity of the non-compete provision on the employee’s ability to find work elsewhere, the Board concluded that the non-compete provision was, in-substance, a vesting provision. *The fact that the non-compete provision was considered substantive, by itself, would not have been enough to reach this conclusion.* But rather, consideration of all of the facts of the example together led the Board to the conclusion that an in-substance service period existed. [Emphasis added]

The evaluation of whether a non-compete provision creates an in-substance service period, by its nature, requires the application of professional judgment. The staff would like to emphasize that evaluations of specific fact patterns should be performed considering the spirit of ASC 718-20-55-89 through 91.

While not clearly articulated in ASC 718 or in the FASB staff’s subsequent communication, we understand that the concept behind ASC 718-20-55-89 through 91 is that it is unlikely that the employee will earn the right to exercise or retain an award unless that employee remains employed by the grantor during the entire noncompete period, and the award is clearly compensation for future employee services. That is, the noncompete provisions must be so restrictive that the employee is unlikely to be able to terminate and retain the award because any new employment opportunity the individual would reasonably pursue would result in forfeiture of the award. For example, if the employee could reasonably obtain employment consistent with their qualifications and expertise in an industry that is not subject to the noncompete agreement, it would be unlikely that the noncompete period would represent a substantive employee service condition. This is often the case for individuals in a variety of positions. It is not uncommon for CEOs, CFOs, and other executives to accept positions in different industries than that of their most recent employer. Similarly, if the employee were expected to retire and not seek to compete with the former employer, it would be unlikely that the noncompete period would represent a substantive employee service condition.

As indicated in the FASB staff’s communication, a noncompete provision could be considered “substantive” without representing a substantive *employee service* period. That is, the fact that a noncompete provision has value to the employer and the employer intends to enforce its provisions is not sufficient by itself to conclude that the noncompete period represents a substantive employee service period. The factors discussed in ASC 718 and in the preceding paragraph also must be considered. Further, an expectation that the employee will remain
employed by the grantor during the service period is not relevant. If the employee has the *reasonable ability* to terminate and retain the award, the service condition likely would not be considered a substantive employee service requirement.

The above interpretation is consistent with comments of Shan Benedict, Professional Accounting Fellow in the SEC’s Office of the Chief Accountant, at the 2005 AICPA National Conference on Current SEC and PCAOB Developments:

> I would like to take a step back and focus on the FASB's conclusion reached in Illustration 16 that a non-compete agreement, when coupled with other factors, could create an in-substance requisite service period. In order to reach this determination the Board concluded that based on all of the facts and circumstances related to the company, the employee and the non-compete arrangement, *the employee was essentially in the same position as if a stated substantive vesting period existed*. I would like to point out that we do not believe that the sole fact that substantive non-compete provisions are included in the terms of a share-based payment award would lead to the determination that an in-substance requisite service period must exist. *Nor do we believe that such a conclusion will be a common occurrence*. However, if you believe that your specific fact pattern results in such a conclusion, we would encourage you to come talk to us.
>
> [Emphasis added] [December 5, 2005 Speech by Shan Benedict, Professional Accounting Fellow, Office of the Chief Accountant, U.S. Securities and Exchange Commission, at the 2005 AICPA National Conference on Current SEC and PCAOB Developments.]

We believe that the particular facts and circumstances of the individual employee and related agreements must be considered in determining whether a noncompete agreement imposes a substantive employee service period. For employees that are eligible to retire, we believe that in most cases a noncompete provision, no matter how restrictive, would not represent the requisite employee service period because there is a reasonable likelihood that a retirement eligible employee would in fact retire, rather than obtain employment with a competitor, and, therefore, could retain the award without being required to provide additional employee service. In those circumstances, any forfeiture or clawback as a result of the violation of a noncompete provision would be accounted for under ASC 718 as a contingent gain, as discussed in Section S3.5.2.

**S4.4.1.3 Estimating forfeitures**

ASC 718 requires that employers estimate forfeitures (resulting from the failure to provide the requisite service) when recognizing compensation cost for all share-based payments (whether classified as equity or a liability).

Employers’ estimates of forfeitures should be adjusted throughout the requisite service period based on the extent to which actual forfeitures differ, or are expected to differ, from their previous estimates. At the end of the requisite service period compensation cost will have been recognized only for those awards for which the employee has provided the requisite service.
For example, assume a company estimates that 10 out of 100 (10%) employees will forfeit nonvested share-based payment awards. Further assume one employee terminates employment and forfeits nonvested share-based payment awards. The compensation cost for the forfeited awards is reversed at the employee’s termination date. The company should estimate how many of the remaining 99 employees will forfeit their awards. If this employee’s forfeiture was expected (part of the original estimate of 10), and the company does not believe that any additional forfeitures will occur beyond the original estimate of 10 employees, then the company should revise its forfeiture estimate to reflect 9% expected forfeitures (9 out of the remaining 99 employees). Alternatively, if this employee’s forfeiture was not originally expected, and the company continues to believe that no additional forfeitures will occur beyond the original estimate of 10 employees, then the company would continue to reflect 10% expected forfeitures (10 out of the remaining 99 employees).

Unlike certain changes in the estimated requisite service period discussed in Section S4.5.5, changes in estimated forfeitures are recognized through a cumulative catch-up adjustment (i.e., the cumulative effect of applying the change in estimate retrospectively is recognized in the period of change). The accounting for this change in estimate is illustrated in the examples in Section S4.4.1.6.

The process of estimating pre-vesting forfeitures is similar to the process of estimating post-vesting terminations described in Section S7.3.1. Generally, companies should start the process of estimating future forfeitures by analyzing their historical forfeiture and termination information and considering how future termination rates are expected to differ from historical termination rates. Companies also should consider whether termination rates differ materially from one employee group (e.g., pay level) to another and, if so, derive different estimated forfeiture assumptions for each employee group. New companies with insufficient termination information should consider looking to published information or information derived from similar companies to derive a forfeiture estimate, as discussed further in Section S7.3.1.

**S4.4.1.4 Accounting for awards subject to graded vesting**

Many employee awards are subject to graded vesting: portions of the award vest at different dates throughout the vesting period, as opposed to cliff vesting, in which the entire award vests at the end of the vesting period. The fair value of awards subject to graded vesting is typically determined based on either (1) separate awards corresponding with each vesting tranche, each with a different expected term or (2) a single award with an expected term equal to the average expected term of the component vesting tranches.

Under ASC 718 an entity may elect either the accelerated recognition method or a straight-line recognition method for awards subject to graded vesting but only for awards that vest based on a service condition. ASC 718-20-55-25 permits a company to choose either attribution method regardless of how the fair value of the award is measured:
A company must decide whether to recognize compensation cost for an award with only service conditions that has a graded vesting schedule in one of the following ways:

a. On a straight-line basis over the requisite service period for each separately vesting portion of the award as if the award was, in substance, multiple awards.

b. On a straight-line basis over the requisite service period for the entire award (that is, over the requisite service period of the last separately vesting portion of the award).

However, the amount of compensation cost recognized at any date must at least equal the portion of the grant-date value of the award that is vested at that date. Example 1, Case B (see paragraph 718-20-55-25) provides an illustration of the accounting for an award with a graded vesting schedule.

The choice of attribution method is an accounting policy decision that should be applied consistently to all share-based payments subject to graded service vesting and disclosed, if significant. However, this choice does not extend to awards that are subject to vesting or exercisability based on achieving performance or market conditions. For example, the compensation cost for each vesting tranche in an award subject to performance vesting must be recognized ratably from the service inception date to the vesting date for each tranche (see further discussion in Sections S4.4.2.5 and S4.4.3.4).

We believe that the accounting policy under ASC 718 for awards subject to graded vesting must be applied consistently to awards subject to service vesting. While the FASB considered whether either the accelerated or straight-line recognition approach was preferable for awards subject to graded vesting, it did not reach a decision. We believe that to justify a future change in recognition policy after the adoption of ASC 718, an employer generally would need to base that decision on changes in circumstances that suggest one attribution policy is clearly preferable to the other in their specific circumstances.

If an entity elects to recognize compensation cost using the straight-line attribution method, compensation cost recognized as of any date must be at least equal to the portion of the grant-date fair value that is vested at that date. For example, if an award vests 30%, 30%, 20% and 20% in years one, two, three, and four, respectively, an entity using the straight-line attribution method must recognize 30% of the total measured compensation cost in each of the first two years, not 25% as would be calculated by a strict application of the straight-line method. If an entity uses a forfeiture rate estimate that is based on forfeitures that are expected to occur over the period until the last tranche vests, the entity may not recognize enough compensation cost to meet this requirement. This is because fewer options in earlier
tranches will be forfeited than later tranches (e.g., if an award is subject to four-year graded annual vesting, and 10% of employees terminate each year, only 10% of the first tranche will be forfeited, while 40% of the fourth tranche will be forfeited). Accordingly, companies using the straight-line attribution approach should carefully monitor actual forfeitures during the period to ensure they are recognizing sufficient compensation cost such that at the vesting date for each tranche it will have recognized compensation cost for all awards that vested.

Examples of the accounting for awards subject to graded vesting using the accelerated and straight-line attribution methods are provided in Section S4.4.1.6.

S4.4.1.5 Accounting for an award with graded vesting and all substantive terms are not known at the agreement date

The discussion in the previous section focused on awards that conceptually have multiple service periods (for each vesting tranche) and described the alternatives available in accounting for those awards (i.e., the FASB permits treating the award as an award with multiple service periods or a single service period). That model is only applicable when the service inception date for the overall award and the grant date are the same – the date the employer and the employee agree to the terms. In some cases, an award may have multiple service vesting periods, and the grant dates for those vesting tranches may not correspond to the date the employer and the employee reached their agreement. The following example from the implementation guidance in ASC 718 illustrates the determination of the service inception date and the grant date in that circumstance:
Excerpt from Accounting Standards Codification

*Compensation – Stock Compensation – Overall*

Implementation Guidance and Illustrations

**718-10-55-98**

The chief executive officer of Entity T enters into a five-year employment contract on January 1, 20X5. The contract stipulates that the chief executive officer will be given 10,000 fully vested share options at the end of each year (50,000 share options in total). The exercise price of each tranche will be equal to the market price at the date of issuance (December 31 of each year in the five-year contractual term). In this Case, there are five separate grant dates. The grant date for each tranche is December 31 of each year because that is the date when there is a mutual understanding of the key terms and conditions of the agreement – that is, the exercise price is known and the chief executive officer begins to benefit from, or be adversely affected by, subsequent changes in the price of the employer’s equity shares (see paragraphs 718-10-55-80 through 55-83 for additional guidance on determining the grant date). Because the awards’ terms do not include a substantive future requisite service condition that exists at the grant date (the options are fully vested when they are issued), and the exercise price (and, therefore, the grant date) is determined at the end of each period, the service inception date precedes the grant date. The requisite service provided in exchange for the first award (pertaining to 20X5) is independent of the requisite service provided in exchange for each consecutive award. The terms of the share-based compensation arrangement provide evidence that each tranche compensates the chief executive officer for one year of service, and each tranche shall be accounted for as a separate award with its own service inception date, grant date, and one-year service period; therefore, the provisions of paragraph 718-10-35-8 would not be applicable to this award because of its structure.

The FASB did not clearly articulate the basis for its conclusion that the service inception dates for each tranche in the above example are one year before the grant date. Specifically, the CEO in the example cannot vest in the second tranche of the award unless he vests in the first tranche. Accordingly, one might argue that the service inception dates for all the tranches is the same – the agreement date. That conclusion, rejected by the FASB, would result in accelerated attribution of the awards, similar to the alternative provided for awards subject to graded vesting in which the agreement date is the grant date.

ASC 718-10-55-99 goes on to say that if the strike price for all 50,000 options had been established when the arrangement was first entered into, the award would not only have one grant date, but also just one service inception date. In this instance, ASC 718-10-35-8 would permit the entity to apply either the straight-line attribution method or the accelerated attribution method as discussed in Section S4.4.1.4. It appears that the fact that each tranche has a separate grant date at one-year intervals is the basis for the FASB’s conclusion that the service inception dates also are separated by one-year intervals. Accordingly, we believe the accounting described in the example in ASC 718-10-55-98 should only be applied when there are different grant dates for each vesting tranche.
The measurement of awards for which the service inception date precedes the grant date is discussed in Section S4.3.2.

**S4.4.1.6 Comprehensive examples of the accounting for awards subject to service vesting**

*Example 1 – Award subject to cliff vesting*

The following example from ASC 718-20-55-6 through 24 illustrates the accounting for a share-based payment that contains a service condition. The award in this example vests in full at the end of the stated service period (cliff vests). That is, if the employee does not satisfy the entire service condition, no part of the award will vest. The following example illustrates the accounting for estimated forfeitures and a change in that estimate (as described in Section S4.4.1.3). Additionally, this example illustrates the accounting for deferred tax assets as compensation cost is recognized during the requisite service period as well as the accounting for deferred tax assets on exercise (discussed in more detail in Chapter 10).

**Excerpt from Accounting Standards Codification**

*Compensation — Stock Compensation — Awards Classified as Equity*

**Implementation Guidance and Illustrations**

**718-20-55-6**

Entity T, a public entity, grants at-the-money employee share options with a contractual term of 10 years. All share options vest at the end of three years (cliff vesting), which is an explicit service (and requisite service) period of three years. The share options do not qualify as incentive stock options for U.S. tax purposes. The enacted tax rate is 35 percent.

**718-20-55-7**

The following table shows assumptions and information about the share options granted on January 1, 20X5 applicable to both Cases.

<table>
<thead>
<tr>
<th>Share options granted</th>
<th>900,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees granted options</td>
<td>3,000</td>
</tr>
<tr>
<td>Expected forfeitures per year</td>
<td>3.0%</td>
</tr>
<tr>
<td>Share price at the grant date</td>
<td>$30</td>
</tr>
<tr>
<td>Exercise price</td>
<td>$30</td>
</tr>
<tr>
<td>Contractual term (CT) of options</td>
<td>10 years</td>
</tr>
<tr>
<td>Risk-free interest rate over CT</td>
<td>1.5 to 4.3%</td>
</tr>
<tr>
<td>Expected volatility over CT</td>
<td>40 to 60%</td>
</tr>
<tr>
<td>Expected dividend yield over CT</td>
<td>1.0%</td>
</tr>
<tr>
<td>Suboptimal exercise factor</td>
<td>2</td>
</tr>
</tbody>
</table>
A suboptimal exercise factor of two means that exercise is generally expected to occur when the share price reaches two times the share option’s exercise price. Option-pricing theory generally holds that the optimal (or profit-maximizing) time to exercise an option is at the end of the option’s term; therefore, if an option is exercised before the end of its term, that exercise is referred to as suboptimal. Suboptimal exercise also is referred to as early exercise. Suboptimal or early exercise affects the expected term of an option. Early exercise can be incorporated into option-pricing models through various means. In this Case, Entity T has sufficient information to reasonably estimate early exercise and has incorporated it as a function of Entity T’s future stock price changes (or the option’s intrinsic value). In this Case, the factor of 2 indicates that early exercise would be expected to occur, on average, if the stock price reaches $60 per share ($30 × 2). Rather than use its weighted average suboptimal exercise factor, Entity T also may use multiple factors based a distribution of early exercise data in relation to its stock price.

This Case assumes that each employee receives an equal grant of 300 options. Using as inputs the last 7 items from the table in paragraph 718-20-55-7, Entity T’s lattice-based valuation model produces a fair value of $14.69 per option. A lattice model uses a suboptimal exercise factor to calculate the expected term (that is, the expected term is an output) rather than the expected term being a separate input. If an entity uses a Black-Scholes-Merton option-pricing formula, the expected term would be used as an input instead of a suboptimal exercise factor.

Total compensation cost recognized over the requisite service period (which is the vesting period in this Case) shall be the grant-date fair value of all share options that actually vest (that is, all options for which the requisite service is rendered). Paragraph 718-10-35-3 requires an entity to estimate at the grant date the number of share options for which the requisite service is expected to be rendered (which, in this Case, is the number of share options for which vesting is deemed probable). If that estimate changes, it shall be accounted for as a change in estimate and its cumulative effect (from applying the change retrospectively) recognized in the period of change. Entity T estimates at the grant date the number of share options expected to vest and subsequently adjusts compensation cost for changes in the estimated rate of forfeitures and differences between expectations and actual experience. This Case assumes that none of the compensation cost is capitalized as part of the cost of an asset.
The estimate of the number of forfeitures considers historical employee turnover rates and expectations about the future. Entity T has experienced historical turnover rates of approximately 3 percent per year for employees at the grantees’ level, and it expects that rate to continue over the requisite service period of the awards. Therefore, at the grant date Entity T estimates the total compensation cost to be recognized over the requisite service period based on an expected forfeiture rate of 3 percent per year. Actual forfeitures are 5 percent in 20X5, but no adjustments to cumulative compensation cost are recognized in 20X5 because Entity T still expects actual forfeitures to average 3 percent per year over the 3-year vesting period. As of December 31, 20X6, management decides that the forfeiture rate will likely increase through 20X7 and changes its estimated forfeiture rate for the entire award to 6 percent per year. Adjustments to cumulative compensation cost to reflect the higher forfeiture rate are made at the end of 20X6. At the end of 20X7 when the award becomes vested, actual forfeitures have averaged 6 percent per year, and no further adjustment is necessary.

The first set of calculations illustrates the accounting for the award of share options on January 1, 20X5, assuming that the share options granted vest at the end of three years. (Case B illustrates the accounting for an award assuming graded vesting in which a specified portion of the share options granted vest at the end of each year.) The number of share options expected to vest is estimated at the grant date to be 821,406 (900,000 × .97³). Thus, the compensation cost to be recognized over the requisite service period at January 1, 20X5, is $12,066,454 (821,406 × $14.69), and the compensation cost to be recognized during each year of the 3-year vesting period is $4,022,151 ($12,066,454 ÷ 3). In this Case, Entity T has concluded that it will have sufficient future taxable income to realize the deferred tax benefits from its share-based payment transactions. The journal entries to recognize compensation cost and related deferred tax benefit at the enacted tax rate of 35 percent are as follows for 20X5.

- **Compensation cost** $4,022,151
  - To recognize compensation cost.
- **Deferred tax asset** $1,407,753
  - To recognize the deferred tax asset for the temporary difference related to compensation cost ($4,022,151 × .35 = $1,407,753).

The net after-tax effect on income of recognizing compensation cost for 20X5 is $2,614,398 ($4,022,151 − $1,407,753).
Absent a change in estimated forfeitures, the same journal entries would be made to recognize compensation cost and related tax effects for 20X6 and 20X7, resulting in a net after-tax cost for each year of $2,614,398. However, at the end of 20X6, management changes its estimated employee forfeiture rate from 3 percent to 6 percent per year. The revised number of share options expected to vest is 747,526 (900,000 × 0.94). Accordingly, the revised cumulative compensation cost to be recognized by the end of 20X7 is $10,981,157 (747,526 × $14.69). The cumulative adjustment to reflect the effect of adjusting the forfeiture rate is the difference between two-thirds of the revised cost of the award and the cost already recognized for 20X5 and 20X6. The related journal entries and the computations follow.

At December 31, 20X6, to adjust for new forfeiture rate:

\[
\begin{align*}
\text{Revised total compensation cost} & \quad \$10,981,157 \\
\text{Revised cumulative cost as of December 31, 20X6} (\$10,981,157 \times \frac{2}{3}) & \quad \$7,320,771 \\
\text{Cost already recognized in 20X5 and 20X6} (4,022,151 \times 2) & \quad 8,044,302 \\
\text{Adjustment to cost at December 31, 20X6} & \quad (723,531)
\end{align*}
\]

The related journal entries are:

\[
\begin{align*}
\text{Additional paid-in capital} & \quad \$723,531 \\
\text{Compensation cost} & \quad \$723,531 \\
\text{Deferred tax expense} & \quad \$253,236 \\
\text{Deferred tax asset} & \quad \$253,236
\end{align*}
\]

To adjust the deferred tax accounts to reflect the tax effect of increasing the estimated forfeiture rate ($723,531 \times 0.35 = \$253,236$).

Journal entries for 20X7 are as follows:

\[
\begin{align*}
\text{Compensation cost} & \quad \$3,660,386 \\
\text{Additional paid-in capital} & \quad \$3,660,386
\end{align*}
\]

To recognize compensation cost ($10,981,157 \div 3 = \$3,660,386$).
Deferred tax asset  $1,281,135  
Deferred tax benefit $1,281,135  

To recognize the deferred tax asset for additional compensation cost ($3,660,386 × .35 = $1,281,135).

718-20-55-17
As of December 31, 20X7, the entity would examine its actual forfeitures and make any necessary adjustments to reflect cumulative compensation cost for the number of shares that actually vested.

The following table presents the calculation of cumulative compensation cost that would be recognized by the end of each year of the requisite service period. The calculation takes into account: (a) the grant-date fair value, (b) the number of instruments expected to vest based on estimated forfeitures, and (c) the amount of previously recognized compensation cost.

**Excerpt from Accounting Standards Codification**

**Compensation — Stock Compensation — Awards Classified as Equity**

**Implementation Guidance and Illustrations**

718-20-55-17

<table>
<thead>
<tr>
<th>Year</th>
<th>Total value of award</th>
<th>Pretax cost for year</th>
<th>Cumulative pretax cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>20X5</td>
<td>$12,066,454 (821,406 × $14.69)</td>
<td>$4,022,151 ($12,066,454 ÷ 3)</td>
<td>$4,022,151</td>
</tr>
<tr>
<td>20X6</td>
<td>$10,981,157 (747,526 × $14.69)</td>
<td>$3,298,620 (($10,981,157 ÷ 3) − $4,022,151)</td>
<td>$7,320,771</td>
</tr>
<tr>
<td>20X7</td>
<td>$10,981,157 (747,526 × $14.69)</td>
<td>$3,660,386 ($10,981,157 ÷ 3)</td>
<td>$10,981,157</td>
</tr>
</tbody>
</table>

718-20-55-18
All 747,526 vested share options are exercised on the last day of 20Y2. Entity T has already recognized its income tax expense for the year without regard to the effects of the exercise of the employee share options. In other words, current tax expense and current taxes payable were recognized based on income and deductions before consideration of additional deductions from exercise of the employee share options. Upon exercise, the amount credited to common stock (or other appropriate equity accounts) is the sum of the cash proceeds received and the amounts previously credited to additional paid-in capital in the periods the services were received (20X5 through 20X7). In this Case, Entity T has no-par common stock and at exercise, the share price is assumed to be $60.
The following journal entry illustrates the accounting for the exercise of employee stock options. In this example, the employee pays the exercise price in cash, and the company issues shares of common stock to the employee.

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Awards Classified as Equity*

Implementation Guidance and Illustrations

718-20-55-19

At exercise the journal entries are as follows.

<table>
<thead>
<tr>
<th>Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash (747,526 × $30)</td>
<td>$22,425,780</td>
</tr>
<tr>
<td>Additional paid-in capital</td>
<td>$10,981,157</td>
</tr>
<tr>
<td>Common stock</td>
<td>$33,406,937</td>
</tr>
</tbody>
</table>

To recognize the issuance of common stock upon exercise of share options and to reclassify previously recorded paid-in capital.

The accounting for income taxes associated with share-based payments is discussed in more detail in Chapter 10. We have included the following as part of this example in order to present a complete illustration:

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Awards Classified as Equity*

Implementation Guidance and Illustrations

718-20-55-20

In this Case, the difference between the market price of the shares and the exercise price on the date of exercise is deductible for tax purposes pursuant to U.S. tax law in effect in 2004 (the share options do not qualify as incentive stock options). Realized benefits of tax return deductions in excess of compensation cost recognized are accounted for as a credit to additional paid-in capital. (See Subtopic 718-740 for additional guidance on tax issues.) As indicated in paragraph 718-740-25-10, a share option exercise may result in a tax deduction before the actual realization of the related tax benefit because the entity, for example, has a net operating loss carryforward. In that situation, a tax benefit and a credit to additional paid-in capital for the excess deduction would not be recognized until that deduction reduces taxes payable. With the share price of $60 at exercise, the deductible amount is $22,425,780 (747,526 × ($60 – $30)). Entity T has sufficient taxable income to fully realize that deduction, and the tax benefit realized is $7,849,023 ($22,425,780 × .35).
At exercise:

Deferred tax expense $ 3,843,405
Deferred tax asset $ 3,843,405

To write off the deferred tax asset related to deductible share options at exercise ($10,981,157 × .35 = $3,843,405).

Current taxes payable $ 7,849,023
Current tax expense $ 3,843,405
Additional paid-in capital $ 4,005,618

To adjust current tax expense and current taxes payable to recognize the current tax benefit from deductible compensation cost upon exercise of share options.

The credit to additional paid-in capital is the tax benefit of the excess of the deductible amount over the recognized compensation cost [($22,425,780 – $10,981,157) × .35 = $4,005,618].

If instead the share options expired unexercised, previously recognized compensation cost would not be reversed. There would be no deduction on the tax return and, therefore, the entire deferred tax asset of $3,843,405 would be charged to income tax expense or additional paid-in capital, to the extent of any remaining additional paid-in capital from excess tax benefits from previous awards accounted for in accordance with FASB Statement No. 123R, Share-Based Payment, or FASB Statement No. 123, Accounting for Stock-Based Compensation (see paragraphs 718-740-35-5 through 35-7). If employees terminated with out-of-the-money vested share options, the deferred tax asset related to those share options would be written off when those options expire. A write-off of a deferred tax asset related to a deficiency of deductible compensation cost in relation to recognized compensation cost for financial reporting purposes shall not be reflected in the statement of cash flows because the unit of account for cash flow purposes is an individual award (or portion thereof) as opposed to a portfolio of awards.

Topic 230 requires that the realized tax benefit related to the excess of the deductible amount over the compensation cost recognized be classified in the statement of cash flows as a cash inflow from financing activities and a cash outflow from operating activities. Under either the direct or indirect method of reporting cash flows, Entity T would disclose the following activity in its statement of cash flows for the year ended December 31, 20Y2.

Cash outflow from operating activities:
Excess tax benefits from share-based payment arrangements $ (4,005,618)

Cash inflow from financing activities:
Excess tax benefits from share-based payment arrangements $ 4,005,618
Example 2 – Award subject to graded vesting – accelerated attribution

The following example from the implementation guidance in ASC 718 illustrates the accounting for an award subject to graded vesting when the entity has elected an accounting policy of accelerated attribution for such awards:

Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Awards Classified as Equity
Implementation Guidance and Illustrations
718-20-55-28

Entity T awards 900,000 share options on January 1, 20X5, that vest according to a graded schedule of 25 percent for the first year of service, 25 percent for the second year, and the remaining 50 percent for the third year. Each employee is granted 300 share options. The following table shows the calculation as of January 1, 20X5, of the number of employees and the related number of share options expected to vest. Using the expected 3 percent annual forfeiture rate, 90 employees are expected to terminate during 20X5 without having vested in any portion of the award, leaving 2,910 employees to vest in 25 percent of the award (75 options). During 20X6, 87 employees are expected to terminate, leaving 2,823 to vest in the second 25 percent of the award. During 20X7, 85 employees are expected to terminate, leaving 2,738 employees to vest in the last 50 percent of the award. That results in a total of 840,675 share options expected to vest from the award of 900,000 share options with graded vesting.

The following table presents the calculation of the number of employees expected to vest in each tranche and the number of shares that will become vested at the vesting date for each tranche. The calculation of the number of employees expected to vest is based on the company’s estimate of forfeitures. The number of options expected to vest at each vesting date is a function of the expected forfeitures and the vesting schedule.

Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Awards Classified as Equity
Implementation Guidance and Illustrations
718-20-55-28

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of employees</th>
<th>Number of vested share options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total at date of grant</td>
<td>3,000</td>
<td>2,910 × 75 (300 × 25%) = 218,250</td>
</tr>
<tr>
<td>20X5</td>
<td>3,000 − 90 (3,000 × .03) = 2,910</td>
<td>2,910 × 75 (300 × 25%) = 218,250</td>
</tr>
<tr>
<td>20X6</td>
<td>2,910 − 87 (2,910 × .03) = 2,823</td>
<td>2,823 × 75 (300 × 25%) = 211,725</td>
</tr>
<tr>
<td>20X7</td>
<td>2,823 − 85 (2,823 × .03) = 2,738</td>
<td>2,738 × 150 (300 × 50%) = 410,700</td>
</tr>
<tr>
<td>Total vested options</td>
<td></td>
<td>840,675</td>
</tr>
</tbody>
</table>
718-20-55-29
The value of the share options that vest over the three-year period is estimated by separating the total award into three groups (or tranches) according to the year in which they vest (because the expected life for each tranche differs). The following table shows the estimated compensation cost for the share options expected to vest. The estimates of expected volatility, expected dividends, and risk-free interest rates are incorporated into the lattice, and the graded vesting conditions affect only the earliest date at which suboptimal exercise can occur (see paragraph 718-20-55-8 for information on suboptimal exercise). Thus, the fair value of each of the 3 groups of options is based on the same lattice inputs for expected volatility, expected dividend yield, and risk-free interest rates used to determine the value of $14.69 for the cliff-vesting share options (see paragraphs 718-20-55-7 through 55-9). The different vesting terms affect the ability of the suboptimal exercise to occur sooner (and affect other factors as well, such as volatility), and therefore there is a different expected term for each tranche.

The following table presents the calculation of the compensation cost for each separate vesting tranche. The fair value per option was calculated separately for each vesting tranche. The primary difference in the valuation is the expected term for each vesting tranche. If the award is being valued using a closed-form model, such as the Black-Scholes-Merton formula, a different expected term would be used as an input in the valuation of each vesting tranche. If the award is being valued using a lattice model, the impact of the different vesting dates will be reflected in the early-exercise assumptions (described above as suboptimal exercise).

Excerpt from Accounting Standards Codification

<table>
<thead>
<tr>
<th>Year</th>
<th>Vested Options</th>
<th>Value Per Option</th>
<th>Compensation Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>20X5</td>
<td>218,250</td>
<td>$13.44</td>
<td>$2,933,280</td>
</tr>
<tr>
<td>20X6</td>
<td>211,725</td>
<td>14.17</td>
<td>3,000,143</td>
</tr>
<tr>
<td>20X7</td>
<td>410,700</td>
<td>14.69</td>
<td>6,033,183</td>
</tr>
<tr>
<td></td>
<td>840,675</td>
<td></td>
<td>$11,966,606</td>
</tr>
</tbody>
</table>

718-20-55-30
Compensation cost is recognized over the periods of requisite service during which each tranche of share options is earned. Thus, the $2,933,280 cost attributable to the 218,250 share options that vest in 20X5 is recognized in 20X5. The $3,000,143 cost attributable to the 211,725 share options that vest at the end of 20X6 is recognized over the 2-year vesting period (20X5 and 20X6). The $6,033,183 cost attributable to the 410,700 share options that vest at the end of 20X7 is recognized over the 3-year vesting period (20X5, 20X6, and 20X7).
The following table shows how the $11,966,606 expected amount of compensation cost determined at the grant date is attributed to the years 20X5, 20X6, and 20X7.

<table>
<thead>
<tr>
<th>Pretax Cost to Be Recognized</th>
<th>20X5</th>
<th>20X6</th>
<th>20X7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share options vesting in 20X5</td>
<td>$ 2,933,280</td>
<td>-</td>
<td>$ -</td>
</tr>
<tr>
<td>Share options vesting in 20X6</td>
<td>1,500,071</td>
<td>1,500,072</td>
<td>-</td>
</tr>
<tr>
<td>Share options vesting in 20X7</td>
<td>2,011,061</td>
<td>2,011,061</td>
<td>2,011,061</td>
</tr>
<tr>
<td>Cost for the year</td>
<td>$ 6,444,412</td>
<td>$ 3,511,133</td>
<td>$ 2,011,061</td>
</tr>
<tr>
<td>Cumulative cost</td>
<td>$ 6,444,412</td>
<td>$ 9,955,545</td>
<td>$ 11,966,606</td>
</tr>
</tbody>
</table>

If the initial estimate of forfeitures was adjusted in 20X6, as described in Section S4.4.1.3, the compensation cost to be recognized in 20X6 and 20X7 would have to be recalculated. However, because the first tranche (the options that vested at the end of 20X5) is fully vested, the compensation cost recorded in 20X5 for those awards will not be adjusted (the amount of compensation cost recognized in 2005 for the tranche that vested that year would have been based on the number of options that actually vested). Additionally, recognized compensation cost must be adjusted to reflect actual forfeitures as each tranche vests. The following tables present the calculation of the number of options for which the requisite service is expected to be provided, and the calculation of the compensation cost to be recognized in each period, assuming the estimated forfeiture rate increased from 3% to 6%.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of employees</th>
<th>Number of vested share options</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total at date of grant</td>
<td>3,000</td>
</tr>
<tr>
<td>20X5</td>
<td>3,000 − 90 (3,000 × .03) =</td>
<td>2,9102,910 × 75 (300 × 25%) =</td>
</tr>
<tr>
<td>20X6</td>
<td>2,910 − 175 (2,910 × .06) =</td>
<td>2,7352,735 × 75 (300 × 25%) =</td>
</tr>
<tr>
<td>20X7</td>
<td>2,735 − 164 (2,735 × .06) =</td>
<td>2,5712,571 × 150 (300 × 50%) =</td>
</tr>
<tr>
<td></td>
<td>Total vested options</td>
<td>809,025</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Vested Options</th>
<th>Value Per Option</th>
<th>Compensation Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>20X5</td>
<td>218,250</td>
<td>$ 13.44</td>
<td>$ 2,933,280</td>
</tr>
<tr>
<td>20X6</td>
<td>205,125</td>
<td>14.17</td>
<td>2,906,621</td>
</tr>
<tr>
<td>20X7</td>
<td>385,650</td>
<td>14.69</td>
<td>5,665,199</td>
</tr>
<tr>
<td></td>
<td>809,025</td>
<td></td>
<td>$ 11,505,100</td>
</tr>
</tbody>
</table>
Because the change in estimate occurred in 20X6, the amounts recognized in 20X5 are the same as in the previous example, but amounts recognized in 20X6 reflect the adjustment necessary to recognize cumulative compensation cost based on the new estimate [cumulative compensation cost of $2,906,621 for the 20X6 vesting tranche and $3,776,799 ($5,665,199 × \(\frac{2}{3}\)) for the 20X7 vesting tranche].

<table>
<thead>
<tr>
<th>Pretax Cost to Be Recognized</th>
<th>20X5</th>
<th>20X6</th>
<th>20X7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share options vesting in 20X5</td>
<td>$2,933,280</td>
<td>-</td>
<td>$</td>
</tr>
<tr>
<td>Share options vesting in 20X6</td>
<td>1,500,017</td>
<td>1,406,604</td>
<td>-</td>
</tr>
<tr>
<td>Share options vesting in 20X7</td>
<td>2,011,061</td>
<td>1,765,738</td>
<td>1,888,400</td>
</tr>
<tr>
<td>Cost for the year</td>
<td>$6,444,358</td>
<td>$3,172,342</td>
<td>$1,888,400</td>
</tr>
<tr>
<td>Cumulative cost</td>
<td>$6,444,358</td>
<td>$9,616,700</td>
<td>$11,505,100</td>
</tr>
</tbody>
</table>

Example 3 – Award subject to graded vesting – Straight-line attribution

ASC 718 permits companies to make an accounting policy election to use the straight-line recognition method, even if each tranche is valued as a separate award. The following example illustrates the straight-line recognition method:

Excerpt from Accounting Standards Codification

**Compensation – Stock Compensation – Awards Classified as Equity**

**Implementation Guidance and Illustrations**

718-20-55-32

Entity T could use the same computation of estimated cost, as in the preceding table, but could elect to recognize compensation cost on a straight-line basis for all graded vesting awards. In that case, total compensation cost to be attributed on a straight-line basis over each year in the 3-year vesting period is approximately $3,988,868 ($11,966,606 ÷ 3). Entity T also could use a single weighted-average expected life to value the entire award and arrive at a different amount of total compensation cost. Total compensation cost could then be attributed on a straight-line basis over the three-year vesting period. However, this Topic requires that compensation cost recognized at any date must be at least equal to the amount attributable to options that are vested at that date. For example, if 50 percent of this same option award vested in the first year of the 3-year vesting period, 436,500 options \([2,910 \times 150 (300 \times 50\%)]\) would be vested at the end of 20X5. Compensation cost amounting to $5,866,560 (436,500 × $13.44) attributable to the vested awards would be recognized in the first year.
Recognition of compensation cost

Compensation cost is adjusted for awards with graded vesting to reflect differences between estimated and actual forfeitures as illustrated for the cliff-vesting options, regardless of which method is used to estimate value and attribute cost.

Accounting for the tax effects of awards with graded vesting follows the same pattern illustrated in paragraphs 718-20-55-20 through 55-23. However, unless Entity T identifies and tracks the specific tranche from which share options are exercised, it would not know the recognized compensation cost that corresponds to exercised share options for purposes of calculating the tax effects resulting from that exercise. If an entity does not know the specific tranche from which share options are exercised, it should assume that options are exercised on a first-vested, first-exercised basis (which works in the same manner as the first-in, first-out [FIFO] basis for inventory costing).

S4.4.2 Performance conditions

A performance condition (described more fully in Section S3.4.3) is a condition that is based on the operations or activities of the employer or the employee, and requires the employee to provide services for a specified period of time. The condition may relate to the performance of the entire company, a division, or an individual employee. Like a service condition, performance conditions are not incorporated into the grant date fair value (or price) of an award, but affect the quantity of awards recognized or, in some cases, which award (and corresponding fair value) is recognized. ASC 718 describes the accounting for awards with performance conditions as follows:

Excerpt from Accounting Standards Codification

Recognition

Accruals of compensation cost for an award with a performance condition shall be based on the probable outcome of that performance condition – compensation cost shall be accrued if it is probable that the performance condition will be achieved and shall not be accrued if it is not probable that the performance condition will be achieved. If an award has multiple performance conditions (for example, if the number of options or shares an employee earns varies depending on which, if any, of two or more performance conditions is satisfied), compensation cost shall be accrued if it is probable that a performance condition will be satisfied. In making that assessment, it may be necessary to take into account the interrelationship of those performance conditions. Example 2 (see paragraph 718-20-55-35) provides an illustration of how to account for awards with multiple performance conditions.
S4.4.2.1 Implicit service period
A share-based payment award with a performance condition may have an explicit service period (e.g., based on performance over a specified period) or it may have an implicit service period. ASC 718 defines an implicit service period as:

Excerpt from Accounting Standards Codification

<table>
<thead>
<tr>
<th>Compensation — Stock Compensation — Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glossary</td>
</tr>
<tr>
<td>718-10-20</td>
</tr>
<tr>
<td>A service period that is not explicitly stated in the terms of a share-based payment award but that may be inferred from an analysis of those terms and other facts and circumstances. For instance, if an award of share options vests upon the completion of a new product design and it is probable that the design will be completed in 18 months, the implicit service period is 18 months.</td>
</tr>
</tbody>
</table>

The implicit service period generally is the period of time it is expected to take to achieve the performance condition (assuming the performance condition will be achieved). If the award is not subject to any other conditions, the implicit service condition generally will be the requisite service period over which the compensation cost will be recognized. If a share-based payment is subject only to a performance condition, compensation cost will be recognized only if the performance condition is satisfied (essentially, the requisite service is not considered to have been provided if the performance condition is not achieved). If the award is forfeited because the performance condition is not satisfied, any previously recognized compensation cost (and the related deferred tax benefits) must be reversed.

S4.4.2.2 Compensation cost is recognized if it is probable that the performance condition will be achieved
Compensation cost must be recognized over the requisite service period if it is probable that the performance condition will be satisfied. ASC 718 defines the term probable as follows:

Excerpt from Accounting Standards Codification

<table>
<thead>
<tr>
<th>Compensation — Stock Compensation — Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glossary</td>
</tr>
<tr>
<td>718-10-20</td>
</tr>
<tr>
<td>The future event or events are likely to occur.</td>
</tr>
</tbody>
</table>

Accordingly, the trigger for recognition under ASC 718 is higher than the “more likely than not” or “best estimate” trigger that may be applied in other accounting areas. We believe that practice generally interprets the term “probable” to represent a greater than 70% likelihood that an event will occur.
ASC 718-20-55-40 states that “the amount of compensation cost recognized (or attributed) when achievement of a performance condition is probable depends on the relative satisfaction of the performance condition based on performance to date.” We believe that in almost all cases compensation cost must be recognized ratably over the requisite service period when the requisite service period is based on a performance condition. Our view is based on the concept that the services are being provided ratably over the requisite service period and, accordingly, the compensation cost associated with those services also should be recognized ratably. While ASC 718-20-55-40 suggests that there may be circumstances in which the performance condition will not be satisfied ratably over the requisite service period and it may be appropriate to recognize compensation cost based on the achievement of the performance condition, we understand that the FASB staff believes that it would be extremely rare for compensation cost to be recognized other than ratably over the service period. In those rare circumstances, the FASB staff believes that the amount of compensation cost recognized to date should never be less than that which would have been recognized if the expense were recognized ratably over the service period.

If a share-based payment award contains a performance condition that simply affects whether or not the award will vest, the entity will account for that award in the same way it accounts for an award with a service condition. For example, assume the same fact pattern described in the example of an award subject to cliff vesting in Section S4.4.1.6, except that instead of the award vesting at the end of three years, assume that the award will vest if the market share for one of the company’s products increases 10%. In order to vest, recipients of the award must remain employed by the company until the performance condition is satisfied. The company estimates that it is probable that the market share of the product will increase by 10% by the end of year three. Based on the terms of the performance condition, the award has a three-year implicit service period and a three-year requisite service period. The accounting for this award, assuming no change in the estimate of the requisite service period, will be essentially the same as the accounting described in Section S4.4.1.6.

**S4.4.2.2.1 Performance conditions based on IPOs, change in control and other liquidity events**

As discussed in Section S4.4.2.2, we believe that “probable” is generally interpreted as in excess of a 70% likelihood of occurrence. Historically, compensation cost related to performance options that only vest on consummation of a business combination was recognized when the business combination was consummated. Accordingly, recognition of compensation cost was deferred until consummation of the transaction, even when it became likely that the business combination would be consummated. This position is based on the principle established in the business combinations literature in paragraphs 805-20-55-50 through 51. We believe a similar approach should be applied under ASC 718 and also should be applied to other types of liquidity events, including initial public offerings and change in control events.
**S4.4.2.3 Changes in estimate of the probability of achievement of the performance condition**

If an entity initially determines that it is not probable that the performance condition will be satisfied and later determines that the performance condition likely will be satisfied (or vice versa), the effect of the change in estimate should be accounted for in the period of change by recording a cumulative catch-up adjustment to retroactively apply the new estimate as described in Section S4.5.4.1. Essentially the change in estimated quantity of awards expected to vest is recognized by truing up cumulative compensation cost recognized as if the new estimate had been applied since the service inception date.

For example, assume the same facts described in the example in Section S4.4.2.2, except that initially the company does not expect the performance condition to be satisfied. If it is not probable that the award will vest, the company will not recognize any compensation cost. In year two, sales of the product begin to increase, and the company estimates that it is now probable that market share will increase 10% by the end of year three. The company must recognize the change in estimate in year two (by truing up compensation cost in year two as if the employer had estimated at the grant date that the performance condition would be achieved) and recognize the remaining compensation cost over the remaining requisite service period. Based on the current estimate of forfeitures, the company estimates the number of awards that will vest is 747,526 ($900,000 × .94^{3}$). Accordingly, the revised estimated compensation cost to be recognized over the requisite service period is $10,981,157 (747,526 × $14.69). By the end of year two, the employees have provided two-thirds of the requisite service. The company must record a cumulative adjustment to record two-thirds of the measured compensation cost. The required journal entries at the end of year two are:

- **Compensation cost** $7,320,771
  - Additional paid-in capital $7,320,771

To recognize compensation cost:

\[(10,981,157 \times (2 \text{ years} \div 3 \text{ years}) = 7,320,771)\]

To recognize the deferred tax asset for additional compensation cost ($7,320,771 × statutory tax rate of 35% = $2,562,270).

After recording the cumulative adjustment in year two, the accounting in year three and on exercise will be the same as the accounting for the award with the service condition illustrated in the example of an award subject to cliff vesting in Section S4.4.1.6.
S4.4.2.4 Performance conditions that affect factors other than vesting or exercisability

Excerpt from Accounting Standards Codification

Compensation — Stock Compensation —
Implementation Guidance and Illustrations
718-20-55-48
While performance conditions usually affect vesting conditions, they may affect exercise price, contractual term, quantity, or other factors that affect an award’s fair value before, at the time of, or after vesting. This Topic requires that all performance conditions be accounted for similarly. A potential grant-date fair value is estimated for each of the possible outcomes that are reasonably determinable at the grant date and associated with the performance condition(s) of the award (as demonstrated in Example 3 [see paragraph 718-20-55-41]). Compensation cost ultimately recognized is equal to the grant-date fair value of the award that coincides with the actual outcome of the performance condition(s).

We will discuss this guidance further in the context of performance conditions that affect (a) the number of instruments that vest and (b) other terms that affect the fair value of the awards that vest.

S4.4.2.4.1 Multiple performance conditions that affect the number of instruments that will vest

The examples in Sections S4.4.2.2 and S4.4.2.3 described the accounting for an award with a performance condition that simply determined whether or not the award would vest. Some share-based payments contain performance conditions that affect the number of instruments that will vest. That is, the employee will vest in a different number of instruments depending on the outcome of the performance condition. Compensation cost relating to the number of awards that will vest, based on the performance condition that is probable of achievement that would result in the vesting of the most shares, is to be recognized over the requisite service period. The requisite service period is based on the implicit service period of that probable performance condition.

If it continues to be probable that one of the performance conditions will be satisfied, but a different performance condition becomes probable of achievement, the cumulative effect of the change in estimate is recognized in the period of the change. Additionally, the requisite service period must be adjusted if the newly probable performance condition has a different requisite service period from the performance condition that previously was considered probable. As discussed further in Section S4.5.4.2, the impact of the change in both the number of awards expected to vest and the estimated requisite service period is reflected by recognizing the cumulative effect of adjusting cumulative compensation cost as if both the new quantity and new requisite service period had been estimated from the grant date. This accounting for the change in the requisite service period differs from a change that is not accompanied by a change in the quantity or value of awards that will vest, which is recognized prospectively (see Section S4.5.5).
Example – Award with multiple performance conditions that affect the number of instruments that will vest

The following example from the implementation guidance in ASC 718 illustrates the accounting for an award that contains a performance condition that affects the number of options that will vest:

Excerpt from Accounting Standards Codification
Compensation – Stock Compensation – Awards Classified as Equity
Implementation Guidance and Illustrations

This Example shows the computation of compensation cost if Entity T grants an award of share options with multiple performance conditions. Under the award, employees vest in differing numbers of options depending on the amount by which the market share of one of Entity T’s products increases over a three-year period (the share options cannot vest before the end of the three-year period). The three-year explicit service period represents the requisite service period. On January 1, 20X5, Entity T grants to each of 1,000 employees an award of up to 300 10-year-term share options on its common stock. If market share increases by at least 5 percentage points by December 31, 20X7, each employee vests in at least 100 share options at that date. If market share increases by at least 10 percentage points, another 100 share options vest, for a total of 200. If market share increases by more than 20 percentage points, each employee vests in all 300 share options. Entity T’s share price on January 1, 20X5, is $30 and other assumptions are the same as in Example 1 (see paragraph 718-20-55-4). The grant-date fair value per share option is $14.69. While the vesting conditions in this Example and in Example 1 (see paragraph 718-20-55-4) are different, the equity instruments being valued have the same estimate of grant-date fair value. That is a consequence of the modified grant-date method, which accounts for the effects of vesting requirements or other restrictions that apply during the vesting period by recognizing compensation cost only for the instruments that actually vest. (This discussion does not refer to awards with market conditions that affect exercisability or the ability to retain the award as described in paragraphs 718-10-55-60 through 55-63.)

Although the vesting conditions of this award are different than the award with a service condition described in Section S4.4.1.6, the grant-date fair value of each option is the same. The modified grant-date approach, described in Section S3.3, requires that the fair value of an award be measured on the grant date without regard to service or performance vesting conditions. Compensation cost generally is recognized only for awards for which the requisite service is rendered or expected to be rendered (i.e., if the service or performance condition is satisfied or expected to be satisfied).
The compensation cost of the award depends on the estimated number of options that will vest. Entity T must determine whether it is probable that any performance condition will be achieved, that is, whether the growth in market share over the 3-year period will be at least 5 percent. Accruals of compensation cost are initially based on the probable outcome of the performance conditions—in this case, different levels of market share growth over the three-year vesting period—and adjusted for subsequent changes in the estimated or actual outcome. If Entity T determines that no performance condition is probable of achievement (that is, market share growth is expected to be less than 5 percentage points), then no compensation cost is recognized; however, Entity T is required to reassess at each reporting date whether achievement of any performance condition is probable and would begin recognizing compensation cost if and when achievement of the performance condition becomes probable.

Paragraph 718-10-25-20 requires accruals of cost to be based on the probable outcome of performance conditions. Accordingly, this Topic prohibits Entity T from basing accruals of compensation cost on an amount that is not a possible outcome (and thus cannot be the probable outcome). For instance, if Entity T estimates that there is a 90 percent, 30 percent, and 10 percent likelihood that market share growth will be at least 5 percentage points, at least 10 percentage points, and greater than 20 percentage points, respectively, it would not try to determine a weighted average of the possible outcomes because that number of shares is not a possible outcome under the arrangement.

The following table shows the compensation cost that would be recognized in 20X5, 20X6, and 20X7 if Entity T estimates at the grant date that it is probable that market share will increase at least 5 but less than 10 percentage points (that is, each employee would receive 100 share options). That estimate remains unchanged until the end of 20X7, when Entity T’s market share has increased over the 3-year period by more than 10 percentage points. Thus, each employee vests in 200 share options.
In addition to vesting being conditioned on satisfying one of the performance conditions, the instruments will only vest for those employees who remain employed by the company for the three-year explicit service period. In order to recognize the appropriate compensation cost, the company must estimate the number of instruments that will be forfeited due to employee terminations, as illustrated below:

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Awards Classified as Equity*

Implementation Guidance and Illustrations

718-20-55-40

As in Example 1, Case A (see paragraph 718-20-55-10), Entity T experiences actual forfeiture rates of 5 percent in 20X5, and in 20X6 changes its estimate of forfeitures for the entire award from 3 percent to 6 percent per year. In 20X6, cumulative compensation cost is adjusted to reflect the higher forfeiture rate. By the end of 20X7, a 6 percent forfeiture rate has been experienced, and no further adjustments for forfeitures are necessary. Through 20X6, Entity T estimates that 913 employees \((1,000 \times 0.97^3)\) will remain in service until the vesting date. At the end of 20X6, the number of employees estimated to remain in service is adjusted for the higher forfeiture rate, and the number of employees estimated to remain in service is 831 \((1,000 \times 0.94^3)\). The compensation cost of the award is initially estimated based on the number of options expected to vest, which in turn is based on the expected level of performance and the fair value of each option. That amount would be adjusted as needed for changes in the estimated and actual forfeiture rates and for differences between estimated and actual market share growth. The amount of compensation cost recognized (or attributed) when achievement of a performance condition is probable depends on the relative satisfaction of the performance condition based on performance to date. Entity T determines that recognizing compensation cost ratably over the three-year vesting period is appropriate with one-third of the value of the award recognized each year.

The following table presents the calculation of cumulative compensation cost that would be recognized by the end of each year of the requisite service period. The calculation takes into account: (a) the grant-date fair value, (b) the number of instruments expected to vest based on the probable outcome of the performance condition, (c) the number of instruments expected to vest based on estimated forfeitures, and (d) the amount of previously recognized compensation cost.

The effects of the change in estimated forfeitures in 20X6 and the change in the estimate of which performance condition is probable of being satisfied are both accounted for by recording a cumulative-effect adjustment in the period that the estimate changed.
Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Awards Classified as Equity

Implementation Guidance and Illustrations

718-20-55-40

<table>
<thead>
<tr>
<th>Year</th>
<th>Total value of award</th>
<th>Pretax cost for year</th>
<th>Cumulative pretax cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>20X5</td>
<td>$1,341,197 ($14.69 \times 100 \times 913)</td>
<td>$447,066 ($1,341,197 ÷ 3)</td>
<td>$447,066</td>
</tr>
<tr>
<td>20X6</td>
<td>$1,220,739 ($14.69 \times 100 \times 831)</td>
<td>$366,760 [($1,220,739 \times \frac{2}{3}) - $447,066]</td>
<td>$813,826</td>
</tr>
<tr>
<td>20X7</td>
<td>$2,441,478 ($14.69 \times 200 \times 831)</td>
<td>$1,627,652 ($2,441,478 - $813,826)</td>
<td>$2,441,478</td>
</tr>
</tbody>
</table>

S4.4.2.4.2 Performance conditions that affect the fair value of instruments that vest

The following example illustrates the accounting for a share-based payment that contains a performance condition that affects the exercise price of the options. Similar to the accounting for the performance condition that affected the number of options that vest, this award should be accounted for as two separate awards:

Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Awards Classified as Equity

Implementation Guidance and Illustrations

718-20-55-42

This Example shows the computation of compensation cost if Entity T grants a share option award with a performance condition under which the exercise price, rather than the number of shares, varies depending on the level of performance achieved. On January 1, 20X5, Entity T grants to its chief executive officer 10-year share options on 10,000 shares of its common stock, which are immediately vested and exercisable (an explicit service period of zero). The share price at the grant date is $30, and the initial exercise price also is $30. However, that price decreases to $15 if the market share for Entity T’s products increases by at least 10 percentage points by December 31, 20X6, and provided that the chief executive officer continues to be employed by Entity T and has not previously exercised the options (an explicit service period of 2 years, which also is the requisite service period).

The CEO effectively was granted two awards: (a) 10,000 options that are fully vested and exercisable on the date of grant with an exercise price of $30, and (b) the right to exchange award (a) for 10,000 options with an exercise price of $15 if the performance condition is satisfied. The awards are mutually exclusive (i.e., the CEO cannot vest in both awards). The CEO is not required to provide any future service relating to award (a), and as such, compensation cost must be recognized on the grant date, based on the grant-date fair value of that award. However, if the company determines that it is probable that the performance condition will be satisfied, the incremental compensation cost related to the satisfaction of that performance condition (the fair value of award (b)) must be recognized over the requisite service period (two years).
Excerpt from Accounting Standards Codification

**Compensation – Stock Compensation – Awards Classified as Equity**

**Implementation Guidance and Illustrations**

**718-20-55-43**

Entity T estimates at the grant date the expected level of market share growth, the exercise price of the options, and the expected term of the options. Other assumptions, including the risk-free interest rate and the service period over which the cost is attributed, are consistent with those estimates. Entity T estimates at the grant date that its market share growth will be at least 10 percentage points over the 2-year performance period, which means that the expected exercise price of the share options is $15, resulting in a fair value of $19.99 per option. Option value is determined using the same assumptions noted in paragraph 718-20-55-7 except the exercise price is $15 and the award is not exercisable at $15 per option for 2 years.

**718-20-55-44**

Total compensation cost to be recognized if the performance condition is satisfied would be $199,900 (10,000 x $19.99). Paragraph 718-10-30-15 requires that the fair value of both awards with service conditions and awards with performance conditions be estimated as of the date of grant. Paragraph 718-10-35-3 also requires recognition of cost for the number of instruments for which the requisite service is provided. For this performance award, Entity T also selects the expected assumptions at the grant date if the performance goal is not met.

If market share growth is not at least 10 percentage points over the 2-year period, Entity T estimates a fair value of $13.08 per option. Option value is determined using the same assumptions noted in paragraph 718-20-55-7 except the award is immediately vested.

**718-20-55-45**

Total compensation cost to be recognized if the performance goal is not met would be $130,800 (10,000 × $13.08). Because Entity T estimates that the performance condition would be satisfied, it would recognize compensation cost of $130,800 on the date of grant related to the fair value of the fully vested award and recognize compensation cost of $69,100 ($199,900 – $130,800) over the 2-year requisite service period related to the condition. Because of the nature of the performance condition, the award has multiple requisite service periods that affect the manner in which compensation cost is attributed. Paragraphs 718-10-55-67 through 55-79 provide guidance on estimating the requisite service period.

**718-20-55-46**

During the two-year requisite service period, adjustments to reflect any change in estimate about satisfaction of the performance condition should be made, and, thus, aggregate cost recognized by the end of that period reflects whether the performance goal was met.
**S4.4.2.4.3 Multiple independent performance conditions established at the inception of the arrangement**

The following example illustrates the determination of the grant date, service inception date, and requisite service period for an award with multiple service periods resulting from separate performance conditions. This example also illustrates the concept of the grant date preceding the service inception date (discussed in Section S4.3.4).

**Excerpt from Accounting Standards Codification**

*Compensation — Stock Compensation — Overall*

**Implementation Guidance and Illustrations**

**718-10-55-93**

Cases A, B, and C share the following assumptions:

- a. On January 1, 20X5, Entity T enters into an arrangement with its chief executive officer (CEO) relating to 40,000 share options on its stock with an exercise price of $30 per option.

- b. The arrangement is structured such that 10,000 share options will vest or be forfeited in each of the next 4 years (20X5 through 20X8) depending on whether annual performance targets relating to Entity T’s revenues and net income are achieved.

**718-10-55-94**

All of the annual performance targets are set at the inception of the arrangement. Because a mutual understanding of the key terms and conditions is reached on January 1, 20X5, each tranche would have a grant date and, therefore, a measurement date, of January 1, 20X5. However, each tranche of 10,000 share options should be accounted for as a separate award with its own service inception date, grant-date fair value, and 1-year requisite service period, because the arrangement specifies for each tranche an independent performance condition for a stated period of service. The CEO’s ability to retain (vest in) the award pertaining to 20X5 is not dependent on service beyond 20X5, and the failure to satisfy the performance condition in any one particular year has no effect on the outcome of any preceding or subsequent period. This arrangement is similar to an arrangement that would have provided a $10,000 cash bonus for each year for satisfaction of the same performance conditions. The four separate service inception dates (one for each tranche) are at the beginning of each year.

In this example, the grant-date criteria are satisfied on 1 January 20X5, for each vesting tranche because all of the terms (including the exercise price) are established on that date. (As discussed in Section S4.4.2.4.4, if the performance condition for a specific tranche was not established on the agreement date, the agreement date would not be the grant date for that tranche). The performance condition for each tranche is independent of each other performance condition. That is, the CEO can vest in the second tranche (on satisfying that performance condition) even if the performance condition relating to the first tranche was
not satisfied. As a result, each tranche is considered to have a separate service inception date (i.e., the beginning of the year during which the performance condition is measured) and a separate requisite service period (i.e., the one-year period from service inception date to the vesting date for that tranche). However, the entire award would be measured at the grant-date fair value on 1 January 20X5.

As described in Section S4.4.2.2, the company must determine if it is probable that each separate performance condition will be satisfied. However, that assessment need not be made until the service inception date because no compensation cost will be recognized for a tranche prior to the service inception date. Compensation cost should be recognized only for those vesting tranches that the company expects to vest, based on satisfying the performance conditions, over the requisite service period of the respective tranche.

**S4.4.2.4.4 Multiple performance conditions established subsequent to the inception of the arrangement**

<table>
<thead>
<tr>
<th>Excerpt from Accounting Standards Codification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation — Stock Compensation — Overall</td>
</tr>
<tr>
<td>Implementation Guidance and Illustrations</td>
</tr>
<tr>
<td>718-10-55-95</td>
</tr>
</tbody>
</table>

If the arrangement had instead provided that the annual performance targets would be established during January of each year, the grant date (and, therefore, the measurement date) for each tranche would be that date in January of each year (20X5 through 20X8) because a mutual understanding of the key terms and conditions would not be reached until then. In that case, each tranche of 10,000 share options has its own service inception date, grant-date fair value, and 1-year requisite service period. The fair value measurement of compensation cost for each tranche would be affected because not all of the key terms and conditions of each award are known until the compensation committee sets the performance targets and, therefore, the grant dates are those dates.

In this example, the grant date for each vesting tranche does not occur until the performance condition is established. Until the performance condition is established (January of each year), the employee and the employer do not have a mutual understanding of the key terms of the award. Each vesting tranche will have a separate service inception date and requisite service period (similar to the example in the preceding section). Additionally, each tranche will have a different grant date and measurement date and, as a result, will have a different fair value.
S4.4.2.4.5 Performance conditions dependent on satisfaction of previous performance conditions

Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Overall
Implementation Guidance and Illustrations
718-10-55-96

If the arrangement in Case A instead stated that the vesting for awards in periods from 20X6 through 20X8 was dependent on satisfaction of the performance targets related to the preceding award, the requisite service provided in exchange for each preceding award would not be independent of the requisite service provided in exchange for each successive award. In contrast to the arrangement described in Case A, failure to achieve the annual performance targets in 20X5 would result in forfeiture of all awards. The requisite service provided in exchange for each successive award is dependent on the requisite service provided for each preceding award. In that circumstance, all awards have the same service inception date and the same grant date (January 1, 20X5); however, each award has its own explicit service period (for example, the 20X5 grant has a one-year service period, the 20X6 grant has a two-year service period, and so on) over which compensation cost would be recognized. Because this award contains a performance condition, it is not subject to the attribution guidance in paragraph 718-10-35-8.

Because each successive performance condition can only be satisfied if the previous performance condition was satisfied, the service required for each condition cannot be separated from the service required to be performed to satisfy the previous conditions. As a result, each vesting tranche has the same service inception date. However, each vesting tranche has a different vesting date and, therefore, has a separate requisite service period over which the related compensation cost must be recognized. As described in Section S4.4.2.2, the company must determine if it is probable that each separate performance condition will be satisfied. Compensation cost should only be recognized for those vesting tranches that the company expects to vest based on probable satisfaction of the cumulative performance conditions.

S4.4.2.5 Impact of performance conditions on cost attribution (accelerated attribution)

As discussed in Section S4.4.1.4, for an award subject to graded vesting based only on a service condition, an entity may elect an accounting policy on adoption of ASC 718 to recognize compensation cost for the award either over the requisite service period for each separately vesting tranche of the award (i.e., as if the award is, in-substance, multiple awards), or over the requisite service period for the entire award, regardless of how the fair value of the award is measured. This policy election must be applied consistently for all awards subject to graded vesting.
However, ASC 718-20-55-26 expressly limits the choice of attribution method to awards with service conditions. Therefore, compensation cost for awards that are subject to performance conditions must be attributed separately for each vesting tranche of the award. For example, the compensation cost for each vesting tranche in an award subject to performance vesting must be recognized ratably from the service inception date to the vesting date for each tranche. We believe compensation cost for any award with a performance condition must be recognized on a tranche-by-tranche basis (see example in Section S4.4.2.4.3), including those awards subject to vesting based on multiple conditions. Accordingly, straight-line attribution is not permitted for awards with performance conditions even when the performance condition does not affect requisite service period, as may be the case for an award subject to multiple conditions. For example, an award may be subject to a performance vesting condition in which the performance period is the initial year after the grant (e.g., a targeted amount of revenues must be achieved during the fiscal year). The award may also require future service to vest in the award, with tranches of the award vesting each period (e.g., each year for four years after the performance period, one-fourth of the total award vests). Although the performance condition does not change the period the employee must provide service to earn the award, the FASB staff has advised us that compensation cost for each tranche of the award must be recognized as a separate award (i.e., the accelerated attribution method).

S4.4.3 Market conditions

As described in Section S3.4.4, the exercisability or other terms of a share-based payment may change based on the achievement of a market condition. A market condition may specify achievement of a specified stock price or a return on the stock price (e.g., price appreciation plus dividends). The market condition may also require a comparison of the employer’s stock price or stock return to those of one or more competitors or an index. Market conditions must be considered when determining the requisite service period over which compensation cost will be recognized. However, as discussed in Section S3.4.4, provided that the requisite service is rendered, compensation cost must be recognized even if a market condition is not achieved, and the award is therefore not exercisable or retained by the employee.

S4.4.3.1 Derived service period

Unlike service and performance conditions, the probability of satisfying a market condition must be considered in the estimate of grant-date fair value. As discussed in more detail in Section S7.2.3, fair value of many awards with market conditions cannot be reasonably estimated using a closed-form model like the Black-Scholes Merton formula, but can be estimated using other models, such a lattice model or Monte Carlo simulation. Used appropriately, these models generally can incorporate into the valuation the possibility that the market condition may not be satisfied. The derived service period, which may be the requisite service period for an award with a market condition, can be inferred from the use of a lattice model. ASC 718 defines a derived service period as:
An award with a market condition generally has a derived service period because such awards typically require the employee to be employed when the market condition is achieved to vest in or exercise the award. That is, if the employee terminates before the market condition is achieved, the award is forfeited. However, if the employee is not required to be employed at the time the market condition is achieved to vest in or exercise the award, we believe that the market condition does not impact the requisite service period of the award. For example, assume that an option has an explicit service period of three years, a contractual term of 10 years, and does not become exercisable until the stock price achieves a level that is twice the exercise price. Further, assume that if the employee terminates after three years the employee retains the full contractual term of the award. In this case, even though the employer may expect six years to pass before the market condition is achieved, because the employee need not be employed at that time to exercise the option, we believe that there is no derived service period in this option. Accordingly, the requisite service period is equal to the explicit service period of three years.

Conceptually, the derived service period is the estimated period of time that would be required to satisfy the market condition, assuming the market condition will be satisfied. As discussed in Appendix E, a lattice model is used to create a large number of stock-price paths over time. On some of those paths the stock price will increase, and on some paths the stock price will decrease. Assume an option includes a condition that the stock price must achieve
150% of the grant-date stock price to become exercisable. To determine the derived service period, the lattice would be analyzed to determine on which paths the specified stock price is achieved (other paths would be ignored). Then, the path representing the median — in which 50% of the paths take longer to achieve the market condition, and 50% of the paths take less time to achieve the market condition — would be selected. The time period on that median path from the service inception date (usually the grant date) to the first time the market condition is achieved is the derived service period.

If a share based payment award has a derived service period and does not have any explicit or implicit service periods, the derived service period is the requisite service period over which the compensation cost will be recognized. As discussed further in Section S4.5.2, if there are no explicit or implicit service periods, the requisite service period is not revised subsequently unless the market condition is satisfied before the end of the derived service period.

**S4.4.3.2 Deeply out-of-the-money options**

ASC 718 requires that all terms and conditions of an award should be evaluated when determining the requisite service period, and requires that nonsubstantive conditions be ignored:

---

**Excerpt from Accounting Standards Codification**

*Compensation — Stock Compensation — Overall*

**Implementation Guidance and Illustrations**

*718-10-55-67*

Paragraph 718-10-35-2 requires that compensation cost be recognized over the requisite service period. The requisite service period for an award that has only a service condition is presumed to be the vesting period, unless there is clear evidence to the contrary. The requisite service period shall be estimated based on an analysis of the terms of the award and other relevant facts and circumstances, including co-existing employment agreements and an entity's past practices; that estimate shall ignore nonsubstantive vesting conditions. For example, the grant of a deep out-of-the-money share option award without an explicit service condition will have a derived service period. Likewise, if an award with an explicit service condition that was at-the-money when granted is subsequently modified to accelerate vesting at a time when the award is deep out-of-the-money, that modification is not substantive because the explicit service condition is replaced by a derived service condition. If a market, performance, or service condition requires future service for vesting (or exercisability), an entity cannot define a prior period as the requisite service period. The requisite service period for awards with market, performance, or service conditions (or any combination thereof) shall be consistent with assumptions used in estimating the grant-date fair value of those awards.
The award of deeply out-of-the-money stock options without an explicit service condition described in ASC 718-10-55-67 includes a derived service period because the employee must provide service after the grant date in order to benefit from the option; this conclusion assumes that the term of a vested option truncates on termination of employment — generally to 60 or 90 days — which is a common feature in option awards. Effectively, the award has a market condition because the stock price has to rise to a specified level above the grant-date stock price before it becomes exercisable, and it will take some period of time to achieve that stock price (see the discussion in Section S4.4.3.1.). Because of the term truncation feature in most employee stock options, the employee is required to provide service during that period. That period is the derived service period. Because the award in the FASB’s example had an explicit service period of zero and no other vesting conditions, the requisite service period equals the derived service period.

ASC 718 provides no additional guidance on what is meant by the adjective “deep out-of-the-money.” Clearly, an option can be out of the money without being deeply out of the money. We believe that all the facts and circumstances must be considered in determining if an out-of-the-money option has a derived service period. Generally, the longer the required explicit or implicit service periods (if any), the less likely a derived service condition would become the requisite service period. If an award has substantive service or performance conditions, we generally believe the option must be further out-of-the-money to suggest that the award has a derived service period. We believe it would be most appropriate to estimate a derived service period for all options that are out of the money at the grant date and if the derived service period is materially longer than the explicit or implicit service period, the requisite service period should be based on that derived service period.

S4.4.3.2.1 Modifications of deeply out-of-the-money options

If an award that was granted at the money and subsequently becomes deeply out of the money is modified to accelerate vesting, compensation cost must continue to be recognized over the requisite service period of the original option when the modification to accelerate vesting is not substantive (immediate recognition of compensation cost is not permitted). Similar to the grant of a deeply out-of-the-money option, an employee must continue to provide service after the modification date in order to benefit from the option, assuming that the term of the vested option truncates on termination of employment.

We believe that the determination of whether an accelerated option is deeply out-of-the-money will likely depend on several factors, including, but not limited to, the expected volatility of the company’s share price, the exercise price of the modified option, the option’s remaining requisite service period and its comparison to the derived service period, and the risk-free interest rate at the modification date. We do not believe it is appropriate to simply establish arbitrary bright-lines (e.g., 20%) to determine whether an option is deeply out of the money. In many cases it will be clear with little analysis that an out-of-the-money option is a deeply out-of-the-money option at the time of acceleration.
We believe that if the derived service period of the option represents a significant portion of or is longer than the remainder of the original requisite service period, such a modification would be considered nonsubstantive and would not be accounted for as a modification. Any unrecognized compensation cost at the date of the modification should continue to be recognized over the option’s remaining requisite service period as if the modification had never occurred.

The recognition of compensation cost for the modified option over the remaining requisite service period of the original option is different than the requirement to recognize compensation cost over the derived service period of a newly granted deeply out-of-the-money option, as discussed in Section S4.4.3.2 above. This difference occurs because the modified option previously had an explicit service period, and a nonsubstantive modification should not change the recognition of compensation cost over that explicit service period. For a newly granted option, there is no explicit service period, so the derived service period is the only indicator of the period of time an employee is required to provide service in exchange for the option.

A detailed discussion of the accounting for modifications of share-based payments is provided in Chapter 8.

**S4.4.3.3 Recognizing compensation cost for an award with a market condition**

Compensation cost for an award with a market condition will be recognized ratably for each vesting tranche (i.e., using the accelerated attribution method if the award is subject to graded vesting) over the requisite service period in a similar manner as an award with a service condition (see Section S4.4.1). However, unlike awards with a service or performance condition, the compensation cost for an award with a market condition will not be reversed solely because the market condition is not satisfied:

---

**Excerpt from Accounting Standards Codification**

**Compensation-Stock Compensation – Overall**

**Initial Measurement**

718-10-30-27

Performance or service conditions that affect vesting are not reflected in estimating the fair value of an award at the grant date because those conditions are restrictions that stem from the forfeitability of instruments to which employees have not yet earned the right. However, the effect of a market condition is reflected in estimating the fair value of an award at the grant date (see paragraph 718-10-30-14). For purposes of this Statement, a market condition is not considered to be a vesting condition, and an award is not deemed to be forfeited solely because a market condition is not satisfied.

**Subsequent Measurement**

718-10-35-4

An entity shall reverse previously recognized compensation cost for an award with a market condition only if the requisite service is not rendered.
For example, assume an employee stock option becomes exercisable only if the entity’s common stock trades above $25 at any point in the next five years. Based on the results of the lattice model used to value the award, the derived service period is estimated to be three years. Three years is the period from the grant date to the date that the $25 stock price is achieved on the path in the lattice that represents the median duration of all paths that achieved the $25 stock price. The three-year derived service period is the requisite service period over which compensation cost will be recognized. If the recipient of the award terminates prior to providing three years of service, any previously recognized compensation cost would be reversed. However, if the individual remains employed for three years, but the award does not become exercisable because the company’s share price does not reach $25, compensation cost would not be reversed.

S4.4.3.4 Impact of market conditions on cost attribution (accelerated attribution)
As discussed in Section S4.4.1.4, the accounting policy under ASC 718 for awards subject to graded vesting must be applied consistently for all awards subject to graded vesting.

However, ASC 718-20-55-26 expressly limits the choice of attribution method to awards with service conditions. Therefore, compensation cost for awards that are subject to market conditions must be attributed separately for each vesting tranche of the award. For example, the compensation cost for each vesting tranche in an award subject to a market condition must be recognized ratably from the service inception date to the vesting date for each tranche. We believe compensation cost for any award with a market vesting condition must be recognized on a tranche-by-tranche basis, including those awards subject to vesting based on multiple conditions. Accordingly, straight-line attribution is not permitted for awards with market conditions even when the market condition does not affect requisite service period, as may be the case for an award subject to multiple conditions. For example, an award may be subject to a market vesting condition in which the market condition is measured over the initial year after the grant (e.g., a targeted amount of stock price appreciation must be achieved during the fiscal year). The award may also require future service to vest in the award, with tranches of the award vesting each period (e.g., each year for four years after the market performance period, one-fourth of the total award vests). Although the market condition does not change the period the employee must provide service to earn the award, the FASB staff has advised us that compensation cost for each tranche of the award must be recognized as a separate award (i.e., the accelerated attribution method).

S4.4.4 Service, performance, and market conditions that affect factors other than vesting or exercisability
The examples included in Section S4.4.2.4 illustrate the accounting for share-based payments that include performance conditions that affect the quantity of instruments that will vest and the exercise price of the instruments that vest. Those concepts apply similarly to awards that have service or performance conditions that affect an award’s exercise price, contractual term, quantity, conversion ratio, or other factors that are considered in measuring an award’s grant-date fair value.
Excerpt from Accounting Standards Codification

Compensation—Stock Compensation – Overall

Initial Measurement

718-10-30-15

Market, performance, and service conditions (or any combination thereof) may affect an award’s exercise price, contractual term, quantity, conversion ratio, or other factors that are considered in measuring an award’s grant-date fair value. A grant-date fair value shall be estimated for each possible outcome of such a performance or service condition, and the final measure of compensation cost shall be based on the amount estimated at the grant date for the condition or outcome that is actually satisfied. Paragraphs 718-10-55-64 through 55-66 provide additional guidance on the effects of market, performance, and service conditions that affect factors other than vesting or exercisability. Examples 2 (see paragraph 718-20-55-35); 3 (see paragraph 718-20-55-41); 4 (see paragraph 718-20-55-47); 5 (see paragraph 718-20-55-51); and 7 (see paragraph 718-20-55-68) provide illustrations of accounting for awards with such conditions.

For an award subject to market conditions that affect terms other than vesting, all possible outcomes are factored into the grant-date fair value of the award that is recognized over the requisite service period. As discussed in Section S4.5.2, the requisite service period for an award that includes only market conditions and, therefore, is based on the derived service period is not subsequently adjusted unless the market condition is achieved and therefore the award becomes exercisable or is retained by the employee without any other potential changes to the terms from other market conditions.

S4.4.5 Multiple conditions

Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Overall

Implementation Guidance and Illustrations

718-10-55-62

Vesting or exercisability may be conditional on satisfying two or more types of conditions (for example, vesting and exercisability occur upon satisfying both a market and a performance or service condition). Vesting also may be conditional on satisfying one of two or more types of conditions (for example, vesting and exercisability occur upon satisfying either a market condition or a performance or service condition). Regardless of the nature and number of conditions that must be satisfied, the existence of a market condition requires recognition of compensation cost if the requisite service is rendered, even if the market condition is never satisfied.
Even if only one of two or more conditions must be satisfied and a market condition is present in the terms of the award, then compensation cost is recognized if the requisite service is rendered, regardless of whether the market, performance, or service condition is satisfied (see example 5 [paragraph 718-10-55-100] [Section S4.4.5.2] provide an example of such an award).

**S4.4.5.1 Determining the requisite service period for an award that has multiple conditions**

If an award contains multiple service, performance, and market conditions, and all conditions must be satisfied in order for the award to vest, the requisite service period will be the longest explicit, implicit, or derived service period. Because the employee must achieve all the conditions to obtain the award, the employee must continue to provide service until the last condition is achieved.

Conversely, if an award contains multiple service or performance conditions, and the award vests if any one of the conditions is satisfied, the requisite service period will be the shortest explicit or implicit service period. That is, because the employee must work only long enough to satisfy a single condition, the requisite service period is the shortest service period. If it is not probable that a performance condition will be achieved, that condition is ignored for purposes of estimating the requisite service period (in any event, it would not be the shortest of the identified service periods).

The accounting for awards that vest or become exercisable based on achievement of either (a) a service or performance condition or (b) a market condition, is not clearly addressed in ASC 718. The issues are whether and how the market condition should be incorporated into the valuation of the award, given that the award can vest based solely on the achievement of the service or performance condition, and what is the appropriate service period(s) for the award.

Regarding recognition, the FASB indicates through the following example that the attribution period should correspond to the shorter of the derived service period or the explicit/implicit service period (consistent with the discussion in the preceding paragraph). However, the example does not address the issue of how the market condition should impact the fair value of the award.

**S4.4.5.2 Example – Share-based payment award with market and service conditions (TARSAP)**

The award in the following example can be characterized as an award with an eight-year cliff vesting schedule that is accelerated if the target stock price is achieved. These structures are often characterized as TARSAPs (Time Accelerated Restricted Stock Award Plans, although the term may be used generically to address any award with service vesting and a market or performance based trigger that could accelerate vesting). The example appropriately
describes such an award as an award with two conditions, a service condition and a market condition, the latter of which results in a derived service period that represents the requisite service period in this example.

### Excerpt from Accounting Standards Codification

**Compensation — Stock Compensation — Overall**

Implementation Guidance and Illustrations

718-10-55-102

On January 1, 20X5, Entity T grants an executive 200,000 share options on its stock with an exercise price of $30 per option. The award specifies that vesting (or exercisability) will occur upon the earlier of the following for Case A or both are met for Case B:

a. The share price reaching and maintaining at least $70 per share for 30 consecutive trading days

b. The completion of 8 years of service.

718-10-55-103

That award contains an explicit service period of eight years related to the service condition and a derived service period related to the market condition.

718-10-55-104

An entity shall make its best estimate of the derived service period related to the market condition (see paragraph 718-10-55-71). The derived service period may be estimated using any reasonable methodology, including Monte Carlo simulation techniques. For this Case, the derived service period is assumed to be six years. As described in paragraphs 718-10-55-72 through 55-73, if an award’s vesting (or exercisability) is conditional upon the achievement of either a market condition or performance or service conditions, the requisite service period is generally the shortest of the explicit, implicit, and derived service periods. In this Case, the requisite service period over which compensation cost would be attributed is six years (shorter of eight and six years). (An entity may grant a fully vested deep out-of-the-money share option that would lapse shortly after termination of service, which is the equivalent of an award with both a market condition and a service condition. The explicit service period associated with the explicit service condition is zero; however, because the option is deep out-of-the-money at the grant date, there would be a derived service period.)

718-10-55-105

Continuing with this Case, if the market condition is actually satisfied in February 20X9 (based on market prices for the prior 30 consecutive trading days), Entity T would immediately recognize any unrecognized compensation cost because no further service is required to earn the award. If the market condition is not satisfied as of that date but the executive renders the six years of requisite service, compensation cost shall not be reversed under any circumstances.
Recognition of compensation cost

The initial estimate of the requisite service period for an award requiring satisfaction of both market and performance or service conditions is generally the longest of the explicit, implicit, and derived service periods (see paragraphs 718-10-55-72 through 55-73). For example, if the award described in Case A required both the completion of 8 years of service and the share price reaching and maintaining at least $70 per share for 30 consecutive trading days, compensation cost would be recognized over the 8-year explicit service period. If the employee were to terminate service prior to the eight-year requisite service period, compensation cost would be reversed even if the market condition had been satisfied by that time.

As previously mentioned, the above example does not address how compensation cost would be measured for this award. Specifically, the issue arises as to whether or how the impact of the market condition should be reflected in estimating the fair value of the award. If the award included only a market condition and no separate explicit service condition, the fair value of the award would incorporate the likelihood that the market condition would never be achieved and the award would not become exercisable (and would be less than the fair value of a $30 option with no market condition). However, in this case, the award will become exercisable as long as the individual provides employee services for the specified 8-year period. The fair value of that award would be greater than the award with the market condition. However, because the award in question includes both conditions, there is a question as to which value should be used and under what circumstance.

The Resource Group discussed this issue at its 26 May 2005 meeting. The consensus of the Resource Group was that the fair value of the award can be appropriately measured using a lattice model. The fair value of the award would not be discounted due to a market condition that may not be satisfied because the employee would still retain the award (or the award would become exercisable) based on the achievement of the explicit service condition. However, the timing of when the market condition is expected to be satisfied (as determined by the lattice model) will affect the expected term of an employee stock option (by potentially making the option exercisable earlier, which could reduce the expected term), and in turn will be considered in measuring the grant-date fair value of the award (because there is no term to nonvested stock, the market condition would have no impact on the value of nonvested stock subject to vesting or exercisability on achieving a market condition or a performance/service condition).

We have discussed the Resource Group conclusion described above, and its applicability to other circumstances with multiple service, performance, or market conditions, with the FASB staff. The FASB staff believes, and we agree, that the conclusion described above for an award that “vests” based on the achievement of a market condition or a service condition is appropriate only if the service condition is probable of achievement. If the service condition were not expected to be achieved, the fair value of the award would essentially ignore the...
service condition and be accounted for as an award with only a market condition (and a corresponding reduction in fair value associated with the possibility that the market condition will not be achieved). Compensation cost associated with such an award would be recognized over the derived service period. This approach is discussed further in the following section.

S4.4.5.3 Example – Award that “vests” based on the achievement of a performance condition or a market condition

Some awards may “vest” if either a performance condition or a market condition is satisfied. That is, if either condition is satisfied, the award vests or becomes exercisable.

For example, assume a company grants 1,000 options that will become exercisable if during the period from the grant date to the fourth anniversary of the grant date: (a) the compound annual growth rate in earnings per share is at least 10% or (b) total annual shareholder return (stock price appreciation plus dividends) exceeds 12%. The grantee must be employed on the fourth anniversary to exercise the award. Assume that the fair value of the options without considering the effect of the market condition is $5,000. The fair value of the options considering the possibility that the total shareholder return target might not be met, which would be estimated using a lattice model or Monte Carlo simulation, is $3,000. Both the implied and derived service periods are four years because both the performance and market conditions, respectively, are measured at the end of four years.

Similar to the discussion in the preceding section, to appropriately measure compensation cost we must first determine whether or not it is probable that the performance condition will be satisfied. The options can be viewed as two separate awards: (1) an award that becomes exercisable only if the total shareholder return target is achieved and (2) a more valuable award that vests whether or not the market condition is achieved, provided that the performance condition is achieved. If the company believes it is not probable that the performance condition will be achieved, it will recognize $3,000 in compensation cost over the four-year derived service period. However, if the company believes that the performance condition will be achieved, it will recognize $5,000 over the four-year implied service period, regardless of whether the market condition is achieved. Of course, no compensation cost would be recognized for employees who do not complete the four years of required service.

We believe this approach is similar to that described in ASC 718-20-55-42 through 55-46 for an award under which the achievement of a performance condition results in a lower exercise price for an option. Both the elimination of the market condition and the reduction in the exercise price increase the fair value of the award. Accordingly, if achievement of a performance condition increases the fair value of an award, the company would estimate the fair value of both awards (one assuming the performance condition is achieved and another assuming the performance condition is not achieved) and recognize the award with the highest fair value that is probable of vesting.
S4.4.5.4  Example – Options that become exercisable on a liquidity event resulting in a specified return to shareholders

In some cases nonpublic companies grant options or other awards to employees that become exercisable (or vest) only if (a) a liquidity event occurs (often defined as an initial public offering, change in control, or other transaction that allows the initial investors to monetize all or a portion of their investment) while the grantee is employed and (b) the internal rate of return to shareholders resulting from the liquidity event is at least a specified rate. These types of awards are most common when a significant portion of the company’s equity is held by financial investors.

The award described in the previous paragraph includes a performance condition (the occurrence of a liquidity event while the grantee is employed by the entity) and a market condition (the internal rate of return is based on the appreciation of the employer’s stock and dividends paid on that stock between the grant date and the date of the liquidity event). Accordingly, the market condition is incorporated into the valuation of the options, and that resulting fair value is only recognized if the liquidity event (the performance condition) is probable of occurrence while the grantee is employed.

As discussed in Section S4.4.2.2, we believe that “probable” is generally interpreted as in excess of a 70% likelihood of occurrence. Historically, compensation cost related to performance options that only vest on consummation of a business combination was recognized when the business combination was consummated. Accordingly, recognition of compensation cost was deferred until consummation of the transaction, even when it became likely that the business combination would be consummated. This position is based on the principle established in the business combinations literature in ASC 805-20-55-50 through 55-51. We believe a similar approach should be applied under ASC 718 and also should be applied to other types of liquidity events, including initial public offerings.

It should be noted that because the internal rate of return condition is a market condition, the probability of the internal rate of return being achieved (ignoring the likelihood of the liquidity event, which is separately accounted for as a performance condition) affects the fair value of the award, but does not determine whether or not that fair value is recognized. For example, if the liquidity event occurs, but the internal rate of return condition is not met (and, therefore, the options do not become exercisable), the grant-date fair value of the award still must be recognized as compensation cost. That is, if the liquidity event occurs, the compensation cost must be recognized, and if it does not occur, the compensation cost is not recognized, regardless of whether the specified internal rate of return is achieved.

On the grant date the entity must determine the requisite service period over which to recognize the compensation cost. In this example there is an implicit service period associated with the performance condition and a derived service period associated with the market condition. Because both conditions must be met for the award to become exercisable, the longer of these two periods is the requisite service period (see Section S4.4.5.1). The market condition can be defined as the achievement of the specified internal rate of return,
measured on the date of the liquidity event. Accordingly, the estimated derived service period could never extend beyond the expected date of the liquidity event. Because the expected date of the liquidity event determines the implicit service period, we believe that the requisite service period will always equal the implicit service period in this example. Further, based on the previously described analogy to ASC 805-20-55, the compensation cost measured in the example would not be recognized until the liquidity event occurs.

S4.5 Accounting for changes in the requisite service period

Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Overall

Subsequent Measurement

718-10-35-7

An entity shall adjust that initial best estimate in light of changes in facts and circumstances. Whether and how the initial best estimate of the requisite service period is adjusted depends on both the nature of the conditions identified in paragraph 718-10-30-26 and the manner in which they are combined, for example, whether an award vests or becomes exercisable when either a market or a performance condition is satisfied or whether both conditions must be satisfied. Paragraphs 718-10-55-69 through 55-79 provide guidance on adjusting the initial estimate of the requisite service period.

Compensation cost is recognized over the requisite service period initially estimated based on a thorough review of all terms and conditions present in the award. Section S4.4 describes in detail how service, performance and market conditions, or a combination of such conditions, affect the determination of the requisite service period. This section discusses how and when those estimates are changed and the accounting result of such changes.

S4.5.1 Adjusting the requisite service period based on a service or performance condition

Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Overall

Implementation Guidance and Illustrations

718-10-55-77

As indicated in paragraph 718-10-55-75, the initial estimate of the requisite service period based on an explicit or implicit service period shall be adjusted for changes in the expected and actual outcomes of the related service or performance conditions that affect vesting of the award. Such adjustments will occur as the entity revises its estimates of whether or when different conditions or combinations of conditions are probable of being satisfied. Compensation cost ultimately recognized is equal to the grant-date fair value of the award based on the actual outcome of the performance or service conditions (see paragraph 718-10-30-15).
If the initial estimate of the requisite service period is based on a service or performance condition (i.e., an explicit or implicit service period), the requisite service period must be adjusted if the estimate of the expected outcome of the conditions changes:

Excerpt from Accounting Standards Codification

*Compensation – Stock Compensation – Overall*

Implementation Guidance and Illustrations

718-10-55-78

How a change to the initial estimate of the requisite service period is accounted for depends on whether that change would affect the grant-date fair value of the award (including the quantity of instruments) that is to be recognized as compensation. For example, if the quantity of instruments for which the requisite service is expected to be rendered changes because a vesting condition becomes probable of satisfaction or if the grant-date fair value of an instrument changes because another performance or service condition becomes probable of satisfaction (for example, a performance or service condition that affects exercise price becomes probable of satisfaction), the cumulative effect on current and prior periods of those changes in estimates shall be recognized in the period of the change. In contrast, if compensation cost is already being attributed over an initially estimated requisite service period and that initially estimated period changes solely because another market, performance, or service condition becomes the basis for the requisite service period, any unrecognized compensation cost at that date of change shall be recognized prospectively over the revised requisite service period, if any (that is, no cumulative-effect adjustment is recognized).

As discussed in more detail in Sections S4.5.4 and S4.5.5, some changes in the estimate of the requisite service period are recognized prospectively (the remaining unrecognized compensation cost is simply recognized over the newly estimated requisite service period), while others are recognized by recording a cumulative catch up adjustment (so that the cumulative recognized compensation cost is equal to what would have been recognized had the new estimate been used since the service inception date). The distinction between these two accounting approaches lies in whether the number or fair value of the instruments expected to vest changes as a result of the change in estimate. If not, the change in estimate is recognized prospectively similar to the change in the estimated useful life of a depreciable asset. If so, the change in estimate is recognized as a cumulative effect adjustment.

**S4.5.2 Adjusting the requisite service period based on a market condition**

The accounting for changes in the estimate of a derived service period differs significantly from changes in estimated explicit or implicit service periods. If the requisite service period is based on a market condition (i.e., a derived service period) and the award does not include a service or performance condition, the requisite service period is not adjusted for changes in the estimate of the derived service period. However, if the market condition is satisfied prior to the end of the requisite service period, any remaining measured, but unrecognized compensation cost should be recognized (i.e., accelerated) at that time.
The logic behind this change in estimate model is based on the overall accounting model for awards with market conditions. As previously discussed, compensation cost for an award with a market condition is not reversed if the market condition is not satisfied, as long as the requisite service is provided. If the estimate of the time required to meet a market condition increases, increasing the requisite service period would not only result in a lower amount of compensation cost recognized in each period, but it would also effectively cause compensation cost not to be recognized in full if the market condition is never achieved and, therefore, the entity continues to increase the estimate of the requisite service period. While the FASB considered providing for recognition of decreases in the estimated derived service period, it ultimately concluded that it is inappropriate to adjust the requisite service period because of changes in the entity’s stock price. However, because the award becomes exercisable or vested when the market condition is actually achieved, the FASB concluded that it would be inappropriate to continue to defer compensation cost for that award into periods during which the employee need not provide service to vest in the award; therefore, that remaining cost should be recognized in full in the period the market condition is met.

S4.5.3 Adjusting the requisite service period for awards with a market condition and a performance or service condition

Because of the different accounting models for market conditions compared to service and performance conditions, the determination of the impact of changes in the requisite service period becomes more complicated when an award has a market condition and a service or performance condition:

Excerpt from Accounting Standards Codification

*Compensation — Stock Compensation — Overall*

Implementation Guidance and Illustrations

718-10-55-77

If an award contains a market condition and a performance or a service condition and the initial estimate of the requisite service period is based on the market condition’s derived service period, then the requisite service period shall not be revised unless either of the following criteria is met:

a. The market condition is satisfied before the end of the derived service period

b. Satisfying the market condition is no longer the basis for determining the requisite service period.

If an award has a market condition and a performance (or service) condition, and the award becomes exercisable on the satisfaction of *either* condition, the requisite service period will be based on the *shorter* of the derived service period or the implied (or explicit) service
If the entity initially estimates that the market condition will be satisfied in four years and the performance condition will be satisfied in five years, the requisite service period over which compensation cost will be recognized is four years. At the end of year one, assume the entity determines that the performance condition will be satisfied during year three. The requisite service period would be adjusted, and the unrecognized compensation cost would be recognized prospectively over the remaining two years of the revised requisite service period (as discussed in the sections that follow, because neither the number nor the grant-date fair value of the awards expected to vest has changed, the change in estimated requisite service period is recognized prospectively). This accounting for the change is required because a different service period has become the basis for the requisite service period. However, if at the end of year one, the entity determined that the market condition would be satisfied in year three, the requisite service period would not be adjusted. This is because, as described in ASC 718-10-55-77, and in Section S4.4.3.1, a requisite service period based on a derived service period is not changed unless (a) the market condition is satisfied, or (b) the market condition no longer determines the requisite service period.

If an award has a market condition and a performance (or service) condition, and the award becomes exercisable on the satisfaction of both conditions, the requisite service period will be based on the longer of the derived service period or the implied (or explicit) service period. If the entity initially estimates that the market condition will be satisfied in four years and the performance condition will be satisfied in five years, the requisite service period over which compensation cost will be recognized is five years. At the end of year one, the entity determines that the performance condition will be satisfied during year three. The requisite service period is now four years, the longer of the originally estimated derived service period and the new implied service period. The requisite service period would be adjusted, and the unrecognized compensation cost would be recognized prospectively over the remaining three years of the revised requisite service period because the aggregate compensation cost expected to be recognized has not changed.

S4.5.4 Changes in the requisite service period that are recognized in the current period

If the change in requisite service period affects the estimate of the total compensation cost that will ultimately be recognized due to a change in the grant-date fair value of the instruments or due to a change in the number of instruments that are expected to vest, the effect of the change will be recognized in the period in which the change occurs (i.e., as a cumulative catch-up adjustment). Cumulative compensation cost recognized at the end of the period of the change in estimate is equal to the amount that would have been recognized had the currently estimated outcomes been used since the service inception date. The following

---

9 Determining the requisite service period for an award that has multiple service, performance, and market conditions is discussed in Section S4.4.5.
are examples of changes in the requisite service period that would be accounted for by a cumulative catch-up adjustment:

S4.5.4.1 Condition becomes probable of being satisfied

If the entity changes its assessment of whether or not the award will vest (i.e., whether or not the relevant service or performance condition will be satisfied), the effect of the change is recognized as a cumulative catch-up adjustment. If the entity originally estimated that it was not probable that the performance condition would be satisfied, compensation cost would not have been recognized. If the entity later determines it is probable that the performance condition will be satisfied, the entity will recognize a cumulative catch-up adjustment to reflect the portion of the requisite service that has been provided to date, and will continue to recognize compensation cost over the remaining requisite service period.

S4.5.4.2 A different condition becomes probable of being satisfied resulting in a different number of instruments expected to vest

If an entity determines it is probable that a different service or performance condition will be satisfied and satisfying that condition results in a different number of awards that will vest, the impact of the change in estimate is recognized as a cumulative catch-up adjustment. Assume an award has a performance condition whereby a different number of shares will vest depending on the outcome of the condition. If the company records cumulative net income of $25 million over a three-year period, 500 options will vest, but if cumulative net income over that period is $40 million, 1,000 options will vest. The grant-date fair value of the options was estimated to be $3. Assume the company originally estimates that it will satisfy the lower threshold, and only 500 options will vest. Compensation cost recognized in the first year would be $500 (500 options × $3 × 1 year ÷ 3 years). During the second year, the entity determines that it is probable that it will recognize cumulative net income of $40 million over the three-year period. Because the estimate of total recognized compensation cost has changed, the effect of the change must be recognized in the current year. In year two, the company will recognize compensation cost of $1,500 [(1,000 options × $3 × 2 years ÷ 3 years) − $500 recognized in year one]. If the estimate does not change again, the company will recognize $1,000 (1,000 options × $3 ÷ 3 years) of compensation cost in year three.

S4.5.4.3 A different condition becomes probable of being satisfied resulting in a different grant-date fair value

If an entity determines it is probable that a different service or performance condition will be satisfied and as a result of satisfying that condition, the employees will vest in awards with a different grant-date fair value (e.g., an award with a performance condition that affects the exercise price of the awards depending on the outcome of the condition, as illustrated in Section S4.4.2.4.2), the impact of the change in estimate is recognized as a cumulative catch-up adjustment in the period in which the change occurs. The compensation cost recognized in the year of the change would be calculated as described in the preceding paragraph.
S4.5.5 Changes in the requisite service period that are recorded prospectively

The effect of a change in the requisite service period that does not change the estimate of the total compensation cost (i.e., it doesn't affect the grant-date fair value or quantity of awards to be recognized) must be recognized prospectively over the remaining requisite service period. Examples of such a change are:

- The entity determines it is probable that the performance condition will be satisfied earlier or later than initially estimated.

- The entity determines it is probable that a different performance condition will be satisfied and the related explicit or implicit service period differs from the original requisite service period (and does not change the estimate of the number of instruments expected to vest or the grant-date fair value that must be recognized).

For example, assume the grant-date fair value of the award subject to a performance condition is estimated to be $5,000. The entity estimates that the performance condition will be satisfied in five years (a five year implicit service period) and recognizes $1,000 of compensation cost in year one. During year two, the company determines that although it is still probable that the performance condition will be satisfied, it estimates that it will take a total of six years to satisfy the condition. The remaining $4,000 of measured compensation cost will be recognized prospectively over the remaining five years of the revised requisite service period, or $800 per year.

Excerpt from Accounting Standards Codification

As stated in Compensation – Stock Compensation – Overall, Implementation Guidance and Illustrations, 718-10-55-79

To summarize, changes in actual or estimated outcomes that affect either the grant-date fair value of the instrument awarded or the quantity of instruments for which the requisite service is expected to be rendered (or both) are accounted for using a cumulative effect adjustment, and changes in estimated requisite service periods for awards for which compensation cost is already being attributed are accounted for prospectively only over the revised requisite service period, if any.
S5  Accounting for liability instruments

S5.1  Measurement objective and measurement date for liabilities

| Excerpt from Accounting Standards Codification |
| Compensation – Stock Compensation – Awards Classified as Liabilities |
| Initial Measurement |
| 718-30-30-1 |

At the grant date, the measurement objective for liabilities incurred under share-based compensation arrangements is the same as the measurement objective for equity instruments awarded to employees as described in paragraph 718-10-30-6. However, the measurement date for liability instruments is the date of settlement.

The measurement objective for liability awards is the same as for equity awards. For public companies, both equity awards and liability awards must be measured at fair value (see Section S5.4); although, as discussed below the measurement date for equity awards and liability awards differs. However, as discussed in Section S5.5, nonpublic companies have the choice of measuring liability awards at fair value (or calculated value if expected volatility is not reasonably estimable) or intrinsic value. For the sake of simplicity, references to fair value should be read to encompass both fair value and calculated value.

Unlike most equity awards, liability awards must be remeasured at each reporting date until settlement. This remeasurement process is discussed further in Section S5.4. Ultimately, the amount of compensation cost recognized for a liability award will be equal to the amount for which the award is settled (e.g., the cash paid to settle an award, or the value of the instruments transferred to the employee to settle the award).

S5.2  Criteria for classifying awards as liabilities

| Excerpt from Accounting Standards Codification |
| Compensation – Stock Compensation – Overall |
| Recognition |
| 718-10-25-6 |

This paragraph through paragraph 718-10-25-19 provide guidance for determining whether certain financial instruments awarded in share-based payment transactions are liabilities. In determining whether an instrument not specifically discussed in those paragraphs shall be classified as a liability or as equity, an entity shall apply generally accepted accounting principles (GAAP) applicable to financial instruments issued in transactions not involving share-based payment.
As discussed further below, the share-based payment guidance requires liability classification for the following instruments:

- Instruments that are required to be cash-settled (e.g., cash-settled stock appreciation rights) or require cash settlement on the occurrence of a contingent event that is considered probable (Section S5.2.1)
- Instruments that can be settled in cash or stock at the option of the employee (e.g., tandem options) at any time or on the occurrence of a contingent event that is considered probable (Section S5.2.1)
- Certain instruments that would be classified as liabilities under ASC 480 (Section S5.2.2)
- Instruments subject to share repurchase features in which the employee is not expected to be subject to the normal risks and rewards of share ownership (Section S5.2.3)
- Awards that include conditions other than service, performance, or market conditions, that affect their fair value, exercisability, or vesting (Section S5.2.4)
- Substantive liabilities (i.e., instruments that are equity in form but the employer has a practice of cash-settling the instruments) (Section S5.2.5)
- Awards for which the employer can choose cash or share settlement but cannot control delivery of shares (Section S5.2.5.1)

Finally, in SAB Topic 14 the SEC staff indicated that awards classified as equity instruments under the provisions of ASC 718 that may require the employer to redeem the award for cash must be classified outside of “permanent” equity (see Section S5.2.3.5).

S5.2.1 Options and similar instruments that allow for cash settlement

S5.2.1.1 Accounting for contingently redeemable options and similar instruments

ASC 718-10-25-11 and 718-10-25-12 require companies to consider the probability of the occurrence of a contingent event that is outside the employee’s control (e.g., change in control, or death or disability) in determining the classification of an employee stock option or similar instrument under the share-based payment literature if the award requires or permits cash settlement on the occurrence of the contingent event.
### Excerpt from Accounting Standards Codification

**Compensation – Stock Compensation – Overall**

#### Recognition

**718-10-25-11**

Options or similar instruments on shares shall be classified as liabilities if either of the following conditions is met:

- **a.** The underlying shares are classified as liabilities.
- **b.** The entity can be required under any circumstances to settle the option or similar instrument by transferring cash or other assets. A cash settlement feature that can be exercised only upon the occurrence of a contingent event that is outside the employee’s control (such as an initial public offering) would not meet this condition until it becomes probable that event will occur.

**718–10-25-12**

For example, a Securities and Exchange Commission (SEC) registrant may grant an option to an employee that, upon exercise, would be settled by issuing a mandatorily redeemable share. Because the mandatorily redeemable share would be classified as a liability under Topic 480, the option also would be classified as a liability.

#### Subsequent Measurement

**718–10-35-15**

An option or similar instrument that is classified as equity, but subsequently becomes a liability because the contingent cash settlement event is probable of occurring, shall be accounted for similar to a modification from an equity to liability award. That is, on the date the contingent event becomes probable of occurring (and therefore the award must be recognized as a liability), the entity recognizes a share-based liability equal to the portion of the award attributed to past service (which reflects any provision for acceleration of vesting) multiplied by the award's fair value on that date. To the extent the liability equals or is less than the amount previously recognized in equity, the offsetting debit is a charge to equity. To the extent that the liability exceeds the amount previously recognized in equity, the excess is recognized as compensation cost. The total recognized compensation cost for an award with a contingent cash settlement feature shall at least equal the fair value of the award at the grant date. The guidance in this paragraph is applicable only for options or similar instruments issued as part of employee compensation arrangements. That is, the guidance included in this paragraph is not applicable, by analogy or otherwise, to instruments outside employee share-based payment arrangements.
ASC 718 requires companies to classify employee stock options and similar instruments with contingent cash settlement features as equity awards provided: the contingent event that permits or requires cash settlement (a) is not considered probable of occurring, and (b) is not within the control of the employee, and the award includes no other features that would require liability classification. For example, since a change in control generally is outside of the employee’s control, an award that permits or requires cash settlement on a change in control generally would be classified as equity until the change in control was probable of occurring (generally not until the change in control occurs), assuming the award included no other features that warranted liability classification.

The requirement to consider the probability of the event that permits or requires redemption is consistent with the assessment required for share repurchase features that are within the company’s control. The probability assessment must be performed each reporting period, and as a result, awards could be classified as equity in one period, and as a liability in another (or vice versa). ASC 718-10-35-15 clarifies that the reclassification of an option or similar instrument because the assessment of the probability of the occurrence of the contingent cash settlement event has changed is accounted for similar to a modification of an award that requires reclassification of the share-based payment. That is, for a reclassification from equity to liability, the reclassification is accounted for as a modification that changes the classification from equity to liability (see Section S8.4.1), in which total compensation cost is the greater of the original fair value of the equity award or the fair value of the liability award (reasured until settlement, or until the occurrence of the contingent event is no longer considered probable). For a reclassification from liability to equity, the reclassification is accounted for as a modification that changes the classification from a liability to equity (see Section S8.4.2), in which compensation cost is equal to the fair value of the award on the modification date.

---

10 We believe that the probability of occurrence should be assessed similar to the assessment that would occur under the liability classification guidance under prior stock compensation literature. While not specifically addressed in ASC 718, paragraph 85 of Issue 00-23 stated that “an employer should assess whether the contingent event is expected to occur (that is, whether occurrence is probable) on an individual grantee-by-grantee basis.” [Emphasis added.] Accordingly, while it may be probable that some portion of a large employee group may pass away or become disabled, it would be infrequent that an employer would identify specific employees for which it is probable that either of those events would occur.

11 As discussed in Section S4.4.5.4, historically, compensation cost related to performance options that only vest on consummation of a business combination was recognized when the business combination was consummated. Recognition was deferred until consummation of the transaction, even when it became likely that the business combination would be consummated. We believe a similar approach should be applied under ASC 718 and also should be applied to other types of liquidity events, including initial public offerings. Similarly, practice has developed such that when such an event would permit cash redemption of an award, the reclassification to a liability does not occur until the event occurs.
ASC 718 specifies that its guidance is not applicable, by analogy or otherwise, to instruments outside employee share-based payment arrangements. This clarification is significant as in SAB Topic 14 the SEC staff stated that “it would generally be appropriate for entities to apply the guidance in Statement 123R by analogy to share-based payment transactions with non-employees unless other authoritative accounting literature more clearly addresses the appropriate accounting, or the application of the guidance in Statement 123R would be inconsistent with the terms of the instrument issued to a non-employee in a share-based based payment arrangement.” Accordingly, awards of options or similar instruments to nonemployees that must be cash settled under any circumstances must be classified as liabilities.

S5.2.1.2 Temporary equity classification considerations
SEC registrants are required to consider the application of ASR 268 and its interpretations to share-based payments. The application of ASR 268 and its interpretations, including the potential effect of changes in redemption value on income available to common shareholders, is discussed in greater detail in Section S5.2.3.5.

S5.2.1.3 Options to acquire liability instruments
ASC 718 requires liability classification of awards for which the underlying instrument is a liability. For example, an option on an SEC registrant’s mandatorily redeemable preferred stock or convertible debt would be a liability under ASC 718.

S5.2.2 Applying the classification criteria in ASC 480

Excerpt from Accounting Standards Codification

<table>
<thead>
<tr>
<th>Compensation – Stock Compensation – Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognition</td>
</tr>
<tr>
<td>718-10-25-7</td>
</tr>
</tbody>
</table>

Topic 480 excludes from its scope instruments that are accounted for under this Topic. Nevertheless, unless paragraphs 718-10-25-8 through 25-19 require otherwise, an entity shall apply the classification criteria in Section 480-10-25 and paragraphs 480-10-15-3 through 15-4, as they are effective at the reporting date, in determining whether to classify as a liability a freestanding financial instrument given to an employee in a share-based payment transaction. Paragraphs 718-10-35-9 through 35-14 provide criteria for determining when instruments subject to this Topic subsequently become subject to Topic 480 or to other applicable GAAP.
Subsequent Measurement

718-10-35-9

Paragraphs 718-10-35-10 through 35-14 are intended to apply to those instruments issued in share-based payment transactions with employees accounted for under this Topic, and to instruments exchanged in a business combination for share-based payment awards of the acquired business that were originally granted to employees of the acquired business and are outstanding as of the date of the business combination. Instruments issued, in whole or in part, as consideration for goods or services other than employee service shall not be considered to have been issued in exchange for employee service when applying the guidance in those paragraphs, irrespective of the employment status of the recipient of the award on the grant date.

718-10-35-10

A freestanding financial instrument issued to an employee in exchange for past or future employee services that is subject to initial recognition and measurement guidance within this Topic shall continue to be subject to the recognition and measurement provisions of this Topic throughout the life of the instrument, unless its terms are modified when the holder is no longer an employee. Only for purposes of this paragraph, a modification does not include a change to the terms of an award if that change is made solely to reflect an equity restructuring provided that both of the following conditions are met:

a. There is no increase in fair value of the award (or the ratio of intrinsic value to the exercise price of the award is preserved, that is, the holder is made whole) or the antidilution provision is not added to the terms of the award in contemplation of an equity restructuring.

b. All holders of the same class of equity instruments (for example, stock options) are treated in the same manner.

718-10-35-11

Other modifications of that instrument that take place when the holder is no longer an employee shall be subject to the modification guidance in paragraph 718-10-35-14. Following modification, recognition and measurement of the instrument should be determined through reference to other applicable generally accepted accounting principles (GAAP).

718-10-35-12

Once the classification of an instrument is determined, the recognition and measurement provisions of this Topic shall be applied until the instrument ceases to be subject to the requirements discussed in paragraph 718-10-35-10. Topic 480 or other applicable GAAP, such as Topic 815, applies to a freestanding financial instrument that was issued under a share-based payment arrangement but that is no longer subject to this Topic. This guidance is not intended to suggest that all freestanding financial instruments shall be accounted for as liabilities pursuant to Topic 480, but rather that freestanding financial instruments issued in share-based payment transactions may become subject to that Topic or other applicable GAAP depending on their substantive characteristics and when certain criteria are met.
An entity may modify (including cancel and replace) or settle a fully vested, freestanding financial instrument after it becomes subject to Topic 480 or other applicable GAAP. Such a modification or settlement shall be accounted for under the provisions of this Topic unless it applies equally to all financial instruments of the same class regardless of whether the holder is (or was) an employee (or an employee’s beneficiary). Following the modification, the instrument continues to be accounted for under that Topic or other applicable GAAP. A modification or settlement of a class of financial instrument that is designed exclusively for and held only by current or former employees (or their beneficiaries) may stem from the employment relationship depending on the terms of the modification or settlement. Thus, such a modification or settlement may be subject to the requirements of this Topic. See paragraph 718-10-35-10 for a discussion of changes to awards made solely to reflect an equity restructuring.

The FASB decided to apply certain of the concepts in ASC 480 to share-based payments accounted for under ASC 718. ASC 480 establishes standards for classifying and measuring as liabilities certain financial instruments that embody obligations of the issuer and have characteristics of both liabilities and equity. ASC 480 generally requires that the issuer classify as liabilities financial instruments that represent, or are indexed to, an obligation to buy back the issuer’s shares (e.g., written put options and forward purchase contracts), regardless of whether the instrument is settled on a net-cash or a gross-physical basis. In addition, ASC 480 requires liability classification for certain instruments which represent obligations that can be settled in shares (e.g., net share-settled written put options, forward purchase contracts, “stock-settled debt”). Our Financial Reporting Developments publication, Distinguishing Liabilities from Equity, provides more information on the requirements of ASC 480.

While ASC 480 excludes share-based payments from its scope, ASC 718 provides that share-based payments that would be classified as liabilities under ASC 480 (absent ASC 480’s exemption for share-based payments) must be classified as liabilities under ASC 718, unless ASC 718 specifically provides for equity classification for an instrument. The instruments for which ASC 718 provides for equity classification include options to purchase shares subject to certain repurchase features (Section S5.2.3) and options that permit shares to be tendered (i.e., put) to the employer to satisfy the employee’s minimum tax withholding obligation (Section S5.2.6.2). Absent specific guidance in ASC 718, these instruments would be accounted for as liabilities under ASC 480.

Examples of instruments for which ASC 480 would require liability classification include:

- Contracts for which the monetary value is predominantly fixed, sometimes characterized as “stock-settled debt” (e.g., an award in which the employee will receive a variable number of shares with a fair value equal to a predominantly fixed dollar amount on the delivery date). Awards with predominantly fixed monetary values will arise most frequently in connection with employee stock purchase plans that provide a fixed
discount from the share price on the purchase date (no look-back features), which are discussed in Section S12.5, and bonus plans settled in shares, which are discussed in Section S4.3.1.3;

► A freestanding written put option in which the employer issues a freestanding right to the employee to sell the employer’s shares back to the employer for a specified price. ASC 480 does not apply to repurchase rights embedded in shares (see Section S5.2.3). We believe share repurchase features usually would be viewed as embedded in shares because they typically are provided for in the share-based payment agreement and the repurchase right is not “legally detachable or separately exercisable” from the underlying shares;

► A freestanding forward purchase contract in which the employer and employee agree that the employee will sell the employer’s shares back to the employer for a specified price on a specified date (see discussion of embedded repurchase features in the previous bullet);

► Shares that are mandatorily redeemable. For example, preferred shares that must be redeemed for a specified amount on a specified date are liabilities under ASC 480. Additionally, options on mandatorily redeemable shares are liabilities under ASC 480. However, certain of the requirements of ASC 480 aren’t required for nonpublic entities.

Excerpt from Accounting Standards Codification

Compensation — Stock Compensation — Overall

Recognition

718-10-25-8

In determining the classification of an instrument, an entity shall take into account the classification requirements that are effective for that specific entity at the reporting date as established by Topic 480. In addition, a call option written on an instrument that is not classified as a liability under those classification requirements (for example, a call option on a mandatorily redeemable share for which liability classification is not required for the specific entity under the requirements effective at the reporting date) also shall be classified as equity so long as those equity classification requirements for the entity continue to be met, unless liability classification is required under the provisions of paragraphs 718-10-25-11 through 25-12.

ASC 718-10-25-8 merely clarifies that the deferral of the requirements of ASC 480 (as provided for in ASC 480-10-65-1) for certain financial instruments also applies to share-based payments. For example, common shares issued by a nonpublic company that are mandatorily redeemable at a formula value on an employee’s termination (see example in Section S5.2.2.1), as well as any options on such shares, generally would not be subject to the requirements of ASC 480. See our Financial Reporting Developments publication, Distinguishing Liabilities from Equity, for more information on the specific issuers and instruments that are subject to the deferral of certain requirements of ASC 480.
S5.2.2.1 Example—Application of classification guidance to book (formula) value stock purchase plan

The following illustration from ASC 718 provides an example of a circumstance in which the deferral of ASC 480 permits certain mandatorily redeemable shares to be classified as equity.

Excerpt from Accounting Standards Codification

Compensation—Stock Compensation—Overall

Implementation Guidance and Illustrations

718-10-55-131

A nonpublic entity that is not a Securities and Exchange Commission (SEC) registrant has two classes of stock. Class A is voting and held only by the members of the founding family, and Class B (book value shares) is nonvoting and held only by employees. The purchase price of Class B shares is a formula price based on book value. Class B shares require that the employee, six months after retirement or separation from the entity, sell the shares back to the entity for cash at a price determined by using the same formula used to establish the purchase price. Class B shares may not be required to be accounted for as liabilities pursuant to Topic 480 because the entity is a nonpublic entity that is not an SEC registrant. Nevertheless, Class B shares may be classified as liabilities if they are granted as part of a share-based payment transaction and those shares contain certain repurchase features meeting criteria in paragraph 718-10-25-9; this Example assumes that Class B shares do not meet those criteria. Because book value shares of public entities generally are not indexed to their stock prices, such shares would be classified as liabilities pursuant to this Topic.

718-10-55-132

Determining whether a transaction involving Class B shares is compensatory will depend on the terms of the arrangement. For instance, if an employee acquires 100 shares of Class B stock in exchange for cash equal to the formula price of those shares, the transaction is not compensatory because the employee has acquired those shares on the same terms available to all other Class B shareholders and at the current formula price based on the current book value. Subsequent changes in the formula price of those shares held by the employee are not deemed compensation for services.

718-10-55-133

However, if an employee acquires 100 shares of Class B stock in exchange for cash equal to 50 percent of the formula price of those shares, the transaction is compensatory because the employee is not paying the current formula price. Therefore, the value of the 50 percent discount should be attributed over the requisite service period. However, subsequent changes in the formula price of those shares held by the employee are not compensatory.
Note that the last sentence in the preceding paragraph indicating that changes in the formula price are not compensatory is true only because the repurchase feature does not require liability accounting based on the guidance in Section S5.2.3 below. If the shares were classified as liabilities, the liability generally would be recognized at the formula price each period with changes in the formula price recognized as compensation cost. Options on such shares generally would be recognized at fair value (or calculated or intrinsic value for nonpublic companies) with an underlying “share price” equal to the current formula value.

Based on our discussions with the FASB staff we understand that a key aspect of the above example is that all purchasers and sellers of the Class B stock transact in the shares at the formula price. Essentially, the formula price represents fair value for those shares. Accordingly, if the formula price only applied to employees and other shareholders bought and sold shares at fair value that differed from the formula price, the Class B shares would be liabilities based on the guidance in Section S5.2.3.

Another key aspect of the above example is that the formula price is intended to reward the employees as shareholders, and liquidity is provided at a formula price because of the difficulty associated with estimating the fair value of the employer’s stock. If there were frequent transactions in the employer’s stock that established the fair value of the stock, we believe that a formula repurchase feature would require liability accounting. We believe this would be the case even if the transactions were in a different class of stock as long as the rights of the other class of stock were not substantively different from the class held by the employees. Further, because equity classification is appropriate only if the arrangement is intended to reward holders as shareholders, we believe that the formula price repurchase feature should not serve as the basis for a purchase or distribution in the event of a liquidity event (i.e., change in control or liquidation). In those circumstances, if the employees receive the formula price while other shareholders receive the residual amount, that purchase or distribution would not appear consistent with treating the employees as shareholders. Liability classification would be required if such a provision was included in the terms of the shares or related agreements.

The above discussion assumes that the employee will bear the risks and rewards of being a shareholder for a reasonable period of time (i.e., six months). If based on the above guidance the repurchase price provides the employee with a return consistent with other shareholders, equity classification is warranted only if the employee is expected to be subject to those risks and rewards for at least six months after the shares are purchased or vest and the employee is not permitted to avoid those risks and rewards (see Section S5.2.3). Accordingly, because the repurchase of shares generally is required on termination (which is within the control of the employee), we believe that to qualify for equity classification the repurchase of shares must not be permitted within six months of vesting or share purchase, and the repurchase price must be determined at a date no earlier than six months after full payment for, or vesting of, the shares.
S5.2.3 Classification of awards that include share repurchase features

Compensation arrangements may include features that provide the employee the right to sell shares back to the company (a put option), or provide the company a right to repurchase shares (a call option) or a right of first refusal (the right to purchase the stock from the employee prior to the employee’s sale of shares to a third party) related to stock previously awarded to the employees (such as stock acquired by the employee through option exercise). These rights often are provided for shares and options of nonpublic companies or nonpublic subsidiaries. Puts, calls, and rights of first refusal are collectively referred to herein as share repurchase features and are used to satisfy an employee’s liquidity needs and enable the employer to limit the dispersion of share ownership.

The FASB included the following guidance in ASC 718 on the accounting implications of share repurchase features. The FASB’s intent was to provide guidance that generally was consistent with practice under Opinion 25 (as interpreted by Interpretation 44 and Issue 00-23) and Statement 123 (which analogized to the guidance in Interpretation 44 and Issue 00-23).

ASC 718’s guidance regarding the classification of shares subject to repurchase features is as follows:

<table>
<thead>
<tr>
<th>Excerpt from Accounting Standards Codification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation – Stock Compensation – Overall</td>
</tr>
<tr>
<td>Recognition</td>
</tr>
<tr>
<td>718-10-25-9</td>
</tr>
</tbody>
</table>
| Topic 480 does not apply to outstanding shares embodying a conditional obligation to transfer assets, for example, shares that give the employee the right to require the employer to repurchase them for cash equal to their fair value (puttable shares). A put right may be granted to the employee in a transaction that is related to a share-based compensation arrangement. If exercise of such a put right would require the entity to repurchase shares issued under the share-based compensation arrangement, the shares shall be accounted for as puttable shares. A puttable (or callable) share awarded to an employee as compensation shall be classified as a liability if either of the following conditions is met:
| a. The repurchase feature permits the employee to avoid bearing the risks and rewards normally associated with equity share ownership for a reasonable period of time from the date the requisite service is rendered and the share is issued. An employee begins to bear the risks and rewards normally associated with equity share ownership when all the requisite service has been rendered. A repurchase feature that can be exercised only upon the occurrence of a contingent event that is outside the employee’s control (such as an initial public offering) would not meet this condition until it becomes probable that the event will occur within the reasonable period of time. |
b. It is probable that the employer would prevent the employee from bearing those risks and rewards for a reasonable period of time from the date the share is issued.

For this purpose, a period of six months or more is a reasonable period of time.

718-10-25-10

A puttable (or callable) share that does not meet either of those conditions shall be classified as equity (see paragraph 718-10-55-85).

Implementation Guidance and Illustrations

718-10-55-85

An entity may, for example, grant shares under a share-based compensation arrangement that the employee can put (sell) to the employer (the entity) shortly after the vesting date for cash equal to the fair value of the shares on the date of repurchase. That award of puttable shares would be classified as a liability because the repurchase feature permits the employee to avoid bearing the risks and rewards normally associated with equity share ownership for a reasonable period of time from the date the share is issued (see paragraph 718-10-25-9(a)). Alternatively, an entity might grant its own shares under a share-based compensation arrangement that may be put to the employer only after the employee has held them for a reasonable period of time after vesting but at a fixed redemption amount. Those puttable shares also would be classified as liabilities under the requirements of this Topic because the repurchase price is based on a fixed amount rather than variations in the fair value of the employer’s shares. The employee cannot bear the risks and rewards normally associated with equity share ownership for a reasonable period of time because of that redemption feature. However, if a share with a repurchase feature gives the employee the right to sell shares back to the entity for a fixed amount over the fair value of the shares at the date of repurchase, paragraph 718-20-35-7 requires that the fixed amount over the fair value be recognized as additional compensation cost over the requisite service period (with a corresponding liability being accrued).

Note that the above guidance relates specifically to grants of stock. As discussed below, if a stock option can be put back to the company, the guidance in Section S5.2.1 applies. However, if only the shares underlying the option may be put back to the company, those shares are subject to the guidance described above.

S5.2.3.1 Employee has the right to put shares

Paragraph ASC 718-10-25-9(a) deals with circumstances in which the employee has a put option on the shares and focuses on two key conditions which, if both are met, require a share-based payment to be classified as a liability. For embedded employee put options, liability classification is required if the award “permits” the employee to avoid the risks and rewards described below. Liability classification is required even if it is unlikely that the employee will exercise his or her put right. However, if the employee can put the shares only on an event that is not probable of occurrence, the contingent put would not cause liability
accounting (see Section S5.2.3.3). Further, even if an award subject to employee put rights
can be classified as equity under ASC 718, public companies will be required to classify such
awards as “temporary equity” under ASR 268, as discussed in Section S5.2.3.5.

An award is classified as a liability if either of the following conditions is met:

1. The award permits the employee to avoid bearing the risks and rewards normally
   associated with equity share ownership.

   **Fair value repurchase** – Generally, if a repurchase feature provides for a repurchase at
   fair value of the shares on the date of purchase, an employee would bear the risks and
   rewards of ownership (although as discussed in Condition 2., below, those risks and
   rewards must be held for a minimum period to avoid liability classification).

   **Fixed price repurchase** – If a repurchase feature is for a fixed dollar amount, the
   employee generally would not bear the risks and rewards of share ownership and liability
   classification would be required. We generally believe that an award subject to a fixed
   price put option would be accounted for as an award with a liability and equity component
   similar to a tandem award described in ASC 718-10-55-120 through 55-130(see Section
   S7.4.6). However, as discussed in Section S5.2.3.4, a share repurchase feature at a price
   equal to the original share purchase price that is exercisable only if the employee is
   terminated within a specific period may in substance be a forfeiture provision and should
   be accounted for as such (not as a repurchase feature).

   **Repurchase at fixed premium over fair value** – If a repurchase feature provides for a
   repurchase price equal to the fair value of the shares on the repurchase date plus a fixed
   premium, the employee would bear the risks and rewards of ownership (a change in the
   value of the shares results in a corresponding change in the repurchase price). However,
   ASC 718-10-55-85 indicates that “paragraph 718-20-35-7 requires that the fixed amount
   over the fair value be recognized as additional compensation cost over the requisite
   service period (with a corresponding liability being accrued).” We generally believe that the
   “fixed premium” classified as a liability applies to premiums stated as a fixed monetary
   amount and not to premiums stated as a percentage in excess of fair value. For example, if
   a repurchase feature provides for a repurchase price equal to the fair value of the shares
   on the repurchase date plus $100, then the $100 is recorded as a liability over the
   requisite service period (assuming Condition 2 described below has been met). If the
   premium was expressed as a fixed or variable percentage over fair value (e.g., 10%), then
   the award is not considered to contain a fixed premium over fair value because the amount
   received by the employee will vary based solely on changes in the employer’s share price.

   **Formula repurchase price** – If a repurchase feature provides for a repurchase price based
   on something other than the fair value of the employer’s shares (e.g., a formula based on
   book value or EBITDA), the award generally will be accounted for as a liability. As
   discussed in ASC 718-10-55-131, a public company would account for the award as a
liability because “book value [or other formula value] shares of public entities generally are not indexed to their stock prices.” Further, a nonpublic entity also would account for the award as a liability unless substantially all shares of the same class are purchased and sold by the employer based on the same formula (see the example and further discussion in Section S5.2.2.1) and, as discussed in Condition 2 below, those risks and rewards must be held for a minimum period.

2. The risks and rewards of share ownership are not retained for a reasonable period of time from the date the requisite share service is rendered and the share is issued.

The concept of a “reasonable period of time” is similar to the concept in Opinion 25 that repurchases of shares “shortly after issuance” should be accounted for as compensation. While the FASB initially decided not to provide additional guidance on what was meant by the term “reasonable period of time,” it ultimately decided to define a “reasonable period of time” as a period of six months, consistent with the guidance in Interpretation 44 and Issue 00-23. In its Basis for Conclusions for Statement 123(R), the FASB stated, “the interim guidance [regarding classification of instrument subject to share repurchase features] is based largely on practice under Interpretation 44 and Issue 00-23 because the Board believes that interim guidance, in general, should disrupt practice as little as possible. For that reason, the interim guidance in paragraph 31 about what constitutes a reasonable period of time continues the bright-line criterion of six months or more. The Board’s reluctance to provide bright-lines has already been discussed (paragraph B116), and this Statement does not provide bright-line criteria in areas in which they do not already exist. However, the Board decided that in this situation in which a bright-line criterion already exists in practice, explicitly providing that criterion is preferable to effectively creating confusion on an issue that the Board is considering in another project (paragraph B134 of Statement 123(R))."

The six-month “clock” begins on “the date the requisite service is rendered and the share is issued.” As such, the clock begins when (a) a share is vested or (b) an option is exercised and not subject to forfeiture through a repurchase feature that operates as a forfeiture provision (see Section S5.2.3.4). This approach is similar to the requirements of Opinion 25 and its interpretations as well as practice under Statement 123.

In some cases, the employee may have the ability to put shares back to the employer for fair value within six months of option exercise or share vesting, but may choose not to do so. At the end of the six-month period, the employee will have been subject to the risks and rewards of share ownership for a reasonable period of time. If the award is still being accounted for under ASC 718, we believe that the shares must be reclassified to equity (consistent with the previous guidance in Issue 00-23) at fair value on the date of reclassification (however, public companies must classify the redemption amount outside of permanent equity, as discussed in Section S5.2.3.5). Gains or losses previously recognized while the instrument was classified as a liability are not reversed.
S5.2.3.2 Employer has the right to call shares

ASC 718-10-25-9(b) deals with circumstances in which the employer has a call option on the shares, and requires liability classification if “it is probable that the employer would prevent the employee from bearing those risks and rewards for a reasonable period of time from the date the share is issued.” The concepts of “bearing the risks and rewards” of share ownership and “reasonable time” are the same as described for employee puts under Section S5.2.3.1. However, unlike employee put options where the probability that the employee will put the shares is not factored into the classification analysis, paragraph 718-10-25-9(b) only requires liability classification if it is probable that the employer will exercise a call right that precludes the employee from bearing the risks and rewards of ownership for at least six months.

As previously discussed, the FASB’s goal was to largely allow existing practice with respect to share repurchase features to continue until the FASB reconsiders classification issues comprehensively in its liabilities and equity project. Accordingly, we believe that the guidance in Issue 00-23 regarding when a call right is “expected” to be exercised provides useful guidance in determining when it is probable that the employer’s call right will be exercised.

In Issue 23(a) of Issue 00-23, the EITF concluded that the assessment of whether an employer’s repurchase of immature shares (i.e., shares held for less than six months) at fair value is expected should be based on (1) the employer’s stated representation that it has the positive intent not to call immature shares and (2) all other relevant facts and circumstances. The EITF indicated that the following factors should be considered in assessing whether the existence of a call feature results in an expectation that immature shares will be repurchased (this list is not all inclusive; all relevant facts and circumstances should be considered):

► The frequency with which the employer has called immature shares in the past.
► The circumstances under which the employer has called immature shares in the past.
► The existence of any legal, regulatory, or contractual limitations on the employer’s ability to repurchase shares.
► Whether the employer is a closely held, private company (e.g., a company may have a policy that shares cannot be widely held, thus resulting in an expectation that immature shares will be repurchased).

If it is probable that the employer will repurchase immature shares (using the guidance above), the share-based payment should be accounted for as a liability.

An active call feature requires the employer to assess whether the repurchase of immature shares is expected each reporting period on an individual employee-by-employee basis. Initially, a stock option or share award may have been accounted for as an equity award, but, subsequently, based on a change in circumstances, an expectation exists that the employer...
will repurchase immature shares. Accordingly, the equity award becomes a liability on the date that expectation changes. We believe the reclassification should be accounted for in a manner similar to a modification that changes the classification of an award from equity to liability, as discussed in Sections S5.2.1.2 and S8.4.1.

If an employer’s repurchase of shares occurs at a price that is not fair value, then a different analysis is required. In Issue 23(d) of Issue 00-23, the EITF concluded that an employer call feature that results, or could potentially result, in a repurchase amount that is less than the fair value of the underlying shares will always result in an expectation that the repurchase feature will be exercised. Accordingly, we believe that if the award permits the employer to repurchase the awards at an amount that is less than the fair value of the underlying shares, then the share-based payment should be accounted for as a liability.

Issue 23(d) of Issue 00-23 also stated that if the call feature is at an amount that is greater than the fair value of the underlying shares, then the determination of whether the call right is expected to be exercised should be assessed in a manner similar to call rights at fair value discussed in Issue 23(a) (using the guidance above). If it is probable that the employer will repurchase immature shares (using the guidance above), the share-based payment should be accounted for as a liability. If it is not probable that the employer will repurchase immature shares (using the guidance above), then the employee would bear the risks and rewards of ownership (a change in the value of the shares results in a corresponding change in the repurchase price). If the repurchase amount includes a fixed premium over fair value, then the fixed amount over the fair value should be recognized as additional compensation cost over the requisite service period (with a corresponding liability being accrued), as discussed in S5.2.3.1 above.

S5.2.3.3 Repurchase right is contingent

In some instances, an employer may grant a share-based payment with a repurchase feature that becomes exercisable only on the occurrence of specified future events (e.g., employee separation, death, or disability). If none of the events occur, the repurchase right never becomes exercisable.

ASC 718-10-25-9(a) states that a “repurchase feature that can be exercised only on the occurrence of a contingent event that is outside the employee’s control (such as an initial public offering) would not meet this condition [this condition deals with the employee being able to avoid the risks and rewards of stock ownership] until it becomes probable that the event will occur within the reasonable period of time.” Additionally, ASC 718-10-25-9(b) explicitly includes the probability that an employer call will be exercised in the assessment of whether a repurchase feature causes an award to be classified as a liability. Accordingly, a repurchase right that is contingent on a future event that is not probable of occurrence (either within six months of share vesting and issuance for fair value repurchase features or indefinitely for formula repurchase features) will not cause an award to be classified as a liability.
Again, we look to the guidance in Issue 00-23 to assist in determining when it is probable that a put or call will become exercisable. First, an assessment should be made as to whether the party that can exercise the repurchase feature also controls the events or actions that would cause the repurchase feature to become exercisable. For example, if a call feature is contingent on termination of the employee without cause, the event generally is within the employer’s control. On the other hand, if the call feature is contingent on termination of the employee for cause, the event generally is outside the employer’s control.

If the event on which a repurchase right is contingent is within the control of the party that can exercise the repurchase feature, the call feature should be evaluated as if it were not contingent (see Sections S5.2.3.1 and S5.2.3.2). On the other hand, if the events are outside the control of the party that can exercise the repurchase feature, the employer should assess whether the occurrence of the contingent event is probable. If the occurrence of the contingent event is not probable, liability accounting is not required. However, if the occurrence of the contingent event during the period the shares are immature is probable, the call feature should be evaluated as if it were not contingent. The evaluation of contingent events should be made on an individual employee-by-employee basis and reassessed each reporting period throughout the contingency period.

S5.2.3.4 Repurchase feature equivalent to a forfeiture provision

As previously discussed, we believe that the scope of the guidance in ASC 718 on repurchase features excludes those “repurchase features” that essentially are forfeiture provisions in the form of an option that permits a company to reacquire shares for an amount equal to an option's original exercise price (or the lower of the original exercise price or fair value, in certain circumstances) if the grantee terminates employment within a specified period of time. For example, an employee may purchase a share of stock for $20 (fair value) at the grant date for a combination of cash and recourse notes. The employer will repurchase the share for $20 if the employee ceases to be employed within three years of the grant date. The purpose of the repurchase feature is to permit the employee’s holding period for tax purposes to begin at the grant date rather than at some later date. The repurchase feature in this instance functions as a forfeiture (vesting) provision and, therefore, is excluded from the scope of the guidance in Section S5.2.3. Forfeiture provisions are discussed further in Section S3.8.

S5.2.3.5 Application of ASR 268 (temporary equity) by SEC registrants

A repurchase or cash settlement feature may not result in liability classification of an award after consideration of the guidance discussed above and in Section S5.2.1, but SEC registrants must still consider the requirements of ASR 268 (included in the codification for reference at ASC 480-10-S99-1), SAB Topic 3-C, Redeemable Preferred Stock and the SEC staff announcement in EITF Topic No. D-98, “Classification and Measurement of Redeemable Securities” (included in the codification for reference at ASC 480-10-S99-3A) (collectively, the SEC’s guidance on redeemable securities). For example:
An employee stock option may provide the employee with the right to require the employer to repurchase the shares acquired on exercise of the option for fair value beginning six months after option exercise.

An employee stock option may provide for cash settlement on an event (e.g., death, disability, or a change in control) that is not probable of occurrence.

An award of nonvested stock may provide the employee the right to require the employer to repurchase the shares either: (a) six months after the shares vest or (b) on an event (e.g., death, disability, or a change in control) that is not probable of occurrence.

In the above examples, the share-based payments qualify for equity classification provided that other features do not warrant liability classification.

The SEC staff indicated in SAB Topic 14 that the SEC’s guidance on redeemable securities applies to share-based payments subject to repurchase features on the initial grant of the equity instruments:

**Excerpt from SAB Topic 14.E**

Facts: Under a share-based payment arrangement, Company F grants to an employee shares (or share options) that all vest at the end of four years (cliff vest). The shares (or shares underlying the share options) are redeemable for cash at fair value at the holder’s option, but only after six months from the date of share issuance (as defined in Statement 123R). Company F has determined that the shares (or share options) would be classified as equity instruments under the guidance of Statement 123R. However, under ASR 268 and related guidance, the instruments would be considered to be redeemable for cash or other assets upon the occurrence of events (e.g., redemption at the option of the holder) that are outside the control of the issuer.

Question 1: While the instruments are subject to Statement 123R, is ASR 268 and related guidance applicable to instruments issued under share-based payment arrangements that are classified as equity instruments under Statements 123R?

Interpretive response: Yes. The staff believes that registrants must evaluate whether the terms of instruments granted in conjunction with share-based payment arrangements with employees that are not classified as liabilities under Statement 123R result in the need to present certain amounts outside of permanent equity (also referred to as being presented in “temporary equity”) in accordance with ASR 268 and related guidance.

When an instrument ceases to be subject to Statement 123R and becomes subject to the recognition and measurement requirements of other applicable GAAP, the staff believes that the company should reassess the classification of the instrument as a liability or equity at that time and consequently may need to reconsider the applicability of ASR 268.
Question 2: How should Company F apply ASR 268 and related guidance to the shares (or share options) granted under the share-based payment arrangements with employees that may be unvested at the date of grant?

Interpretive response: Under Statement 123R, when compensation cost is recognized for instruments classified as equity instruments, additional paid-in-capital is increased. If the award is not fully vested at the grant date, compensation cost is recognized and additional paid-in-capital is increased over time as services are rendered over the requisite service period. A similar pattern of recognition should be used to reflect the amount presented as temporary equity for share-based payment awards that have redemption features that are outside the issuer’s control but are classified as equity instruments under Statement 123R.

The staff believes Company F should present as temporary equity at each balance sheet date an amount that is based on the redemption amount of the instrument, but takes into account the proportion of consideration received in the form of employee services. Thus, for example, if a nonvested share that qualifies for equity classification under Statement 123R is redeemable at fair value more than six months after vesting, and that nonvested share is 75% vested at the balance sheet date, an amount equal to 75% of the fair value of the share should be presented as temporary equity at that date. Similarly, if an option on a share of redeemable stock that qualifies for equity classification under Statement 123R is 75% vested at the balance sheet date, an amount equal to 75% of the intrinsic value of the option should be presented as temporary equity at that date.

---

83 Statement 123R, paragraph A231, states that an instrument ceases to be subject to Statement 123R when "the rights conveyed by the instrument to the holder are no longer dependent on the holder being an employee of the entity (that is, no longer dependent on providing service)."

84 Insurments granted in conjunction with share-based payment arrangements with employees that do not by their terms require redemption for cash or other assets (at a fixed or determinable price on a fixed or determinable date, at the option of the holder, or upon the occurrence of an event that is not solely within the control of the issuer) would not be assumed by the staff to require net cash settlement for purposes of applying ASR 268 in circumstances in which paragraphs 14 – 18 of EITF Issue 00-19, Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company's Own Stock, would otherwise require the assumption of net cash settlement. See Statement 123R, footnote 152 to paragraph B121, which states, in part: “...Issue 00-19 specifies that events or actions necessary to deliver registered shares are not controlled by a company and, therefore, except under limited circumstances, such provisions would require a company to assume that the contract would be net-cash settled....Thus, employee share options might be classified as substantive liabilities if they were subject to Issue 00-19; however, for purposes of this Statement, the Board does not believe that employee share options should be classified as liabilities based solely on that notion.” See also Statement 123R, footnote 20.

85 Depending on the fact pattern, this may be recorded as common stock and additional paid-in-capital.

86 The potential redemption amount of the share option in this illustration is its intrinsic value because the holder would pay the exercise price upon exercise of the option and then, upon redemption of the underlying shares, the company would pay the holder the fair value of those shares. Thus, the net cash outflow from the arrangement would be equal to the intrinsic value of the share option. In situations where there would be no cash inflows from the share option holder, the cash required to be paid to redeem the underlying shares upon the exercise of the put option would be the redemption value.
The SEC staff’s response to question 2 above is important in two respects. First, it clarifies that although an award is subject to vesting (and, in most cases, the employer could terminate the employee prior to vesting and not incur a redemption obligation), the SEC’s guidance on redeemable securities still applies to the award. Second, it clarifies that the amount recognized in temporary equity is based on the redemption value of the vested portion of the award, less the exercise price of the vested portion.

The SEC’s guidance on redeemable securities require an SEC registrant’s share-based payments that are not classified as liabilities but that could require the employer to redeem the equity instruments for cash or other assets, to classify the initial redemption amount outside of permanent equity (between liabilities and equity, generally characterized as “temporary” or “mezzanine” equity) and, in some cases, subsequently adjust that carrying amount to a recalculated redemption amount each reporting period. While SEC Staff Accounting Bulletins do not apply to nonpublic companies, we believe that such guidance represents a preferable accounting alternative and should be considered by nonpublic companies.

The initial or subsequent measurement and recognition of the amount that must be classified as temporary equity under SEC’s guidance on redeemable securities differs depending on whether:

- The award is vested or nonvested,
- The award consists of redeemable stock options or redeemable shares, and
- Redemption is contingent on an event that is not probable of occurrence.

Further, the effect of changes in the amount classified in temporary equity differs depending on whether or not the redemption amount is at the fair value of the shares (or intrinsic value of an option).

**S5.2.3.5.1 Vested versus nonvested awards**

As discussed in SAB Topic 14, the redemption amount that must be classified in redeemable equity is based on the relative proportion of the award that is vested at any given time. Accordingly, the initial redemption amount for a nonvested share would be zero, but then the redemption amount would be recognized in proportion to the amount of service provided. When the award is vested, the full redemption amount would be classified in temporary equity.

**S5.2.3.5.2 Redeemable stock options or redeemable shares**

The requirement in ASC 480-10-S99-3A(12) that the “initial carrying amount of redeemable preferred stock should be its fair value at date of issue” has led to some confusion in practice because it is not clear whether this requirement was intended to apply to employee stock options that are redeemable at intrinsic value, rather than fair value. For example, assume an
employee stock option is granted at-the-money and is subject to redemption at intrinsic value only on an event that is not probable of occurrence (e.g., a change in control of the employer). Initially, the redemption amount of the option is zero (because it is granted at the money). Accordingly, presenting the *fair value* of the instrument in temporary equity appears inconsistent with the intent of the SEC’s guidance on redeemable securities to highlight the redemption obligation that is measured at *intrinsic value*. Similar issues arise in connection with the grant of an employee stock option that permits the employee to put the underlying shares to the employer at a price equal to the fair value of the shares six months after option exercise.

In the examples described above, consistent with the requirements of footnote 86 of SAB Topic 14\(^\text{12}\) and ASC 480-10-S99-3A, the redemption amount that would be classified in temporary equity is based on the intrinsic value of the option. However, if an option or share is redeemable at fair value, we believe that the amount classified in temporary equity would be measured based on the fair value of the option or share, not the intrinsic value of the option.

In summary, the amount that should be classified in temporary equity is as follows:

<table>
<thead>
<tr>
<th>Type of instrument</th>
<th>Amount classified in temporary equity calculated based on the vested percentage of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option redeemable at intrinsic value</td>
<td>Intrinsic value</td>
</tr>
<tr>
<td>Option redeemable at fair value</td>
<td>Fair value</td>
</tr>
<tr>
<td>Option for which underlying share is redeemable at fair value</td>
<td>Intrinsic value of option or, after exercise, fair value of share</td>
</tr>
<tr>
<td>Share redeemable at fair value</td>
<td>Fair value</td>
</tr>
</tbody>
</table>

Note that for options redeemable at intrinsic value, the amount recognized in temporary equity (intrinsic value) will differ from the amount recognized in equity as compensation cost is recognized because that latter amount will be based on the fair value of the option on the grant date.

---

\(^{12}\) Footnote 86 of SAB Topic 14 states “The potential redemption amount of the share option in this illustration is its intrinsic value because the holder would pay the exercise price on exercise of the option and then, on redemption of the underlying shares, the company would pay the holder the fair value of those shares. Thus, the net cash outflow from the arrangement would be equal to the intrinsic value of the share option. In situations where there would be no cash inflows from the share option holder, the cash required to be paid to redeem the underlying shares on the exercise of the put option would be the redemption value.”
S5.2.3.5.3 Contingent redemption

In some cases, the employee’s ability to require the employer to redeem an equity instrument is contingent on an event outside the control of the employee. For example, an award may provide the employee (or the employee’s estate) the ability to require redemption of an equity instrument only on the employee’s death or disability or on a change in control. In those circumstances, the SEC’s guidance on redeemable securities requires an assessment of whether the contingent event is probable of occurrence. If the event that permits redemption is not probable of occurrence, ASC 480-10-S99-3A(15) states that “subsequent adjustment of the amount presented in temporary equity is unnecessary if it is not probable that the instrument will become redeemable.”

Based on the guidance in ASC 480-10-S99-3A, a share-based payment that is redeemable only on a contingency outside the employee’s control would not be adjusted from its initial redemption value until the contingent event is probable. Therefore, for options that are granted at-the-money and are contingently redeemable at intrinsic value, the initial redemption amount is zero and no adjustment to that amount is required until the contingent event becomes probable. When the contingent event becomes probable:

- For an option or an immature share, liability classification would be required (see further discussion in Section S5.2.1). As discussed in ASC 718, any excess of the fair value of the liability at reclassification over the amount recognized in equity for the award would be recognized as compensation cost. Compensation cost for an award that was reclassified from equity to a liability cannot be less than the grant-date fair value of the equity award. Accordingly, if the fair value of the liability is less than the grant-date fair value of the equity award, that deficiency does not affect the amount of compensation cost recognized.

- If the employee’s put option is on a mature share (or a share that is expected to be mature when the put becomes exercisable), the adjustment to the redemption amount is recognized as discussed in Section S5.2.3.5.4.

---

13 We believe that the probability of occurrence should be assessed similar to the assessment that would occur under the liability classification guidance in the stock compensation literature. While not specifically addressed in ASC 718, paragraph 85 of Issue 00-23 indicated that “an employer should assess whether the contingent event is expected to occur (that is, whether occurrence is probable) on an individual grantee-by-grantee basis.” [Emphasis added.] Accordingly, while it may be probable that some portion of a large employee group may pass away or become disabled, it would be infrequent that an employer would identify specific employees for which it is probable that either of those events would occur.

14 We use the term “immature share” to refer to circumstances in which the employee has not been subject to the risks and rewards of share ownership for at least six months.
S5.2.3.5.4 Accounting for changes in amounts classified as temporary equity

SAB Topic 14 does not explicitly address from which balance sheet accounts the redemption value of a share-based payment should be reclassified. For redeemable preferred stocks, ASC 480-10-S99-3A provides that the change in redemption amount should be recognized in retained earnings and should result in an adjustment to earnings available to common shareholders. That is, the change in redemption value increases or decreases earnings available to common shareholders and, as a result, earnings per share. However, the SEC staff believes that while adjustments to the redemption amount must be recognized in retained earnings (similar to a dividend) or, in the absence of retained earnings, by charges against additional paid-in capital, the impact of that adjustment on the calculation of earnings per share differs depending on how the redemption amount is calculated. If a share is redeemable at fair value, or in the case of an option, redeemable at intrinsic value, ASC 480-10-S99-3A(21) states:

**Excerpt from Accounting Standards Codification**

*Distinguishing Liabilities from Equity – Overall*

**SEC Materials**

*480-10-S99-3A(21)*

However, increases or decreases in the carrying amount of a redeemable common stock should not affect income available to common stockholders. Rather, the SEC staff believes that to the extent that a common shareholder has a contractual right to receive at share redemption (in other than a liquidation event that meets the exception in paragraph 3(f)) an amount that is other than the fair value of the issuer's common shares, then that common shareholder has, in substance, received a distribution different from other common shareholders. Under Paragraph 260-10-45-59A, entities with capital structures that include a class of common stock with different dividend rates from those of another class of common stock but without prior or senior rights, should apply the two-class method of calculating earnings per share. Therefore, when a class of common stock is redeemable at other than fair value, increases or decreases in the carrying amount of the redeemable instrument should be reflected in earnings per share using the two-class method. FN17 For common stock redeemable at fair value FN18, the SEC staff would not expect the use of the two-class method, as a redemption at fair value does not amount to a distribution different from other common shareholders. FN19

FN 17 The two-class method of computing earnings per share is addressed in Section 260-10-45. The SEC staff believes that there are two acceptable approaches for allocating earnings under the two-class method when a common stock instrument is redeemable at other than fair value. The registrant may elect to: (a) treat the entire periodic adjustment to the instrument's carrying amount (from the application of paragraphs 14-16) as being akin to a dividend or (b) treat only the portion of the periodic adjustment to the instrument's carrying amount (from the application of paragraphs 14-16) that reflects a redemption in excess of fair value as being akin to a dividend. Under either approach, decreases in the
instrument's carrying amount should be reflected in the application of the two-class method only to the extent they represent recoveries of amounts previously reflected in the application of the two-class method.

FN 18 Common stock that is redeemable based on a specified formula is considered to be redeemable at fair value if the formula is designed to equal or reasonably approximate fair value. The SEC staff believes that a formula based solely on a fixed multiple of earnings (or other similar measure) is not considered to be designed to equal or reasonably approximate fair value.

FN 19 Similarly, the two-class method is not required when share-based payment awards granted to employees are redeemable at fair value (provided those awards are in the form of common shares or options on common shares). However, those share-based payment awards may still be subject to the two-class method pursuant to Section 260-10-45.

Accordingly, for shares redeemable at fair value, or in the case of options redeemable at intrinsic value, changes in the redemption amount would not affect the calculation of earnings per share. However, if the redemption amount of the shares is for other than fair value, the change in redemption amount is treated as a distribution to the holders of the redeemable shares and results in an adjustment to the amount of undistributed earnings available for allocation to both the holders of redeemable common stock and nonredeemable common stock. Essentially, the change in redemption amount is treated as a dividend and an adjustment to earnings available to common shareholders.

For options redeemable at fair value, we believe that because the option holder is receiving a redemption amount that is higher than the fair value of the underlying shares (assuming exercise and immediate redemption of the shares), changes in the redemption amount (measured at the fair value of the options) would be recognized as an adjustment to earnings available to common shareholders.

The earnings per share impact of the various instruments and redemption features described above is summarized as follows:

<table>
<thead>
<tr>
<th>Type of instrument / redemption feature</th>
<th>Is the change in redemption value an adjustment to earnings available to common shareholders?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option redeemable at intrinsic value</td>
<td>No</td>
</tr>
<tr>
<td>Option redeemable at fair value</td>
<td>Yes</td>
</tr>
<tr>
<td>Option for which underlying share is redeemable at fair value</td>
<td>No</td>
</tr>
<tr>
<td>Share redeemable at fair value</td>
<td>No</td>
</tr>
<tr>
<td>Option or share redeemable based on a price that is other than fair value or intrinsic value</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Example 1 – Option redeemable only on a change in control

A company grants 1,000 at-the-money options to its employees on 1 January 2007 that permit the employee to put the options to the company for cash in the event that a single party or group of parties acting together obtain ownership of more than 50% of the employer's outstanding shares. The fair value of the options is $10,000 and the options are subject to cliff vesting on 31 December 2008. Assume the employer's statutory tax rate is 40%, and on 1 January 2009 the fair value of the options is $15,000. The options are granted to a small group of senior executives and the company assumes that none of the awards will be forfeited. Initially, the company concluded that a change in control is not probable. However, on 1 January 2009, a change in control occurs and the employees therefore have an active put right. The company would record the following entry to recognize compensation cost during each of the two years in the requisite service period:

<table>
<thead>
<tr>
<th>Dr. Compensation cost</th>
<th>$ 5,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Deferred income tax asset</td>
<td>2,000</td>
</tr>
<tr>
<td>Cr. Deferred income tax expense</td>
<td>$ 2,000</td>
</tr>
<tr>
<td>Cr. Additional paid-in capital</td>
<td>5,000</td>
</tr>
</tbody>
</table>

Entry to recognize compensation cost for each of the years ended 31 December 2007 and 31 December 2008.

Because the options were granted at the money, the redemption amount on the grant date is zero. Because a change in control is not considered probable on 1 January 2007, that redemption amount need not be adjusted. Accordingly, no amount needed to be reclassified to temporary equity at the grant date.

On 1 January 2009, a change in control occurs and, therefore, the options must be reclassified from equity to liabilities. The difference between the grant-date fair value of $10,000 and the liability balance of $15,000 is recognized as compensation cost, with a corresponding deferred tax benefit.

---

15 As discussed in Section S4.4.5.4, historically compensation cost related to performance options that only vest on consummation of a business combination was recognized when the business combination was consummated. Recognition was deferred until consummation of the transaction, even when it became likely that the business combination would be consummated. This position is based on the principle established in ASC 805-20-55-51. We believe a similar approach should be applied under ASC 718 and also should be applied to other types of liquidity events, including initial public offerings.” Similarly, practice has developed such that when such an event would permit cash redemption of an award, the reclassification to a liability does not occur until the event occurs.
Dr. Additional paid-in capital $ 10,000
Dr. Compensation cost 5,000
Dr. Deferred income tax asset 2,000
    Cr. Deferred income tax expense $ 2,000
    Cr. Share-based payment liability 15,000

To reclassify the options from equity to liabilities on 1 January 2009

Example 2—Option on shares that are redeemable at fair value beginning six months after option exercise

A company grants 1,000 at-the-money options to its employees on 1 January 2007. The exercise price per share is $40. The award provides the employee the right to put the underlying shares to the company for cash equal to the fair value of the shares on the put date. The put cannot be exercised until six months after option exercise. The fair value of the options is $10,000 and the options are subject to cliff vesting on 31 December 2008. Assume the employer’s statutory tax rate is 40%. The options are granted to a small group of senior executives and the company assumes that none of the awards will be forfeited. The options are exercised on 1 January 2009, and the shares are redeemed on 1 July 2009. The intrinsic value of the options/fair value of the shares is as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>Intrinsic value of options</th>
<th>Fair value of shares</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 January 2007</td>
<td>$0</td>
<td>$40,000</td>
</tr>
<tr>
<td>31 December 2007</td>
<td>2,000</td>
<td>42,000</td>
</tr>
<tr>
<td>31 December 2008</td>
<td>5,000</td>
<td>45,000</td>
</tr>
<tr>
<td>1 January 2009</td>
<td>5,000</td>
<td>45,000</td>
</tr>
<tr>
<td>1 July 2009</td>
<td>N/A</td>
<td>44,000</td>
</tr>
</tbody>
</table>

The company would record the following entry to recognize compensation cost during each of the two years in the requisite service period. Note that because the exercise price for the put on the underlying shares is the fair value of the shares on the put date, and because the put cannot be exercised within six months of option exercise, the written call option qualifies for equity classification and, therefore, compensation is measured on the grant date:

Dr. Compensation cost $ 5,000
Dr. Deferred income tax asset 2,000
    Cr. Deferred income tax expense $ 2,000
    Cr. Additional paid-in capital 5,000

Entry to recognize compensation cost for each of the years ended 31 December 2007 and 31 December 2008.
While the award is classified as equity for purposes of ASC 718 the award provides the employee the right to require the employer to redeem the underlying shares for cash. Accordingly, the redemption value of the award is considered temporary equity under the SEC’s guidance on redeemable securities. Because the options were granted at the money, the redemption amount on the grant date is zero. Since the redemption right is within the control of the employee, the company will record the following entry to reclassify the redemption amount of the award (for the portion of the award equal to the percentage of the requisite service period that has elapsed as of 31 December 2007 to temporary equity. Note that because the underlying shares are redeemable at fair value, we do not believe that the adjustments to retained earnings in the following entries would affect the calculation of earnings available to common shareholders (the numerator of the earnings per share calculation):

Dr. Retained earnings $ 1,000
Cr. Temporary equity $ 1,000

Entry to reclassify the 31 December 2007 redemption amount to temporary equity based on 50% vesting and redemption value of $2,000 ($42,000 – 40,000).

The amount classified as temporary equity must be adjusted to the current redemption amount each reporting period. In this example, we have only illustrated a single adjustment at the end of the fiscal year, but an SEC registrant would record an appropriate adjustment to the redemption amount each quarter.

Dr. Retained earnings $ 4,000
Cr. Temporary equity $ 4,000

Entry to reclassify 31 December 2008 redemption amount to temporary equity based on 100% vesting, a redemption value of $5,000 ($45,000 – 40,000), less $1,000 previously classified in temporary equity.

The following entry would be recorded when the options are exercised:

Dr. Cash $ 40,000
Dr. Deferred income tax expense 4,000
Dr. Current income taxes payable 2,000
Cr. Current income tax expense $ 2,000
Cr. Deferred income tax asset 4,000
Cr. Temporary equity 40,000

To recognize exercise of options on 1 January 2009 and related tax effects. This example assumes that the employer does not have a pool of excess tax benefits and, therefore, the write-off of the excess deferred tax asset is recognized in operations.
Although the options have been exercised, the shares issued are redeemable and, therefore, the temporary equity balance must continue to be adjusted to the current redemption value of the shares. While those entries would be made each quarter for an SEC registrant, we have only illustrated a single adjustment at the time the shares are repurchased, as well as the entry to record the redemption of the shares:

\[
\begin{align*}
\text{Dr. Temporary equity} & \quad $1,000 \\
\text{Cr. Retained earnings} & \quad $1,000
\end{align*}
\]

Entry to reduce redemption amount as of 1 July 2009 based on decline in value of shares from $45,000 to $44,000.

\[
\begin{align*}
\text{Dr. Temporary equity} & \quad $44,000 \\
\text{Cr. Cash} & \quad $44,000
\end{align*}
\]

To recognize the redemption of the shares on 1 July 2009.

**S5.2.3.5.6 Exceptions to the requirements of distinguishing liabilities from equity**

ASC 480-10-S99-3A(3)(d) identifies two circumstances in which the requirements of distinguishing liabilities from equity normally would require temporary equity classification. In both circumstances, the SEC staff provided exceptions such that the conditions described would not cause a share-based payment to be classified in temporary equity if the award otherwise would be classified as permanent equity.

**Excerpt from Accounting Standards Codification**

**Distinguishing Liabilities from Equity – Overall**

**SEC Materials**

**480-10-S99-3A(3)(d)**

Share-based payment awards. Equity-classified share-based payment arrangements with employees are not subject to ASR 268 due solely to either of the following:

- Net cash settlement would be assumed pursuant to Paragraphs 815-40-25-11 through 25-16 solely because of an obligation to deliver registered shares. FN7

- A provision in an instrument for the direct or indirect repurchase of shares issued to an employee exists solely to satisfy the employer's minimum statutory tax withholding requirements (as discussed in Paragraphs 718-10-25-18 through 25-19).

FN7 See footnote 84 of Section 718-10-S99.
S5.2.3.5.7  Application of ASR 268 to nonemployee awards

The SEC staff explicitly observed that the guidance in the SEC’s guidance on redeemable securities and SAB Topic 14 should also be applied to awards to nonemployees that are subject to redemption outside of the issuer’s control:

Excerpt from SAB Topic 14.E

Question 3: Would the methodology described for employee awards in the Interpretive Response to Question 2 above apply to nonemployee awards to be issued in exchange for goods or services with similar terms to those described above?

Interpretive Response: See Topic 14.A for a discussion of the application of the principles in Statement 123R to nonemployee awards. The staff believes it would generally be appropriate to apply the methodology described in the Interpretive Response to Question 2 above to nonemployee awards.

However, the exceptions to the requirements described in Section S5.2.3.5.7 would not apply to awards to nonemployees.

S5.2.4  Awards with conditions other than market, performance, or service conditions

Service, performance, and market conditions are defined in Chapter 3. An award may include conditions that affect vesting, exercisability, or other conditions relevant in measuring fair value that are not market, performance, or service conditions (hereinafter referred to as “other conditions”). ASC 718-10-25-13 provides that “if that additional factor is not a market, performance, or service condition, the award shall be classified as a liability for purposes of this Topic, and the additional factor shall be reflected in estimating the fair value of the award.”

The FASB also provided the following examples in ASC 718-10-55-65 of awards that would contain an “other condition” and be classified as liabilities:

Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Overall

Implementation Guidance and Illustrations

718-10-55-65

An award may be indexed to a factor in addition to the entity’s share price. If that factor is not a market, performance, or service condition, that award shall be classified as a liability for purposes of this Topic (see paragraphs 718-10-25-13 through 25-14A). An example would be an award of options whose exercise price is indexed to the market price of a commodity, such as gold. Another example would be a share award that will vest based on the appreciation in the price of a commodity, such as gold; that award is indexed to both the value of that commodity and the issuing entity’s shares. If an award is so indexed, the
relevant factors shall be included in the fair value estimate of the award. Such an award would be classified as a liability even if the entity granting the share-based payment instrument is a producer of the commodity whose price changes are part or all of the conditions that affect an award’s vesting conditions or fair value.

In its Basis for Conclusion the FASB stated, “The Board concluded that the terms of such an award do not establish an ownership relationship because the extent to which (or whether) the employee benefits from the award depends on something other than changes in the entity’s share price. That conclusion is consistent with the Board’s conclusion in Statement 150 that a share-settled obligation is a liability if it does not expose the holder of the instrument to certain risks and rewards, including the risk of changes in the price of the issuing entity’s equity shares, that are similar to those to which an owner is exposed.” (paragraph B127 of Statement 123(R)).

S5.2.4.1 Options that can be exercised in a foreign currency
A strict reading of the guidance that “other conditions” described in Section S5.2.4 cause liability accounting would have resulted in a significant change in practice for multinational companies that grant options denominated in a foreign currency to employees of foreign subsidiaries. For example, assume a U.S. corporation with shares that trade only in the U.S. granted options to employees in Germany denominated in the Euro. The fair value of the option is indexed not only to the employer’s share price, but also to the exchange rate between the U.S dollar (the currency in which the shares trade) and the Euro (the currency of the exercise price). Based on the requirements of ASC 718-10-25-13, such an award would have been classified as a liability. However, the FASB agreed to provide a narrow exception in this circumstance:

Excerpt from Accounting Standards Codification

**Compensation — Stock Compensation — Overall**

**Recognition**

718-10-25-13

An award may be indexed to a factor in addition to the entity’s share price. If that additional factor is not a market, performance, or service condition, the award shall be classified as a liability for purposes of this Topic, and the additional factor shall be reflected in estimating the fair value of the award. Paragraph 718-10-55-65 provides examples of such awards.
718-10-25-14
For this purpose [of determining whether an “other condition” causes an award to be
classified as a liability], an award of equity share options granted to an employee of an
entity’s foreign operation that provides for a fixed exercise price denominated either in the
foreign operation’s functional currency or in the currency in which the employee’s pay is
denominated shall not be considered to contain a condition that is not a market,
performance, or service condition. Therefore, such an award is not required to be classified
as a liability if it otherwise qualifies as equity. For example, equity share options with an
exercise price denominated in euros granted to employees of a U.S. entity’s foreign
operation whose functional currency is the euro are not required to be classified as liabilities
if those options otherwise qualify as equity. In addition, such options are not required to be
classified as liabilities even if the functional currency of the foreign operation is the U.S.
dollar, provided that the employees to whom the options are granted are paid in euros.

718-10-25-14A
For purposes of applying paragraph 718-10-25-13, a share-based payment award with
an exercise price denominated in the currency of a market in which a substantial portion
of the entity’s equity securities trades shall not be considered to contain a condition that
is not a market, performance, or service condition. Therefore, in accordance with that
paragraph, such an award shall not be classified as a liability if it otherwise qualifies for
equity classification.

For example, a parent entity whose functional currency is the Canadian dollar grants
equity share options with an exercise price denominated in U.S. dollars to employees of a
Canadian entity with the functional and payroll currency of the Canadian dollar. If a
substantial portion of the parent entity’s equity securities trades on a U.S. dollar
denominated exchange, the options are not precluded from equity classification.

If an option’s exercise price is denominated in the currency in which a substantial portion of
the shares are traded, the options are not “dual-indexed” and therefore there is no “other
condition” that could be construed as other than a service, performance or market condition.
In some cases a company’s shares may trade on an exchange in which trades are
denominated in a currency other than the employer’s or employee’s functional currency. For
example, assume a Chinese company’s shares trade only in the United States, and that
compny issues options to its Chinese employees denominated in U.S. dollars. The functional
currency of the employer and the employees is the Chinese Reminbi. However, because the
option is denominated in the currency in which the shares are traded there is no “other
condition” that could be construed as other than a service, performance or market condition.
Assuming there are no other features of the option that require liability classification (e.g.,
put rights); the options would be classified as equity.
S5.2.5 Substantive terms may cause liability classification

As discussed in Chapters 3 and 5, the accounting for a share-based payment must consider all the substantive terms of the award. The FASB concluded that a past practice may effectively override the terms of an award:

Excerpt from Accounting Standards Codification

Recognition

718-10-25-15

The accounting for an award of share-based payment shall reflect the substantive terms of the award and any related arrangement. Generally, the written terms provide the best evidence of the substantive terms of an award. However, an entity’s past practice may indicate that the substantive terms of an award differ from its written terms. For example, an entity that grants a tandem award under which an employee receives either a stock option or a cash-settled stock appreciation right is obligated to pay cash on demand if the choice is the employee’s, and the entity thus incurs a liability to the employee. In contrast, if the choice is the entity’s, it can avoid transferring its assets by choosing to settle in stock, and the award qualifies as an equity instrument.

This issue arises in practice most frequently with the repurchase of shares under an option (whether or not the option is a tandem award in which the employer is provided the right to cash settle the award). A practice of repurchasing shares for cash, or a practice of repurchasing shares for cash whenever requested by the employee, prior to the employee being exposed to the risks and rewards of share ownership for a reasonable period of time, may suggest that some or all employee stock options are liabilities, even though cash settlement is not explicitly provided for in the plan.

S5.2.5.1 Awards for which the employer can choose cash or share settlement

When evaluating the substantive terms of an option, the employer’s ability to exercise its rights also must be considered. For example, in Section S5.2.5, we discussed that if the employer has the ability to settle an award in either cash or shares at its election, equity classification is appropriate unless the substantive terms of the award (e.g., past practices) suggest that the employer will settle the award in cash. However, liability classification of an award may be required even if the employer does not have a practice of settling awards in cash:
Excerpt from Accounting Standards Codification

*Compensation – Stock Compensation – Overall*

**Recognition**

718-10-25-15

In determining whether an entity that has the choice of settling an award by issuing equity shares has a substantive liability, the entity also shall consider whether:

a. It has the ability to deliver the shares. (Federal securities law generally requires that transactions involving offerings of shares under employee share option arrangements be registered, unless there is an available exemption. For purposes of this Topic, such requirements do not, by themselves, imply that an entity does not have the ability to deliver shares and thus do not require an award that otherwise qualifies as equity to be classified as a liability.)

b. It is required to pay cash if a contingent event occurs (see paragraphs 718-10-25-11 through 25-12).

Regarding the parent’s ability to deliver shares, a similar concept exists in ASC 815-40 in that if the choice of share settlement is the issuer’s but there are circumstances in which the issuer would be unable to deliver shares, liability classification is required. However, based on the FASB’s clarification in ASC 718-10-25-15 above, we do not believe that it is necessary to meet all of the requirements of ASC 815-40 for equity classification of a share-based payment while that share-based payment is being accounted for under ASC 718 (see Section S5.3 for a discussion of when an award is no longer accounted for under ASC 718).

Generally, as long as the employer has the choice of delivering shares, has the ability to settle in shares at the reporting date, and reasonably expects to be able to deliver shares at the settlement date, we believe that equity classification of a tandem award is appropriate (provided none of the other conditions described in this chapter requiring liability classification are met).

We informally discussed with the FASB staff a circumstance in which employee stock options are net-share settled (see further discussion in Section S5.2.6.1). In a net-share settlement, the employee does not tender the exercise price of the options; rather, the employer withholds the number of shares from option exercise necessary to satisfy the option exercise price (or, said another way, the employer delivers to the employee the number of shares with a current fair value equal to the intrinsic value of the exercised options). In the example fact pattern discussed with the FASB staff, the employer had insufficient shares to satisfy option exercises on a gross physical basis but, because employees are required (or expected) to net-share settle the options, fewer shares would be delivered than suggested by the gross number of shares underlying the option. We believe, and the FASB staff agreed, that it was appropriate to determine whether cash settlement was expected and liability classification was required for some or all of the grants based on the same logic used in ASC 718-10-35-15 with respect to contingent cash settlement of options. That is, if it is not probable that the
company will be required to settle some or all of the options in cash, then equity classification is appropriate (assuming the other requirements for equity classification are met). This circumstance can be illustrated as follows:

An employer grants 1,000,000 options to a group of employees, which have an exercise price of $10 per share. The employer expects 950,000 options to vest. No other options are outstanding. The employer only has 800,000 shares authorized and unissued that are available to satisfy exercises of the options. The employer has the choice to settle the awards in cash or shares, and intends to settle the awards in shares. The number of shares to be issued under net-share settlement based on various share prices on the exercise date is illustrated in the following table:

<table>
<thead>
<tr>
<th>Stock price at settlement</th>
<th>Shares delivered at settlement, assuming no forfeitures</th>
<th>Shares delivered at settlement, assuming forfeitures</th>
</tr>
</thead>
<tbody>
<tr>
<td>$10</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>$15</td>
<td>333,333</td>
<td>316,667</td>
</tr>
<tr>
<td>$20</td>
<td>500,000</td>
<td>475,000</td>
</tr>
<tr>
<td>$30</td>
<td>666,667</td>
<td>633,333</td>
</tr>
<tr>
<td>$50</td>
<td>800,000</td>
<td>760,000</td>
</tr>
<tr>
<td>$100</td>
<td>900,000</td>
<td>855,000</td>
</tr>
<tr>
<td>$500</td>
<td>980,000</td>
<td>931,000</td>
</tr>
<tr>
<td>$1,000</td>
<td>990,000</td>
<td>940,500</td>
</tr>
</tbody>
</table>

Based on the employer’s forfeitures estimates, and the employer’s conclusion that it is not probable that its stock price would exceed $50 during the life of the options, the employer concluded that it expected to have sufficient authorized but unissued shares to satisfy exercise of all options granted. Accordingly, equity classification was appropriate for the options. However, the employer must continue to assess the probability that sufficient authorized but unissued shares will be available, and, if it is probable that there would not be sufficient authorized but unissued shares available to satisfy all option exercises, some portion of the outstanding options must be reclassified to liabilities consistent with the guidance in Section S5.2.1.2. Continuing the example above, if it became probable that the share price would reach $100, then options on 55,000 shares would be reclassified from equity to a liability at their then fair value, with any excess in the fair value of the liability over the previously measured compensation cost, plus the unrecognized portion of the previously measured compensation cost, recognized as compensation cost over the remaining service period.
S5.2.6 Broker-assisted cashless exercises and minimum statutory withholding requirements

The FASB has provided specific guidance on two areas in which classification questions frequently arise.

S5.2.6.1 Net-share settlement and broker-assisted cashless exercises

A broker-assisted cashless exercise is a means by which companies can provide employees the opportunity to exercise stock options without any cash investment and without the employer cash settling or net-share settling the option. It was common for public companies to provide for broker-assisted cashless exercise for awards accounted for under Opinion 25 because permitting net-share settlement of employee stock options caused variable accounting (because the number of shares to be delivered was not fixed). However, under ASC 718, providing for net-share settlement does not affect the measurement of compensation cost and “fixed” accounting is permitted. Accordingly, providing for broker-assisted cashless exercise may be less important under ASC 718 although, as discussed below, it can provide the employee the ability to fund tax withholdings in excess of the statutory minimum tax withholding without causing liability classification of the award.

To conduct a broker-assisted cashless exercise, the company arranges for a brokerage firm to “loan” the employee the funds needed to exercise the option and buy the stock. On exercise, the brokerage firm immediately sells some or all of the stock that was acquired, and retains a portion of the proceeds to repay the “loan” (the loan and the repayment generally occur on the same day). The remaining proceeds (net of any commissions, tax withholdings, and other transaction costs) are remitted to the employee. In some cases, the broker may sell only a portion of the shares in order to satisfy the option exercise price and the withholding requirements, and the employee retains the remaining shares in a brokerage account. The typical structure for this method of exercise is:

1. The employee authorizes the exercise of an option and the immediate sale of the option shares.
2. On the same day, the company notifies the broker of the sale order.
3. The broker executes the sale and notifies the company of the sales price.
4. The company determines the minimum statutory tax-withholding requirements.
5. By the settlement day (generally three days later), the company delivers the stock certificates to the broker.

---

16 Under a net-share settlement, rather than receive cash for the exercise price and issue the gross number of shares under the option, no cash is exchanged, and the employer simply delivers to the employee the shares with a fair value equal to the intrinsic value of the option.
6. On the settlement day, the broker makes a cash payment to the company for the exercise price and the tax withholdings and remits the balance of the net sales proceeds to the employee. Note that for a qualifying broker-assisted cashless exercise, the employee may tender to the employer cash in excess of minimum tax withholding requirements because that cash is coming from the employee's sale of shares into the market, not from the company.

The FASB provided guidance as to when a broker-assisted cashless exercise should be viewed as the employee's exercise of the option and sale of shares into the market (with no impact on the accounting for the stock options, except for the income tax implications of any stock option exercise), versus a cash settlement of the award by the company and a subsequent sale of shares into the market.

**Excerpt from Accounting Standards Codification**

*Compensation — Stock Compensation — Overall*

**Recognition**

718-10-25-16

A provision that permits employees to effect a broker-assisted cashless exercise of part or all of an award of share options through a broker does not result in liability classification for instruments that otherwise would be classified as equity if both of the following criteria are satisfied:

a. The cashless exercise requires a valid exercise of the share options.

b. The employee is the legal owner of the shares subject to the option (even though the employee has not paid the exercise price before the sale of the shares subject to the option).

718-10-25-17

A broker that is a related party of the entity must sell the shares in the open market within a normal settlement period, which generally is three days, for the award to qualify as equity.

While ASC 718 does not provide a detailed discussion of what is meant by the employee being the "legal owner of the shares," the guidance is based on similar guidance in Issue 48 of Issue 00-23. We therefore believe the guidance in Issue 00-23 should be used to determine whether the employee is the legal owner of the shares.

The EITF indicated that in order to be considered the legal owner of the shares; the employee must assume market risk from the moment of exercise until the broker effects the sale in the open market. In practice this period may be very short; but the EITF decided that the period should be no shorter than the period of time that might lapse if the employee paid cash for the full exercise price and immediately sold the shares through an independent broker. However, compensation cost must be recognized if the employer acquires the shares from
the broker before the broker has been exposed to the risk of price fluctuations for at least a normal settlement period (i.e., the transaction is accounted for as if the employer had used cash to settle the award).

The guidance in ASC 718-10-25-17 (above) regarding the use of related party brokers also is based on similar EITF guidance. The EITF reached a consensus in Issue 48 of Issue 00-23 that there are no accounting consequences for the cashless exercise through a related-party broker, provided that all the following conditions are met:

1. The employee has made a valid exercise of the options and the employer concludes that the employee is the legal owner (as discussed in the preceding paragraph) of all of the option shares (even though the employee has not paid the exercise price to the company prior to the sale of the option shares). If the employee was never the legal owner of the option shares, the stock option would be in substance a stock appreciation right for which liability accounting is required. For example, it may be illegal for individuals in certain countries to own shares in foreign corporations or for companies in certain countries to allow share ownership by foreign nationals. In those circumstances, the employee will never be treated as the legal owner of the shares under a cashless exercise arrangement and will in essence receive only a cash settlement on exercise.

2. The broker sells the shares on the open market. The sale of the option shares in the open market provides evidence that the marketplace, not the employer, through its affiliate, has acquired the option shares. If the related-party broker acquires the shares for its own account rather than selling the shares in the open market, the employer has, in effect, paid cash to an employee to settle an award and liability accounting generally would be required.

3. The process to effect a cashless exercise using a related-party broker is the same as a cashless exercise performed by an independent broker, except for the requirement that the shares be sold into the open market (as described in 2. above).

4. Except in circumstances in which the broker itself is the employer, the broker assisting the exercise is a substantive entity with operations that are separate and distinct from those of the employer.

**S5.2.6.2 Tendering shares to satisfy minimum statutory withholding requirements**

In the U.S. an employee’s exercise of a nonqualified stock option generates taxable income equal to the intrinsic value of the option on the exercise date. The IRS requires employers to withhold and remit tax on this taxable income. Some stock option plans allow employees to use shares received from the exercise of the option to satisfy their tax withholding requirement. Similarly, a plan may permit the employee to use vested shares to satisfy a tax withholding obligation. In effect, the company repurchases a portion of the shares at fair value, and uses the cash on behalf of the employee to satisfy the tax withholding requirements.
ASC 718 provides specific guidance on the impact of such tax withholding on the classification of an award.\(^\text{17}\)

Excerpt from Accounting Standards Codification

**Compensation — Stock Compensation — Overall**

**Recognition**

**718-10-25-18**

Similarly, a provision for either direct or indirect (through a net-settlement feature) repurchase of shares issued upon exercise of options (or the vesting of nonvested shares), with any payment due employees withheld to meet the employer’s minimum statutory withholding requirements resulting from the exercise, does not, by itself, result in liability classification of instruments that otherwise would be classified as equity. However, if an amount in excess of the minimum statutory requirement is withheld, or may be withheld at the employee’s discretion, the entire award shall be classified and accounted for as a liability.

**718-10-25-19**

Minimum statutory withholding requirements are to be based on the applicable minimum statutory withholding rates required by the relevant tax authority (or authorities, for example, federal, state, and local), including the employee’s share of payroll taxes that are applicable to such supplemental taxable income.

In some countries, no withholding is required at the time of exercise. Some countries tax options at the date of issuance, some at the date of exercise, and some at the time a personal income tax return is filed. We believe the term “minimum statutory withholding” means the amount of taxes due to a governmental agency at the time of exercise. This amount is determined on a jurisdiction-by-jurisdiction basis and, in some cases, on an employee-by-employee basis.

**S5.2.6.2.1 Hypothetical minimum statutory withholding for ex-patriot employees**

Certain tax strategies relating to ex-patriot employees involve the hypothetical withholding of taxes on all forms of an employee’s income, including stock-based compensation, as if the employee was subject only to U.S. tax laws. A question arises as to whether “hypothetical” withholding arrangements would cause liability accounting for share-based payments.

---

\(^\text{17}\) Paragraph B125 of Statement 123(R)’s Basis for Conclusions stated the following about this guidance: “In concept, the Board considers a provision for repurchase of shares at, or shortly thereafter, the exercise of options, for whatever reason, to result in the employer’s incurrence of a liability. However, the Board decided for pragmatic reasons to continue the exception for direct or indirect repurchases to meet the employer’s minimum statutory withholding requirements.”
Under “hypothetical” withholding arrangements, employers withhold an amount of each expatriate employee’s compensation throughout the year equal to the employee’s minimum statutory tax rate that would have been in effect if the employee had remained in the U.S. This withholding occurs irrespective of the statutory withholding rate (if any) in the foreign country. To the extent that the hypothetical withholding rate is greater than the statutory withholding rate, the excess is used to fund any deficiency in countries where the hypothetical withholding rate is less than the statutory withholding rate.

As applied to stock options, on exercise, hypothetical withholding results in the employer withholding a number of shares equal to the intrinsic value of the options on the exercise date multiplied by the employee’s U.S. effective tax rate.

Consistent with the guidance in the preceding section, liability accounting is required if shares are withheld in excess of the employer’s minimum statutory withholding. Providing for “hypothetical” tax withholding (in which the employer “buys back” shares to satisfy the hypothetical tax withholding) in excess of any minimum statutory amount in the relevant tax jurisdiction results in liability accounting for the award subject to such hypothetical tax withholding under ASC 718-10-25-18 and 25-19.

U.S. tax law does not require withholding an amount sufficient to fund 100% of an employee’s tax obligation related to option exercises. Under U.S. tax law, minimum statutory withholding rules require an amount to be withheld on exercise and additional amounts may be required to be withheld for state income taxes. Employees in a higher U.S. tax bracket may owe additional taxes on filing their personal income tax return.

**S5.2.7  Awards that may be settled partially in cash**

**S5.2.7.1  Guarantees of the value of stock underlying an option grant**

Some companies may establish compensation arrangements that link loans or bonuses to the grant of a fixed stock option. Generally, these types of arrangements will result in the company guaranteeing a minimum level of compensation to the employee in the event that the stock price does not appreciate to a specified price (e.g., $50 per share by the end of the vesting period) at some point before the exercise date.

Although these arrangements may take various forms, a basic example involves an agreement to grant an employee a stock option and a cash bonus that is payable if the stock price does not increase to the guaranteed level on a specified date. This agreement may be included within the stock option grant or stated in a separate agreement. The cash bonus is established at a maximum amount and is reduced as the intrinsic value of the stock option increases. Therefore, if there is sufficient appreciation in the value of the company’s stock, the employee will not receive a cash bonus. On the other hand, if the stock price fails to appreciate to the guaranteed level, the employee will receive a cash bonus equal to the difference between the guaranteed and actual stock price. In these arrangements the
employee benefits from an increase in the intrinsic value of the stock option, a cash bonus if
the stock does not appreciate, or some combination of the two. Other types of arrangements
may include a company’s issuance of a loan to an employee that is subject to forgiveness if
the stock price fails to appreciate to the guaranteed level.

The FASB staff addressed this issue informally and concluded that because the cash payment
is made prior to and regardless of whether the option is ever exercised (i.e., payment of the
cash bonus is not contingent on exercise of the option, and the bonus in no way affects the
terms of the option), the award should be accounted for as a combination plan consisting of a
net-cash-settled written put option and an equity-settled written call option (i.e., a traditional
employee stock option). The net-cash-settled put option would be accounted for as a liability,
while the call option would be accounted for as an equity instrument. The cash-settled put
option would be remeasured at fair value each reporting period until expiration, at which
point the fair value would be paid out to the employee in cash.

S5.2.7.2 Awards settled partially in cash and partially in shares
Some awards may provide for settlement in a combination of cash and stock. For example, a
company may grant 1,000 shares of restricted stock to an employee and also commit to
make a cash payment equal to the taxes due when the shares vest. Assume that the company
estimates the employee’s marginal income tax rate to be 33%. Accordingly, the award can be
viewed as an award of 1,000 shares of restricted stock and an award of 330 shares of cash-
settled “phantom stock.” Notwithstanding the linkage between the two awards, we believe
that it is appropriate in this circumstance to account for each component separately (we
confirmed this accounting with the FASB staff). Accordingly, the award of restricted stock
would be classified as equity (assuming no other features caused liability accounting) based
on the value measured on the grant date. The phantom stock award would be classified as a
liability and remeasured at fair value until settlement.

We also understand that the FASB staff believes similar accounting is appropriate for a grant
of an employee stock option and a tax bonus that is triggered on option exercise. That is, the
stock option would be accounted for as an equity award (assuming no other features would
cause liability accounting) and the tax bonus feature would be accounted for as a cash-settled
stock appreciation right (a liability).

S5.3 Subsequent accounting for certain freestanding financial
instruments
S5.3.1 Determining when an award becomes subject to other accounting
literature
ASC 718 originally provided that a share-based payment to an employee that initially
qualifies for equity classification under ASC 718 subsequently could become subject to other
accounting literature that requires the award to be classified as a liability when the rights
conveyed by the instrument are no longer dependent on the holder being an employee.
However, ASC 718 was subsequently amended to indefinitely defer this requirement, which is important because many employee stock options and similar instruments include features (e.g., for tax withholding, share repurchase) that would have required liability classification and remeasurement each reporting period once the instrument no longer was subject to ASC 718.

ASC 718-10-35 provides that a freestanding financial instrument originally issued to an employee in exchange for past or future employee services that is or was subject to ASC 718 shall continue to be subject to the recognition and measurement provisions of ASC 718 throughout the life of the instrument, unless its terms are modified when the holder is no longer an employee. ASC 718-10-35 only applies to awards originally issued in exchange for employee services. Any awards exchanged for nonemployee services or a combination of employee and nonemployee services (e.g., an award granted to an employee who terminates employment and continues to vest by providing substantive consulting services) would not be subject to the deferral. The impact of ASC 718 on the classification of nonemployee awards including awards originally issued in exchange for employee service, but modified after employment, is discussed in Section S9.1.2.2.

Questions have arisen about whether certain “modifications” made after employee termination would cause awards previously accounted for as employee awards to lose the deferral in ASC 718-10-35 and become subject to other accounting literature. For example, exchanges of options in a business combination and equity restructuring transactions (e.g., stock splits) are considered modifications under ASC 718. ASC 718-10-35-9 specifically states that “Paragraphs 718-10-35-10 through 35-14 are intended to apply to ... instruments exchanged in a business combination for share-based payment awards of the acquired business that were originally granted to employees of the acquired business and are outstanding as of the date of the business combination.” In that circumstance, the award would continue to be accounted for pursuant to ASC 718, notwithstanding the fact that the change in terms resulting from the business combination represents a modification.

18 An employer may choose to accelerate vesting or make some other modification to an award in connection with the employee’s termination. Assuming that the employee is not required to provide substantive non-employee services in exchange for the award, we believe such a modification should be considered to be made in exchange for prior employee services and, therefore, the award would continue to be subject to the deferral in ASC 718-10-35.
ASC 718-10-35-10 provides the following additional guidance:

**Excerpt from Accounting Standards Codification**

*Compensation — Stock Compensation — Overall*

*Subsequent Measurement*

718-10-35-10

A freestanding financial instrument issued to an employee in exchange for past or future employee services that is subject to initial recognition and measurement guidance within this Topic shall continue to be subject to the recognition and measurement provisions of this Topic throughout the life of the instrument, unless its terms are modified when the holder is no longer an employee. Only for purposes of this paragraph, a modification does not include a change to the terms of an award if that change is made solely to reflect an equity restructuring provided that both of the following conditions are met:

a. There is no increase in fair value of the award (or the ratio of intrinsic value to the exercise price of the award is preserved, that is, the holder is made whole), or the antidilution provision is not added to the terms of the award in contemplation of an equity restructuring.

b. All holders of the same class of equity instruments (for example, stock options) are treated in the same manner.

That is, if a share-based payment was previously issued in exchange for employee services and subsequent to the vesting of that instrument the employee terminated employment, and if subsequent to that termination the awards were modified in an equity restructuring as discussed above, the award would continue to be accounted for under ASC 718 and would not be subject to other accounting literature.

**S5.3.2 Measurement of awards subject to other accounting literature**

As discussed in Section S3.2.2, the measurement of share-based payments under ASC 718 is a “fair-value-based” measurement that excludes the effects of certain features, such as reload features and clawbacks. Additionally, as discussed in Section S7.3.1, the cost of employee stock options are measured based on an expected term of the option, rather than the full contractual term of the option. If an award becomes subject to other accounting literature (e.g., because of a modification after the employee’s termination) that requires fair value measurement, the exceptions that apply to employee share-based payments generally would no longer apply. Accordingly, the fair value of an option for purposes of ASC 480-10, ASC 815 and ASC 815-40 may differ from the fair-value-based measurement required under ASC 718 and result in a gain or loss on remeasurement.
S5.3.3 Accounting for modifications of share-based payments that become subject to other literature

Although paragraph ASC 718-10-35-13 indicates that once its requirements are met a share-based payment is no longer subject to ASC 718, it provided the following exception to that principle for modifications and settlements of share-based payments that become subject to other accounting literature:

Excerpt from Accounting Standards Codification

<table>
<thead>
<tr>
<th>Compensation – Stock Compensation – Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsequent Measurement</td>
</tr>
<tr>
<td>718-10-35-14</td>
</tr>
</tbody>
</table>

An entity may modify (including cancel and replace) or settle a fully vested, freestanding financial instrument after it becomes subject to Topic 480 or other applicable GAAP. Such a modification or settlement shall be accounted for under the provisions of this Topic unless it applies equally to all financial instruments of the same class regardless of whether the holder is (or was) an employee (or an employee's beneficiary). Following the modification, the instrument continues to be accounted for under that Topic or other applicable GAAP.

We believe that in most cases if a modification or settlement of an equity instrument is offered to all holders of a class of equity securities, any incremental fair value associated with the modification would be recognized as a distribution to equity holders (special guidance applies to modifications of preferred stock as described in ASC 260-10-S99-2). The measurement of that fair value would be based on an analogy to ASC 718. However, if such a modification or settlement is not offered to all equity holders of that class, paragraph ASC 718-10-35-14 requires that any incremental fair value resulting from the modification or settlement on an award that originally was accounted for as a share-based payment to an employee be recognized as compensation cost, regardless of whether the equity holder remains an employee on the modification date.
S5.4 Public entities – Measurement and recognition of liability awards

ASC 718 requires that public companies measure share-based awards classified as liabilities at fair value at each reporting date:

Excerpt from Accounting Standards Codification

**Compensation – Stock Compensation – Awards Classified as Liabilities**

**Subsequent Measurement**

718-30-35-2

Changes in the fair value (or intrinsic value) of a liability that occur after the end of the requisite service period are compensation cost of the period in which the changes occur. Any difference between the amount for which a liability award is settled and its fair value at the settlement date as estimated in accordance with the provisions of this Subtopic is an adjustment of compensation cost in the period of settlement. Example 1 (see paragraph 718-30-55-1) provides an illustration of accounting for a liability award from the grant date through its settlement.

718-30-35-3

A public entity shall measure a liability award under a share-based payment arrangement based on the award’s fair value remeasured at each reporting date until the date of settlement. Compensation cost for each period until settlement shall be based on the change (or a portion of the change, depending on the percentage of the requisite service that has been rendered at the reporting date) in the fair value of the instrument for each reporting period. Example 1 (see paragraph 718-30-55-1) provides an illustration of accounting for an instrument classified as a liability using the fair-value-based method.

For example, a cash-settled stock appreciation right (i.e., a commitment by the employer to pay the employee an amount by which the employer’s stock price on a specified future date exceeds a stated strike price) is effectively a net-cash settled written call option. As a result, the same option-pricing approach is used to estimate the value of that cash-settled stock appreciation right as is used for an economically equivalent stock option. Over time, the time value of the stock appreciation right will decay (i.e., at settlement, the employee will receive only intrinsic value). Accordingly, under the model in ASC 718, the time value of a liability initially will be recognized as compensation cost but then will be reversed as the settlement date approaches. At expiration, total compensation cost will not differ from that which would result under the intrinsic-value method, although the timing of that recognition will differ.

ASC 718 provides little guidance regarding the attribution of compensation cost for liability awards. Generally, we believe that the guidance on the recognition of compensation cost for equity awards also applies to liability awards. For example, liability awards subject to graded service vesting would be subject to the same accounting (accelerated versus straight-line attribution) as for equity awards (see further discussion in Section S4.4.1.4).
ASC 718 provides the following comprehensive example of the accounting for a liability award by a public company:

### S5.4.1 Comprehensive example of accounting for a share-based liability

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Awards Classified as Liabilities*

**Implementation Guidance and Illustrations**

**Example 1: Cash-Settled Stock Appreciation Right**

718-30-55-2

Entity T, a public entity, grants share appreciation rights with the same terms and conditions as those described in Example 1 (see paragraph 718-20-55-4). Each stock appreciation right entitles the holder to receive an amount in cash equal to the increase in value of 1 share of Entity T stock over $30. Entity T determines the grant-date fair value of each stock appreciation right in the same manner as a share option and uses the same assumptions and option-pricing model used to estimate the fair value of the share options in that Example; consequently, the grant-date fair value of each stock appreciation right is $14.69 (see paragraphs 718-20-55-7 through 55-9). The awards cliff-vest at the end of three years of service (an explicit and requisite service period of three years). The number of stock appreciation rights for which the requisite service is expected to be rendered is estimated at the grant date to be 821,406 (900,000 × .97 3). Thus, the fair value of the award as of January 1, 20X5, is $12,066,454 (821,406 × $14.69). For simplicity, this Example assumes that estimated forfeitures equal actual forfeitures.

718-30-55-3

Paragraph 718-30-35-4 permits a nonpublic entity to measure share-based payment liabilities at either fair value (or, in some cases, calculated value) or intrinsic value. If a nonpublic entity elects to measure those liabilities at fair value, the accounting demonstrated in this Example would be applicable. Paragraph 718-30-35-3 requires that share-based compensation liabilities be recognized at fair value or a portion thereof (depending on the percentage of requisite service rendered at the reporting date) and be remeasured at each reporting date through the date of settlement; consequently, compensation cost recognized during each year of the three-year vesting period (as well as during each year thereafter through the date of settlement) will vary based on changes in the award’s fair value. As of December 31, 20X5, the assumed fair value is $10 per stock appreciation right; hence, the fair value of the award is $8,214,060 (821,406 × $10). The share-based compensation liability as of December 31, 20X5, is $2,738,020 ($8,214,060 ÷ 3) to account for the portion of the award related to the service rendered in 20X5 (1 year of the 3-year requisite service period). For convenience, this Example assumes that journal entries to account for the award are performed at year-end. The journal entries for 20X5 are as follows.
Compensation cost $ 2,738,020
    Share-based compensation liability $ 2,738,020
To recognize compensation cost.

Deferred tax asset $ 958,307
    Deferred tax benefit $ 958,307
To recognize the deferred tax asset for the temporary difference related to compensation cost ($2,738,020 × .35 = $958,307).

718-30-55-4
As of December 31, 20X6, the fair value is assumed to be $25 per stock appreciation right; hence, the award’s fair value is $20,535,150 (821,406 × $25), and the corresponding liability at that date is $13,690,100 ($20,535,150 × 2/3) because service has been provided for 2 years of the 3-year requisite service period. Compensation cost recognized for the award in 20X6 is $10,952,080 ($13,690,100 − $2,738,020). Entity T recognizes the following journal entries for 20X6.

Compensation cost $ 10,952,080
    Share-based compensation liability $ 10,952,080
To recognize a share-based compensation liability of $13,690,100 and associated compensation cost.

Deferred tax asset $ 3,833,228
    Deferred tax benefit $ 3,833,228
To recognize the deferred tax asset for additional compensation cost ($10,952,080 × .35 = $3,833,228).

718-30-55-5
As of December 31, 20X7, the fair value is assumed to be $20 per stock appreciation right; hence, the award’s fair value is $16,428,120 (821,406 × $20), and the corresponding liability at that date is $16,428,120 ($16,428,120 × 1) because the award is fully vested. Compensation cost recognized for the liability award in 20X7 is $2,738,020 ($16,428,120 − $13,690,100). Entity T recognizes the following journal entries for 20X7.

Compensation cost $ 2,738,020
    Share-based compensation liability $ 2,738,020
To recognize a share-based compensation liability of $16,428,120 and associated compensation cost.

Deferred tax asset $ 958,307
    Deferred tax benefit $ 958,307
To recognize the deferred tax asset for additional compensation cost ($2,738,020 × .35 = $958,307).
The share-based liability award is as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Total value of award</th>
<th>Pretax cost for year</th>
<th>Cumulative pretax cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>20X5</td>
<td>$8,214,060 (821,406 × $10)</td>
<td>$2,738,020 ($8,214,060 ÷ 3)</td>
<td>$2,738,020</td>
</tr>
<tr>
<td>20X6</td>
<td>$20,535,150 (821,406 × $25)</td>
<td>$10,952,080 [($20,535,150 × ⅔) − $2,738,020]</td>
<td>$13,690,100</td>
</tr>
<tr>
<td>20X7</td>
<td>$16,428,120 (821,406 × $20)</td>
<td>$2,738,020 ($16,428,120 − $13,690,100)</td>
<td>$16,428,120</td>
</tr>
</tbody>
</table>

For simplicity, this Example assumes that all of the stock appreciation rights are exercised on the same day, that the liability award's fair value is $20 per stock appreciation right, and that Entity T has already recognized its income tax expense for the year without regard to the effects of the exercise of the employee stock appreciation rights. In other words, current tax expense and current taxes payable were recognized based on taxable income and deductions before consideration of additional deductions from exercise of the stock appreciation rights. The amount credited to cash for the exercise of the stock appreciation rights is equal to the share-based compensation liability of $16,428,120.

At exercise the journal entry is as follows.

\[
\begin{align*}
\text{Share-based compensation liability} & \quad \$ 16,428,120 \\
\text{Cash (821,406 × $20)} & \quad \$ 16,428,120 \\
\end{align*}
\]

To recognize the cash payment to employees from stock appreciation right exercise.

The cash paid to the employees on the date of exercise is deductible for tax purposes. Entity T has sufficient taxable income, and the tax benefit realized is $5,749,842 ($16,428,120 × .35).

At exercise the journal entry is as follows.

\[
\begin{align*}
\text{Deferred tax expense} & \quad \$ 5,749,842 \\
\text{Deferred tax asset} & \quad \$ 5,749,842 \\
\end{align*}
\]

To write off the deferred tax asset related to the stock appreciation rights.

\[
\begin{align*}
\text{Current taxes payable} & \quad \$ 5,749,842 \\
\text{Current tax expense} & \quad \$ 5,749,842 \\
\end{align*}
\]

To adjust current tax expense and current taxes payable to recognize the current tax benefit from deductible compensation cost.
If the stock appreciation rights had expired worthless, the share-based compensation liability account and deferred tax asset account would have been adjusted to zero through the income statement as the award’s fair value decreased.

**S5.5 Nonpublic entities – Measurement and recognition of liability awards**

While the ultimate measurement date for all share-based payment liabilities is the same (the settlement date), the measurement method for liabilities of nonpublic companies may differ from public companies:

Excerpt from Accounting Standards Codification

**Compensation – Stock Compensation – Awards Classified as Liabilities**

**Initial Measurement**

**General**

A nonpublic entity shall make a policy decision of whether to measure all of its liabilities incurred under share-based payment arrangements at fair value or to measure all such liabilities at intrinsic value. Consistent with the guidance in paragraph 718-10-30-20, a nonpublic entity that is not able to reasonably estimate the fair value of its equity share options and similar instruments because it is not practicable for it to estimate the expected volatility of its share price shall make a policy choice of whether to measure its liabilities under share-based payment arrangements at calculated value or at intrinsic value (see Examples 8 through 9 [paragraphs 718-20-55-71 through 55-83]).

**Subsequent Measurement**

Regardless of the measurement method initially selected under paragraph 718-10-30-20, a nonpublic entity shall remeasure its liabilities under share-based payment arrangements at each reporting date until the date of settlement. The fair-value-based method is preferable for purposes of justifying a change in accounting principle under Topic 250. Example 1 (see paragraph 718-30-55-1) provides an illustration of accounting for an instrument classified as a liability using the fair-value-based method. Example 2 (see paragraph 718-30-55-12) provides an illustration of accounting for an instrument classified as a liability using the intrinsic value method.

Nonpublic entities may elect to account for liability awards using (1) the fair-value method (or the calculated-value method described in Section S7.4.2, using an appropriate industry sector index to estimate volatility, if the company cannot reasonably estimate its own volatility) or (2) the intrinsic-value method. Regardless of the measurement method used, the liability award must be remeasured at each reporting date until the award is settled. The choice of measurement method is an accounting policy decision and should be applied consistently to all awards accounted for as liabilities.
An illustration of the accounting for a liability award at intrinsic value is provided in ASC 718 as indicated above. We have not reproduced that example in this publication because, except for the exclusion of the time value of the instrument, the accounting is identical to the example provided in Section S5.4.1.

As indicated above, the fair value method is preferable to the intrinsic value method. As a result, a nonpublic company may voluntarily change from the intrinsic-value method to the fair-value method of accounting for liabilities, but a change from the fair-value method to the intrinsic-value method is not permitted.

S5.6 Awards of profits interests and similar interests

As discussed in Section S2.2.4, an award of an instrument that represents a legal equity interest in a partnership, limited liability partnership or limited liability corporation (LLC) is within the scope of ASC 718. Further, for purposes of accounting for share-based payments granted by a pass-through entity (e.g., awards of capital interests or profits interests in a partnership or LLC), an individual who provides services to the pass-through entity is considered an employee of the pass-through entity if the individual qualifies as a common law employee of that entity, despite the fact that the pass-through entity does not classify the individual as an employee for payroll tax purposes (because the grantee is an “owner” of such pass-through entities). Some general factors to consider in determining whether the individual is a partner versus an employee include:

a. Form of ownership – If the individual has made a contribution and signed a partnership agreement that will provide for an allocation in the profits and losses along with distributions, and the individual receives a K-1 for tax purposes, the arrangement may be more akin to a partner arrangement. Alternatively, employee classification may be appropriate if the individual’s amount of ownership is determined based upon providing a service or meeting a particular performance condition where the failure to meet either of these requirements will result in the partnership interest ceasing to exist.

b. Governance of the partnership – If the individual is part of a visible group that is known to have ultimate authority on the enterprises direction, then this is a general indicator of a partner.

c. Funding participation – A partner is generally required to provide a fixed dollar amount based upon their percentage of ownership when capital is needed.

As highlighted by the SEC staff (discussed below), the first question to be addressed with respect to profits interests, or other special classes of stock granted to employees (e.g., instruments granted to employees whose value is based predominantly on the operations of a particular subset of the parent’s operations), is whether the award is in fact a substantive class of equity for accounting purposes, or is instead similar to a performance bonus or profit sharing arrangement.
In his 11 December 2006 speech at the 2006 AICPA National Conference on Current SEC and PCAOB Developments, Joseph Ucuzoglu, Professional Accounting Fellow, Office of the Chief Accountant, U.S. Securities and Exchange Commission, stated, “When making this determination, all relevant features of the special class must be considered. There are no bright lines or litmus tests. When few if any assets underlie the special class, or the holder's claim to those assets is heavily subordinated, the arrangement often has characteristics of a performance bonus or profit-sharing arrangement. Instruments that provide the holder with substantive voting rights and pari passu dividend rights are at times indicative of an equity interest. Consideration should also be given to any investment required, and any put and call rights that may limit the employee's downside risk or provide for cash settlement.”

In addition, Mr. Ucuzoglu's speech further expressed, “When the substance of the instrument is that of a performance bonus or profit sharing arrangement, it should be accounted for as such. In those circumstances, any returns to the employee should be reflected as compensation expense, not as equity distributions or minority interest expense. Further, if the employee remitted consideration at the outset of the arrangement in exchange for the instrument, such consideration should generally be reflected in the balance sheet as a deposit liability.”

Questions frequently arise whether certain interests in pass-through entities (e.g., profits interests) represent liability or equity instruments for purposes of classification of share-based payments. For example, a profits interest may entitle the interest holder to a portion of any distributions made once senior interest holders obtain a specified return. Depending on the terms of the profits interest award, that interest may be similar to the grant of an equity interest (restricted stock that is subordinate to existing equity), a stock option (the right to purchase an interest at a future date at a specified strike price), a stock appreciation right (the right to receive, in cash, an amount equal to the appreciation in the fair value of an underlying profits interest), or a profit-sharing arrangement.

We believe a profits interest award should be accounted for based on its substance. The terms of the plan that should be considered in determining how to account for a profits interest award include the investment required, the liquidation or repayment provisions, and the provisions for realization of value. All facts and circumstances surrounding the award should be considered in making that judgment. However, in determining whether an award should be classified as a liability or equity, we believe that the key factors relate to (a) the legal form of the instrument (to be classified as equity it must be considered legal equity of the partnership or LLC), (b) participation features such as voting rights, distribution rights and liquidation rights (i.e., to be classified as equity the instrument must participate in the residual returns of the entity's net assets in a manner consistent with equity ownership), (c) transferability of the instrument, (d) retention of vested interests upon termination of employment (liability classification is likely when vested interests are not retained upon termination) and (e) the settlement and repurchase features discussed throughout this chapter.
Questions frequently arise about the valuation of profits interests. Some companies have suggested that a profits interest has no value because (a) if the entity were liquidated immediately, the profits interest holder would normally not be entitled to a distribution and (b) a basis of zero is frequently assigned to the profits interest for tax purposes. While the valuation of profits interests is beyond the scope of this publication, we believe assertions of zero value for such awards are not consistent with the concepts of fair value and would suggest no retention benefit in granting the profits interests to the employees. We believe it is inappropriate to assume immediate liquidation when estimating the fair value of a profits interest, in part because that assumption would be inconsistent with the financial statement presumption that the entity is a going concern. In fact, the SEC staff has rejected the use of valuation methodologies that focus predominately on the amount that would be realized by the holder in a current liquidation. Rather, we believe that the valuation of a profits interest should consider future reasonably possible cash flow scenarios, many of which presumably would result in distributions to the profits interests' holders. The valuation is similar to the valuation of common stock when the liquidation preference of preferred stock would absorb all distributions by the entity if it were liquidated currently.

In addition, it is important to note that even when profits interests and other special classes of stock are considered to be substantive classes of equity for accounting purposes, the terms of these instruments may result in a requirement to classify the instruments outside of permanent equity in the balance sheet pursuant to ASC 480-10 (discussed further in Section S5.2.3.5) and to present earnings per share in accordance with the two-class method pursuant to ASC 260-10 (discussed further in Section S11.8).
S6 Estimating fair value-based measurements

S6.1 Definition of fair value
The measurement objective for share-based payments to employees is to estimate a fair value-based measurement\(^{19}\), on the measurement date,\(^{20}\) of the instruments that the entity is obligated to issue when employees have rendered the requisite service and satisfied any other conditions necessary to earn the right to benefit from the instruments (e.g., to exercise share options). Consistent with the definition of fair value in FASB Concepts Statement No. 7, *Using Cash Flow Information and Present Value in Accounting Measurements*, ASC 718 defines *fair value* as follows:

Excerpt from Accounting Standards Codification

*Compensation – Stock Compensation – Overall*

Glossary

718-10-20

The amount at which an asset (or liability) could be bought (or incurred) or sold (or settled) in a current transaction between willing parties, that is, other than in a forced or liquidation sale.

Although this definition refers only to assets and liabilities, the guidance applies the concept of *value in a current exchange* embodied in this definition to share-based payments subject to ASC 718.

S6.2 Fair-value hierarchy
ASC 718-10-55-10 states that observable market prices of similar or identical instruments should be used to estimate the fair value of share-based payments, if available:

Excerpt from Accounting Standards Codification

*Compensation – Stock Compensation – Overall*

Implementation Guidance and Illustrations

718-10-55-10

Observable market prices of identical or similar equity or liability instruments in active markets are the best evidence of fair value and, if available, shall be used as the basis for the measurement of equity and liability instruments awarded in a share-based payment transaction with employees. Determining whether an equity or liability instrument is similar

---

\(^{19}\) ASC 820 does not apply to accounting principles that address share-based payment transactions (ASC 820-10-15-2).

\(^{20}\) As discussed in Chapter 3, the measurement date for share-based payments to employees generally is the grant date for equity awards and the settlement date for liability awards. However, liability awards must be measured (and remeasured) at fair value (or, for nonpublic companies in certain circumstances, calculated value or intrinsic value) until settlement.
is a matter of judgment, based on an analysis of the terms of the instrument and other relevant facts and circumstances. For example, awards to employees of a public entity of shares of its common stock, subject only to a service or performance condition for vesting (nonvested shares), shall be measured based on the market price of otherwise identical (that is, identical except for the vesting condition) common stock at the grant date.

The above data generally will be available only for shares of public companies or shares of nonpublic companies in which transactions recently have occurred. For example, because of the unique features of employee stock options (nontransferability, long contractual term, term truncation on termination), observable market prices of identical or similar instruments are generally not available for employee stock options, even in those cases where the options on the employer’s stock trade on an open market or exchange.\(^\text{21}\) When such data is not available, ASC 718 provides the following valuation guidance:

**Excerpt from Accounting Standards Codification**

*Compensation — Stock Compensation — Overall*

**Implementation Guidance and Illustrations**

718-10-55-11

If observable market prices of identical or similar equity or liability instruments of the entity are not available, the fair value of equity and liability instruments awarded to employees shall be estimated by using a valuation technique that meets all of the following criteria:

a. It is applied in a manner consistent with the fair value measurement objective and the other requirements of this Topic.

b. It is based on established principles of financial economic theory and generally applied in that field (see paragraph 718-10-55-16). Established principles of financial economic theory represent fundamental propositions that form the basis of modern corporate finance (for example, the time value of money and risk-neutral valuation).

c. It reflects all substantive characteristics of the instrument (except for those explicitly excluded by this Topic, such as vesting conditions and reload features).

---

\(^{21}\) On 17 October 2007, the SEC's Chief Accountant issued a letter to Zions Bancorporation (Zions) regarding the use of Employee Stock Option Appreciation Rights Securities (ESOARS) in determining the fair value of employee share-based payment awards in accordance with ASC 718. The SEC staff did not object to Zions' view that the market-clearing price for ESOARS in its May 2007 auction is a reasonable estimate of the fair value of employee stock options granted on 4 May 2007. The SEC staff’s views were limited to the specific ESOARS instruments sold in Zions' May 2007 auction based on Zions's analysis of the instrument design, auction process and bidder participation. It is our understanding, that various parties have previously been working to develop traded instruments that are sufficiently similar to employee stock options to justify their use as identical or similar instruments, although Zions is the only one we are aware of being completed successfully.
That is, the fair values of equity and liability instruments granted in a share-based payment transaction shall be estimated by applying a valuation technique that would be used in determining an amount at which instruments with the same characteristics (except for those explicitly excluded by this Topic) would be exchanged.

In short, appropriate valuation techniques must be used when observable market prices are not available. Examples of awards for which observable market prices typically will not be available include:

- Employee stock options. As discussed above, market prices typically are not available for employee stock options.
- Stock with terms that differ materially from stock for which market prices are available (e.g., stock for which resale is prohibited for a period after vesting provisions have lapsed).
- Stock of nonpublic companies for which there have been no recent market transactions.

Each of the above examples is discussed further below.

**S6.3 How various terms are incorporated into the valuation**

All substantive characteristics of the instrument should be incorporated into the valuation of a share-based payment, except for those explicitly excluded by ASC 718 as discussed in Section S3.2.2 (ASC 718-10-55-11). However, ASC 718-10-30-10 provides that “restrictions and conditions inherent in equity instruments awarded to employees are treated differently depending on whether they continue in effect after the requisite service period.” Those differences are discussed in detail below. The valuation of employee stock options is discussed in detail in Chapter 7.

**S6.3.1 Nontransferability and nonhedgeability during the vesting period**

As discussed in Section S3.2.2, ASC 718 provides for a fair-value-based measurement approach. Accordingly, restrictions on transferability and hedging during the vesting period are not considered in estimating the fair value of a share-based payment.

---

**Excerpt from Accounting Standards Codification**

**Compensation – Stock Compensation – Overall**

**Initial Measurement**

718-10-30-11

A restriction that stems from the forfeitability of instruments to which employees have not yet earned the right, such as the inability either to exercise a nonvested equity share option or to sell nonvested shares, is not reflected in estimating the fair value of the related instruments at the grant date. Instead, those restrictions are taken into account by recognizing compensation cost only for awards for which employees render the requisite service.
S6.3.2 Nontransferability or nonhedgeability after the vesting period

Unlike pre-vesting restrictions on an employee's ability to transfer or hedge a share-based payment, post-vesting restrictions do impact the value of share-based payments to employees:

Excerpt from Accounting Standards Codification

*Compensation – Stock Compensation – Overall*

**Initial Measurement**

718-10-30-10

A restriction that continues in effect after an entity has issued instruments to employees, such as the inability to transfer vested equity share options to third parties or the inability to sell vested shares for a period of time, is considered in estimating the fair value of the instruments at the grant date.

ASC 718 defines a *restriction* as follows:

Excerpt from Accounting Standards Codification

*Compensation – Stock Compensation – Overall*

**Glossary**

718-10-20

A contractual or governmental provision that *prohibits* sale (or substantive sale by using derivatives or other means to effectively terminate the risk of future changes in the share price) of an equity instrument for a specified period of time. [Emphasis added]

It should be noted that the FASB made a conscious decision to define a restriction as a *prohibition* on resale, rather than a *limitation* on resale. Securities are commonly considered to be “restricted” if their resale to third parties is limited, but not necessarily prohibited, under federal securities laws because the securities have not been registered with the SEC. For example, securities laws may prohibit the sale of a security other than to qualified institutional buyers or in other exempt transactions. Such a limitation would not represent a prohibition and, based on the discussions at the 26 May 2005 Resource Group meeting, we understand the FASB believes that such a limitation should not impact the estimated fair value of a share-based payment. However, because transfers of securities to employees typically would not be eligible for an exemption from registration, we do not believe this issue would arise frequently.

We separately discuss the impact of transfer prohibitions on shares and options below.
S6.3.2.1 Impact of nontransferability or nonhedgeability of shares

Market prices for shares of stock subject to transfer prohibitions usually are not available. If a market price for such a share of stock is not available, the fair value should be estimated through the use of valuation techniques. In its Basis for Conclusions, the FASB stated, “Certain post-vesting restrictions, such as a contractual prohibition on selling shares for a specified period of time after vesting, are essentially the same as restrictions that may be present in equity instruments exchanged in the marketplace. For those restrictions, either a market price of a similar traded instrument or, if one is not available, the same valuation techniques used to estimate the fair value of a traded instrument are to be used to estimate the fair value of a similar instrument awarded to employees as compensation (paragraph B74 of Statement 123(R)).” At the AICPA’s Annual National Conference on Current SEC Developments in December 2007, the SEC staff reminded registrants that the assumptions incorporated into the valuation of a share-based payment arrangement should be attributes a market participant would consider (i.e., it is an attribute of the security), versus attributes a specific holder of the security would consider. Therefore, any discount for lack of transferability should be specific to the security and not derived based on general rules of thumb.

Absent cash transactions in the same or similar instruments, an appraisal of the fair value of the shares by an independent expert generally provides the best evidence of fair value. However, the SEC staff typically examines carefully the determination of the fair value of equity securities. In particular, the SEC staff has aggressively challenged significant discounts from the market price of freely transferable equity securities when valuing equity securities with restrictions. In the absence of objective and verifiable evidence that supports the fair value of the restricted securities, the SEC staff generally presumes that the best available evidence of fair value is the quoted market price of traded securities with similar, but not identical characteristics (generally, the similar traded, unrestricted security). In other words, without appropriate objective evidence, the SEC staff believes that no discount should be applied when valuing similar unrestricted shares. The FASB also commented on the valuation of restricted securities in ASC 718-10-55-5, in which it indicated that if unrestricted “shares are traded in an active market, post-vesting restrictions may have little, if any, effect on the amount at which the shares being valued would be exchanged.”

Objective evidence supporting the valuation of restricted shares should consider the effects of all relevant terms of shares that have similar, but not identical characteristics, as the shares traded in a public market. For example, companies should consider the nature and term of the restriction, the nature of the issuer, the nature of the market (or expected market) for the share (e.g., the number of potential buyers), the volatility of the shares, and other market factors. The SEC staff can be expected to object to valuations that are based solely on studies of market price discounts used in other circumstances.
S6.3.2.2 Impact of nontransferability or nonhedgeability of options

ASC 718-10-30-10 indicates that for “equity share options and similar instruments, the effect of nontransferability (and nonhedgeability, which has a similar effect) is taken into account by reflecting the effects of employees’ expected exercise and post-vesting employment termination behavior in estimating fair value (referred to as an option’s expected term).” That is, the fair value of the option is effectively reduced for the restriction through the use of an expected life reflecting early-exercise behavior (see further discussion in Section S7.3.1), rather than a contractual life. No additional discounts should be applied to the estimate derived from the option-pricing model.

S6.3.2.3 Impact of nontransferability or nonhedgeability of shares underlying options

In a related issue, companies sometimes grant stock options on restricted stock (i.e., the sale of the stock received on exercise of the option is contractually prohibited for some time after exercise). In order to estimate the fair value of such a stock option, a company should use the value of the underlying restricted share as an input into the option-pricing model, rather than apply a discount to the output of the option-pricing model. This guidance assumes that the restrictions on the stock remain in place after the option is exercised (e.g., sale of the underlying shares is prohibited for one year after exercise). In the event that the restrictions on the stock expire prior to the exercise of the option, no discount should be applied to the value of the stock used in the option-pricing model. In addition, consistent with the discussion in Section S6.3.2.1, above, the company should have objective and verifiable evidence to support any valuation of restricted shares that differs from the quoted market price of the company’s unrestricted, publicly traded shares.

S6.3.3 Market conditions

Examples of awards with market conditions include the following:

- Awards of nonvested stock or options that “vest” only if:
  a. A specified trading price of the employer’s shares is achieved by a specific date,
  b. A specified “total shareholder return” (e.g., change in share price plus dividends paid on the shares) is achieved, or
  c. The total return on the company’s shares (as described in b, above) exceeds that of an average of peer group total returns.

In each of the three examples described above, the award may vest or become exercisable based on achievement of a single target, or a series of targets such that the number of shares or options that "vest" depends on which target is achieved.

- Awards of options with an exercise price that is indexed to the stock prices of a peer group of companies. The use of valuation techniques to value this type of option is discussed in Section S7.4.5.
As previously discussed, market conditions are treated differently than performance and service vesting conditions. While performance and service vesting conditions are not directly incorporated into the grant date fair value-based measurement of an award (although they do impact the expected term of the award), ASC 718-10-30-14 provides that a market condition is incorporated into the grant-date valuation. In particular ASC 718-10-30-14 states: “Valuation techniques have been developed to value path-dependent options as well as other options with complex terms. Awards with market conditions, as defined in this Topic, are path-dependent options.” The use of valuation techniques to value path-dependent options, such as lattice models and Monte Carlo simulation, are discussed in Sections S7.2.2 and S7.4.5.

While the FASB used the term “path-dependent options” when discussing awards with market conditions, this concept applies whether the award is an option or share of stock that vests based on the achievement of a specified share price or share return. Models such as a lattice or Monte Carlo simulation must be used to value shares subject to the market vesting condition described above because different stock price paths or stock price realizations result in different values for the award.

We have provided a detailed description of a lattice model in Appendix E. Briefly, a lattice model is essentially a means to perform a discounted cash flow analysis of the probability-weighted payoffs of a share-based payment assuming a large number of possible stock price paths (which are modeled based on inputs such as volatility and the risk-free interest rate). A present value payout is calculated for each stock price path, which is then probability weighted (each discrete path is weighted with an equal probability of occurrence) to derive the fair value. Monte Carlo simulation is based on a similar discounted cash flow concept.

The distinction between general types of lattice models and Monte Carlo simulation models is that lattice models may have recombining paths. That is, an upward move in the stock price followed by a downward move gets to the same price as if the stock price experienced a downward move then an upward move. Thus, a lattice model produces a tree of possible prices, but it is not possible to distinguish the path taken to arrive at any of the possible prices. Monte Carlo simulations generate stock price paths that are independent of one another rather than a lattice or tree of possible prices. Awards that have a path dependent market condition (e.g., stock price greater than a certain dollar amount for 20 out of 30 consecutive trading days), as opposed to having a hurdle (e.g., stock price must be above a certain amount after three years) generally require the use of a Monte Carlo simulation since individual stock price paths are not discernable in a lattice model.

---

22 A lattice model may have non-recombining paths if term structures of volatility or interest rates are used. At a basic level, though, lattice models recombine.
When using a lattice model or simulation, outcomes in which the conditions for vesting are not achieved are assigned a value of zero. The value of outcomes in which the conditions are achieved are calculated based on the expected share price at vesting (for a nonvested share) or the expected intrinsic value at exercise (for an option), discounted back to the grant date. To illustrate, assume that an employer issues a share of stock to an employee that will vest only if the share price at the end of the first year following the grant date has appreciated by at least 20%. Assume the grant date fair value of a share of stock is $100. For the sake of simplicity, we assume that there are only two possible stock price paths during the year (in reality, there would be a very large number of potential stock price paths during a year) in which the share price at the end of the year will be either $85 or $125. The fair value of the award would be calculated as follows:

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E = C x D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected price in one year</td>
<td>Value of award in one year</td>
<td>Present value of award</td>
<td>Probability of stock price path</td>
<td>Probability-weighted present value</td>
</tr>
<tr>
<td>$85</td>
<td>$0</td>
<td>$0</td>
<td>50%</td>
<td>$0</td>
</tr>
<tr>
<td>$125</td>
<td>$125</td>
<td>$119.05</td>
<td>50%</td>
<td>$59.52</td>
</tr>
</tbody>
</table>

Fair Value of Award $59.52

Some have suggested that a lattice model or simulation as described above should be used to determine the probability that the award will vest and that the value of the award should be measured as the grant date fair value of an unrestricted share multiplied by the probability of vesting. That is, the fair value should be computed as 50% × $100, or $50, in the above example. As you can see, this results in an estimate of fair value that is substantially lower than that derived from the lattice approach described above. We believe that it is not appropriate to multiply the probability that the market condition will be achieved by the fair value of the share on the grant date because the fair value of the share on the grant date already incorporates the possibility that the target stock price will be achieved (e.g., the share price includes consideration of all possible price paths). Effectively, multiplying the share price by the probability the target stock price will be achieved “double counts” some of the discount from the current grant date share price associated with stock price paths in which the target is not achieved. Therefore, we believe that the fair value of an award with a market condition should be derived from within the lattice model or simulation, and not calculated outside the model.
S6.3.4 Reload features

Some employee stock options provide reload features. ASC 718 defines a reload feature as follows:

Excerpt from Accounting Standards Codification

*Compensation – Stock Compensation – Overall*

**Glossary**

718-10-20

A reload feature provides for automatic grants of additional options whenever an employee exercises previously granted options using the entity’s shares, rather than cash, to satisfy the exercise price. At the time of exercise using shares, the employee is automatically granted a new option, called a reload option, for the shares used to exercise the previous option.

ASC 718 provides for the following accounting for options with reload features:

Excerpt from Accounting Standards Codification

*Compensation – Stock Compensation – Overall*

**Initial Measurement**

718-10-30-23

The fair value of each award of equity instruments, including an award of options with a reload feature (reload options), shall be measured separately based on its terms and the share price and other pertinent factors at the grant date. The effect of a reload feature in the terms of an award shall not be included in estimating the grant-date fair value of the award. Rather, a subsequent grant of reload options pursuant to that provision shall be accounted for as a separate award when the reload options are granted.

While ASC 718-10-30-23 specifies that reload features should not be incorporated into the fair value of an award, those features can indirectly affect the fair value of an option by influencing employee-exercise behavior. Reloads are discussed in further detail in Section S7.4.3.

ASC 718-10-30-23 requires that the value of the additional options granted as a result of the triggering of a reload provision be measured at fair value on the date the reload options are granted (i.e., on the date the number of shares and the exercise price of the reload options are determined) and recognized over the requisite service period of the reload grant.
S6.3.5 Certain contingent features (e.g., clawbacks)

In addition to reload features, certain contingent features that provide for the return of stock or options in specific circumstances also are required to be excluded from the valuation of a share-based payment to an employee:

Excerpt from Accounting Standards Codification

*Compensation — Stock Compensation — Overall*

**Initial Measurement**

718-10-30-24

A contingent feature of an award that might cause an employee to return to the entity either equity instruments earned or realized gains from the sale of equity instruments earned for consideration that is less than fair value on the date of transfer (including no consideration), such as a clawback feature (see paragraph 718-10-55-8), shall not be reflected in estimating the grant-date fair value of an equity instrument.

*Compensation — Stock Compensation — Awards classified as equity*

**Subsequent Measurement**

718-20-35-2

A contingent feature of an award that might cause an employee to return to the entity either equity instruments earned or realized gains from the sale of equity instruments earned for consideration that is less than fair value on the date of transfer (including no consideration), such as a clawback feature (see paragraph 718-10-55-8), shall be accounted for if and when the contingent event occurs.

**Implementation Guidance and Illustrations**

718-10-55-8

A clawback feature can take various forms but often functions as a noncompete mechanism. For example, an employee that terminates the employment relationship and begins to work for a competitor is required to transfer to the issuing entity (former employer) equity shares granted and earned in a share-based payment transaction.

The accounting for clawback and similar features is discussed in Section S3.5.2.
S6.4  Valuing nonvested stock

S6.4.1  Definition of “nonvested stock”

ASC 718 defines nonvested shares as follows:

Excerpt from Accounting Standards Codification

**Compensation — Stock Compensation — Overall**

Glossary

718-10-20

Shares that an entity has not yet issued because the agreed-upon consideration, such as employee services, has not yet been received. Nonvested shares cannot be sold. The restriction on sale of nonvested shares is due to the forfeitability of the shares if specified events occur (or do not occur).

ASC 718 recognizes that nonvested stock granted to employees is typically referred to as “restricted stock,” but the guidance reserves the term “restricted stock” for shares whose sale is contractually or governmentally prohibited after the shares are vested and fully outstanding (see Section S6.4.3).

S6.4.2  Stock awards with vesting conditions

ASC 718-10-30-17 states that a “nonvested equity share or nonvested equity share unit awarded to an employee shall be measured at its fair value as if it were vested and issued on the grant date.” That is, as discussed in Section S6.3.1, the fact that the stock is not earned until vested, and is not transferable during the vesting period, does not impact the valuation of nonvested stock.

S6.4.3  Stock awards with post-vesting restrictions

ASC 718-10-30-19 clarifies that a “restricted share awarded to an employee, that is, a share that will be restricted after the employee has a vested right to it, shall be measured at its fair value, which is the same amount for which a similarly restricted share would be issued to third parties.” As discussed in Section S6.3.2, ASC 718-10-20 defines a restricted share as “a share for which sale is contractually or governmentally prohibited for a specified period of time.” [Emphasis added.] The valuation of such shares is discussed in Section S6.3.2.1 above.

S6.4.4  Stock awards that do not pay dividends during the vesting period

Employees may receive grants of nonvested shares on which they do not receive dividends during the vesting period. Because the value of a share includes the value of expected dividends on the stock, the value of a share that does not participate in dividends during the vesting period is less than that of a share of stock that fully participates in dividends. The Basis for Conclusions states, “The fair value of a share of stock in concept equals the present value of the expected future cash flows to the stockholder, which includes dividends.
Therefore, additional compensation does not arise from dividends on nonvested shares that eventually vest. Because the measure of compensation cost for those shares is their fair value at the grant date, recognizing dividends on nonvested shares as additional compensation would effectively double count those dividends. For the same reason, if employees do not receive dividends declared on the class of shares granted to them until the shares vest, the grant-date fair value of the award is measured by reducing the share price at that date by the present value of the dividends expected to be paid on the shares during the requisite service period, discounted at the appropriate risk-free interest rate (paragraph B93 of Statement 123(R)).”

S6.4.5 Valuing stock awards by nonpublic companies

One of the key accounting and auditing issues in many IPO transactions is the valuation of equity securities (including stock options) issued as compensation while the company was privately held (often referred to as “cheap stock”). The SEC staff is challenging such valuations, as well as the related financial statement and MD&A disclosures, for consistency with the 2004 AICPA Practice Aid.

The Practice Aid does not represent an authoritative accounting pronouncement. That is, the Practice Aid is not part of the FASB Accounting Standards Codification. Nevertheless, it is clear that the SEC staff expects companies filing an IPO to apply the “best-practices” conclusions in the Practice Aid. Accordingly, we strongly recommend that privately-held companies contemplating a future IPO consider the Practice Aid’s valuation guidance when issuing equity compensation. Further, we strongly urge any company filing an IPO to provide the disclosures recommended by the Practice Aid.

For many years, cheap stock has been a significant issue in the SEC staff’s review of IPO registration statements. When equity securities were issued to employees within one year of the IPO filing, the SEC staff typically challenged any valuation of the underlying securities at a price below the anticipated IPO range. The SEC staff generally presumed that the anticipated IPO price provided the best evidence of fair value, and the SEC staff was very skeptical of valuations that concluded the fair value of securities at the grant date was significantly less than the anticipated IPO price. The incidence of restatements related to the valuation of cheap stock led the AICPA to undertake a project to provide better guidance to preparers, auditors, and valuation specialists.

Compliance with the Practice Aid will not insulate a company from SEC staff questions regarding the valuation of pre-IPO equity compensation. The SEC staff can be expected to challenge both the appropriateness of the valuation methodology in the circumstances and the underlying assumptions used to value pre-IPO equity compensation. However, the Practice Aid provides a framework that, when appropriately interpreted and applied, should yield a credible valuation to which the SEC staff ultimately will not object.
The Practice Aid provides an overview of the valuation process for the equity securities of a privately-held-company, including the various factors to be considered and various approaches to determining fair value. It further recommends that companies provide extensive disclosures in IPO registration statements regarding their determination of the fair value of equity securities issued as compensation. Those disclosures are specified in paragraphs 179-183 of the Practice Aid and pertain to both the financial statements and MD&A. The Practice Aid also provides illustrative disclosures.

In most cases, observable market prices for equity securities of privately-held-companies are not available. As a result, the fair value of these equity securities must be determined by reference to the fair value of the underlying business determined using a market approach (e.g., a market-multiple analysis) or an income approach (e.g., a discounted-cash-flow analysis). We would expect the fair value measurement of the reporting entity’s equity value to be consistent with the principles of ASC 820. The Practice Aid recommends that privately-held companies obtain contemporaneous valuations from independent valuation specialists in order to determine the fair value of securities issued as compensation. The Practice Aid asserts that a contemporaneous valuation by an independent party is more objective and provides more persuasive evidence of fair value than a retrospective valuation or one that is performed by a related party (e.g. a director, officer, investor, employee or the investment firm underwriting the IPO). In the absence of an independent contemporaneous valuation, the Practice Aid recommends that the company provide more extensive disclosures in its IPO registration statement about the milestones that occurred between the date the securities were issued and the date on which their fair value was determined.

The Practice Aid also discusses the IPO process and its effects on enterprise value. Specifically, the Practice Aid discusses how the IPO often significantly reduces the company’s cost of capital. A company’s cost of capital inversely affects enterprise value (i.e., a reduced cost of capital increases the fair value of the enterprise and the related fair value of its common equity securities). Accordingly, the fair value of a new public company may be significantly higher than its value immediately before the IPO. Other examples of factors that impact the valuation include the stage of development, whether significant milestones have been reached, presence of other classes of equity and the likelihood of the IPO occurring.

Essentially all relevant evidence should be considered in estimating the fair value of a private enterprise and its equity securities, and the basis for the valuation and the underlying assumptions should be clearly documented. Ultimately, the company, not the valuation specialist, is responsible for the reasonableness of the estimate of fair value used to record the cost of equity compensation in its financial statements. The valuation should not be biased in favor of a particular amount or result; instead, all evidence, both positive and negative, should be considered. Clearly, a contemporaneous valuation is less likely than a retrospective valuation to be biased by hindsight knowledge about actual events and results that would have had to be predicted in determining fair value as of the grant date.
The SEC staff discussed observations with respect to the Practice Aid at the 2004 AICPA SEC Conference. Concerns raised by the SEC staff include (1) the inappropriate application of the “asset-based” appraisal methodology in other than a start-up company, (2) the inappropriate use of the current-value method for allocating value to various classes of equity securities when a company has more than one class of equity security outstanding, and is in neither liquidation nor a very early stage of development, and (3) the inappropriate averaging of the results of methods of allocating enterprise value to class of equity when those methods yield materially different results (e.g., averaging a forward-looking allocation method that considers the value inherent in a going concern with the current-value method that is based on the value in liquidation).

The Practice Aid was developed by staff of the AICPA and a project task force comprising representatives from appraisal, preparer, public accounting, venture capital, and academic communities. Observers to the project task force included representatives from both the SEC and the FASB. The Practice Aid is applicable to all privately-held companies, whether or not they contemplate a future IPO. Since the Practice Aid has become widely used, the AICPA is in the process of revising it for challenges encountered subsequent to the existing publication date of 2004.

S6.5 Stock options and stock appreciation rights

Excerpt from Accounting Standards Codification

Compensation — Stock Compensation — Overall
Initial Measurement

718-10-30-7
The fair value of an equity share option or similar instrument shall be measured based on the observable market price of an option with the same or similar terms and conditions, if one is available (see paragraph 718-10-55-10).

718-10-30-8
Such market prices for equity share options and similar instruments granted to employees are frequently not available; however, they may become so in the future.

718-10-30-9
As such, the fair value of an equity share option or similar instrument shall be estimated using a valuation technique such as an option-pricing model. For this purpose, a similar instrument is one whose fair value differs from its intrinsic value, that is, an instrument that has time value. For example, a share appreciation right that requires net settlement in equity shares has time value; an equity share does not. Paragraphs 718-10-55-4 through 55-47 provide additional guidance on estimating the fair value of equity instruments, including the factors to be taken into account in estimating the fair value of equity share options or similar instruments as described in paragraphs 718-10-55-21 through 55-22.
In summary, in the absence of market prices for similar or identical instruments, ASC 718 requires the use of option-pricing models to estimate the fair value of stock options and stock appreciation rights. Chapter 7 discusses in detail the use of option-pricing models.

S6.5.1 Stock options and SARs granted by nonpublic companies

S6.5.1.1 Use of “calculated value”
In certain circumstances, a nonpublic company is not required to measure an equity award at fair value.

Excerpt from Accounting Standards Codification

*Compensation – Stock Compensation – Overall*

**Initial Measurement**

718-10-30-20

A nonpublic entity may not be able to reasonably estimate the fair value of its equity share options and similar instruments because it is not practicable for it to estimate the expected volatility of its share price. In that situation, the entity shall account for its equity share options and similar instruments based on a value calculated using the historical volatility of an appropriate industry sector index instead of the expected volatility of the entity’s share price (the calculated value). Throughout the remainder of this Topic, provisions that apply to accounting for share options and similar instruments at fair value also apply to calculated value. Paragraphs 718-10-55-51 through 55-58 and Example 9 (see paragraph 718-20-55-76) provide additional guidance on applying the calculated value method to equity share options and similar instruments granted by a nonpublic entity.

The use of the calculated-value method, including determining when it may be appropriate to use that method (which we believe would be infrequent), is discussed in detail in Section S7.4.2.

S6.5.1.2 Use of intrinsic value
Contrary to the guidance for equity awards described in the preceding section, nonpublic companies may elect to account for all liability awards, including cash-settled stock appreciation rights, at intrinsic value. This accounting election is discussed further in Section S5.5. If a public or nonpublic company cannot reasonably estimate the fair value of a share-based payment to an employee (which the FASB expects to be rare), whether classified as equity or a liability, it should account for the award at intrinsic value until settlement (see Section S3.2.3 for further discussion).
S6.5.2 Valuation of employee stock purchase plans

Employee stock purchase plans typically contain option features. For example, they may establish the purchase price on the grant date and permit employees to seek a refund of amounts contributed to the stock purchase plan, or may provide that the purchase price will be the lower of the price at the purchase date or the grant date. Because of these option features, we have discussed the valuation of employee stock purchase plans with the valuation of other options in Section S12.2.

S6.6 Change in valuation methodology

ASC 718 provides specific guidance on changes in valuation methods and assumptions:

Excerpt from Accounting Standards Codification

Compensation — Stock Compensation — Overall

Implementation Guidance and Illustrations

718-10-55-27

Assumptions used to estimate the fair value of equity and liability instruments granted to employees shall be determined in a consistent manner from period to period. For example, an entity might use the closing share price or the share price at another specified time as the current share price on the grant date in estimating fair value, but whichever method is selected, it shall be used consistently. The valuation technique an entity selects to estimate fair value for a particular type of instrument also shall be used consistently and shall not be changed unless a different valuation technique is expected to produce a better estimate of fair value. A change in either the valuation technique or the method of determining appropriate assumptions used in a valuation technique is a change in accounting estimate for purposes of applying Topic 250, and shall be applied prospectively to new awards.

We expect that changes in estimates and methodologies with respect to the valuation of share-based payments will be infrequent, but that such changes will occur more frequently in connection with stock options and similar instruments. We discuss changing option-pricing models and changing how option-pricing model input assumptions are estimated in Section S7.2.3.2 and Section S7.3, respectively.
S7 Using option-pricing models to value employee stock options

S7.1 Valuation of employee stock options

The fair value of an option at any point in time prior to exercise or expiration is made up of two basic components— intrinsic value and time value. Intrinsic value is the difference between the exercise price of the option and the market value of the underlying stock. Time value reflects the option’s potential for future gain given the length of time the option will be outstanding and the possible changes in the stock price during that period.

As discussed in Chapter 6, the stated objective in estimating the fair value of a share-based payment is to estimate the amount a willing buyer would pay a willing seller for the instrument. The FASB applied the same fair-value hierarchy that exists in other standards in determining how employee share-based payments should be valued. ASC 718-10-55-10 states that “Observable market prices of identical or similar equity or liability instruments in active markets are the best evidence of fair value and, if available, should be used as the basis for the measurement of equity and liability instruments awarded in a share-based payment transaction with employees.” While fair value may be readily determinable for awards of stock, the FASB acknowledged that market quotes are not available for long-term, nontransferable stock options because these instruments currently are not traded. Absent the availability of such market quotes, the FASB believes that the fair value of a stock option awarded to an employee must be estimated using an option-pricing model.

When the FASB originally deliberated Statement 123(R), market prices of employee stock options or similar instruments were generally not available. However, the FASB recognized they could become available in the future. We are aware of certain companies and investment banks that have explored creating markets in employee stock options. However, due in part to the challenges involved in creating instruments similar to employee stock options that (a) exclude the risk of forfeiture during the requisite service period from their valuation, (b) incorporate the risk of term truncation due to post-vesting termination and early exercise, and (c) cannot be transferred, in general, no such market has developed at this time. However, as discussed further in Section S7.1.1, we are aware of one company, Zions Bancorporation (Zions) that has successfully used Employee Stock Option Appreciation Rights Securities (ESOARS) as a means to determine the fair value of employee share-based payment awards.

S7.1.1 Market price for employee stock options

On 17 October 2007 the SEC’s Chief Accountant issued a letter to Zions regarding the use of ESOARS in determining the fair value of employee share-based awards. In that letter, the SEC did not object to Zions’ view that the market-clearing price for ESOARS in its May 2007 auction is a reasonable estimate of the fair value of employee stock options granted on 4 May 2007.

23 The SEC’s Chief Accountant letter is located on the SEC’s website at the following link: http://www.sec.gov/info/accountants/staffletters/zions101707.pdf.
The SEC staff’s views are limited to the ESOARS sold in the May 2007 auction. Because the auction of such instruments is rare, the results of any future ESOARS auctions or any other instruments designed to estimate the fair value of employee stock options will need to be evaluated based on specific facts and circumstances. The SEC staff emphasized in the letter that the comparison of the market-clearing price to the estimated fair value derived from a standard modeling technique would be appropriate for future ESOARS auctions in the absence of an observable secondary market for these instruments. Specifically, the Chief Accountant stated, “so long as market-based approaches remain in the development stage, substantial deviations between the market price and a model-based price may indicate deficiencies in the auction process and should be analyzed.” The SEC staff also raised the following issues that should be considered when assessing future issuances:

► Potential downward bias on the price resulting from an illiquid market and the reliance only on bid prices.

► Whether there are sufficient sophisticated bidders that constitute an active market.

► Do investors have sufficient information to make an investment decision?

► Does the bidding pattern suggest an active market?

► Do bidders’ perceptions of costs of holding, hedging or trading the instruments affect their valuation of the instrument?

We believe that companies considering the use of ESOARS or similar instruments should carefully evaluate the views expressed by the SEC staff on this subject. In addition to the letters to Zions, the design, marketing and sale of market instruments for the purposes of determining the fair value of share-based payment awards was discussed in September 2005 by the SEC’s (then) Chief Accountant and the Office of Economic Analysis.²⁴

We agree with the SEC staff’s view that differences between the transaction price for ESOARS or similar instruments and the fair value of an employee stock option estimated using an option-pricing model should be evaluated carefully to determine whether the use of the market instrument will result in a fair value estimate in accordance with the measurement objective in ASC 718. Additionally, we do not believe it would be appropriate to reduce the estimate of fair value obtained using an option-pricing model based on transaction prices (and the implied discount from an option-pricing model) for ESOARS issued by other companies.

If a company proposes to use the transaction price of ESOARS or similar instruments as a basis to estimate the fair value a share-based payment award, we would expect the company to present its conclusions to the SEC staff to confirm that the SEC staff will not object. If

²⁴ The SEC’s Chief Accountant and Office of Economic Analysis public statement and memorandum can be located at the following link: http://www.sec.gov/news/speech/spch090905dtn.htm.
other successful ESOARS offerings occur and become widely accepted as sources of fair value for employee share options, we would anticipate that consultation with the SEC staff would no longer be necessary.

Companies that are considering issuing ESOARS to investors must carefully evaluate the accounting implications. Under ASC 815-40-15-5A, ESOARS would not be considered within the scope of ASC 718. Consequently, the guidance in ASC 815 and ASC 480 would need to be considered in concluding whether the instrument would be classified as equity or as a liability, in particular, whether the instrument would be indexed to the issuer’s own stock. ASC 815-40-55-48 provides an example of a security to investors for the purpose of establishing a market-based measure of the grant-date fair value for employee stock options. The example concludes that the instrument would not be solely indexed to the issuer’s stock pursuant to the two-step approach presented in ASC 815-40-15-7 through 15-7I. Accordingly, the issuer would be required to remeasure the ESOARS liability at fair value each reporting period, with changes in that fair value recognized in earnings.

**S7.2 Use of option-pricing models**

ASC 718 does not prescribe the use of a specific option-pricing model. Instead the following guidance regarding the selection of a valuation technique for share-based payments is provided:

<table>
<thead>
<tr>
<th>Excerpt from Accounting Standards Codification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation — Stock Compensation — Overall</td>
</tr>
<tr>
<td>Implementation Guidance and Illustrations</td>
</tr>
<tr>
<td>718-10-55-11</td>
</tr>
</tbody>
</table>

If observable market prices of identical or similar equity or liability instruments of the entity are not available, the fair value of equity and liability instruments awarded to employees shall be estimated by using a valuation technique that meets all of the following criteria:

- a. It is applied in a manner consistent with the fair value measurement objective and the other requirements of this Topic.

- b. It is based on established principles of financial economic theory and generally applied in that field (see paragraph 718-10-55-16). Established principles of financial economic theory represent fundamental propositions that form the basis of modern corporate finance (for example, the time value of money and risk-neutral valuation).

- c. It reflects all substantive characteristics of the instrument (except for those explicitly excluded by this Topic, such as vesting conditions and reload features).

That is, the fair values of equity and liability instruments granted in a share-based payment transaction shall be estimated by applying a valuation technique that would be used in determining an amount at which instruments with the same characteristics (except for those explicitly excluded by this Topic) would be exchanged.
Additionally, ASC 718 requires that an option-pricing model take into account the following six inputs, at a minimum:

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Overall*

**Implementation Guidance and Illustrations**

**718-10-55-21**

If an observable market price is not available for a share option or similar instrument with the same or similar terms and conditions, an entity shall estimate the fair value of that instrument using a valuation technique or model that meets the requirements in paragraph 718-10-55-11 and takes into account, at a minimum, all of the following:

a. The exercise price of the option.

b. The expected term of the option, taking into account both the contractual term of the option and the effects of employees’ expected exercise and postvesting employment termination behavior. In a closed-form model, the expected term is an assumption used in (or input to) the model, while in a lattice model, the expected term is an output of the model (see paragraphs 718-10-55-29 through 55-34, which provide further explanation of the expected term in the context of a lattice model).

c. The current price of the underlying share.

d. The expected volatility of the price of the underlying share for the expected term of the option.

e. The expected dividends on the underlying share for the expected term of the option (except as provided in paragraphs 718-10-55-44 through 55-45).

f. The risk-free interest rate(s) for the expected term of the option.

**718-10-55-22**

The term *expected* in (b); (d); (e); and (f) in the preceding paragraph relates to expectations at the measurement date about the future evolution of the factor that is used as an assumption in a valuation model. The term is not necessarily used in the same sense as in the term *expected future cash flows* that appears elsewhere in the Codification. The phrase *expected term of the option* in (d); (e); and (f) in the preceding paragraph applies to both closed-form models and lattice models (as well as all other valuation techniques). However, if an entity uses a lattice model (or other similar valuation technique, for instance, a Monte Carlo simulation technique) that has been modified to take into account an option’s contractual term and employees’ expected exercise and post-vesting employment termination behavior, then (d); (e); and (f) in the preceding paragraph apply to the contractual term of the option.
We discuss how each of these assumptions is determined in Section S7.3. The directional impact of changes in each of these assumptions is described in the following table:

<table>
<thead>
<tr>
<th>An increase to the ...</th>
<th>Results in a fair value estimate that is ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Price of the underlying share</td>
<td>Higher</td>
</tr>
<tr>
<td>2. Exercise price of option</td>
<td>Lower</td>
</tr>
<tr>
<td>3. Expected volatility of stock</td>
<td>Higher</td>
</tr>
<tr>
<td>4. Expected dividends on stock</td>
<td>Lower</td>
</tr>
<tr>
<td>5. Risk-free interest rate</td>
<td>Higher</td>
</tr>
<tr>
<td>6. Expected term of option</td>
<td>Higher</td>
</tr>
</tbody>
</table>

The characteristics described in ASC 718-10-55-11, ASC 718-10-55-21 and ASC 718-10-55-22 are the minimum that must be considered in the valuation of all employee stock options. ASC 718-10-55-14 clarifies that “a share-based payment award could contain other characteristics, such as a market condition, that should be included in a fair value estimate. Judgment is required to identify an award’s substantive characteristics and, as described in paragraphs 718-10-55-15 through 55-20, to select a valuation technique that incorporates those characteristics.”

Based on the above guidance, the FASB indicated that several existing valuation techniques, appropriately applied, will meet the requirements of ASC 718. Those valuation techniques include the Black-Scholes-Merton formula, lattice models (including binomial and trinomial models), and Monte Carlo simulations, that are used by finance professionals to value various types of financial options and can be tailored to address the substantive terms of most employee stock options. The FASB also indicated that other models could meet these requirements. However, much of the FASB’s discussion focused on the use of lattice models and the Black-Scholes-Merton formula:

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Overall*

**Implementation Guidance and Illustrations**

**718-10-55-16**

A lattice model (for example, a binomial model) and a closed-form model (for example, the Black-Scholes-Merton formula) are among the valuation techniques that meet the criteria required by this Topic for estimating the fair values of employee share options and similar instruments. A Monte Carlo simulation technique is another type of valuation technique that satisfies the requirements in paragraph 718-10-55-11. Other valuation techniques not
Using option-pricing models to value employee stock options

mentioned in this Topic also may satisfy the requirements in that paragraph. Those valuation techniques or models, sometimes referred to as option-pricing models, are based on established principles of financial economic theory. Those techniques are used by valuation professionals, dealers of derivative instruments, and others to estimate the fair values of options and similar instruments related to equity securities, currencies, interest rates, and commodities. Those techniques are used to establish trade prices for derivative instruments and to establish values in adjudications. As discussed in paragraphs 718-10-55-21 through 55-50, both lattice models and closed-form models can be adjusted to account for the substantive characteristics of share options and similar instruments granted to employees.

In the following sections, we discuss the strengths and weaknesses of the models most commonly applied to value employee stock options: the Black-Scholes-Merton formula and a lattice model (specifically discussing binomial models). ASC 718 does not state an explicit preference for any particular option-pricing model. However, the FASB indicates that in many circumstances a lattice model (or Monte Carlo simulations based on a lattice approach) will provide a better estimate of the fair value of many employee stock options because of the flexibility of the lattice approach. The lattice model's flexibility is discussed in greater detail in the following sections and is illustrated in Appendix E.

While the use of option-pricing models that involve complex calculations might suggest to some that the resulting estimate of fair value includes a high degree of precision, the calculation resulting from the use of the option-pricing model is an estimate, and the use of different, reasonable assumptions will produce different estimates of fair value. This perception of precision has led to concerns among preparers that these estimates will be subject to challenge by regulators or plaintiffs if actual results differ materially from these estimates. However, subsequent to the issuance of ASC 718, the SEC staff issued SAB Topic 14 that, among other things, provides additional guidance on the valuation of employee stock options and provides the following general comments about the reasonableness of estimates of fair value:

Excerpt from SAB Topic 14

The staff recognizes that there is a range of conduct that a reasonable issuer might use to make estimates and valuations and otherwise implement Statement 123R, and the interpretive guidance provided by this SAB, particularly during the period of the Statement’s initial implementation. Thus, throughout this SAB the use of the terms “reasonable” and “reasonably” is not meant to imply a single conclusion or methodology, but to encompass the full range of potential conduct, conclusions or methodologies upon which an issuer may reasonably base its valuation decisions. Different conduct, conclusions or methodologies by different issuers in a given situation does not of itself raise an inference that any of those issuers is acting unreasonably. While the zone of reasonable conduct is not unlimited, the staff expects that it will be rare when there is only one acceptable choice in estimating the fair value of share-based payment arrangements under the provisions of Statement 123R and the interpretive guidance provided by this SAB in any given situation. In addition, as
discussed in the Interpretive Response to Question 1 of Section C, Valuation Methods, estimates of fair value are not intended to predict actual future events, and subsequent events are not indicative of the reasonableness of the original estimates of fair value made under Statement 123R. Over time, as issuers and accountants gain more experience in applying Statement 123R and the guidance provided in this SAB, the staff anticipates that particular approaches may begin to emerge as best practices and that the range of reasonable conduct, conclusions and methodologies will likely narrow. [SAB Topic 14, Emphasis added]

We still expect the SEC staff to challenge any valuation assumptions that results in an outcome that does not appear to fall within a reasonable range. However, because preparers and auditors have more experience with option-pricing models, more data has become available, and best practices have emerged, that reasonable range has likely narrowed.

The SAB also provides the following additional guidance to clarify that variations between the grant-date estimate of the fair value of an employee stock option and the intrinsic value on exercise of that option are not indicators that the grant-date valuation was in error:

**Excerpt from SAB Topic 14.C**

**Question 1:** If a valuation technique or model is used to estimate fair value, to what extent will the staff consider a company’s estimates of fair value to be materially misleading because the estimates of fair value do not correspond to the value ultimately realized by the employees who received the share options?

**Interpretive Response:** The staff understands that estimates of fair value of employee share options, while derived from expected value calculations, cannot predict actual future events. The estimate of fair value represents the measurement of the cost of the employee services to the company. The estimate of fair value should reflect the assumptions marketplace participants would use in determining how much to pay for an instrument on the date of the measurement (generally the grant date for equity awards). For example, valuation techniques used in estimating the fair value of employee share options may consider information about a large number of possible share price paths, while, of course, only one share price path will ultimately emerge. If a company makes a good faith fair value estimate in accordance with the provisions of Statement 123R in a way that is designed to take into account the assumptions that underlie the instrument’s value that marketplace participants would reasonably make, then subsequent future events that affect the instrument’s value do not provide meaningful information about the quality of the original fair value estimate. As long as the share options were originally so measured, changes in an employee share option’s value, no matter how significant, subsequent to its grant date do not call into question the reasonableness of the grant date fair value estimate. [Footnote 24 omitted]

SAB Topic 14 also provides additional guidance regarding the level of expertise required of the individuals involved in estimating the fair value of an employee stock option. As discussed in the following sections, while using a Black-Scholes-Merton formula to estimate the value of
Using option-pricing models to value employee stock options

Excerpt from SAB Topic 14.C

Question 4: Must every company that issues share options or similar instruments hire an outside third party to assist in determining the fair value of the share options?

Interpretive response: No. However, the valuation of a company’s share options or similar instruments should be performed by a person with the requisite expertise.

We believe that the level of requisite expertise will vary based on the complexity of the awards and the type of option-pricing models used. We do not believe that it would be necessary in all circumstances for the individuals involved in the valuation of employee stock options to have specific professional certifications or academic credentials. However, they must have a sufficient understanding of option-pricing theory and the requirements of ASC 718 and SAB Topic 14 to be able to appropriately select and apply option-pricing models. As the options or models used increase in complexity, the likelihood that the individuals involved would be required to have specific academic backgrounds or professional certifications will increase.

S7.2.1 Overview of the Black-Scholes-Merton formula

ASC 718-10-20 describes a “closed-form model” as a “valuation model that uses an equation to produce an estimated fair value.” The Black-Scholes-Merton formula is an example of a closed-form model. The formula is as follows:

\[
c = S e^{qt} N(d_1) - Ke^{rt} N(d_2)
\]

where

\[
d_1 = \frac{\ln(S/K) + (r - q + \sigma^2/2)T}{\sigma\sqrt{T}}
\]

\[
d_2 = d_1 - \sigma\sqrt{T}
\]

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>c</td>
<td>price of a written call</td>
</tr>
<tr>
<td>S</td>
<td>price of the underlying stock</td>
</tr>
<tr>
<td>N</td>
<td>the cumulative probability distribution function for a standardized normal distribution</td>
</tr>
<tr>
<td>q</td>
<td>dividend yield</td>
</tr>
<tr>
<td>K</td>
<td>call option exercise price</td>
</tr>
<tr>
<td>r</td>
<td>the continuously compounded risk-free rate</td>
</tr>
<tr>
<td>\sigma</td>
<td>annualized volatility of the underlying stock</td>
</tr>
<tr>
<td>T</td>
<td>time to expiration (in years)</td>
</tr>
<tr>
<td>e</td>
<td>a mathematical constant, the base of the natural logarithm (2.718282...), and &quot;ln&quot; is the natural logarithm of the indicated value</td>
</tr>
</tbody>
</table>
While the Black-Scholes-Merton formula is complex, the application of the formula in practice is relatively straightforward. The formula can be programmed into a spreadsheet, and numerous programs and calculators exist that calculate the fair value of an option using the Black-Scholes-Merton formula. As a result, the formula is used widely by finance professionals to value a large variety of options. However, a number of assumptions underlying the formula are such that the formula may be better suited to valuing short-term, exchange-traded stock options than employee stock options. Some of the attributes of employee stock options that render the Black-Scholes-Merton formula less effective as a valuation technique for employee stock options are:

Long term to expiration – Employee stock options often have a 10-year contractual term. While assuming that volatility, interest rates and dividends remain constant over the life of the option may be appropriate when valuing shorter-term options, assuming they remain constant may be less appropriate when valuing longer-term options.

Nontransferable – Employees generally cannot transfer their options to capture the time value and, therefore, might exercise the options prior to expiration. ASC 718 provides for the use of an “expected term” in place of the contractual life to reflect the possibility of early exercise resulting from the nontransferability of employee stock options as well as other reasons.

Subject to vesting provisions – Employee stock options often cannot be exercised prior to a specified vesting date or event. Vesting provisions therefore impact the valuation of stock options because they affect the expected term of the options by, among other things, establishing a minimum expected term.

Subject to term truncation – The term of an employee stock option often is truncated on termination of employment (e.g., a vested option may be exercisable for only 90 days after termination, despite any otherwise remaining contractual term of the option). Provisions regarding term truncation therefore will affect estimates of the expected term of the option.

Subject to blackout periods – In some cases, certain employees may be prohibited from selling shares of their employer’s stock, including shares obtained from option exercise, during a specified period around the release of earnings information. These requirements would eliminate the possibility of option exercise during a blackout period. Blackout periods are not readily incorporated into a valuation using the Black-Scholes-Merton formula but, as discussed below, can be incorporated into a lattice valuation.

While the application of the Black-Scholes-Merton formula is relatively straightforward, many of the complicating factors associated with the valuation of employee stock options cannot be incorporated into it and, therefore, must be derived outside of the formula. The development of appropriate assumptions for use in the Black-Scholes-Merton formula is discussed in Section S7.3.
S7.2.2 Overview of lattice models

As discussed above, most companies historically have used the Black-Scholes-Merton formula to value employee stock options. However, as a result of the FASB’s research and discussions with members of the FASB’s Option Valuation Group, the FASB concluded that the use of the Black-Scholes-Merton formula or other closed-form option-pricing models that require static assumptions often are not the best approaches to estimate the fair value of a typical employee stock option. While closed-form option-pricing models can be modified to address the typical characteristics of employee stock options (e.g., specifying an expected term for the option rather than the contractual term to address observed early-exercise behavior of option holders), such modifications typically require simplifying assumptions that the FASB believes may result in measurement error.

Because of the limitations of closed-form models, ASC 718 indicates that the use of a more complex lattice model (e.g., a binomial model) that takes into account employee exercise patterns based on changes in a company’s stock price and other relevant variables and provides for other dynamic input assumptions often will result in a better estimate of fair value. A lattice model is defined as:

Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Overall

Glossary

718-10-20

A model that produces an estimated fair value based on the assumed changes in prices of a financial instrument over successive periods of time. The binomial model is an example of a lattice model. In each time period, the model assumes that at least two price movements are possible. The lattice represents the evolution of the value of either a financial instrument or a market variable for the purpose of valuing a financial instrument. In this context, a lattice model is based on risk-neutral valuation and a contingent claims framework. See Closed-Form Model for an explanation of the terms risk-neutral valuation and contingent claims framework.

A lattice model is not an equation or a formula, but is instead a framework for calculating the fair value of an option using discounted cash flows. A lattice model is a flexible, iterative approach to valuation that can more explicitly capture the valuation impact of the unique aspects of employee stock options than the Black-Scholes-Merton formula. To create a lattice model, a tree, whose branches represent alternative future stock price paths, is created based on expected volatilities and yields (interest rates and dividends) over the contractual term of the option. Those stock price paths are then used to calculate the fair value of the option, essentially calculating the present value of the probability weighted future intrinsic values in a risk neutral framework. This present value calculation is complicated somewhat by assumptions regarding early exercise behavior, which results in the truncation of a specific stock price path, using the intrinsic value at that date (rather than contractual maturity) to
calculate the present value at the grant date. Essentially, the lattice model is a discounted cash flow analysis with a very large number of possible outcomes. Appendix E provides a more detailed discussion of lattice models and includes examples of how a simple lattice model can be built.

The concepts that underpin lattice models and the Black-Scholes-Merton formula are the same, but the key difference between a lattice model and a closed-form model is the flexibility of the former. For example, as illustrated in Appendix E, a lattice model can explicitly use dynamic assumptions regarding the term structure of volatility, dividend yields, and interest rates. Further, a lattice model can incorporate assumptions about how the likelihood of early exercise of an employee stock option may increase as the intrinsic value of that option increases or how employees may have a high propensity to exercise options with significant intrinsic value shortly after vesting. In addition, a lattice model can incorporate market conditions that may be part of an option’s design, such as a provision that an option is exercisable only if the underlying stock price achieves a certain level (awards with “market conditions”). Because of the versatility of lattice models, the FASB believes that they may provide a more accurate estimate of an employee stock option’s fair value than an estimate based on a closed-form Black-Scholes-Merton formula.

S7.2.2.1 Implementing lattice models

The FASB has concluded that lattice models are based on established principles of financial economic theory and provide a reasonable estimate of the value of an employee stock option. However, the effort involved in performing the calculations can be significant. Companies likely will have to collect and analyze significant amounts of employee exercise data to attempt to identify factors that explain early exercise behavior. Additionally, the use of varying interest rates, volatilities and dividends over the term of the option adds considerable complexity to the implementation of a lattice model. As a practical matter, we believe many companies will not have the ability to develop the assumptions and perform the complex calculations required by the lattice model without the assistance of valuation experts or the use of appropriate software solutions.

25 The valuations obtained using the Black-Scholes-Merton formula and a lattice model will be approximately the same if the lattice model uses identical assumptions as the Black-Scholes-Merton calculation (e.g. constant volatility, constant dividend yields, constant risk-free rate, and the same expected term).
S7.2.3 Selecting an option-pricing model

As previously indicated, ASC 718 does not prescribe the use of a specific option-pricing model to value employee stock options:

---

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Overall*

**Implementation Guidance and Illustrations**

**718-10-55-17**

This Topic does not specify a preference for a particular valuation technique or model in estimating the fair values of employee share options and similar instruments. Rather, this Topic requires the use of a valuation technique or model that meets the measurement objective in paragraph 718-10-30-6 and the requirements in paragraph 718-10-55-11. The selection of an appropriate valuation technique or model will depend on the substantive characteristics of the instrument being valued. Because an entity may grant different types of instruments, each with its own unique set of substantive characteristics, an entity may use a different valuation technique for each different type of instrument. The appropriate valuation technique or model selected to estimate the fair value of an instrument with a market condition must take into account the effect of that market condition. The designs of some techniques and models better reflect the substantive characteristics of a particular employee share option or similar instrument. Paragraphs 718-10-55-18 through 55-20 discuss certain factors that an entity should consider in selecting a valuation technique or model for its employee share options or similar instruments.

**718-10-55-18**

The Black-Scholes-Merton formula assumes that option exercises occur at the end of an option’s contractual term, and that expected volatility, expected dividends, and risk-free interest rates are constant over the option’s term. If used to estimate the fair value of instruments in the scope of this Topic, the Black-Scholes-Merton formula must be adjusted to take account of certain characteristics of employee share options and similar instruments that are not consistent with the model’s assumptions (for example, the ability to exercise before the end of the option’s contractual term). Because of the nature of the formula, those adjustments take the form of weighted-average assumptions about those characteristics. In contrast, a lattice model can be designed to accommodate dynamic assumptions of expected volatility and dividends over the option’s contractual term, and estimates of expected option exercise patterns during the option’s contractual term, including the effect of blackout periods. Therefore, the design of a lattice model more fully reflects the substantive characteristics of a particular employee share option or similar instrument. Nevertheless, both a lattice model and the Black-Scholes-Merton formula, as well as other valuation techniques that meet the requirements in paragraph 718-10-55-11, can provide a fair value estimate that is consistent with the measurement objective and fair-value-based method of this Topic.
Regardless of the valuation technique or model selected, an entity shall develop reasonable and supportable estimates for each assumption used in the model, including the employee share option or similar instrument’s expected term, taking into account both the contractual term of the option and the effects of employees’ expected exercise and post-vesting employment termination behavior. The term supportable is used in its general sense: capable of being maintained, confirmed, or made good; defensible. An application is supportable if it is based on reasonable arguments that consider the substantive characteristics of the instruments being valued and other relevant facts and circumstances.

For many instruments, closed-form models, lattice models and Monte Carlo simulations will produce very similar values as long as the assumptions are appropriately developed and the models are applied correctly. The choice between using a closed-form model or a lattice model or Monte Carlo simulation will be driven by the modeling needs required as a result of specific terms and conditions of the award (e.g., market conditions). In some cases, the decision to use either a Black-Scholes-Merton formula or a lattice model will be viewed as a trade-off between greater cost and potentially greater accuracy of the estimate of fair value. However, many of the costs incurred to implement a lattice model also will be incurred in developing appropriate assumptions for use in a Black-Scholes-Merton formula. Further, it may be difficult to develop certain assumptions in a Black-Scholes-Merton formula (e.g., the expected term of the option) without using the behavioral analyses underlying a lattice model.

Some of the factors to consider in determining which option-pricing model to use to value employee stock options are described below. In many cases no single factor will provide compelling evidence that the use of a particular option-pricing model is more appropriate in the circumstances. Rather, all factors that are relevant to the valuation, including those described below, should be considered.

**Contractual term of the option** – The shorter the contractual term of the option, the less likely the estimate will benefit significantly from a lattice model’s ability to model a term structure of interest rates and volatilities and dynamic exercise behavior. Conversely, the longer the contractual term of the option, the more likely that the use of a lattice model may result in a materially better estimate of fair value.

**Exercise provisions** – Some awards, for example, stock appreciation rights, may specify that the award can be exercised or settled only on a specified date (i.e., the option is a “European option”). In that case, the ability to use a lattice model to dynamically model exercise behavior is of no benefit. However, the ability to model term structures of interest rates and volatilities may still provide a sufficient benefit to warrant use of a

---

26 While the following discussion focuses on the use of the Black-Scholes-Merton formula versus a lattice model, it generally applies equally to the use of any closed-form, option-pricing model versus the use of any dynamic approach like a lattice or Monte Carlo simulation.
lattice model. On the other hand, if the option can be exercised over a long period (i.e., can be exercised any time between vesting and expiration and that period is long), use of a lattice model may provide a better estimate of fair value.

**Past changes in stock prices** – In determining an expected term for use in a Black-Scholes-Merton formula, many companies consider the period that previously granted options remained outstanding. However, if the company’s stock price has been in a prolonged period of increase or decline, those periods may not be indicative of future exercise behavior. Because the prior trend in stock price may or may not continue into the future, it may be necessary to use an approach that permits more dynamic modeling of expected exercise behavior, such as a lattice model.

**Other factors that impact exercise behavior** – In some circumstances, employee exercise behavior may be highly correlated to the amount of intrinsic value of the option (“moneyness”). In that case, a lattice model’s ability to incorporate exercise behavior based on the moneyness of an option is a significant advantage. Alternatively, if employee exercise behavior is primarily correlated to time (e.g., executives tend to hold options to maturity while less senior employees tend to exercise options shortly after vesting), the advantage of a lattice model may be limited.

**Market conditions** – In many cases it will not be practicable to modify the Black-Scholes-Merton formula to accommodate the impact of a market condition. For example, as discussed in Question 2 of SAB Topic 14. C (see excerpt below), the Black-Scholes-Merton formula cannot easily be modified to value an employee stock option that becomes exercisable only when the stock price exceeds a specified premium over the exercise price. Accordingly, in most cases a lattice model must be used to value an award with market conditions.

**Slope of interest rates and volatilities** – If short-term and long-term interest rate and volatility curves are flat, the ability to incorporate varying interest rates and volatilities into a lattice model may be of limited benefit. Conversely, if the slope of these curves is steep, the benefits of a lattice model may be significant.

**Expected changes in dividend policy** – Because a Black-Scholes-Merton formula requires the use of a single dividend yield over the expected term of the option, it is more difficult to appropriately capture anticipated changes in dividend policies in a Black-Scholes-Merton formula than in a lattice model.

**Availability of information** – In some cases, the information to develop dynamic assumptions used in a lattice model may not be available. For example, if an entity has experienced limited employee exercises of options, it may be unable to identify robust relationships between exercise behavior and other factors, such as intrinsic value and time. If the information necessary to develop a lattice model is not available, it may be more appropriate to use a Black-Scholes-Merton formula until such information becomes available.
Classification of the award – Equity awards generally are measured on the grant date and are not remeasured. However, liability awards must be measured on the grant date and remeasured until settlement. Because the amount of compensation cost ultimately recognized is the same (the intrinsic value on the settlement date) regardless of the valuation approach, any potential measurement error in estimating time value ultimately will be corrected. In its Basis for Conclusions to Statement 123(R), the FASB discussed its basis for permitting nonpublic companies to use intrinsic value to measure liabilities: “Concerns about how to apply option-pricing models ... are much less significant if final measurement is based on the intrinsic value, if any, that an employee realizes by exercising an option (paragraph B45 of Statement 123(R)).” As a result, a company may conclude that the disadvantages of the Black-Scholes-Merton formula are mitigated somewhat for liability awards.

Materiality – In some circumstances, it may be apparent that any potential change in estimated value of employee stock options that would result from using a lattice model would not be material to the financial statements for any periods affected. In those circumstances, a company may conclude that the incremental costs of using a lattice model outweigh any potential financial reporting benefits.

The SEC staff has also provided the following interpretive guidance with respect to the selection of option pricing models. While the SEC staff indicated in some circumstances use of a lattice model (or simulation) might be required (consistent with the discussion above), the SEC staff makes clear that the use of a Black-Scholes-Merton formula is acceptable as long as the formula can be appropriately adapted to the terms of the employee stock option. In most cases for typical employee stock options with a fixed exercise price and fixed service-based vesting, we would expect that the use of a Black-Scholes-Merton formula, with appropriately derived assumptions (see Section S7.3), would meet the requirements of ASC 718 and SAB Topic 14.

Excerpt from SAB Topic 14.C

Question 2: In order to meet the fair value measurement objective in Statement 123R, are certain valuation techniques preferred over others?

Interpretive response: Statement 123R, paragraph A14, clarifies that the Statement does not specify a preference for a particular valuation technique or model. As stated in Statement 123R, paragraph A8, in order to meet the fair value measurement objective, a company should select a valuation technique or model that (a) is applied in a manner consistent with the fair value measurement objective and other requirements of Statement 123R, (b) is based on established principles of financial economic theory and generally applied in that field and (c) reflects all substantive characteristics of the instrument.

The chosen valuation technique or model must meet all three of the requirements stated above. In valuing a particular instrument, certain techniques or models may meet the first and second criteria but may not meet the third criterion because the techniques or models are not designed to reflect certain characteristics contained in the instrument. For example,
for a share option in which the exercisability is conditional on a specified increase in the price of the underlying shares, the Black-Scholes-Merton closed-form model would not generally be an appropriate valuation model because, while it meets both the first and second criteria, it is not designed to take into account that type of market condition.\textsuperscript{25}

Further, the staff understands that a company may consider multiple techniques or models that meet the fair value measurement objective before making its selection as to the appropriate technique or model. The staff would not object to a company's choice of a technique or model as long as the technique or model meets the fair value measurement objective. For example, a company is not required to use a lattice model simply because that model was the most complex of the models the company considered. [Footnote 25 omitted]

\textbf{S7.2.3.1 Use of different option-pricing models for options with substantively different terms}

A company may conclude that a particular option-pricing model is appropriate for some employee stock options (or similar awards) but not others. For example, a company may grant two types of share-based payments: (a) cash-settled stock appreciation rights (SARs) that vest after three years of employee service and must be settled at the end of the third year and (b) employee stock options that vest ratably over four years and expire in 10 years. The company may conclude that a lattice model will provide a better estimate of fair value for the 10-year options because of the long period between vesting and expiration, differences between short-term and long-term volatilities and interest rates, and because it believes its employee's exercise behavior is highly correlated with the intrinsic value of the options. On the other hand, assume that the yield and volatility curves are reasonably flat during the first three years after grant. Because of that fact, and given that there is no ability for the employees to exercise early, the company may reasonably conclude that a lattice model is not expected to result in a materially different value for the cash-settled SARs than a Black-Scholes-Merton formula. Accordingly, the company may decide to value its 10-year options using a lattice model and its cash-settled SARs using a Black-Scholes-Merton formula. We believe that such an approach is consistent with the requirements of ASC 718.

\textbf{S7.2.3.2 Changing option-pricing models or input assumptions}

ASC 718 provides the following guidance on changing option-pricing models:

\textbf{Excerpt from Accounting Standards Codification}

\textit{Compensation – Stock Compensation – Overall}

\textit{Implementation Guidance and Illustrations}

\textit{718-10-55-20}

An entity shall change the valuation technique it uses to estimate fair value if it concludes that a different technique is likely to result in a better estimate of fair value (see paragraph 718-10-55-27). For example, an entity that uses a closed-form model might conclude, when information becomes available, that a lattice model or another valuation technique would
Using option-pricing models to value employee stock options

provide a fair value estimate that better achieves the fair value measurement objective and, therefore, change the valuation technique it uses.

718-10-55-27
Assumptions used to estimate the fair value of equity and liability instruments granted to employees shall be determined in a consistent manner from period to period. For example, an entity might use the closing share price or the share price at another specified time as the current share price on the grant date in estimating fair value, but whichever method is selected, it shall be used consistently. The valuation technique an entity selects to estimate fair value for a particular type of instrument also shall be used consistently and shall not be changed unless a different valuation technique is expected to produce a better estimate of fair value. A change in either the valuation technique or the method of determining appropriate assumptions used in a valuation technique is a change in accounting estimate for purposes of applying Topic 250, and shall be applied prospectively to new awards.

As indicated above, ASC 718 specifies that the valuation technique an entity uses to estimate fair value for a particular type of award should be used consistently and should not be changed unless a different valuation technique is expected to produce a better estimate of fair value. Accordingly, we believe that a change in option-pricing technique from a Black-Scholes-Merton formula to a lattice model generally would provide a better estimate and be an acceptable change, but it would be highly unlikely that a change from a lattice model to a Black-Scholes-Merton formula would result in a better estimate.

The guidance on changes in valuation techniques also applies to the method of determining option-pricing model input assumptions. For example, if a company changes its approach to estimating expected volatility from one that relies on a calculation primarily based on historical stock-price movements to one that incorporates the implied volatilities of exchange traded options, we believe such a change must be justified as one that produces a better estimate.

ASC 718 states that a change in either the valuation technique or the method of determining appropriate assumptions for a valuation technique is a change in accounting estimate for purposes of applying ASC 250, and should be applied prospectively to new awards (unless, of course, the previous valuations were materially in error, in which case, the requirements for corrections of errors in ASC 250 must be applied). Accordingly, the disclosures required by ASC 250 must be provided for these changes in estimate. In that regard, we believe companies should disclose the nature of the change and, if practicable, the effect of the change on income from continuing operations, net income, and related per-share amounts of the current period as discussed in ASC 250-10-50-4 (e.g., by disclosing what the difference in the estimates of fair value would have been had the company used the prior methodology). The SEC staff also has provided the following guidance regarding changes in valuation techniques:
Excerpt from SAB Topic 14.C

Question 3: In subsequent periods, may a company change the valuation technique or model chosen to value instruments with similar characteristics?26

Interpretive response: As long as the new technique or model meets the fair value measurement objective in Statement 123R as described in Question 2 above, the staff would not object to a company changing its valuation technique or model.27 A change in the valuation technique or model used to meet the fair value measurement objective would not be considered a change in accounting principle. As such, a company would not be required to file a preferability letter from its independent accountants as described in Rule 10-01(b)(6) of Regulation S-X when it changes valuation techniques or models.28 However, the staff would not expect that a company would frequently switch between valuation techniques or models, particularly in circumstances where there was no significant variation in the form of share-based payments being valued. Disclosure in the footnotes of the basis for any change in technique or model would be appropriate.29 [Footnotes 26, 28 and 29 omitted]

27 The staff believes that a company should take into account the reason for the change in technique or model in determining whether the new technique or model meets the fair value measurement objective. For example, changing a technique or model from period to period for the sole purpose of lowering the fair value estimate of a share option would not meet the fair value measurement objective of the Statement.

We believe judgment must be used to determine whether a change represents a true change in the entity’s methodology for determining the assumption (e.g., changing from estimates based primarily on historical realized volatility to one primarily based on implied volatilities) or a refinement to the methodology that might not require disclosure as a change in accounting estimate (e.g., if the company begins to add the implied volatilities of longer-term options that recently began to trade to the implied volatilities of shorter-term option used previously). However, in all cases, we believe that a change in methodology is appropriate only when the company believes that the change will produce a better estimate of fair value.

In addition to the disclosures required by ASC 250 for changes in estimates, public companies should consider whether additional disclosure is required in MD&A to the extent that the change in estimate had a material impact on the company’s results of operations (see Section S14.6).

S7.3 Selecting option-pricing model input assumptions

As previously discussed, option-pricing models must consider at least six inputs. The exercise price of the option is objectively determinable. Generally, the underlying grant-date stock price also is objectively determinable. However, nonpublic companies may have to estimate the fair value of their stock on the grant date based on the guidance in the AICPA’s Practice Aid. Additionally, while the fair value of the underlying stock must be measured on the grant date (or other measurement date for liability awards or awards for which fair value cannot be reasonably estimated), there are different approaches to measuring the grant date fair value. For example, a company may choose to use the opening stock price, the closing stock price,
or the average stock price during the day. We believe that any of these approaches are acceptable provided that they are applied consistently in estimating the fair value of all share-based payments (see also ASC 718-10-55-27, which is quoted under the heading “Consistency of Assumptions from Period to Period” below).

The remaining assumptions are subjective and generally will require significant analysis to develop. This section discusses how to develop these assumptions for use in both a Black-Scholes-Merton formula and a lattice model.

ASC 718 provides the following general guidance regarding the selection of valuation assumptions:

### Excerpt from Accounting Standards Codification

**Compensation – Stock Compensation – Overall**

**Implementation Guidance and Illustrations**

**718-10-55-13**

In applying a valuation technique, the assumptions used shall be consistent with the fair value measurement objective. That is, assumptions shall reflect information that is (or would be) available to form the basis for an amount at which the instruments being valued would be exchanged. In estimating fair value, the assumptions used shall not represent the biases of a particular party. Some of those assumptions will be based on or determined from external data. Other assumptions, such as the employees’ expected exercise behavior, may be derived from the entity’s own historical experience with share-based payment arrangements.

These concepts are discussed in general below, followed by a discussion of each of the assumptions used in an option-pricing model.

**Fair value should incorporate all substantive characteristics**

The following discussion focuses on the minimum input assumptions that must be incorporated into an option-pricing model. However, ASC 718 also requires other substantive characteristics to be incorporated into the valuation:

### Excerpt from Accounting Standards Codification

**Compensation – Stock Compensation – Overall**

**Implementation Guidance and Illustrations**

**718-10-55-14**

The fair value of any equity or liability instrument depends on its substantive characteristics. Paragraphs 718-10-55-21 through 55-22 list the minimum set of substantive characteristics of instruments with option (or option-like) features that shall be considered in estimating those instruments’ fair value. However, a share-based payment award could contain other characteristics, such as a market condition, that should be included in a fair value estimate.
Judgment is required to identify an award’s substantive characteristics and, as described in paragraphs 718-10-55-15 through 55-20, to select a valuation technique that incorporates those characteristics.

However, certain characteristics of share-based payments are specifically required to be excluded from the valuation of an employee stock option:

**Excerpt from Accounting Standards Codification**

*Compensation — Stock Compensation — Overall*

**Implementation Guidance and Illustrations**

*718-10-55-4*

Reload features and contingent features that require an employee to transfer equity shares earned, or realized gains from the sale of equity instruments earned, to the issuing entity for consideration that is less than fair value on the date of transfer (including no consideration), such as a clawback feature, shall not be reflected in the grant-date fair value of an equity award. Those features are accounted for if and when a reload grant or contingent event occurs. A clawback feature can take various forms but often functions as a noncompete mechanism. For example, an employee that terminates the employment relationship and begins to work for a competitor is required to transfer to the issuing entity (former employer) equity shares granted and earned in a share-based payment transaction.

The accounting for reloads and clawbacks are discussed in Section S3.5. However, it is important to note that while those features are not directly incorporated into the valuation of a share-based payment, they can affect the valuation of an employee stock option indirectly as a result of their impact on employee-exercise behavior. For example, a reload feature typically provides for the grant of additional at-the-money options in a number equal to the number of “mature” shares tendered to satisfy the exercise price of an employee stock option. If an option contains a reload feature, the employee can exercise an option and still benefit from future stock price increases on a portion of the shares previously subject to the option (equal to the number of shares tendered to satisfy the exercise price). Accordingly, if all other relevant factors are the same, options with reload features tend to be exercised earlier than options without reload features. That tendency towards earlier exercise should be factored into the expected term of the option that provides for reloads and, therefore, may result in a shorter expected term and a lower grant-date fair value of the option. We do not believe that the FASB’s prohibition on incorporating the value of reload features into an option grant is intended to preclude incorporating the impact of potential reloads on employee-exercise behavior, any more than it would preclude considering other factors that are not a feature of the award into employee exercise behavior (e.g., an employee’s cash compensation or overall wealth).
Use of historical information to develop option-pricing assumptions

ASC 718 provides the following general guidance on how historical experience should be incorporated into the development of the assumptions for use in an option-pricing model:

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Overall*

**Implementation Guidance and Illustrations**

718-10-55-24

Historical experience is generally the starting point for developing expectations about the future. Expectations based on historical experience shall be modified to reflect ways in which currently available information indicates that the future is reasonably expected to differ from the past. The appropriate weight to place on historical experience is a matter of judgment, based on relevant facts and circumstances. For example, an entity with two distinctly different lines of business of approximately equal size may dispose of the one that was significantly less volatile and generated more cash than the other. In that situation, the entity might place relatively little weight on volatility, dividends, and perhaps employees’ exercise and post-vesting employment termination behavior from the predisposition (or disposition) period in developing reasonable expectations about the future. In contrast, an entity that has not undergone such a restructuring might place heavier weight on historical experience. That entity might conclude, based on its analysis of information available at the time of measurement, that its historical experience provides a reasonable estimate of expected volatility, dividends, and employees’ exercise and post-vesting employment termination behavior. This guidance is not intended to suggest either that historical volatility is the only indicator of expected volatility or that an entity must identify a specific event in order to place less weight on historical experience. Expected volatility is an expectation of volatility over the expected term of an employee share option or similar instrument; that expectation shall consider all relevant factors in paragraph 718-10-55-37, including possible mean reversion. Paragraphs 718-10-55-35 through 55-41 provide further guidance on estimating expected volatility.

718-10-55-25

In certain circumstances, historical information may not be available. For example, an entity whose common stock has only recently become publicly traded may have little, if any, historical information on the volatility of its own shares. That entity might base expectations about future volatility on the average volatilities of similar entities for an appropriate period following their going public. A nonpublic entity will need to exercise judgment in selecting a method to estimate expected volatility and might do so by basing its expected volatility on the average volatilities of otherwise similar public entities. For purposes of identifying otherwise similar entities, an entity would likely consider characteristics such as industry, stage of life cycle, size, and financial leverage. Because of the effects of diversification that are present in an industry sector index, the volatility of an index should not be substituted for the average of volatilities of otherwise similar entities in a fair value measurement.
Many companies believed that Statement 123 placed a high hurdle on deviating from historical experience in estimating expected term and expected volatility. As a result, many companies based the estimate of the expected term of their options largely on the average period that previous employee stock options had remained outstanding before exercise. Similarly, many entities based estimated volatility on the historical realized volatility over the historical time period equal to the expected term of their options. As a result of the FASB’s discussions during the deliberations that led to the issuance of ASC 718, we understand that such a rigid use of historical data, although widespread, was not the FASB’s intent under Statement 123. Accordingly, we believe companies should evaluate historical experience carefully in estimating the fair value of employee stock options under ASC 718. We do not believe that the FASB’s discussion of historical information as a starting point is meant to preclude use of current market-based information. For example, if an entity has actively traded options from which it can derive a measure of implied volatility, it may appropriately conclude that this implied volatility measure represents a market participant’s expectations of its future stock volatility and, therefore, is more useful in estimating expected volatility than its historical realized volatility. The consideration of implied volatility data is discussed in greater detail in Section S7.3.2.2.

### Consistency of assumptions from period to period

**Excerpt from Accounting Standards Codification**

*Compensation — Stock Compensation — Overall*

**Implementation Guidance and Illustrations**

*718-10-55-27*

Assumptions used to estimate the fair value of equity and liability instruments granted to employees shall be determined in a consistent manner from period to period. For example, an entity might use the closing share price or the share price at another specified time as the current share price on the grant date in estimating fair value, but whichever method is selected, it shall be used consistently. The valuation technique an entity selects to estimate fair value for a particular type of instrument also shall be used consistently and shall not be changed unless a different valuation technique is expected to produce a better estimate of fair value. A change in either the valuation technique or the method of determining appropriate assumptions used in a valuation technique is a change in accounting estimate for purposes of applying Topic 250, and shall be applied prospectively to new awards.

The guidance in ASC 718-10-55-27 should not be read to preclude changing assumptions from period to period when circumstances have changed or a refinement of the methodology used to develop assumptions is warranted, provided that the changes are believed to provide a better estimate of fair value. Changes in estimates in the context of both changes in option-pricing models and changes in assumptions are discussed further in Section S7.2.3.2.
Range of reasonable assumptions

Under the original provisions of Statement 123, if an employer determined a range of estimates for an input assumption and no point within the range was a better estimate than any other point within the range, the employer could use an assumption based on the end of the range that produced the lowest option value (e.g., the lowest volatility estimate or the highest expected dividend yield in the range). However, ASC 718 eliminates the opportunity to use the low end of a range of reasonable input assumptions:

Excerpt from Accounting Standards Codification

*Compensation – Stock Compensation – Overall*

*Implementation Guidance and Illustrations*

718-10-55-23

There is likely to be a range of reasonable estimates for expected volatility, dividends, and term of the option. If no amount within the range is more or less likely than any other amount, an average of the amounts in the range (the expected value) shall be used. In a lattice model, the assumptions used are to be determined for a particular node (or multiple nodes during a particular time period) of the lattice and not over multiple periods, unless such application is supportable.

S7.3.1 Expected term of the option

The expected option term has a significant impact on the value of the option. The longer the term, the more time the option holder has to allow the stock price to increase, making the option more valuable. Further, lengthier option terms provide more opportunity to exploit market highs without exposure to downside risk. Empirical data shows that employees, for a variety of reasons, (e.g., diversification, liquidity needs) typically do not wait until the end of the contractual term of a nontransferable option to exercise. Accordingly, ASC 718 requires companies to use the expected term of the option, rather than the contractual term, as an input to an option-pricing model.\(^27\)

---

\(^27\) Note that the full contractual term of a stock option should be used in an option-pricing model if the option is freely transferable because, as described in ASC 718-10-55-29 rarely is it economically advantageous to exercise such an option prior to the expiration of its contractual term.
ASC 718 provides the following guidance and factors that might be considered in developing estimates of the expected term of stock option awards:

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Overall*

**Implementation Guidance and Illustrations**

**718-10-55-29**

The fair value of a traded (or transferable) share option is based on its contractual term because rarely is it economically advantageous to exercise, rather than sell, a transferable share option before the end of its contractual term. Employee share options generally differ from transferable share options in that employees cannot sell (or hedge) their share options—they can only exercise them; because of this, employees generally exercise their options before the end of the options’ contractual term. Thus, the inability to sell or hedge an employee share option effectively reduces the option’s value because exercise prior to the option’s expiration terminates its remaining life and thus its remaining time value. In addition, some employee share options contain prohibitions on exercise during blackout periods. To reflect the effect of those restrictions (which may lead to exercise before the end of the option’s contractual term) on employee options relative to transferable options, this Topic requires that the fair value of an employee share option or similar instrument be based on its expected term, rather than its contractual term (see paragraphs 718-10-55-5 and 718-10-55-21).

**718-10-55-30**

The expected term of an employee share option or similar instrument is the period of time for which the instrument is expected to be outstanding (that is, the period of time from the service inception date to the date of expected exercise or other expected settlement). The expected term is an assumption in a closed-form model. However, if an entity uses a lattice model that has been modified to take into account an option’s contractual term and employees’ expected exercise and post-vesting employment termination behavior, the expected term is estimated based on the resulting output of the lattice. For example, an entity’s experience might indicate that option holders tend to exercise their options when the share price reaches 200 percent of the exercise price. If so, that entity might use a lattice model that assumes exercise of the option at each node along each share price path in a lattice at which the early exercise expectation is met, provided that the option is vested and exercisable at that point. Moreover, such a model would assume exercise at the end of the contractual term on price paths along which the exercise expectation is not met but the options are in-the-money at the end of the contractual term. The terms at-the-money, in-the-money, and out-of-the-money are used to describe share options whose exercise price is equal to, less than, or greater than the market price of the underlying share, respectively. The valuation approach described recognizes that employees’ exercise behavior is correlated with the price of the underlying share. Employees’ expected post-vesting employment...
termination behavior also would be factored in. Expected term, which is a required disclosure (see paragraph 718-10-50-2), then could be estimated based on the output of the resulting lattice. An example of an acceptable method for purposes of financial statement disclosures of estimating the expected term based on the results of a lattice model is to use the lattice model’s estimated fair value of a share option as an input to a closed-form model, and then to solve the closed-form model for the expected term. Other methods also are available to estimate expected term.

ASC 718-10-55-31 provides the following factors to consider when estimating the expected term of an option.

1. **The vesting period of the award** – An option’s expected term must at least include the vesting period (or the average vesting period, for awards subject to graded vesting that are valued as a single award with a single average expected term). Because the options cannot be exercised during the vesting period, no early exercise would be assumed during the vesting period. Forfeitures during this period are recognized by reducing the number of options included in the recognition of compensation cost. Additionally, the length of time employees hold options after they vest may vary inversely with the length of the vesting period. That is, the longer the vesting period, the more likely the employee may exercise shortly after vesting.

2. **Employees’ historical exercise and post-vesting employment termination behavior for similar grants** – Historical employee exercise patterns associated with prior similar option grants are an important consideration in the assessment of expected term. In determining whether past grants are similar to the current grant, companies should consider all of the significant terms of the options (including the contractual term, vesting conditions, exercise price compared to grant-date market price of the underlying shares, reload features, etc.). It usually will be most appropriate to analyze exercises and settlements resulting from post-vesting employment terminations separately from other early exercises.

Generally, past exercise behavior for similar awards should serve as the starting point for determining either expected exercise behavior in a lattice model or the expected life in a closed form model. For a lattice model, that behavior should be analyzed, correlated to various factors that are believed to drive exercise behavior (e.g., the intrinsic value or “moneyness” of the option, the stock return since the grant date, the time from vesting, and time to expiration) and used in conjunction with assumptions about post-vesting forfeitures and cancellations to estimate the timing and amount of expected exercises.

For a closed-form model, past exercise behavior represents a starting point and only one component of the expected life. Care should be taken to ensure that the analysis of historical exercise behavior considers all activity from the grant date to the date that all awards have been or will be settled, including options that expire out of the money at the end of the contractual term. For example, assume options with a ten-year contractual term were granted five years ago and a substantial portion of those options remain...
outstanding on the date of the analysis. The disposition of those options that remain outstanding must be considered in assessing historical exercise behavior; however, certain software packages produce reports for purposes of expected term estimates that exclude unexercised options. Ignoring those outstanding options would result in an estimated expected term of less than five years, which would not be appropriate because that estimate excludes the remaining contractual term of the option. The issue of outstanding options can be addressed in the analysis of exercise behavior by either (a) restricting the analysis to include only options that have reached the end of their contractual term or (b) extrapolating exercise behavior to the outstanding options. We have seen exercise behavior extrapolated to future periods using several approaches, including:

1. Outstanding options are assumed to be exercised in equal quantities each period from the date of the analysis to contractual maturity.
2. Outstanding options are assumed to be exercised at marginal rates based on exercise data available for options that have reached contractual maturity.
3. Outstanding options are assumed to be exercised at contractual maturity, which generally would result in an overly conservative estimate of expected term.

For both lattice models and closed-form models, post-vesting employee termination patterns also affect the expected term. Most employee stock options have a ten-year term, but if a grantee’s employment is terminated, the grantee typically has only 90 days (or some other truncated term) to exercise the option (even if the contractual expiration of the option would be years away absent the termination). Accordingly, a company should look at its prior termination patterns, adjust those patterns for future expectations, and incorporate those expected terminations into its estimate of expected term (in a closed-form model) or its expected exercise behavior (in a lattice model). Turnover patterns are not necessarily linear and may be a non-linear function of a variety of factors, such as:

- Employee demographics (age, gender, tenure, position, etc.).
- Path of the stock price – For example, if options are deeply out-of-the-money, they may have little retention value and the termination rate may be higher than if the options were at- or in-the-money.
- Economic conditions and the trend of the employer’s stock price relative to other stock prices.

Significant changes in the underlying stock price, dividend yields, other relevant characteristics of the company, terms of option plans, tax laws, volatility, termination patterns, or other factors may indicate that past exercise behavior is not indicative of expected exercise behavior. Additionally, if the amount of past exercise data is limited, that data may not represent a sufficiently large sample on which to base a robust...
conclusion on expected exercise behavior. In that circumstance, it may be appropriate to consider external data or the SEC staff’s “simplified” method to expected term (both of which are discussed below).

3. **The expected volatility of the stock** – On average, we believe that employees tend to exercise options on higher volatility stocks earlier, in part because of the greater risk that a gain in the option will be lost in the future. Because of this inverse relationship between expected term and expected volatility, the impact of a change in one assumption will be mitigated by the change in the other assumption. That is, all other things being equal, we would anticipate the expected term of an option to increase as expected volatility decreases, and we would anticipate the expected term to decrease as expected volatility increases. Additionally, the evolution of the share price affects an employee’s exercise behavior (e.g., an employee may be more likely to exercise a share option shortly after it becomes in-the-money if the option had been out-of-the-money for a long period of time). Exercise behavior based on the evolution of the share price can be incorporated into a lattice model, but it is generally impracticable to do so in a closed-form model.

4. **Blackout periods and other coexisting arrangements** (such as agreements that allow for exercise to automatically occur during blackout periods if certain conditions are satisfied) – Blackout periods and related arrangements generally cannot be incorporated into a closed-form option-pricing model, but can be incorporated into a lattice valuation by precluding early-exercise behavior during blackout periods. However, in most cases we do not believe that incorporating blackout periods into the valuation of an option will have a significant effect on the valuation.

5. **Employees’ ages, lengths of service, and home jurisdictions** (i.e., domestic or foreign) – These factors often will be captured in historical early-exercise behavior by segmenting exercise data into homogeneous groups (although as discussed further below, the SEC staff has indicated that in many cases it may not be necessary to segment exercise behavior into more than one or two groups). However, a material change in circumstances from those that existed when previous options were granted may indicate that historical exercise behavior must be adjusted to take into account these changes.

6. **External data** – ASC 718-10-55-32 suggests that in some cases it may be appropriate to use external data rather than internal employee exercise data to estimate employee-exercise behavior or expected term. We agree that this may be appropriate in some circumstances, particularly for companies that may not have sufficient historical information to develop reasonable expectations about future exercise patterns. For instance, a company for which all outstanding grants have been out of the money for a long period may simply not be able to observe any exercise behavior. Similarly, younger companies may not possess enough history to perform a reasonable analysis of past exercise behavior. In these cases, companies may have to look to the exercise history of employees of similar companies that grant awards with similar terms (e.g., similar vesting
provisions, contractual term, and relationship of exercise price to grant-date fair value of the underlying stock) to develop expectations of employee-exercise behavior. However, such data must be used with care because a specific company’s employees may differ in important ways from the employees included in such external data. Accordingly, we generally believe the appropriate peer group data should be used only if (a) sufficient internal data is not available, (b) there is reason to believe that the exercise behavior of the similar company’s employees is not unique to that company and their employees do not exhibit unique demographic characteristics, or (c) the use of broader external data would not be expected to materially impact the financial statements (e.g., because the period between vesting and expiration is relatively short or if reasonably possible variations in the value would not materially impact the financial statements). While there currently is limited publicly available data about employee exercise patterns, valuation professionals and human resource consultants may have access to relevant data. Additionally, we expect exercise data to become more broadly available in the future. It should be noted that the use of another company’s disclosed expected term is not an appropriate substitute for an analysis of the underlying exercise data.

7. **Aggregation by homogeneous employee groups** – ASC 718-10-55-34 provides that “an entity shall aggregate individual awards into relatively homogeneous groups with respect to exercise and postvesting employment termination behaviors regardless of the valuation technique or model used to estimate the fair value.” While this sentence appears to require that option grants be stratified among relatively homogeneous employee groups for purposes of employee stock option valuation, it does not necessarily require stratification by specific employee demographic groups (e.g., by pay levels) unless those demographic groups are expected to display materially different exercise behavior. However, we often see significant differences between exercise behaviors of various employee demographic groups and, therefore, in most cases would expect to see such stratification.

The number of employee groups that should be identified for purposes of employee stock option valuation is a matter of judgment based on the degree of similarity of the behavior of various groups of employees. To the extent that exercise behavior varies significantly, segmenting of employees into separate groups generally would be required if it would be expected to result in a materially different option valuation.
The SEC staff provided the following interpretive guidance that suggests that more than two groupings usually would not be necessary to make a reasonable estimate of the fair value of employee stock options:

Excerpt from SAB Topic 14.D.2

Question 4: Statement 123R, paragraph A30, indicates that an entity shall aggregate individual awards into relatively homogenous groups with respect to exercise and post-vesting employment termination behaviors for the purpose of determining expected term, regardless of the valuation technique or model used to estimate the fair value. How many groupings are typically considered sufficient?

Interpretive response: As it relates to employee groupings, the staff believes that an entity may generally make a reasonable fair value estimate with as few as one or two groupings.69

---

69 The staff believes the focus should be on groups of employees with significantly different expected exercise behavior. Academic research suggests two such groups might be executives and non-executives. A study by S. Huddart found executives and other senior managers to be significantly more patient in their exercise behavior than more junior employees. (Employee rank was proxied for by the number of options issued to that employee.) See S. Huddart, “Patterns of stock option exercise in the United States,” in: J. Carpenter and D. Yermack, eds., Executive Compensation and Shareholder Value: Theory and Evidence (Kluwer, Boston, MA, 1999), pp. 115-142. See also S. Huddart and M. Lang, “Employee stock option exercises: An empirical analysis,” Journal of Accounting and Economics, 1996, pp. 5-43.

S7.3.1.1 Exercise behavior under lattice models

As discussed above, a lattice model provides significant versatility in the description of exercise behavior. Appendix E provides illustrations of how exercise behavior can be modeled using a lattice approach. The factors to consider when modeling exercise behavior are described in Section S7.3.1. Generally, past exercise behavior should serve as the starting point for determining expected exercise behavior. As discussed above, past behavior should be analyzed, correlated to the various factors that are believed to drive exercise behavior (e.g., the intrinsic value or “moneyness” of the option, the stock return since the grant date, the time from vesting, and time to expiration) and used in conjunction with assumptions about post-vesting forfeitures and cancellations to estimate the timing and amount of expected exercises. However, significant changes in circumstances may indicate that past exercise behavior is not indicative of expected exercise behavior and, in those circumstances, previous exercise behavior should be adjusted to take into account the changes in circumstances.

Typically, we would expect exercise behavior to be modeled separately in a lattice model for exercises and cancellations resulting from termination and other exercises. The employer would estimate expected post-vesting termination rates (as previously discussed, pre-vesting forfeitures are incorporated into compensation cost by reducing the number of awards that are recognized and do not impact the value of the award) based on historical rates, considering how those rates may be expected to change in the future, and assume early exercise, cancellation or expiration of options held by terminated employees. When analyzing
past exercise behavior to determine how various factors are correlated to non-termination option exercise behavior, options exercised after or shortly before termination should be excluded from the data.

ASC 718 provides examples of the use of a lattice model in which exercise behavior is based on only two factors, employee terminations and the moneyness of the option, as reflected by the use of a single suboptimal exercise factor (a factor representing the value of the underlying stock as a multiple of the exercise price of the option which, if achieved, results in exercise of the option). Not coincidentally, corresponding with the issuance of ASC 718, certain vendors were selling software that performed calculations based on a binomial approach that incorporated early-exercise behavior based on only these two factors. While this software may still be available, products with the capability to incorporate other relevant factors are commonly available.

We believe that the two-factor approach may be an overly simplistic approach to using a lattice model to value an option and, in fact, may not necessarily result in a reasonable estimate of the fair value of an option. For example, the examples presume that moneyness and early exercise are highly correlated. We have noted instances in which this is not the case. At some companies, we have noted that exercise behavior is correlated more to time. Specifically, we have seen that lower-level employees at some companies tend to exercise their options shortly after vesting if there is even a modest amount of intrinsic value in the options, while senior executives tend to exercise options at or near expiration. Alternatively, the impact of an option’s moneyness on exercise behavior may change over time, such that a greater amount of moneyness is required to induce employees to exercise early in the option’s term (and forego significant time value), while less moneyness is required to induce exercise later in the term as time value is smaller (this behavior can be modeled by, for example, using suboptimal exercise factors that decline over time).

Relationships between exercise behavior and various factors can vary from company to company based on the employer’s culture and policies for employee share ownership, the age and relative wealth of employees, and other factors. Accordingly, we believe that when developing assumptions for early-exercise behavior under a lattice model, the assumptions should be carefully developed based on those factors that are most highly correlated to employee-exercise behavior, considering the interrelationship of those factors. However, in some cases, provided that employee groups are appropriately segmented into homogeneous groups, the approach illustrated in ASC 718 may provide a reasonable estimate of the fair value of an employee stock option.

Further, the above points of view are not commentary on the Hull-White model, which is a lattice or simulation model commonly employed in practice that uses a specified moneyness multiple as a trigger for exercise, but includes no other indicators for early exercise. The sole consideration of moneyness is an attribute of that particular model. In general, models should consider as many indicators of early exercise that may be relevant and observable.
S7.3.1.2 Expected term under the Black-Scholes-Merton formula

An estimate of expected term based on the types of inputs described in Section S7.3.1 can be used in a Black-Scholes-Merton formula as well. However, the formula requires that only a single expected term be used.

Again, the number of employee groups that should be segmented for purposes of employee stock option valuation is a matter of judgment based on the degree of similarity of the behavior of the various groups. To the extent that the exercise behavior is not similar, segmentation generally would be appropriate if it would be expected to result in a materially different option valuation. However, as previously discussed, the SEC staff believes that in many cases it would be unnecessary to segment employees into more than two groups.

Determining a single expected term can be challenging, particularly for companies that are looking to base their estimate on the periods their previous option grants were outstanding, which were highly dependent on the circumstances that existed during that option period. For example, if a company's stock price increased significantly during the option period (e.g., as would be the case for stock options granted at certain companies at the beginning of a bull market), employees would have likely exercised options very soon after vesting. Alternatively, if options were granted at the end of a bull market and the stock price declined significantly after the grant date, the options would likely be exercised much later (if ever). These relationships would exist because, as discussed previously, the “moneyness” of an option can have a significant impact on exercise behavior. Accordingly, deriving a single expected term in these situations involves considerable judgment. Some approaches that could be used to estimate the expected term include:

► Modeling or simulating exercise behavior based on a variety of stock price paths. This approach is similar to the approach described above for incorporating exercise and termination behavior into a lattice model. However, the result of the modeling is used to estimate a single expected term that is then input into a closed-form model.

It should be noted that if this approach to estimating expected term is used, the modeling approach will differ from that used in a lattice model for purposes of valuing an option. Specifically, a lattice valuation is based on a risk-neutral framework in which all assets are assumed to return the risk-free rate, and the stock price varies from that assumed upward drift based on the assumed expected volatility. This approach is appropriate for purposes of option valuation because the upward drift associated with the stock price paths in the lattice model is equal to the discount rate used to calculate the present value of the terminal value of each price path. That is, any change from a risk-free rate for purposes of modeling stock price changes would be offset by using the same rate to discount the terminal value to its present value on the measurement date.

For purposes of modeling employee exercise behavior, a risk-neutral framework is not an appropriate assumption, because when employees decide whether or not to exercise an option they would not assume a risk-free return on a risky asset. Accordingly, when
modeling exercise behavior for purposes of estimating expected term to be used in a Black-Scholes-Merton formula, a risk-adjusted lattice framework can be used to project stock prices and estimate expected term. Alternatively, other risk-adjusted approaches could be used to model stock price paths (e.g., Monte Carlo simulation).

- Estimating expected term based on the period that previous options were outstanding. This approach may be appropriate when a company has significant historical data that includes a variety of different stock price paths, or when a company concludes that exercise behavior is correlated primarily to time rather than stock price path. However, care should be used to ensure that the analysis considers the fact that recently granted options remain outstanding and unexercised. That is, if the company bases its expected term assumption on the average period options historically have been outstanding, they would have to demonstrate the average is adjusted for the fact that some options that have only been outstanding for a short period of time and remain outstanding (i.e., their life cycle is incomplete). If no adjustment is made for options that remain outstanding, those options will inappropriately reduce the average period used to estimate expected term.

- One method to adjust the average historical term for recently granted options is to assume that those recently granted options will be exercised ratably from the date of the analysis (or the vesting date, if later) to the contractual term (an approach similar to the simplified method of estimating expected term described in SAB Topic 14.D.2) and include the resulting terms in the calculation of the average expected time to exercise. However, if based on historical patterns this approach clearly misrepresents exercise behavior, it may be more appropriate to analyze historical exercise patterns and apply those patterns to options that remain outstanding to adjust the average. The issue of partial life cycles is discussed further in Section S7.3.1, above.

Another similar and slightly more detailed approach is to apply the ratable exercise method just described to the remaining outstanding options after applying the post-vesting forfeiture rate to the outstanding balance as of the measurement date and after applying a probability of the options expiring out-of-the-money. Under this method, details about expected forfeitures, departures and current moneyness may make the estimate of expected life more meaningful.

- Estimating term based on the expected terms of options granted by other, similar companies with similarly structured awards. However, as discussed above this alternative likely will be available only in limited circumstances.

- Estimating expected term based on the SEC staff’s “simplified” method described below.

The SEC staff provided the following interpretive guidance regarding the estimate of the expected term for use in a Black-Scholes-Merton formula. This guidance generally is consistent with the guidance described above.
Excerpt from SAB Topic 14.D.2

Question 5: What approaches could a company [that uses the Black-Scholes-Merton formula to estimate the fair value of employee stock options] use to estimate the expected term of its employee share options?

Interpretive response: A company should use an approach that is reasonable and supportable under Statement 123R’s fair value measurement objective, which establishes that assumptions and measurement techniques should be consistent with those that marketplace participants would be likely to use in determining an exchange price for the share options. If, in developing its estimate of expected term, a company determines that its historical share option exercise experience is the best estimate of future exercise patterns, the staff will not object to the use of the historical share option exercise experience to estimate expected term.

A company may also conclude that its historical share option exercise experience does not provide a reasonable basis upon which to estimate expected term. This may be the case for a variety of reasons, including, but not limited to, the life of the company and its relative stage of development, past or expected structural changes in the business, differences in terms of past equity-based share option grants, or a lack of variety of price paths that the company may have experienced.

Statement 123R describes other alternative sources of information that might be used in those cases when a company determines that its historical share option exercise experience does not provide a reasonable basis upon which to estimate expected term. For example, a lattice model (which by definition incorporates multiple price paths) can be used to estimate expected term as an input into a Black-Scholes-Merton closed-form model. In addition, Statement 123R, paragraph A29, states “…expected term might be estimated in some other manner, taking into account whatever relevant and supportable information is available, including industry averages and other pertinent evidence such as published academic research.” For example, data about exercise patterns of employees in similar industries and/or situations as the company’s might be used. While such comparative information may not be widely available at present, the staff understands that various parties, including actuaries, valuation professionals and others are gathering such data.

Footnotes:
71 Historical share option exercise experience encompasses data related to share option exercise, postvesting termination, and share option contractual term expiration.
72 For example, if a company had historically granted share options that were always in-the-money, and will grant at-the-money options prospectively, the exercise behavior related to the in-the-money options may not be sufficient as the sole basis to form the estimate of expected term for the at-the-money grants.
73 For example, if a company had a history of previous equity-based share option grants and exercises only in periods in which the company’s share price was rising, the exercise behavior related to those options may not be sufficient as the sole basis to form the estimate of expected term for current option grants.
SEC staff’s “simplified” method for estimating expected term

In SAB Topic 14, the SEC staff describes a “simplified” method to develop the estimate of the expected term of a “plain vanilla” employee stock option. Under the “simplified” method, the expected term would be presumed to be the mid-point between the vesting date and the end of the contractual term. The language in SAB Topic 14 indicates that use of this approach, with appropriate disclosure, is permitted for a “plain vanilla” employee stock option for which the value is estimated using a Black-Scholes-Merton formula. At the time SAB Topic 14 was issued, the SEC staff believed that over time more detailed external information about employee exercise behavior would become readily available. As a result, SAB Topic 14 originally prohibited the use of the “simplified” method for options granted, modified or settled after 31 December 2007. However, the SEC staff subsequently amended SAB Topic 14 and observed that an entity may be unable to rely on its historical data and alternative information, such as exercise data for employees of other companies, is still not easily obtainable. As a result, the SEC staff will continue to accept the use of the “simplified” method for estimating the expected term of “plain vanilla” options in certain circumstances as described below.

Excerpt from SAB Topic 14.D.2

Facts: Company E grants equity share options to its employees that have the following basic characteristics:75

- The share options are granted at-the-money;
- Exercisability is conditional only on performing service through the vesting date;76
- If an employee terminates service prior to vesting, the employee would forfeit the share options;
- If an employee terminates service after vesting, the employee would have a limited time to exercise the share options (typically 30-90 days); and
- The share options are nontransferable and nonhedgeable.

Company E utilizes the Black-Scholes-Merton closed-form model for valuing its employee share options.

Question 6: As share options with these “plain-vanilla” characteristics have been granted in significant quantities by many companies in the past, is the staff aware of any “simple” methodologies that can be used to estimate expected term?

28 The assessment of whether an award is “plain vanilla” must be made at the modification date for an award that is modified. Accordingly, if the option is not at-the-money on the modification date, the SEC staff’s “simplified” method cannot be used to estimate the incremental fair value resulting from the modification.
Interpretive Response: As noted above, the staff understands that an entity that is unable to rely on its historical exercise data may find that certain alternative information, such as exercise data relating to employees of other companies, is not easily obtainable. As such, some companies may encounter difficulties in making a refined estimate of expected term. Accordingly, if a company concludes that its historical share option exercise experience does not provide a reasonable basis upon which to estimate expected term, the staff will accept the following “simplified” method for “plain vanilla” options consistent with those in the fact set above: expected term = ((vesting term + original contractual term) / 2). Assuming a ten year original contractual term and graded vesting over four years (25% of the options in each grant vest annually) for the share options in the fact set described above, the resultant expected term would be 6.25 years. Academic research on the exercise of options issued to executives provides some general support for outcomes that would be produced by the application of this method.

Examples of situations in which the staff believes that it may be appropriate to use this simplified method include the following:

- A company does not have sufficient historical exercise data to provide a reasonable basis upon which to estimate expected term due to the limited period of time its equity shares have been publicly traded.
- A company significantly changes the terms of its share option grants or the types of employees that receive share option grants such that its historical exercise data may no longer provide a reasonable basis upon which to estimate expected term.
- A company has or expects to have significant structural changes in its business such that its historical exercise data may no longer provide a reasonable basis upon which to estimate expected term.

The staff understands that a company may have sufficient historical exercise data for some of its share option grants but not for others. In such cases, the staff will accept the use of the simplified method for only some but not all share option grants. The staff also does not believe that it is necessary for a company to consider using a lattice model before it decides that it is eligible to use this simplified method. Further, the staff will not object to the use of this simplified method in periods prior to the time a company's equity shares are traded in a public market.

If a company uses this simplified method, the company should disclose in the notes to its financial statements the use of the method, the reason why the method was used, the types of share option grants for which the method was used if the method was not used for all share option grants, and the periods for which the method was used if the method was not used in all periods. Companies that have sufficient historical share option exercise experience upon which to estimate expected term may not apply this simplified method. In addition, this simplified method is not intended to be applied as a benchmark in evaluating the appropriateness of more refined estimates of expected term.
Also, as noted above in Question 5, the staff believes that more detailed external information about exercise behavior will, over time, become readily available to companies. As such, the staff does not expect that such a simplified method would be used for share option grants when more relevant detailed information becomes widely available. [Emphasis added]

75 Employee share options with these features are sometimes referred to as “plain-vanilla” options.

76 In this fact pattern the requisite service period equals the vesting period.

77 Calculated as [[[1 year vesting term (for the first 25% vested) plus 2 year vesting term (for the second 25% vested) plus 3 year vesting term (for the third 25% vested) plus 4 year vesting term (for the last 25% vested)] divided by 4 total years of vesting] plus 10 year contractual life] divided by 2; that is, (((1+2+3+4)/4) + 10)/2 = 6.25 years.

78 J.N. Carpenter, “The exercise and valuation of executive stock options,” Journal of Financial Economics, 1998, pp.127-158 studies a sample of 40 NYSE and AMEX firms over the period 1979-1994 with share option terms reasonably consistent to the terms presented in the fact set and example. The mean time to exercise after grant was 5.83 years and the median was 6.08 years. The “mean time to exercise” is shorter than expected term since the study’s sample included only exercised options. Other research on executive options includes (but is not limited to) J. Carr Bettis; John M. Bizjak; and Michael L. Lemmon, “Exercise behavior, valuation, and the incentive effects of employee stock options,” forthcoming in the Journal of Financial Economics. One of the few studies on nonexecutive employee options the staff is aware of is S. Huddart, “Patterns of stock option exercise in the United States,” in: J. Carpenter and D. Yermack, eds., Executive Compensation and Shareholder Value: Theory and Evidence (Kluwer, Boston, MA, 1999), pp. 115-142.

S7.3.1.3 Expected term of awards with graded vesting

An option may specify multiple vesting dates, commonly referred to as graded vesting, in which specified tranches of the option vest on different dates. For example, an option grant may be subject to graded vesting over four years, in which 25% of the award vests at the end of each of the next four years. In such a circumstance, because each of the four tranches becomes exercisable on a different date, each tranche could have a different expected term. Case B of ASC 718 (paragraphs ASC-20-55-25 through 55-34) (included in Section S4.4.1.6) illustrates two methods that can be used to value an option subject to graded vesting:

As separate awards corresponding to each vesting tranche – ASC 718-20-55-29 illustrates the valuation of an award subject to graded vesting using a lattice model in which exercise behavior was modeled separately for each vesting tranche, resulting in a different estimated fair value for each tranche.

As a single award with a single average expected term – ASC 718-20-55-32 provides that, in the same example, the employer “also could use a single weighted-average expected life to value the entire award and arrive at a different amount of total compensation cost.” While this approach may result in a less accurate estimate of value, the difference may not be significant for employee groups that tend to hold options well beyond the vesting date. Further, it simplifies the tracking of recognized compensation cost for purposes of adjusting deferred tax assets to the actual tax benefit realized for the award (see discussion in Section S10.3).
S7.3.2 Expected stock volatility

Excerpt from Accounting Standards Codification

**Compensation — Stock Compensation — Overall**

**Glossary**

718-10-20

**Volatility**

A measure of the amount by which a financial variable such as a share price has fluctuated (historical volatility) or is expected to fluctuate (expected volatility) during a period. Volatility also may be defined as a probability-weighted measure of the dispersion of returns about the mean. The volatility of a share price is the standard deviation of the continuously compounded rates of return on the share over a specified period. That is the same as the standard deviation of the differences in the natural logarithms of the stock prices plus dividends, if any, over the period. The higher the volatility, the more the returns on the shares can be expected to vary — up or down. Volatility is typically expressed in annualized terms.

Much of the value of a stock option is derived from its potential for appreciation. The more volatile the stock, the more valuable the option because of the greater possibility of significant positive changes in share price.

Volatility is not the same as a stock’s “beta.” Beta measures a stock’s price fluctuation relative to the average market fluctuation, and is not the measure used in an option-pricing model. Volatility is a measure of a stock price’s variability over time.

As discussed above, volatility is measured by the standard deviation of a statistical (or probability) distribution. The larger the standard deviation in relation to the average price level, the more variable the price. In simpler terms, an annualized volatility of 30% means that the probability that the year-end stock price will be within 30% of the stock price at the beginning of the year is approximately two-thirds (statistically, one “standard deviation”). Conversely, there is a probability of approximately one-third that the year-end stock price will fall outside that range.

ASC 718 does not prescribe a method to estimate expected volatility, but does describe in ASC 718-10-55-37 certain factors to consider in estimating expected volatility. Those factors are described below. Companies should consider all relevant available data when estimating expected volatility.

**S7.3.2.1 Historical realized volatility**

Historical realized volatility is a calculation of volatility based on historical stock prices during a period of time. We contrast “historical realized volatility” with “implied volatility,” which we will discuss in Section S7.3.2.2, below. Historical realized volatility often is the starting point in estimating expected volatility. ASC 718 provides the following factors for companies to consider in estimating expected volatility:
Using option-pricing models to value employee stock options

Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Overall
Implementation Guidance and Illustrations

718-10-55-37(a)
Volatility of the share price, including changes in that volatility and possible mean reversion of that volatility. Mean reversion refers to the tendency of a financial variable, such as volatility, to revert to some long-run average level. Statistical models have been developed that take into account the mean-reverting tendency of volatility. In computing historical volatility, for example, an entity might disregard an identifiable period of time in which its share price was extraordinarily volatile because of a failed takeover bid if a similar event is not expected to recur during the expected or contractual term. If an entity’s share price was extremely volatile for an identifiable period of time, due to a general market decline, that entity might place less weight on its volatility during that period of time because of possible mean reversion. Volatility over the most recent period is generally commensurate with either of the following:

1. The contractual term of the option if a lattice model is being used to estimate fair value
2. The expected term of the option if a closed-form model is being used. An entity might evaluate changes in volatility and mean reversion over that period by dividing the contractual or expected term into regular intervals and evaluating evolution of volatility through those intervals.

S7.3.2.1.1 Length of measurement period
ASC 718 indicates that historical realized volatility should be measured over a period commensurate with the expected (if a closed-form model is used) or contractual (if a lattice model is used) term of an employee stock option. As discussed below, the SEC staff believes that registrants may calculate historical realized volatility over a longer term than the expected or contractual term if the use of a longer term is expected to result in a better estimate of expected volatility. For example, it may be appropriate to use data over a longer term if volatility was unusually high for the historical period equal to the expected term and the registrant believes the high-volatility period to be an anomaly but, as discussed below, does not have a basis to exclude that period from the calculation. However, a period of time equal in length to the expected or contractual term generally should serve as the starting point for the estimate.
Excerpt from SAB Topic 14.D.1

2. Amount of historical data

Statement 123R, paragraph A32(a), indicates entities should consider historical volatility over a period generally commensurate with the expected or contractual term, as applicable, of the share option. The staff believes Company B could utilize a period of historical data longer than the expected or contractual term, as applicable, if it reasonably believes the additional historical information will improve the estimate. For example, assume Company B decided to utilize a Black-Scholes-Merton closed-form model to estimate the value of the share options granted on January 2, 20X6 and determined that the expected term was six years. Company B would not be precluded from using historical data longer than six years if it concludes that data would be relevant.

S7.3.2.1.2 Excluding periods from measurement of historical realized volatility

ASC 718-10-55-37(a) states that “in computing historical volatility, an entity might disregard an identifiable period of time in which its share price was extraordinarily volatile because of a failed takeover bid if a similar event is not expected to recur during the expected or contractual term.” That is, it may be reasonable to exclude the volatility from a period if both of the following conditions are met:

► The volatility resulted from an event or transaction that is specific to the company (it often will be difficult to ascertain whether the volatility resulted from a specific event or transaction) and
► The event or transaction is not reasonably expected to occur again during the contractual term (if a lattice model is used) or estimated term (if a Black-Scholes-Merton formula is used) of the option.

ASC 718-10-55-37(a) also states that “if an entity’s share price was extremely volatile for an identifiable period of time, due to a general market decline, that entity might place less weight on its volatility during that period of time because of possible mean reversion.” We believe that reducing (or in rare circumstances eliminating) the weighting of volatility during a specified period (e.g., the “tech bubble” of the late 1990s) generally is appropriate only if it is possible to objectively determine through other volatility data (see below) that the market expects volatility in the future to revert to a mean that will differ materially from the volatility during the specified period. For example, this might be the case if the company has sufficient implied volatility data of its stock as described in Section S7.3.2.2 (or, potentially, of “guideline companies,” as discussed in Section S7.3.2.5) that demonstrates the market’s view of expected volatility differs significantly from the specified period of historical realized volatility (in which case it may conclude that it should rely primarily on implied volatilities in estimating expected volatility). Additionally, it may be able to support mean reversion “by dividing the contractual or expected term into regular intervals and evaluating evolution of volatility through those intervals” or through other econometric means.
The SEC staff provided the following guidance regarding excluding historical periods from the calculation of realized volatility:

**Excerpt from SAB Topic 14.D.1**

5. Exclusion of periods of historical data -

In some instances, due to a company’s particular business situations, a period of historical volatility data may not be relevant in evaluating expected volatility. In these instances, that period should be disregarded. The staff believes that if Company B disregards a period of historical volatility, it should be prepared to support its conclusion that its historical share price during that previous period is not relevant to estimating expected volatility due to one or more discrete and specific historical events and that similar events are not expected to occur during the expected term of the share option. The staff believes these situations would be rare. [Footnote 45 omitted, Emphasis added]

For example, a large merger or spin-off that fundamentally changes the risk profile of a company might justify excluding periods of historical realized volatility, but the volatility of the overall stock market, for technology-based stocks, for example, during the late 1990s and early 2000s, would not be considered a company specific event that would justify excluding such a period from the calculation of historical realized volatility.

If a company believes that historical realized volatility is not indicative of expected volatility, but it cannot justify excluding periods of historical realized volatility because there were not significant company specific events that justify excluding those periods, it may place greater weight on implied volatility (and perhaps rely exclusively on implied volatility) if there is sufficient trading volume in its options and certain other criteria are met (Section S7.3.2.2 discusses considerations for determining the extent to which implied volatility data can serve as the basis for the estimate of expected volatility and Section S7.3.2.7 discusses weighting the various considerations (e.g., historical realized volatility and implied volatility)) in estimating expected volatility.

SAB Topic 14 also clarifies that historical realized volatility may not be an appropriate indicator of expected volatility if marketplace participants anticipate future significant changes in the company’s business:
Excerpt from SAB Topic 14.D.1

4. Consideration of future events -

The objective in estimating expected volatility is to ascertain the assumptions that marketplace participants would likely use in determining an exchange price for an option. Accordingly, the staff believes that Company B should consider those future events that it reasonably concludes a marketplace participant would also consider in making the estimation. For example, if Company B has recently announced a merger with a company that would change its business risk in the future, then it should consider the impact of the merger in estimating the expected volatility if it reasonably believes a marketplace participant would also consider this event. [Footnote 44 omitted]

Finally, the SEC staff provided the following interpretive guidance on calculating historical realized volatility, in which the staff clarified that methods of calculating historical realized volatility that place significantly greater reliance on more recent periods than earlier periods are not appropriate:

Excerpt from SAB Topic 14.D.1

1. Method of computing historical volatility -

The staff believes the method selected by Company B to compute its historical volatility should produce an estimate that is representative of Company B’s expectations about its future volatility over the expected (if using a Black-Scholes-Merton closed-form model) or contractual (if using a lattice model) term of its employee share options. Certain methods may not be appropriate for longer term employee share options if they weight the most recent periods of Company B’s historical volatility much more heavily than earlier periods. For example, a method that applies a factor to certain historical price intervals to reflect a decay or loss of relevance of that historical information emphasizes the most recent historical periods and thus would likely bias the estimate to this recent history. [Footnote 39 omitted, Emphasis added]

40 Statement 123R, paragraph A32(a), states that entities should consider historical volatility over a period generally commensurate with the expected or contractual term, as applicable, of the share option. Accordingly, the staff believes methods that place extreme emphasis on the most recent periods may be inconsistent with this guidance.

41 Generalized Autoregressive Conditional Heteroskedasticity (“GARCH”) is an example of a method that demonstrates this characteristic.

S7.3.2.2 Implied volatilities

Implied volatilities generally are calculated using a Black-Scholes-Merton formula by including the trading price (i.e., the fair value of the exchange traded option) and other assumptions in the formula and solving for volatility. ASC 718-10-55-37(b) indicates that the estimate of expected volatility should consider “the implied volatility of the share price determined from the market prices of traded options or other traded financial instruments such as outstanding convertible debt, if any.”
When estimating expected volatility of an employee stock option, implied volatilities would be weighted more to the extent that the options are traded actively and include a variety of option terms to expiration that would allow the construction of a volatility curve (similar to a yield curve for interest rates). If the terms of the traded options are limited (e.g., the maximum term of traded options is less than one year), and it is not possible to construct a volatility curve, it may be difficult to use current implied volatilities as a basis for estimating the expected volatility for use in the valuation of an employee stock option because the term of the employee stock option typically is significantly longer than that of traded options (terms of traded options typically range from as little as a month to a year or two, and in rare circumstances up to four years).

Companies that can observe sufficiently extensive trading of options on the company’s stock should consider whether it is appropriate to place greater weight on implied volatilities than on historical realized volatilities when developing a term structure of expected volatility. Implied volatilities of options with appropriate terms likely are better indicators of market participants’ expectations about future volatility.

The SEC staff provided the following interpretive guidance to assist registrants in determining the degree of reliance to place on implied volatilities when estimating expected volatility:

**Excerpt from SAB Topic 14.D.1**

**Question 3:** What should Company B consider when evaluating the extent of its reliance on the implied volatility derived from its traded options?

**Interpretive response:** To achieve the objective of estimating expected volatility as stated in paragraph B86 of Statement 123R, the staff believes Company B generally should consider the following in its evaluation...

1. **Volume of market activity**
   
   The staff believes Company B should consider the volume of trading in its underlying shares as well as the traded options. For example, prices for instruments in actively traded markets are more likely to reflect a marketplace participant’s expectations regarding expected volatility.

2. **Synchronization of the variables**
   
   Company B should synchronize the variables used to derive implied volatility. For example, to the extent reasonably practicable, Company B should use market prices (either traded prices or the average of bid and asked quotes) of the traded options and its shares measured at the same point in time. This measurement should also be synchronized with the grant of the employee share options; however, when this is not reasonably practicable, the staff believes Company B should derive implied volatility as of a point in time as close to the grant of the employee share options as reasonably practicable.
3. Similarity of the exercise prices -

The staff believes that when valuing an at-the-money employee share option, the implied volatility derived from at- or near-the-money traded options generally would be most relevant. If, however, it is not possible to find at- or near-the-money traded options, Company B should select multiple traded options with an average exercise price close to the exercise price of the employee share option.

4. Similarity of length of terms -

The staff believes that when valuing an employee share option with a given expected or contractual term, as applicable, the implied volatility derived from a traded option with a similar term would be the most relevant. However, if there are no traded options with maturities that are similar to the share option’s contractual or expected term, as applicable, then the staff believes Company B could consider traded options with a remaining maturity of six months or greater. However, when using traded options with a term of less than one year, the staff would expect the company to also consider other relevant information in estimating expected volatility. In general, the staff believes more reliance on the implied volatility derived from a traded option would be expected the closer the remaining term of the traded option is to the expected or contractual term, as applicable, of the employee share option.

The staff believes Company B’s evaluation of the factors above should assist in determining whether the implied volatility appropriately reflects the market’s expectations of future volatility and thus the extent of reliance that Company B reasonably places on the implied volatility.

47 Implied volatilities of options differ systematically over the “moneyness” of the option. This pattern of implied volatilities across exercise prices is known as the “volatility smile” or “volatility skew.” Studies such as “Implied Volatility” by Stewart Mayhew, Financial Analysts Journal, July-August 1995, have found that implied volatilities based on near-the-money options do as well as sophisticated weighted implied volatilities in estimating expected volatility. In addition, the staff believes that because near-the-money options are generally more actively traded, they may provide a better basis for deriving implied volatility.

48 The staff believes a company could use a weighted-average implied volatility based on traded options that are either in-the-money or out-of-the-money. For example, if the employee share option has an exercise price of $52, but the only traded options available have exercise prices of $50 and $55, then the staff believes that it is appropriate to use a weighted average based on the implied volatilities from the two traded options; for this example, a 40% weight on the implied volatility calculated from the option with an exercise price of $55 and a 60% weight on the option with an exercise price of $50.

49 The staff believes it may also be appropriate to consider the entire term structure of volatility provided by traded options with a variety of remaining maturities. If a company considers the entire term structure in deriving implied volatility, the staff would expect a company to include some options in the term structure with a remaining maturity of six months or greater.

50 The staff believes the implied volatility derived from a traded option with a term of one year or greater would typically not be significantly different from the implied volatility that would be derived from a traded option with a significantly longer term.
We understand that some valuation professionals also consider historical implied volatilities (i.e., implied volatilities of exchange-traded options based on quoted prices over an extended period of time) in estimating expected volatility. Those valuation professionals believe that it may be appropriate to consider historical implied volatilities because current spot implied volatilities are derived from options with a significantly shorter term than the typical employee stock option, and those spot implied volatilities may not appropriately capture the tendency of implied volatility to revert to a long-term mean. Consideration of historical implied volatilities may more appropriately capture the long-term mean-volatility, which spot implied volatility for an option with a long term to expiration might be expected to approach if such an option were observable. We understand from discussions with the SEC staff that the requirements discussed under the heading “2. Synchronization of the Variables,” above, were not intended to preclude such an approach to estimating expected volatility.

ASC 718 indicates that the implied volatility of convertible debt may be considered in estimating expected volatility. However, we think this approach often would not be appropriate. Our view is based on the fact that convertible debt instruments include multiple types of risk (e.g., interest rate, credit, and equity) and, therefore, the volatility of the trading price of convertible debt includes volatilities associated with all of these risks. Further, because of the complex features typically found in convertible debt instruments (e.g., put options, call options, contingent interest, contingent conversion, and various adjustments to the conversion price), it is difficult to bifurcate and value the embedded written call on the company’s shares for purposes of calculating the implied stock price volatility as described earlier for traded options. This view appears to be somewhat consistent with the view expressed by the SEC staff, as described in footnote 37 of SAB Topic 14, wherein the SEC staff indicated that:

Excerpt from SAB Topic 14.D.1

The staff believes implied volatility derived from embedded options can be utilized in determining expected volatility if, in deriving the implied volatility, the company considers all relevant features of the instruments (e.g., value of the host instrument, value of the option, etc.). The staff believes the derivation of implied volatility from other than simple instruments (e.g., a simple convertible bond) can, in some cases, be impracticable due to the complexity of multiple features. [Footnote 37]

S7.3.2.3 Changes in corporate structure and capital structure

ASC 718-10-55-37(e) indicates that “an entity’s capital structure also may affect expected volatility. For example, highly leveraged entities tend to have higher volatilities.” Therefore, if the corporate or capital structure has changed significantly, historical realized volatilities prior to the change may not be representative of expected volatility after the change, requiring a greater weighting on post-change data (see also the discussion Sections S7.3.2.4 and S7.3.2.7).
S7.3.2.4 Limitations on availability of historical data

ASC 718-10-55-37(c) indicates that for public companies, if the length of time the entity’s shares have been publicly traded is shorter than the expected or contractual term of the option, the volatility for the longest period for which trading activity is available generally should be used. However, if the period for which the availability of data is very short (e.g., less than two years, as discussed in SAB Topic 14.D, footnote 64, reproduced in Section S7.3.2.5), it may not be appropriate to use the entity’s historical data in estimating expected volatility and the use of historical or current data for “guideline companies,” as described in Section S7.3.2.5, may be appropriate.

S7.3.2.5 Guideline companies

ASC 718-10-55-37(c) indicates that a newly public entity also might consider the expected volatility of similar entities (often characterized as “guideline companies”). The paragraph indicates that “in evaluating similarity, an entity would likely consider factors such as industry, stage of life cycle, size, and financial leverage.” In other words, use of historical realized volatilities or implied volatilities of guideline companies may be appropriate if those companies are comparable to the entity in most significant respects. Similarly, ASC 718-10-55-37(c) provides that “[a] nonpublic entity might base its expected volatility on the expected volatilities of entities that are similar except for having publicly traded securities.”

We generally believe (as does the SEC staff, as described in the portion of SAB Topic 14 reproduced below) that in looking to guideline companies, it is more appropriate to base the estimate of expected volatility on the volatility data of individual companies rather than the volatility of an index, even a relatively narrow industry index. We believe this because there is an element of diversification in any index that will reduce the volatility of that index as compared to its constituent components. For example, if an index consisted of only two companies and an upward movement of one stock is matched by an equal downward movement in the other stock, the overall movement of the index would be zero, and volatility for the index would be zero, even though the relative changes in the stock prices of the component companies may have been very significant. Accordingly, it is more appropriate to calculate the individual volatilities of the two stocks and use some means to weight their respective volatilities (e.g., by averaging their volatilities).

We believe that many nonpublic companies will be able to identify appropriate guideline companies to estimate their expected volatility and, therefore, it will not be necessary for these companies to use the “calculated value” method (based on the volatility of an appropriate index) available only to nonpublic companies.
The SEC staff provided the following additional interpretive guidance on the use of expected volatilities of guideline companies:

**Excerpt from SAB Topic 14.D.1**

Facts: Company C is a newly public entity with limited historical data on the price of its publicly traded shares and no other traded financial instruments. Company C believes that it does not have sufficient company specific information regarding the volatility of its share price on which to base an estimate of expected volatility.

Question 6: What other sources of information should Company C consider in order to estimate the expected volatility of its share price?

Interpretive Response: Statement 123R provides guidance on estimating expected volatility for newly public and nonpublic entities that do not have company specific historical or implied volatility information available. Company C may base its estimate of expected volatility on the historical, expected or implied volatility of similar entities whose share or option prices are publicly available. In making its determination as to similarity, Company C would likely consider the industry, stage of life cycle, size and financial leverage of such other entities.

The staff would not object to Company C looking to an industry sector index (e.g., NASDAQ Computer Index) that is representative of Company C’s industry, and possibly its size, to identify one or more similar entities. Once Company C has identified similar entities, it would substitute a measure of the individual volatilities of the similar entities for the expected volatility of its share price as an assumption in its valuation model. Because of the effects of diversification that are present in an industry sector index, Company C should not substitute the volatility of an index for the expected volatility of its share price as an assumption in its valuation model.

After similar entities have been identified, Company C should continue to consider the volatilities of those entities unless circumstances change such that the identified entities are no longer similar to Company C. Until Company C has sufficient information available, the staff would not object to Company C basing its estimate of expected volatility on the volatility of similar entities for those periods for which it does not have sufficient information available. Until Company C has either a sufficient amount of historical information regarding the volatility of its share price or other traded financial instruments are available to derive an implied volatility to support an estimate of expected volatility, it should consistently apply a process as described above to estimate expected volatility based on the volatilities of similar entities. [Footnotes 59, 60, 62, 63 and 65 omitted]

61 If a company operates in a number of different industries, it could look to several industry indices. However, when considering the volatilities of multiple companies, each operating only in a single industry, the staff believes a company should take into account its own leverage, the leverages of each of the entities, and the correlation of the entities’ stock returns.
S7.3.2.6  Historical data intervals

ASC 718-10-55-37(d) provides that “if an entity considers historical volatility in estimating expected volatility, it should use intervals that are appropriate based on the facts and circumstances and that provide the basis for a reasonable fair value estimate. For example, a publicly traded entity would likely use daily price observations, while a nonpublic entity with shares that occasionally change hands at negotiated prices might use monthly price observations.”

Additionally, SAB Topic 14 provides guidance regarding the intervals to be used. The guidance in SAB Topic 14 suggests that the example discussed in ASC 718-10-55-37(d) of public companies using daily price observations may not be absolutely necessary if the company measured historical realized volatility over a sufficient period such that a sufficient number of data points are considered.

Excerpt from SAB Topic 14.D.1

3. Frequency of price observations -

Statement 123R, paragraph A32(d), indicates an entity should use appropriate and regular intervals for price observations based on facts and circumstances that provide the basis for a reasonable fair value estimate. Accordingly, the staff believes Company B should consider the frequency of the trading of its shares and the length of its trading history in determining the appropriate frequency of price observations. The staff believes using daily, weekly or monthly price observations may provide a sufficient basis to estimate expected volatility if the history provides enough data points on which to base the estimate. Company B should select a consistent point in time within each interval when selecting data points.

Further, if shares of a company are thinly traded the staff believes the use of weekly or monthly price observations would generally be more appropriate than the use of daily price observations. The volatility calculation using daily observations for such shares could be artificially inflated due to a larger spread between the bid and asked quotes and lack of consistent trading in the market.

Statement 123R, paragraph A34, states that a company should establish a process for estimating expected volatility and apply that process consistently from period to period. In addition, Statement 123R, paragraph A23, indicates that assumptions used to estimate the fair value of instruments granted to employees should be determined in a consistent manner from period to period.
Using option-pricing models to value employee stock options

Additional guidance on the appropriate intervals to measure historical realized volatility is provided in footnote 56 of SAB Topic 14 (see Section S7.3.2.7.2) in which the SEC staff indicates that if less than three years of historical stock price movements are used as the basis for the estimate of expected volatility, monthly observations would not provide a sufficient amount of data (and, therefore, daily or weekly observations should be used). Further, for large capitalization companies that are actively traded, we believe it would generally be inappropriate to use other than daily price intervals to calculate historical realized volatility.

**S7.3.2.6.1 Method of measuring historical realized volatility**

Questions sometimes arise regarding the mechanics of calculating historical realized volatility. For example, most companies calculate realized historical or implied volatility based on closing stock or option prices at the end of the day of measurement (whether that measurement is done on a daily, weekly, or monthly basis). If companies wish to deviate from the typical practice of measuring volatility based on closing stock or option prices, they should carefully consider the following remarks of the SEC staff at the 2005 AICPA National Conference on Current SEC and PCAOB Developments [5 December 2005 Speech by Alison T. Spivey, Associate Chief Accountant, Office of the Chief Accountant, U.S. Securities and Exchange Commission]:

> However, I do want to mention that we are aware that there are many methods available out there for companies to utilize in computing historical volatility.

> When evaluating the alternative methods, we would encourage companies to keep in mind the objective as stated in Statement 123R [Topic 718] – to ascertain the assumption about expected volatility that marketplace participants would likely use in determining an exchange price for an option. The staff expects companies to make good faith efforts to determine an appropriate estimate of expected volatility as one of the key assumptions used in determining a reasonable fair value estimate.

> We have become aware of two methods for computing historical volatility that we believe will not meet this expectation. The first method is one that weighs the most recent periods of historical volatility much more heavily than earlier periods. The second method relies solely on using the average value of the daily high and low share prices to compute volatility. While we understand that we may not be aware of all of the methods that currently exist today and that others may be developed in the future, we would like to remind companies to keep in mind the objective in Statement 123R when choosing the appropriate method. [Footnote 3 omitted]

**S7.3.2.7 Weighting of items for consideration**

All of the above factors should be considered and, to the extent possible, reconciled in estimating expected volatility. However, in some cases, it may be reasonable to exclude certain factors from the analysis of expected volatility. For example, if a company has very limited trading in options and, therefore, limited implied volatility data, it may conclude that
implied volatility data should not be included in the analysis and rely primarily on historical realized volatility data. Conversely, if a company has extensive implied volatility data, it may conclude that such data provides the best indication of the views of market participants and exclude historical realized volatility data from the analysis. However, the company should consider all of the above factors and eliminate a factor only after careful consideration of all of the facts and circumstances.

The SEC staff also has provided the following additional interpretive guidance on how to consider the above factors in estimating expected volatility:

**Excerpt from SAB Topic 14.D.1**

Facts: Company B is a public entity whose common shares have been publicly traded for over twenty years. Company B also has multiple options on its shares outstanding that are traded on an exchange (“traded options”). Company B grants share options on January 2, 20X6.

Question 1: What should Company B consider when estimating expected volatility for purposes of measuring the fair value of its share options?

Interpretive response: Statement 123R does not specify a particular method of estimating expected volatility. However, the Statement does clarify that the objective in estimating expected volatility is to ascertain the assumption about expected volatility that marketplace participants would likely use in determining an exchange price for an option.32 Statement 123R provides a list of factors entities should consider in estimating expected volatility.33 Company B may begin its process of estimating expected volatility by considering its historical volatility.34 However, Company B should also then consider, based on available information, how the expected volatility of its share price may differ from historical volatility.35 Implied volatility36 can be useful in estimating expected volatility because it is generally reflective of both historical volatility and expectations of how future volatility will differ from historical volatility. The staff believe that companies should make good faith efforts to identify and use sufficient information in determining whether taking historical volatility, implied volatility or a combination of both into account will result in the best estimate of expected volatility. The staff believes companies that have appropriate traded financial instruments from which they can derive an implied volatility should generally consider this measure. The extent of the ultimate reliance on implied volatility will depend on a company’s facts and circumstances; however, the staff believes that a company with actively traded options or other financial instruments with embedded options37 generally could place greater (or even exclusive) reliance on implied volatility. (See the Interpretive Responses to Questions 3 and 4 below.)

The process used to gather and review available information to estimate expected volatility should be applied consistently from period to period. When circumstances indicate the availability of new or different information that would be useful in estimating expected volatility, a company should incorporate that information. [Footnotes 32, 33, 34, 35, 36 and 37 omitted.]
S7.3.2.7.1 **Exclusive reliance on implied volatility**

The SEC staff provided the following guidance on when it would not object to exclusive reliance on implied volatilities in estimating expected volatility.

---

**Excerpt from SAB Topic 14.D.1**

Question 4: Are there situations in which it is acceptable for Company B to rely exclusively on either implied volatility or historical volatility in its estimate of expected volatility?

Interpretive response: As stated above, Statement 123R does not specify a method of estimating expected volatility; rather, it provides a list of factors that should be considered and requires that an entity’s estimate of expected volatility be reasonable and supportable. Many of the factors listed in Statement 123R are discussed in Questions 2 and 3 above. The objective of estimating volatility, as stated in Statement 123R, is to ascertain the assumption about expected volatility that marketplace participants would likely use in determining a price for an option. The staff believes that a company, after considering the factors listed in Statement 123R, could, in certain situations, reasonably conclude that exclusive reliance on either historical or implied volatility would provide an estimate of expected volatility that meets this stated objective.

The staff would not object to Company B placing exclusive reliance on implied volatility when the following factors are present, as long as the methodology is consistently applied:

- Company B utilizes a valuation model that is based upon a constant volatility assumption to value its employee share options;
- The implied volatility is derived from options that are actively traded;
- The market prices (trades or quotes) of both the traded options and underlying shares are measured at a similar point in time to each other and on a date reasonably close to the grant date of the employee share options; [As discussed at the beginning of this Section, we understand that the requirement to synchronize variables was not intended by the SEC staff to preclude the use of historical realized volatilities in estimating expected volatility.]
- The traded options have exercise prices that are both (a) near-the-money and (b) close to the exercise price of the employee share options; and
- The remaining maturities of the traded options on which the estimate is based are at least one year. [Footnotes 51-52 omitted]

---

53 Statement 123R, paragraphs A15 and A33, discuss the incorporation of a range of expected volatilities into option pricing models. The staff believes that a company that utilizes an option pricing model that incorporates a range of expected volatilities over the option’s contractual term should consider the factors listed in Statement 123R, and those discussed in the Interpretive Responses to Questions 2 and 3 above, to determine the extent of its reliance (including exclusive reliance) on the derived implied volatility.

54 When near-the-money options are not available, the staff believes the use of a weighted-average approach, as noted in a previous footnote, may be appropriate.
The SEC staff indicated it would not object to the exclusive reliance on implied volatilities to estimate expected volatility if the above criteria are met. However, we believe that there may be other circumstances in which the exclusive reliance on implied volatilities may be reasonable, and do not believe the SEC staff intended to require that all these conditions be met whenever expected volatility is estimated based exclusively on implied volatility (although the SEC staff may comment on the exclusive reliance on implied volatility in other circumstances and expect thorough support for the company's conclusion). For example, assume a company uses a term structure of expected volatility in a lattice or simulation and has rich implied volatility data for options with terms up to nine months. Based on the volatility curve constructed through nine months, the company notes that the volatility curve is relatively flat for the six to nine month periods (i.e., options with terms in this range have similar implied volatilities). Accordingly, based on advice from its valuation adviser (who has experience constructing volatility curves for many other companies), the company may reasonably conclude that the term structure of volatility remains flat after nine months and uses the resulting term structure in its lattice or simulation. We believe that in this circumstance it may be reasonable to rely exclusively on implied volatility in estimating expected volatility.

**S7.3.2.7.2 Exclusive reliance on historical realized volatility**

The SEC staff provided the following guidance on when it would not object to exclusive reliance on historical realized volatility in estimating expected volatility.

---

**Excerpt from SAB Topic 14.D.1**

The staff would not object to Company B placing exclusive reliance on historical volatility when the following factors are present, so long as the methodology is consistently applied:

- Company B has no reason to believe that its future volatility over the expected or contractual term, as applicable, is likely to differ from its past;\(^{55}\)
- The computation of historical volatility uses a simple average calculation method;
- A sequential period of historical data at least equal to the expected or contractual term of the share option, as applicable, is used; and
- A reasonably sufficient number of price observations are used, measured at a consistent point throughout the applicable historical period.\(^ {56}\)

---

\(^{55}\) See Statement 123R, paragraph B87. A change in a company's business model that results in a material alteration to the company's risk profile is an example of a circumstance in which the company's future volatility would be expected to differ from its past volatility. Other examples may include, but are not limited to, the introduction of a new product that is central to a company's business model or the receipt of U.S. Food and Drug Administration approval for the sale of a new prescription drug.

\(^{56}\) If the expected or contractual term, as applicable, of the employee share option is less than three years, the staff believes monthly price observations would not provide a sufficient amount of data.
Regarding the first bullet above, we believe that a company must make a reasonable effort to identify information that would lead to a conclusion that expected volatility is likely to differ from historical realized volatility. For example, if the company had implied volatility data that met the conditions described previously and that data suggested that expectations of future volatility differ materially from historical realized volatility, that implied data should not be ignored.

We also believe that there may be other circumstances in which exclusive reliance on historical realized volatility may be appropriate. For example, even if the company does not have historical realized volatility data for a period corresponding to the expected or contractual term of the option, as applicable, it may be appropriate to use historical realized volatility if the period of observations is reasonably long and no better information on volatility is available (e.g., no traded options or appropriately comparable guideline companies). In short, after consideration of all of the factors in Section S7.3, a company may conclude it should rely exclusively on historical realized volatility even if its facts are not completely consistent with those described in the SEC's example. The fact that the SEC staff would not object to exclusive reliance on historical realized volatility in the circumstances described above does not necessarily mean that the SEC staff would object to such reliance in other circumstances, although the SEC staff would expect the company to thoroughly support its conclusion in this regard.

S7.3.2.8 Disclosures relating to estimates of expected volatility

The entity’s methodology for estimating volatility must be objectively supportable. As discussed in Section S7.3.2.7, any adjustments to historical observations of historical realized or implied volatility should be based on objective data that supports such an adjustment. Further, as discussed below, companies should disclose the methodology used to estimate expected volatility and consider providing a sensitivity analysis in their critical accounting policies that describes the potential impact of changes in option-pricing model inputs (e.g., expected volatility and expected term) on the measurement of compensation cost.

Excerpt from SAB Topic 14.D.1

Question 5: What disclosures would the staff expect Company B to include in its financial statements and MD&A regarding its assumption of expected volatility?

Interpretive Response: Statement 123R, paragraph A240, prescribes the minimum information needed to achieve the Statement’s disclosure objectives. Under that guidance, Company B is required to disclose the expected volatility and the method used to estimate it. Accordingly, the staff expects that at a minimum Company B would disclose in a footnote to its financial statements how it determined the expected volatility assumption for purposes of determining the fair value of its share options in accordance with Statement 123R. For example, at a minimum, the staff would expect Company B to disclose whether it used only implied volatility, historical volatility, or a combination of both.
In addition, Company B should consider the applicability of SEC Release No. FR 60 and Section V, “Critical Accounting Estimates,” in SEC Release No. FR-72 regarding critical accounting policies and estimates in MD&A. The staff would expect such disclosures to include an explanation of the method used to estimate the expected volatility of its share price. This explanation generally should include a discussion of the basis for the company’s conclusions regarding the extent to which it used historical volatility, implied volatility or a combination of both. A company could consider summarizing its evaluation of the factors listed in Questions 2 and 3 of this section as part of these disclosures in MD&A. [Footnotes 57 and 58 omitted]

S7.3.2.9 Expected volatility under lattice models

Expected volatility may be more accurately taken into account by lattice models than the Black-Scholes-Merton formula because lattice models can accommodate dynamic assumptions regarding the term structure of volatility. For example, there is evidence that the implied volatility of an option depends on its term to expiration and, in particular, the fact that short-term exchange traded options often exhibit higher implied volatilities than similar options with longer terms.

Unlike a Black-Scholes-Merton formula that requires a single expected volatility as an input, volatility in a lattice model is expressed as an algorithm. Essentially, a starting point must be selected based on the guidance described above, and then changes in volatility are expressed in the algorithm. Those changes in volatility often are based on the estimated term structure of volatility or are expressed as a regression to a long-term mean volatility. For example, a company may have implied volatility data for options with terms ranging from one month to two years. That company would be able to plot those implied volatility data points onto a volatility curve and derive an algorithm to fit the points on the curve (statistical tools are available for such a process). The algorithm could then be used to populate the remainder of the curve (e.g., the remaining eight years), and that volatility curve would be incorporated into the lattice model as discussed in Appendix E.

S7.3.2.10 Expected volatility under the Black-Scholes-Merton formula

In calculating the fair value of a stock option using the Black-Scholes-Merton formula, a single expected volatility assumption must be used. That amount should be based on the volatility expected over the expected term of the option.

If expected volatility is based on historical realized volatility, the calculation of historical realized volatility should be consistent with the guidance provided in previous sections.

While implied volatilities of traded options can be incorporated into the estimate of expected volatility, it is rare that traded options have terms as long as the expected terms of typical employee stock options. Accordingly, to incorporate current implied volatilities into a Black-Scholes-Merton formula, it may be necessary to model the volatility curve as described for lattice models in Section S7.3.2.9, and determine which point on that curve is the most
appropriate estimate of expected volatility for the expected term of the option. Generally, such an estimate will be more difficult to make if the range between the high and low point of the volatility curve is great, which might suggest that it would be more appropriate to estimate the fair value of the option using a lattice model. Alternatively, if the company has sufficient trading volume for options with terms of at least one year, it may be reasonable to use the implied volatilities of those options in estimating a single expected volatility for use in a closed-form model (see Section S7.3.2.7.1).

S7.3.3 Expected dividends

Dividends paid on the underlying stock will impact the stock option value—the higher the expected dividend yield, the lower the option value. Option holders generally do not have dividend rights until they actually exercise the options and become shareholders (although as discussed in Section S3.6, some options provide for “dividend protection”). All other things being equal, an option to purchase a share of a high-dividend-yielding stock is less valuable than an option to purchase a share of a low-dividend-yielding stock.

Estimating expected dividends over the expected term of the option requires judgment. ASC 718 provides the following guidance on estimating expected dividends:

Excerpt from Accounting Standards Codification

**Compensation — Stock Compensation — Overall**

**Implementation Guidance and Illustrations**

**718-10-55-42**

Option-pricing models generally call for expected dividend yield as an assumption. However, the models may be modified to use an expected dividend amount rather than a yield. An entity may use either its expected yield or its expected payments. Additionally, an entity’s historical pattern of dividend increases (or decreases) shall be considered. For example, if an entity has historically increased dividends by approximately 3 percent per year, its estimated share option value shall not be based on a fixed dividend amount throughout the share option’s expected term. As with other assumptions in an option-pricing model, an entity shall use the expected dividends that would likely be reflected in an amount at which the option would be exchanged (see paragraph 718-10-55-13).

Generally, the expected dividend assumption should be based on external market participants’ current expectations about a company’s anticipated dividend policy. For example, a company that has demonstrated a stable dividend yield in past years and that indicates it has no foreseeable plans to change its dividend policy may simply use its historical dividend yield to estimate the fair value of its options. If a company has never paid a dividend, but has announced that it will begin paying a dividend yielding 2% of the current stock price, then an expected dividend yield of 2% would likely be assumed in estimating the fair value of its options.
Depending on the industry, an emerging company that never has paid dividends may reasonably be expected to begin paying dividends during the expected lives of the stock options. Such an entity might consider the dividend payments of a comparable peer group in developing its expected dividend assumption, weighted to reflect the period during which dividends are expected to be paid. However, companies should consider the implications of disclosing an expected dividend yield that differs significantly from the current dividend yield. Investors are likely to view such a change as forward-looking information about the company’s dividend plans and, accordingly, disclosure of significant changes in expected dividend yields should be discussed with the company’s counsel specializing in securities law. Further, because the expected dividend yield should reflect marketplace participants’ expectations, we do not believe the expected dividend yield should incorporate changes in dividends anticipated by management unless those changes have been communicated to or otherwise are anticipated by marketplace participants.

**S7.3.3.1 Expected dividends under lattice models**

Lattice models can be adapted to use an expected dividend payment rather than a yield and, therefore, also can take into account the impact of anticipated changes in dividend payments and underlying stock prices. Such approaches might better reflect expected future dividends, as dividends do not always move in lock-step with changes in the company’s stock price. Expected dividend estimates in a lattice model should be determined based on the general guidance provided above.

The ability to use actual dividend payments in the valuation model rather than a dividend yield assumption is particularly useful in periods of general economic turmoil. As market prices fall, a company’s dividend payment may remain the same, because, for the most part, companies do not manage their dividend policy to a yield, but rather to a payment. If an option grant is made during a time when the dividend yield is significantly higher than normalized levels, it may be more appropriate to use a model that does not require a yield assumption, but rather permits the explicit estimate of future dividend payments.

**S7.3.3.2 Expected dividends under the Black-Scholes-Merton formula**

Closed-form option-pricing models generally call for a single expected dividend yield as an input. That input should be determined based on the guidance described in Section S7.3.3. However, if significant changes in dividend policy are expected in the future, it may be more difficult to model an appropriate dividend expectation as a single dividend yield than it would be to estimate discrete dividends to be included in a lattice model, as described in Section S7.3.3.1. In general, we believe that the use of a normalized dividend yield assumption is appropriate in a closed-form option-pricing model when circumstances exist that suggest that current dividend yields are inappropriate or unsustainable.

If an entity is using a closed-form option pricing-model, the expected dividend yield likely is calculated as an annual yield. To calculate an option’s value, the Black-Scholes-Merton formula uses a continuous expected dividend yield which is the expected dividend yield that –
when continuously compounded – equates to the annual effective dividend yield. As a result, the expected dividend yield must be adjusted to the continuously compounded expected dividend yield (although some option-pricing applications will make this adjustment for the user). Additional discussion regarding the use of continuously compounded yields is located in Section S7.3.4.2.

**S7.3.4 Risk-free interest rate**

Excerpt from Accounting Standards Codification

<table>
<thead>
<tr>
<th>Compensation — Stock Compensation — Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation Guidance and Illustrations</td>
</tr>
<tr>
<td>718-10-55-28</td>
</tr>
</tbody>
</table>

Option-pricing models call for the risk-free interest rate as an assumption to take into account, among other things, the time value of money. A U.S. entity issuing an option on its own shares must use as the risk-free interest rates the implied yields currently available from the U.S. Treasury zero-coupon yield curve over the contractual term of the option if the entity is using a lattice model incorporating the option’s contractual term. If the entity is using a closed-form model, the risk-free interest rate is the implied yield currently available on U.S. Treasury zero-coupon issues with a remaining term equal to the expected term used as the assumption in the model. For entities based in jurisdictions outside the United States, the risk-free interest rate is the implied yield currently available on zero-coupon government issues denominated in the currency of the market in which the share (or underlying share), which is the basis for the instrument awarded, primarily trades. It may be necessary to use an appropriate substitute if no such government issues exist or if circumstances indicate that the implied yield on zero-coupon government issues is not representative of a risk-free interest rate.

Determining the appropriate risk-free interest rate or rates to use in an option pricing model generally is a straightforward process. However, certain issues can arise that require further analysis. For example, if the expected term of an option (or the period between nodes if a lattice model is used) does not correspond to the terms for which interest rates are quoted, it may be necessary to interpolate a rate from the available maturities. While there are more complex approaches to interpolating a rate, if the differences between the rates of the two closest maturities are not great, straight-line interpolation generally would be sufficient.

As another example, shares underlying options may trade in a country (Country A) that does not have a debt instrument that represents a risk-free asset. In those countries, it may be possible to develop a risk-free rate by adjusting the risk-free rate of another country (Country B) for the differential between the spot and forward exchange rates (i.e., the forward rate for a currency contract maturing at the end of the expected term of the option) to exchange the currency of Country B for the currency of Country A, using the following formula:

\[
1 + \text{Country B risk-free rate} = \left( \text{forward rate/spot rate} \right) \left( 1 + \text{Country A risk-free rate} \right)
\]
S7.3.4.1 Risk-free interest rate under lattice models

A U.S. entity issuing an option on its own shares must use implied yields from the U.S. Treasury zero-coupon yield curve over the expected term of the option as its risk-free interest rate assumption if it is using a lattice model incorporating the option’s contractual term. That is, at each node in the lattice model, the company would use the forward rate starting on the date of the node, with a term equal to the period until the next node. For example, if a term structure of interest rates were incorporated into Exhibit E.2 in Appendix E, the interest rate used to calculate the present value at node S3,0 of the option values at nodes S4,1 and S4,0 would be the six-month forward rate starting 18 months after the option grant date. Spot treasury interest rate data can be obtained from the U.S. Treasury Web site (at http://www.treas.gov/offices/domestic-finance/debt-management/interest-rate/yield.html) and used to calculate forward interest rates. For example, if the one and two-year spot rates are available, the one-year implied forward rate effective one year from today could be calculated as (a) the present value of $1 payable in one year divided by the present value of $1 payable in two years minus (b) $1.

S7.3.4.2 Risk-free interest rate under the Black-Scholes-Merton formula

If a U.S. entity is using a closed-form model, the risk-free interest rate is the implied yield currently available on U.S. Treasury zero-coupon issues with a remaining term equal to the expected term used as the input to the model. The annual interest yield is quoted daily in The Wall Street Journal. The Wall Street Journal lists that yield as the rate applicable to a “treasury note stripped principal” (“np”). The listed yield for an instrument with a maturity closest to the end of the expected term of the option should be selected. To calculate an option’s value, the Black-Scholes-Merton formula uses a continuous interest rate which is not readily quoted and available. The continuous rate is the interest rate that – when continuously compounded – equates to the annual effective yield. For example, a 7.80% annual effective yield (which is the rate quoted in The Wall Street Journal) results in a continuously compounded interest rate (which would be used in an option-pricing model) of 7.51%. As a result, the quoted yield must be adjusted to the continuously compounded interest rate (although some option-pricing applications will make this adjustment for the user) based on the following formula:

\[
\text{Continuously compounded rate} = \ln(1 + \text{annual effective yield})
\]

S7.3.5 Lattice models – number of time steps

Another decision that must be made when performing a lattice valuation is how many time steps to use in the valuation (i.e., how much time passes between nodes). Generally, the greater the number of time steps, the more accurate the ending value. However, as more time steps are added, the incremental increase in accuracy declines. The number of time steps takes on more importance in a robust lattice model in which more time steps may be needed to adequately model the term structures of volatilities and interest rates, as well as employee-exercise behavior.
S7.3.6 Dilution

Excerpt from Accounting Standards Codification

*Compensation – Stock Compensation – Overall*

Implementation Guidance and Illustrations

**718-10-55-48**

Traded options ordinarily are written by parties other than the entity that issues the underlying shares, and when exercised result in an exchange of already outstanding shares between those parties. In contrast, exercise of employee share options results in the issuance of new shares by the entity that wrote the option (the employer), which increases the number of shares outstanding. That dilution might reduce the fair value of the underlying shares, which in turn might reduce the benefit realized from option exercise.

**718-10-55-49**

If the market for an entity’s shares is reasonably efficient, the effect of potential dilution from the exercise of employee share options will be reflected in the market price of the underlying shares, and no adjustment for potential dilution usually is needed in estimating the fair value of the employee share options. For a public entity, an exception might be a large grant of options that the market is not expecting, and also does not believe will result in commensurate benefit to the entity. For a nonpublic entity, on the other hand, potential dilution may not be fully reflected in the share price if sufficient information about the frequency and size of the entity’s grants of equity share options is not available for third parties who may exchange the entity’s shares to anticipate the dilutive effect.

**718-10-55-50**

An entity shall consider whether the potential dilutive effect of an award of share options needs to be reflected in estimating the fair value of its options at the grant date. For public entities, the expectation is that situations in which such a separate adjustment is needed will be rare.

While ASC 718 provides for adjustments for the potential dilutive effect of an award, as a practical matter, the FASB believes that the stock price of public companies generally incorporates the dilutive effect of expected issuances of employee stock options and, therefore, it would be rare that any adjustment would have to be made to the fair value of an employee stock option to take dilution into consideration. We believe it is very unlikely that a public company would be able to justify such an adjustment unless they make a very large, unanticipated grant of stock options for which the market does not anticipate a commensurate benefit to the entity. In that circumstance, where the potential dilution would be material and is not already incorporated into the stock price, we would expect the announcement of the grant would cause the employer’s stock price to decline by a material amount. Nonpublic companies should consider whether the dilutive impact of a very large option grant is already incorporated into the estimated stock price used in their option-pricing model. If that is not the case, some adjustment to the fair value may be appropriate.
S7.3.7  Credit risk

Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Overall
Implementation Guidance and Illustrations

718-10-55-46

An entity may need to consider the effect of its credit risk on the estimated fair value of liability awards that contain cash settlement features because potential cash payoffs from the awards are not independent of the entity’s risk of default. Any credit-risk adjustment to the estimated fair value of awards with cash payoffs that increase with increases in the price of the underlying share is expected to be de minimis because increases in an entity’s share price generally are positively associated with its ability to liquidate its liabilities. However, a credit-risk adjustment to the estimated fair value of awards with cash payoffs that increase with decreases in the price of the entity’s shares may be necessary because decreases in an entity’s share price generally are negatively associated with an entity’s ability to liquidate its liabilities.

For a typical employee stock option, stock appreciation right, share, or stock unit, the value of the award to the employee increases as the share price increases. The FASB believes that for these instruments the estimate of fair value generally would not need to incorporate credit risk because credit risk normally would be expected to be de minimis as the share price increases. However, certain instruments increase in value as the issuer’s share price declines (e.g., freestanding written put options and forward purchase options in which the issuer must buy back its own shares) and expose the counterparty to credit risk because they are required to or may be settled in cash. These instruments are required to be classified as liabilities by ASC 480 (and ASC 718). Further, because of the nature of the payoff on these instruments, the use of the credit-adjusted risk-free rate based on the issuer’s credit standing, as provided in Concepts Statement No. 7, Using Cash Flow Information and Present Value in Accounting Measurements, and ASC 410 would be appropriate.

S7.3.8  Frequency of valuation

Many companies grant employee stock options throughout the year. While they may make a single large grant once a year, companies frequently grant options at other times of the year to newly hired or promoted employees or for other purposes. The question arises whether a new estimate of fair value must be made for each separate option grant, particularly for those companies that use more complex lattice or simulation approaches to valuing employee stock options. We generally believe that it would be appropriate to perform a valuation at the time of the largest annual grant. For other grants, it may be reasonable to use a previous valuation (expressed as a percentage of the grant date stock price) to the extent that the terms of the option are the same (except that, the exercise price would be similarly tied to, usually equal to, the grant date stock price) and that the other inputs to the option-pricing model (e.g., expected volatility, expected term or exercise behavior, risk-free interest rates
and dividends) have not changed materially. We typically would not expect to see significant changes in expected volatility or exercise behavior from one quarter to the next. However, if significant changes or events have occurred at the company, or if the stock price has changed significantly since the last valuation date, those expectations may have changed materially and it normally will be necessary to derive a new estimate of the fair value of the employee stock options. Similarly, if the terms of a new grant differ materially from a previous grant, a new estimate of fair value will be required.

S7.4 Valuing certain employee stock options

In the preceding sections, we discussed the valuation of employee stock options with a variety of features. The following sections discuss the valuation of certain more complex awards, as well as ASC 718’s provisions regarding awards for which a reasonable estimate of fair value cannot be made.

S7.4.1 Inability to estimate fair value

ASC 718 indicates that in certain rare circumstances it may not be possible to reasonably estimate the fair value of a share-based award. The FASB has concluded that in the unusual circumstance that the fair value of an award cannot be reasonably estimated on the grant date, compensation cost must be measured at intrinsic value, and remeasured at each reporting date until settlement of the instrument. This approach initially could result in less compensation cost than the fair value method under ASC 718, as many stock options and similar awards are issued with no intrinsic value, but could result in more cost over the life of the award if the stock price increases significantly.

S7.4.2 Use of “calculated value” for employee stock options granted by nonpublic companies

S7.4.2.1 When calculated value should be used

As previously discussed, ASC 718 provides that nonpublic companies that cannot reasonably estimate expected volatility would be able to substitute the volatility of an appropriate market index for the expected volatility of its stock. These nonpublic companies will be required to use all other inputs required by ASC 718 in estimating the value of its employee stock options. This “calculated value” is described in ASC 718 as follows:

Excerpt from Accounting Standards Codification

| Compensation – Stock Compensation – Overall |
| Implementation Guidance and Illustrations |
| 718-10-55-52 |

This Topic requires all entities to use the fair-value-based method to account for share-based payment arrangements that are classified as equity instruments. However, if it is not practicable for a nonpublic entity to estimate the expected volatility of its share price,
paragraph 718-10-30-20 requires it to use the calculated value method. Alternatively, it may not be possible for a nonpublic entity to reasonably estimate the fair value of its equity share options and similar instruments at the date they are granted because the complexity of the award's terms prevents it from doing so. In that case, paragraphs 718-10-30-21 through 30-22 require that the nonpublic entity account for its equity instruments at their intrinsic value, remeasured at each reporting date through the date of exercise or other settlement.

718-10-55-55
For purposes of this Topic, it is not practicable for a nonpublic entity to estimate the expected volatility of its share price if it is unable to obtain sufficient historical information about past volatility, or other information such as that noted in paragraph 718-10-55-51, on which to base a reasonable and supportable estimate of expected volatility at the grant date of the award without undue cost and effort. In that situation, this Topic requires a nonpublic entity to estimate a value for its equity share options and similar instruments by substituting the historical volatility of an appropriate industry sector index for the expected volatility of its share price as an assumption in its valuation model. All other inputs to a nonpublic entity’s valuation model shall be determined in accordance with the guidance in paragraphs 718-10-55-4 through 55-47.

We believe that generally if a nonpublic company can identify an appropriate index of public companies from which it can derive a volatility for purposes of computing this “calculated value,” it should be able to identify specific entities within the index to form the basis for an estimate of the expected volatility of its own shares. That is, we would normally expect nonpublic companies to estimate fair value rather than use a calculated value for purposes of measuring the compensation cost resulting from employee stock options. We believe our view is consistent with the guidance in ASC 718-10-55-51:

Excerpt from Accounting Standards Codification

Compensation — Stock Compensation — Overall

Implementation Guidance and Illustrations

718-10-55-51
Nonpublic entities may have sufficient information available on which to base a reasonable and supportable estimate of the expected volatility of their share prices. For example, a nonpublic entity that has an internal market for its shares, has private transactions in its shares, or issues new equity or convertible debt instruments may be able to consider the historical volatility, or implied volatility, of its share price in estimating expected volatility. Alternatively, a nonpublic entity that can identify similar public entities for which share or option price information is available may be able to consider the historical, expected, or implied volatility of those entities’ share prices in estimating expected volatility. Similarly this information may be used to estimate the fair value of its shares or to benchmark various aspects of its performance (see paragraph 718-10-55-25).
We do not believe that the calculated value method can be used for options granted to nonemployees. For those awards, a company must estimate fair value and, therefore, must estimate expected volatility. In that circumstance, we do not believe a company can assert that it cannot estimate expected volatility for employee awards when it was required to estimate expected volatility for nonemployee awards.

S7.4.2.2 How to determine an appropriate industry sector index

ASC 718 provides the following guidance with respect to determining an appropriate industry sector index:

Excerpt from Accounting Standards Codification

<table>
<thead>
<tr>
<th>Compensation – Stock Compensation – Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation Guidance and Illustrations</td>
</tr>
<tr>
<td>718-10-55-56</td>
</tr>
</tbody>
</table>

There are many different indexes available to consider in selecting an appropriate industry sector index. For example, Dow Jones Indexes maintain a global series of stock market indexes with industry sector splits available for many countries, including the United States. The historical values of those indexes are easily obtainable from its website. An appropriate industry sector index is one that is representative of the industry sector in which the nonpublic entity operates and that also reflects, if possible, the size of the entity. If a nonpublic entity operates in a variety of different industry sectors, then it might select a number of different industry sector indexes and weight them according to the nature of its operations; alternatively, it might select an index for the industry sector that is most representative of its operations. If a nonpublic entity operates in an industry sector in which no public entities operate, then it shall select an index for the industry sector that is most closely related to the nature of its operations. However, in no circumstances shall a nonpublic entity use a broad-based market index like the S&P 500, Russell 3000, or Dow Jones Wilshire 5000 because those indexes are sufficiently diversified as to be not representative of the industry sector, or sectors, in which the nonpublic entity operates.

One source of data on how to appropriately narrow indices is available at the following website:

http://www.djindexes.com/mdsidx/index.cfm?event=showTotalMarketIndexData
S7.4.2.3 Changing the industry sector index

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Overall*

Implementation Guidance and Illustrations

718-10-55-57

A nonpublic entity shall use the selected index consistently, unless the nature of the entity’s operations changes such that another industry sector index is more appropriate, in applying the calculated value method in both the following circumstances:

a. For all of its equity share options or similar instruments

b. In each accounting period.

The requirement described in ASC 718-10-55-57 regarding a change in the industry sector index used to apply the calculated value method is consistent with requirements regarding changes in methods for determining expected volatility and other assumptions described in Sections S7.2.3.2 and S7.3. Specifically, such changes are appropriate only to the extent that they provide a better estimate of fair (or calculated) value, and any change in methodology for developing the assumption should be applied prospectively and disclosed as a change in accounting estimate pursuant to ASC 250.

S7.4.2.4 How to calculate volatility used in the calculated value

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Overall*

Implementation Guidance and Illustrations

718-10-55-58

The calculation of the historical volatility of an appropriate industry sector index shall be made using the daily historical closing values of the index selected for the period of time prior to the grant date (or service inception date) of the equity share option or similar instrument that is equal in length to the expected term of the equity share option or similar instrument. If daily values are not readily available, then an entity shall use the most frequent observations available of the historical closing values of the selected index. If historical closing values of the index selected are not available for the entire expected term, then a nonpublic entity shall use the closing values for the longest period of time available. The method used shall be consistently applied (see paragraph 718-10-55-27). Example 9 (see paragraph 718-20-55-77) provides an illustration of accounting for an equity share option award granted by a nonpublic entity that uses the calculated value method.

As discussed in ASC 718-10-55-58, when using the calculated-value method to measure share-based payments, volatility must be calculated based on the historical volatility of an appropriate industry sector index. However, when using the fair-value-based method, the company should estimate expected volatility. A nonpublic entity is afforded more flexibility by
using the expected volatility of similar entities to estimate the expected volatility of its own shares (and estimate the fair value of its options), rather than the rigid historical volatility of an appropriate industry sector index that must be used to compute the “calculated value” of its options. However, use of the historical volatility of an index often will result in a lower volatility than would use of the average volatilities of the companies within the index. In the former case, the effect of diversification (offsetting price movements by stocks within the index) causes the calculated volatility to be lower than would be the case if the volatilities of the individual stocks within the index were calculated and then averaged. Because of these differences, the calculated value should not be described as “fair value.”

S7.4.2.5 Example of use of calculated value

ASC 718-20-55-77 through 55-83 from Example 9 are relevant as to when calculated value should be used by a nonpublic company and how the appropriate industry sector index or indices should be determined are reproduced below:

**Excerpt from Accounting Standards Codification**

*Compensation — Stock Compensation — Awards Classified as Equity*

**Implementation Guidance and Illustrations**

718-20-55-78

Entity W does not maintain an internal market for its shares, which are rarely traded privately. It has not issued any new equity or convertible debt instruments for several years and has been unable to identify any similar entities that are public. Entity W has determined that it is not practicable for it to estimate the expected volatility of its share price and, therefore, it is not possible for it to reasonably estimate the grant-date fair value of the share options. Accordingly, Entity W is required to apply the provisions of paragraph 718-10-30-20 in accounting for the share options under the calculated value method.

718-20-55-79

Entity W operates exclusively in the medical equipment industry. It visits the Dow Jones Indexes website and, using the Industry Classification Benchmark, reviews the various industry sector components of the Dow Jones U.S. Total Market index. It identifies the medical equipment subsector, within the health care equipment and services sector, as the most appropriate industry sector in relation to its operations. It reviews the current components of the medical equipment index and notes that, based on the most recent assessment of its share price and its issued share capital, in terms of size it would rank among entities in the index with a small market capitalization (or small-cap entities). Entity W selects the small-cap version of the medical equipment index as an appropriate industry sector index because it considers that index to be representative of its size and the industry sector in which it operates. Entity W obtains the historical daily closing total return values of the selected index for the five years immediately before January 1, 20X6, from the Dow Jones Indexes website. It calculates the annualized historical volatility of those values to be 24 percent, based on 252 trading days per year.
S7.4.3 Valuation of awards that contain reload features

Some stock options contain a reload feature. Reloads commonly provide for a new grant of at-the-money options in an amount equal to the number of shares tendered to satisfy the exercise price of the exercised option. Based on the FASB’s definition of a grant date, ASC 718-10-30-23 requires that the value of a reload feature should be excluded from the estimate of the award’s grant-date fair value. As a result, subsequent grants of options under the reload feature would be accounted for as new awards and measured on their respective grant dates (i.e., on the date the number of shares and the exercise price of the reload options are determined). See Section S3.5.1 for further discussion of awards with reload features.

S7.4.4 Options on restricted stock

Excerpt from Accounting Standards Codification

**Compensation – Stock Compensation – Overall**

**Implementation Guidance and Illustrations**

**718-10-55-5**

A restriction that continues in effect after the entity has issued instruments to employees, such as the inability to transfer vested equity share options to third parties or the inability to sell vested shares for a period of time, is considered in estimating the fair value of the instruments at the grant date. For instance, if shares are traded in an active market, post-vesting restrictions may have little, if any, effect on the amount at which the shares being valued would be exchanged. For share options and similar instruments, the effect of nontransferability (and nonhedgeability, which has a similar effect) is taken into account by reflecting the effects of employees’ expected exercise and post-vesting employment termination behavior in estimating fair value (referred to as an option’s expected term).

**718-10-55-6**

In contrast, a restriction that stems from the forfeitability of instruments to which employees have not yet earned the right, such as the inability either to exercise a nonvested equity share option or to sell nonvested shares, is not reflected in the fair value of the instruments at the grant date. Instead, those restrictions are taken into account by recognizing compensation cost only for awards for which employees render the requisite service.

**718-10-55-7**

Note that performance and service conditions are vesting conditions for purposes of this Topic. Market conditions are not vesting conditions for purposes of this Topic but market conditions may affect exercisability of an award. Market conditions are included in the estimate of the grant-date fair value of awards (see paragraphs 718-10-55-64 through 55-66).
While not explicitly addressed in the above paragraphs, companies sometimes grant stock options on restricted stock (i.e., the sale of the stock received on exercise of the option is contractually prohibited after exercise – see Section S6.3.2.1). In order to estimate the fair value of such a stock option, a company should use the value of the underlying restricted share as an input into the option-pricing model rather than apply a discount to the output of the option-pricing model. This guidance assumes that the restrictions on the stock exceed the expected term of the option. In the event that the restrictions on the stock expire prior to expected option exercise (e.g., option vests in year three, restrictions expire in year five, and expected option exercise is in year six), no discount should be applied to the value of the stock used in the option-pricing model. In addition, consistent with the guidance on nonvested stock in Section S6.3.2.1, the company should have objective and verifiable evidence to support any valuation of restricted shares that differs from the quoted market price of the company's publicly traded shares.

S7.4.5 Stock options with indexed exercise prices

Some stock option awards provide for adjustments to the exercise price in certain circumstances. Several types of options that base the changes in exercise price on defined factors (i.e., "indices") are loosely described as "indexed options."

For an indexed option, the exercise price may vary by a predetermined amount each year (e.g., increase by 5% annually), or may vary depending on an external factor such as the performance of a peer-group index. The valuation of indexed options, which is described briefly in ASC 718, can be complex. In most cases, we believe the fair value of most types of indexed options, such as those described below, will be reasonably estimable. In the rare circumstance in which the fair value of the option is not reasonably estimable, the guidance in Section S3.2.3 applies.

Premdetermined increases in exercise price – When the indexed exercise price changes are predetermined, the changes in exercise price can be incorporated into a lattice model by incorporating the changes into the calculation of the exercise price in effect at each node. Also, an alternative short cut approach exists when the exercise price increases annually by a predetermined percentage – that percentage increase can be deducted from the risk-free interest rate used in the option-pricing model (as illustrated in ASC 718-20-55-70).

Exercise price indexed to other stock prices – The valuation of other indexed options may be more complex. For example, a company may grant an option with an exercise price that is indexed to a basket of peer-group companies' stock prices, as described in Example 5 of ASC 718:
Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Overall
Implementation Guidance and Illustrations

718-20-55-52
Entity T grants share options whose exercise price varies with an index of the share prices of a
group of entities in the same industry, that is, a market condition. Assume that on January 1,
20X5, Entity T grants 100 share options on its common stock with an initial exercise price of
$30 to each of 1,000 employees. The share options have a maximum term of 10 years. The
exercise price of the share options increases or decreases on December 31 of each year by
the same percentage that the index has increased or decreased during the year. For example,
if the peer group index increases by 10 percent in 20X5, the exercise price of the share
options during 20X6 increases to $33 ($30 × 1.10). On January 1, 20X5, the peer group
index is assumed to be 400. The dividend yield on the index is assumed to be 1.25 percent.

718-20-55-53
Each indexed share option may be analyzed as a share option to exchange 0.0750 (30 ÷
400) shares of the peer group index for a share of Entity T stock – that is, to exchange one
noncash asset for another noncash asset. A share option to purchase stock for cash also can
be thought of as a share option to exchange one asset (cash in the amount of the exercise
price) for another (the share of stock). The intrinsic value of a cash share option equals the
difference between the price of the stock upon exercise and the amount – the price – of the
cash exchanged for the stock. The intrinsic value of a share option to exchange 0.0750
shares of the peer group index for a share of Entity T stock also equals the difference
between the prices of the two assets exchanged.

718-20-55-54
To illustrate the equivalence of an indexed share option and the share option above, assume
that an employee exercises the indexed share option when Entity T's share price has
increased 100 percent to $60 and the peer group index has increased 75 percent, from 400
to 700. The exercise price of the indexed share option thus is $52.50 ($30 × 1.75).

<table>
<thead>
<tr>
<th>Price of Entity T share</th>
<th>$ 60.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less: Exercise price of share option</td>
<td>$ 52.50</td>
</tr>
<tr>
<td>Intrinsic value of indexed share option</td>
<td>$ 7.50</td>
</tr>
</tbody>
</table>

718-20-55-55
That is the same as the intrinsic value of a share option to exchange 0.0750 shares of the
index for 1 share of Entity T stock.

<table>
<thead>
<tr>
<th>Price of Entity T share</th>
<th>$ 60.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less: Price of a share of the peer group index (.0750 × $700)</td>
<td>$ 52.50</td>
</tr>
<tr>
<td>Intrinsic value at exchange</td>
<td>$ 7.50</td>
</tr>
</tbody>
</table>
Option-pricing models can be extended to value a share option to exchange one asset for another. The principal extension is that the volatility of a share option to exchange two noncash assets is based on the relationship between the volatilities of the prices of the assets to be exchanged – their cross-volatility. In a share option with an exercise price payable in cash, the amount of cash to be paid has zero volatility, so only the volatility of the stock needs to be considered in estimating that option’s fair value. In contrast, the fair value of a share option to exchange two noncash assets depends on possible movements in the prices of both assets – in this Example, fair value depends on the cross-volatility of a share of the peer group index and a share of Entity T stock. Historical cross-volatility can be computed directly based on measures of Entity T’s share price in shares of the peer group index. For example, Entity T’s share price was 0.0750 shares at the grant date and 0.0857 (60 ÷ 700) shares at the exercise date. Those share amounts then are used to compute cross-volatility. Cross-volatility also can be computed indirectly based on the respective volatilities of Entity T stock and the peer group index and the correlation between them. The expected cross-volatility between Entity T stock and the peer group index is assumed to be 30 percent.

In a share option with an exercise price payable in cash, the assumed risk-free interest rate (discount rate) represents the return on the cash that will not be paid until exercise. In this Example, an equivalent share of the index, rather than cash, is what will not be paid until exercise. Therefore, the dividend yield on the peer group index of 1.25 percent is used in place of the risk-free interest rate as an input to the option-pricing model.

The initial exercise price for the indexed share option is the value of an equivalent share of the peer group index, which is $30 (0.0750 × $400). The fair value of each share option granted is $7.55 based on the following inputs.

- Share price: $30
- Exercise price: $30
- Dividend yield: 1.00%
- Discount rate: 1.25%
- Volatility: 30%
- Contractual term: 10 years
- Suboptimal exercise factor: 1.10

In this Example, the suboptimal exercise factor is 1.1. In Example 1 (see paragraph 718-20-55-4), the suboptimal exercise factor is 2.0. See paragraph 718-20-55-8 for an explanation of the meaning of a suboptimal exercise factor of 2.0.
The indexed share options have a three-year explicit service period. The market condition affects the grant-date fair value of the award and its exercisability; however, vesting is based solely on the explicit service period of three years. The at-the-money nature of the award makes the derived service period irrelevant in determining the requisite service period in this Example; therefore, the requisite service period of the award is three years based on the explicit service period. The accrual of compensation cost would be based on the number of options for which the requisite service is expected to be rendered (which is not addressed in this Example). That cost would be recognized over the requisite service period as shown in Example 1 (see paragraph 718-20-55-4).

Exercise price reduced by dividends – Stock options normally do not participate in dividends prior to their exercise. However, an option may provide that the exercise price is reduced by the amount of any dividends declared on the underlying stock. In that circumstance, the fair value of the option can be determined using an option-pricing model with an assumed dividend yield of zero, as the option holder will benefit from any dividends declared before the option is exercised. Dividend protected options are discussed further in Section S7.4.8.

S7.4.6 Tandem plans

Tandem plans are stock-based awards with two components, but exercise of one component cancels the other (i.e., the components are mutually exclusive). The measurement of compensation cost for tandem plans is based on an analysis of the components, which can become complex. The determination of whether an award should be classified as equity or a liability (or bifurcated into equity and liability components) is discussed in Chapter 5. For the relatively straightforward tandem plan in which employees have a choice of either stock options or stock appreciation rights (SARs) payable in cash, employers should account for the award as a liability because the employees can demand payment in cash. The measurement of such an award would be the same as for a SAR payable in cash. The accounting for such a tandem plan is illustrated in Example 7 in ASC 718-10-55-116 through 55-130.

Other tandem plans may include components with values that differ depending on the movement in the price of the entity’s stock, which leads to more complex valuation issues, as presented in Case B: Phantom Shares or Share Options of ASC 718:

Excerpt from Accounting Standards Codification

**Compensation – Stock Compensation – Overall**
**Implementation Guidance and Illustrations**

718-10-55-120

This Case illustrates a tandem award in which the components have different values after the grant date, depending on movements in the price of the entity’s stock. The employee’s choice of which component to exercise will depend on the relative values of the components when the award is exercised.
Entity T grants to its chief executive officer an immediately vested award consisting of the following two parts:

a. 1,000 phantom share units (units) whose value is always equal to the value of 1,000 shares of Entity T's common stock

b. Share options on 3,000 shares of Entity T's stock with an exercise price of $30 per share.

At the grant date, Entity T's share price is $30 per share. The chief executive officer may choose whether to exercise the share options or to cash in the units at any time during the next five years. Exercise of all of the share options cancels all of the units, and cashing in all of the units cancels all of the share options. The cash value of the units will be paid to the chief executive officer at the end of five years if the share option component of the tandem award is not exercised before then.

With a 3-to-1 ratio of share options to units, exercise of 3 share options will produce a higher gain than receipt of cash equal to the value of 1 share of stock if the share price appreciates from the grant date by more than 50 percent. Below that point, one unit is more valuable than the gain on three share options. To illustrate that relationship, the results if the share price increases 50 percent to $45 are as follows.

<table>
<thead>
<tr>
<th>Units</th>
<th>Exercise of options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market value</td>
<td>$45,000 ($45 × 1,000)</td>
</tr>
<tr>
<td>Purchase price</td>
<td>0</td>
</tr>
<tr>
<td>Net cash value</td>
<td>$45,000</td>
</tr>
</tbody>
</table>

If the price of Entity T’s common stock increases to $45 per share from its price of $30 at the grant date, each part of the tandem grant will produce the same net cash payment (ignoring transaction costs) to the chief executive officer. If the price increases to $44, the value of 1 share of stock exceeds the gain on exercising 3 share options, which would be $42 [3 × ($44–$30)]. But if the price increases to $46, the gain on exercising 3 share options, $48 [3 × ($46–$30)], exceeds the value of 1 share of stock.

At the grant date, the chief executive officer could take $30,000 cash for the units and forfeit the share options. Therefore, the total value of the award at the grant date must exceed $30,000 because at share prices above $45, the chief executive officer receives a higher amount than would the holder of 1 share of stock. To exercise the 3,000 options, the chief executive officer must forfeit the equivalent of 1,000 shares of stock, in addition to paying the total exercise price of $90,000 (3,000 × $30). In effect, the chief executive officer would have effectively received $120,000 ($90,000 + $30,000) if the share price increased to $45 and $112,000 ($90,000 + $22,000) if the share price increased to $46.
officer receives only 2,000 shares of Entity T stock upon exercise. That is the same as if the share option component of the tandem award consisted of share options to purchase 2,000 shares of stock for $45 per share.

718-10-55-126
The cash payment obligation associated with the units qualifies the award as a liability of Entity T. The maximum amount of that liability, which is indexed to the price of Entity T’s common stock, is $45,000 because at share prices above $45, the chief executive officer will exercise the share options.

718-10-55-127
In measuring compensation cost, the award may be thought of as a combination – not tandem – grant of both of the following:

a. 1,000 units with a value at grant of $30,000
b. 2,000 options with a strike price of $45 per share.

718-10-55-128
Compensation cost is measured based on the combined value of the two parts.

718-10-55-129
The fair value per share option with an exercise price of $45 is assumed to be $10. Therefore, the total value of the award at the grant date is as follows.

| Units (1,000 × $30) | $30,000 |
| Share options (2,000 × $10) | $20,000 |
| Value of award | $50,000 |

718-10-55-130
Therefore, compensation cost recognized at the date of grant (the award is immediately vested) would be $30,000 with a corresponding credit to a share-based compensation liability of $30,000. However, because the share option component is the substantive equivalent of 2,000 deep out-of-the-money options, it contains a derived service period (assumed to be 2 years). Hence, compensation cost for the share option component of $20,000 would be recognized over the requisite service period. The share option component would not be remeasured because it is not a liability. That total amount of both components (or $50,000) is more than either of the components by itself, but less than the total amount if both components (1,000 units and 3,000 share options with an exercise price of $30) were exercisable. Because granting the units creates a liability, changes in the liability that result from increases or decreases in the price of Entity T’s share price would be recognized each period until exercise, except that the amount of the liability would not exceed $45,000.

Note that in the above example, if the stock-option component ultimately were exercised, the liability balance would be reclassified to additional paid-in capital.
S7.4.7 Employee stock purchase plans (including look-back options)

As discussed in Section S2.6, look-back options often are included in employee stock purchase plans. These options establish the exercise price at a specified percentage of the lower of the underlying stock’s market price on two dates. Because the exercise prices and other terms of an employee stock purchase plan can vary, the valuation of such awards can be complex. The valuation of employee stock purchase plans is discussed in Section S12.2.

S7.4.8 Dividend-protected awards

<table>
<thead>
<tr>
<th>Excerpt from Accounting Standards Codification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation — Stock Compensation — Overall</td>
</tr>
<tr>
<td>Implementation Guidance and Illustrations</td>
</tr>
<tr>
<td>718-10-55-44</td>
</tr>
</tbody>
</table>

Expected dividends are taken into account in using an option-pricing model to estimate the fair value of a share option because dividends paid on the underlying shares reduce the fair value of those shares and option holders generally are not entitled to receive those dividends. However, an award of share options may be structured to protect option holders from that effect by providing them with some form of dividend rights. Such dividend protection may take a variety of forms and shall be appropriately reflected in estimating the fair value of a share option. For example, if a dividend paid on the underlying shares is applied to reduce the exercise price of the option, the effect of the dividend protection is appropriately reflected by using an expected dividend assumption of zero.

The FASB described a method to value employee stock options that provide for a reduction of the exercise price in the amount of any dividends paid on the underlying common stock. However, the valuation of other dividend protected options may be more complicated. For example, some employee stock options provide for the payment of cash dividends to the option holder if dividends are paid on the underlying shares. We believe that an option that entitles the holder to receive dividends has greater value than an option where the exercise price adjusts based on dividend payments because, in the former case, the holder realizes the value of the dividend without being required to exercise the option (which could be out of the money even after adjustments for dividends). Accordingly, we believe an option that pays cash dividends to the holder should be valued as two separate awards with fair values equal to:

1. The present value of the estimated dividend payments that will be received prior to exercise, and
2. The value of the option estimated using an option-pricing model with a normal dividend payment assumption (i.e., ignoring the dividend payments described in 1. above).

Further, the terms of the dividend protection feature will likely determine whether the share-based payment award is a participating security that would require the computation of EPS pursuant to the two-class method. The earnings per share implications of such awards and
the accounting for dividends declared are discussed further in Section S11.8 and Section S3.6, respectively.

If employees receive the dividends paid on a class of stock granted them only after the stock becomes vested, the value of the award at the grant date should be reduced by the present value of dividends expected to be paid on the class of stock during the vesting period, discounted at the appropriate risk-free interest rate. This is based on the same concept described above that the fair value of a share of stock is equal to the present value of the expected future cash flows to the stockholder, which includes dividends.
S8  Accounting for modifications, exchanges, and settlements

S8.1  Accounting for modifications

Companies that grant share-based payments to employees may subsequently decide to modify the terms of those awards in a manner that provides the employee with a greater (or in rare cases, a lesser) benefit than existed prior to the modification.

Modifications to existing awards are made under a variety of scenarios. In some cases, the company may decide to extend the contractual term of an option, for example, from eight years to 10 years. In other situations, modifications are made at the time of an employee’s termination. For example, an employee’s option agreement may provide that any nonvested options will be forfeited on the employee’s termination; however, because of the employee’s excellent service, the company decides to accelerate vesting for the nonvested option when the employee is terminated. Companies also may decide to reprice their options when the stock price falls and the desired motivational effect of the options is lost. In other cases, a company may increase the number of shares previously issued under a stock option or add a reload feature.

Note that the modification of an option can result in significant tax consequences. For example, a modification may cause the option to be viewed as a newly granted option for tax purposes. If that option is viewed for tax purposes as a newly granted option and is in the money on the modification date, the option may; (1) be viewed as deferred compensation under Section 409A of the Internal Revenue Code (which may result in significant negative tax implications for the employee), (2) if granted to executives, be subject to limitation on the employer’s tax deduction under Section 162(m) of the Internal Revenue Code, or (3) no longer qualify as an incentive stock option (see section S8.1.4). Accordingly, companies should consult with their tax advisors before modifying employee stock options.

ASC 718 indicates that a modification to the terms of an award should be treated as an exchange of the original award for a new award. Under ASC 718, the calculation of the incremental value associated with the new option is based on the excess of the fair value of the modified award based on current circumstances over the fair value of the original option measured immediately before its terms are modified based on current circumstances. That is, the value of the original (pre-modification) option will be estimated based on current assumptions, without regard to the assumptions made on the grant date, and, therefore, the expected term is not limited to the remainder of the expected term estimated on the grant date.
Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Awards Classified as Equity

Subsequent Measurement

718-20-35-3

A modification of the terms or conditions of an equity award shall be treated as an exchange of the original award for a new award. In substance, the entity repurchases the original instrument by issuing a new instrument of equal or greater value, incurring additional compensation cost for any incremental value. The effects of a modification shall be measured as follows:

a. Incremental compensation cost shall be measured as the excess, if any, of the fair value of the modified award determined in accordance with the provisions of this Topic over the fair value of the original award immediately before its terms are modified, measured based on the share price and other pertinent factors at that date. As indicated in paragraph 718-10-30-20, references to fair value throughout this Topic shall be read also to encompass calculated value. The effect of the modification on the number of instruments expected to vest also shall be reflected in determining incremental compensation cost. [See discussion of modifications to vesting conditions in Section S8.2.] The estimate at the modification date of the portion of the award expected to vest shall be subsequently adjusted, if necessary, in accordance with paragraph 718-10-35-3 and other guidance in Examples 13 through 14 (see paragraphs 718-10-55-103 through 55-119) [Included in Section S8.2].

b. Total recognized compensation cost for an equity award shall at least equal the fair value of the award at the grant date unless at the date of the modification the performance or service conditions of the original award are not expected to be satisfied. Thus, the total compensation cost measured at the date of a modification shall be the sum of the following:

1. The portion of the grant-date fair value of the original award for which the requisite service is expected to be rendered (or has already been rendered) at that date

2. The incremental cost resulting from the modification.

Compensation cost shall be subsequently adjusted, if necessary, in accordance with paragraph 718-10-35-3 and other guidance in Examples 13 through 15 (see paragraph 718-10-55-103 through 55-121) [Included in Section S8.2].

c. A change in compensation cost for an equity award measured at intrinsic value in accordance with paragraph 718-20-35-1 shall be measured by comparing the intrinsic value of the modified award, if any, with the intrinsic value of the original award, if any, immediately before the modification.
ASC 718 states that the measured cost of a modified award generally cannot be less than the grant-date fair value of the original award. However, an exception to that requirement involves a modification to a vesting condition when the award was not expected to vest pursuant to the original terms. In that case, the fair value of the modified award at the modification date is recognized if the modified award eventually vests. The fair value of the original award is no longer relevant even if the original vesting condition ultimately is satisfied. In applying this guidance, it should be noted that if an award is modified more than once, the effects of the current modification would be measured against the fair value estimated for the award based on its terms immediately preceding the modification (see also Section S8.9). Modifications of vesting conditions are discussed in greater detail in Section S8.2.

The accounting for modifications under ASC 718 can be complex, depending on the nature of the modification, whether the award was likely to vest pursuant to the original terms, whether the award is expected to vest pursuant to any revised terms, and whether the modification changes the classification of the award (equity vs. liability). These complicating factors are discussed in the remainder of this chapter.

A modification of a liability award also is accounted for as the exchange of the original award for a new award. However, because liability awards are remeasured at their fair value (or intrinsic value for a nonpublic entity that elects that method) at each reporting date, no special guidance is necessary in accounting for a modification of a liability award that remains a liability after the modification. The accounting for a modification that changes the classification of an award from a liability to equity is discussed in Section S8.4.2.

S8.1.1 Modifications to provide for transferability of employee stock options

Employee stock options generally are not transferable. However, occasionally stock option plans allow the option holder to transfer the option to a limited group of related parties (e.g., to an immediate family member). On occasion, employers may modify employee stock options to make them transferable to unrelated third parties. For example, we are aware of companies that have provided for transferability of employee stock options to an investment bank for a limited period of time.

A modification to an employee stock option to provide for transferability normally will affect the expected term of the option. As discussed in greater detail in Section S7.3.1, because most employee stock options are not transferable, employees often exercise the option before the end of the contractual term. However, if an option is freely transferable, the employee would be expected to sell the option and capture both the time value and the intrinsic value of that option, rather than exercise the option early and only capture the intrinsic value. Accordingly, if an employee stock option is modified to make it freely transferable, the modified option should be measured at fair value with an expected term equal to the contractual term (see 718-20-55-50). However, if the options provide for very limited transferability (e.g., only to family members or a family trust), this feature may have a
minimal effect on the employee’s exercise behavior (and expected term of the option) because the expected exercise behavior of the employee’s family members may be no different than the expected exercise behavior of the employee. All the facts and circumstances associated with the modification and the likelihood of transfer and exercise should be considered when measuring the fair value of an award that is not freely transferable.

S8.1.2 Examples of modifications to share-based payments

S8.1.2.1 Modification of vested stock options

Case A below illustrates the accounting for a modification to reprice a vested employee stock option:

---

Excerpt from Accounting Standards Codification

*Compensation — Stock Compensation — Awards Classified as Equity*

Implementation Guidance and Illustrations

718-20-55-93

The following Cases illustrate the accounting for modifications of the terms of an award (see paragraphs 718-20-35-3 through 35-4) and are based on Example 1, Case A (see paragraph 718-20-55-10) [Section S4.4.1.6], in which Entity T granted its employees 900,000 share options with an exercise price of $30 on January 1, 20X5:

a. Modification of vested share options (Case A)
b. Share settlement of vested share options (Case B)
c. Modification of nonvested share options (Case C)
d. Cash settlement of nonvested share options (Case D).

**Case A: Modification of Vested Share Options**

718-20-55-94

On January 1, 20X9, after the share options have vested, the market price of Entity T stock has declined to $20 per share, and Entity T decides to reduce the exercise price of the outstanding share options to $20. In effect, Entity T issues new share options with an exercise price of $20 and a contractual term equal to the remaining contractual term of the original January 1, 20X5, share options, which is 6 years, in exchange for the original vested share options. Entity T incurs additional compensation cost for the excess of the fair value of the modified share options issued over the fair value of the original share options at the date of the exchange, measured as shown in the following paragraph. A nonpublic entity using the calculated value would compare the calculated value of the original award immediately before the modification with the calculated value of the modified award unless an entity has ceased to use the calculated value, in which case it would follow the guidance in paragraph...
Accounting for modifications, exchanges, and settlements

718-20-35-3(a) through (b) (calculating the effect of the modification based on the fair value). The modified share options are immediately vested, and the additional compensation cost is recognized in the period the modification occurs.

718-20-55-95
The January 1, 20X9, fair value of the modified award is $7.14. To determine the amount of additional compensation cost arising from the modification, the fair value of the original vested share options assumed to be repurchased is computed immediately before the modification. The resulting fair value at January 1, 20X9, of the original share options is $3.67 per share option, based on their remaining contractual term of 6 years, suboptimal exercise factor of 2, $20 current share price, $30 exercise price, risk-free interest rates of 1.5 percent to 3.4 percent, expected volatility of 35 percent to 50 percent and a 1.0 percent expected dividend yield. The additional compensation cost stemming from the modification is $3.47 per share option, determined as follows.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fair Value of modified share option at January 1, 20X9</td>
<td>$7.14</td>
</tr>
<tr>
<td>Less: Fair Value of original share option at January 1, 20X9</td>
<td>3.67</td>
</tr>
<tr>
<td>Additional compensation cost to be recognized</td>
<td>$3.47</td>
</tr>
</tbody>
</table>

718-20-55-96
Compensation cost already recognized during the vesting period of the original award is $10,981,157 for 747,526 vested share options (see paragraphs 718-20-55-14 through 55-17) [Included in Section S4.4.1.6]. For simplicity, it is assumed that no share options were exercised before the modification. Previously recognized compensation cost is not adjusted. Additional compensation cost of $2,593,915 (747,526 vested share options × $3.47) is recognized on January 1, 20X9, because the modified share options are fully vested; any income tax effects from the additional compensation cost are recognized accordingly.

Case B: Share Settlement of Vested Share Options
718-20-55-97
Rather than modify the option terms, Entity T offers to settle the original January 1, 20X5, share options for fully vested equity shares at January 1, 20X9. The fair value of each share option is estimated the same way as shown in Case A, resulting in a fair value of $3.67 per share option. Entity T recognizes the settlement as the repurchase of an outstanding equity instrument, and no additional compensation cost is recognized at the date of settlement unless the payment in fully vested equity shares exceeds $3.67 per share option. Previously recognized compensation cost for the fair value of the original share options is not adjusted.

The FASB did not describe the assumptions used to value the post-modification options in Case A, but it should be noted that the assumptions used to value the pre-modification and post-modification options likely will differ in this example. While it may be appropriate to use the same “suboptimal exercise factor” in both calculations, the use of that factor will result in a longer expected term for the out-of-the-money option than for the new at-the-money
option. This is because on average it will take longer for the option with the higher exercise price to achieve the suboptimal exercise factor (in which the stock price is equal to twice the option’s exercise price). As a result of the different expected terms, the other assumptions will likely vary (e.g., because of the term structures of interest and volatility, those assumptions will differ for the modified option). Determining input assumptions for a lattice model is discussed in detail in Chapter 7.

### S8.1.2.2 Modification of nonvested stock options

Case C below illustrates the accounting for a modification to reprice an unvested employee stock option:

---

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Awards Classified as Equity*

Implementation Guidance and Illustrations

**Case C: Modification of Nonvested Share Options**

718-20-55-98

On January 1, 20X6, 1 year into the 3-year vesting period, the market price of Entity T stock has declined to $20 per share, and Entity T decides to reduce the exercise price of the share options to $20. The three-year cliff-vesting requirement is not changed. In effect, in exchange for the original nonvested share options, Entity T grants new share options with an exercise price of $20 and a contractual term equal to the 9-year remaining contractual term of the original share options granted on January 1, 20X5. Entity T incurs additional compensation cost for the excess of the fair value of the modified share options issued over the fair value of the original share options at the date of the exchange determined in the manner described in paragraphs 718-20-55-95 through 55-96 [Included in Section S8.1.2.1]. Entity T adds that additional compensation cost to the remaining unrecognized compensation cost for the original share options at the date of modification and recognizes the total amount ratably over the remaining two years of the three-year vesting period. Because the original vesting provision is not changed, the modification has an explicit service period of two years, which represents the requisite service period as well. Thus, incremental compensation cost resulting from the modification would be recognized ratably over the remaining two years rather than in some other pattern.
The January 1, 20X6, fair value of the modified award is $8.59 per share option, based on its contractual term of 9 years, suboptimal exercise factor of 2, $20 current share price, $20 exercise price, risk-free interest rates of 1.5 percent to 4.0 percent, expected volatilities of 35 percent to 55 percent, and a 1.0 percent expected dividend yield. The fair value of the original award immediately before the modification is $5.36 per share option, based on its remaining contractual term of 9 years, suboptimal exercise factor of 2, $20 current share price, $30 exercise price, risk-free interest rates of 1.5 percent to 4.0 percent, expected volatilities of 35 percent to 55 percent, and a 1.0 percent expected dividend yield. Thus, the additional compensation cost stemming from the modification is $3.23 per share option, determined as follows.

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fair Value of modified share option at January 1, 20X6</td>
<td>$8.59</td>
</tr>
<tr>
<td>Less: Fair Value of original share option at January 1, 20X6</td>
<td>$5.36</td>
</tr>
<tr>
<td>Incremental value of modified share option at January 1, 20X6</td>
<td>$3.23</td>
</tr>
</tbody>
</table>

On January 1, 20X6, the remaining balance of unrecognized compensation cost for the original share options is $9.79 per share option. Using a value of $14.69 for the original option as noted in paragraph 718-20-55-9 [Section S4.4.1.6] results in recognition of $4.90 ($14.69 ÷ 3) per year. The unrecognized balance at January 1, 20X6, is $9.79 ($14.69 – $4.90) per option. The total compensation cost for each modified share option that is expected to vest is $13.02, determined as follows.

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incremental value of modified share option</td>
<td>$3.23</td>
</tr>
<tr>
<td>Unrecognized compensation cost for original share option</td>
<td>$9.29</td>
</tr>
<tr>
<td>Total compensation cost to be recognized</td>
<td>$13.02</td>
</tr>
</tbody>
</table>

That amount is recognized during 20X6 and 20X7, the two remaining years of the requisite service period.

Case D: Cash Settlement of Nonvested Share Options

Rather than modify the share option terms, Entity T offers on January 1, 20X6, to settle the original January 1, 20X5, grant of share options for cash. Because the share price decreased from $30 at the grant date to $20 at the date of settlement, the fair value of each share option is $5.36, the same as in Case C. If Entity T pays $5.36 per share option, it would recognize that cash settlement as the repurchase of an outstanding equity instrument and no incremental compensation cost would be recognized. However, the cash settlement of the share options effectively vests them. Therefore, the remaining unrecognized compensation cost of $9.79 per share option would be recognized at the date of settlement.
While Case C describes the assumptions (except for the exercise price) as being the same for both options, as discussed in the previous section, the average expected term will be shorter for the repriced option because it will take longer for the option with the higher exercise price to achieve the “suboptimal exercise factor” (in which the stock price is equal to twice the option’s exercise price). As a result of the different expected terms, the other assumptions will likely vary (e.g., because of the term structures of interest and volatility, those assumptions will differ for the modified option), although the range of assumptions used in the lattice model will be the same. That is, for the repriced option more price paths will result in early exercise and a shorter term and, therefore, a different range of volatilities and interest rates will apply to that path. However, because at the extremes the lattices for both options will include exercises (or post-vesting forfeitures) shortly after vesting as well as at expiration, the disclosed ranges are the same (but weighted-average assumptions, if disclosed, would differ). Determining input assumptions for a lattice model is discussed in detail in Chapter 7.

S8.1.3 Modifications of deeply out-of-the money options

If an award is modified, the new requisite service period must be based on the modified terms of the award. However, if an award that was granted at the money and subsequently becomes deeply out of the money is modified to accelerate vesting, compensation cost must continue to be recognized over the requisite service period of the original option when the modification to accelerate vesting is not substantive (immediate recognition of compensation cost is not permitted).

If the derived service period of the option represents a significant portion of or is longer than the remainder of the original requisite service period, such a modification would be considered nonsubstantive and would not be accounted for as a modification. Any unrecognized compensation cost at the date of the modification should continue to be recognized over the option’s remaining requisite service period as if the modification had never occurred. Further discussion on the accounting for deeply out of the money options is provided in Section S4.4.3.2.
S8.1.4 Modifications of incentive stock options

The modification of an incentive stock option (ISO) may cause the disqualification of the award as an ISO. If ISO status is disallowed because of a disqualifying modification, then the award should be treated as if it had been a non-qualified option since inception. As a result, a deferred tax benefit should be recorded for all compensation cost recognized for the award through the modification date. Further discussion of the tax impacts of such a disqualification is included in Section S10.7.1.1.

S8.2 Modifications of vesting conditions

ASC 718 includes specific guidance on the accounting for modifications of vesting conditions. When applying ASC 718 to a modification of a vesting condition, there are two important concepts from ASC 718-20-35-3 that must be kept in mind:

1. “The effect of the modification on the number of instruments expected to vest also shall be reflected in determining incremental compensation cost.”

2. “Total recognized compensation cost for an equity award shall at least equal the fair value of the award at the grant date unless at the date of the modification the performance or service conditions of the original award are not expected to be satisfied.” [Emphasis added.]

Based on these concepts, when the vesting conditions of a share-based payment are modified, it must first be determined whether the original vesting conditions were expected to be satisfied on the modification date (i.e., the company was recognizing compensation cost based on an assumption that the vesting conditions would be satisfied). If the original vesting conditions are not expected to be satisfied, the grant-date fair value of the original award essentially is ignored and the fair value of the award measured at the modification date is recognized if the modified award ultimately vests, regardless of whether the fair value of the award on the modification date is greater than or less than the grant-date fair value of the award. The original grant-date fair value is ignored even if the original vesting condition ultimately is satisfied. This accounting is illustrated below in Sections S8.2.3 (Type III modifications) and S8.2.4 (Type IV modifications).
If the original vesting conditions are expected to be satisfied, ASC 718 provides the following guidance:

**Excerpt from Accounting Standards Codification**

*Compensation — Stock Compensation — Awards Classified as Equity*

**Implementation Guidance and Illustrations**

718-20-55-107

Paragraphs 718-10-55-60 through 55-63 note that awards may vest based on service conditions, performance conditions, or a combination of the two. Modifications of market conditions that affect exercisability or the ability to retain the award are not addressed by this Example. A modification of vesting conditions is accounted for based on the principles in paragraph 718-20-35-3; that is, total recognized compensation cost for an equity award that is modified shall at least equal the fair value of the award at the grant date unless, at the date of the modification, the performance or service conditions of the original award are not expected to be satisfied. If awards are expected to vest under the original vesting conditions at the date of the modification, an entity shall recognize compensation cost if either of the following criteria is met:

a. The awards ultimately vest under the modified vesting conditions

b. The awards ultimately would have vested under the original vesting conditions.

The compensation cost to be recognized in this circumstance cannot be less than the grant-date fair value of the original award. If the modification not only affected vesting conditions but otherwise made the fair value of the award greater, the incremental fair value of that modification is recognized only if the modified vesting conditions are achieved. Specific illustrations of this accounting are provided in Sections S8.2.1 (Type I modifications) and S8.2.2 (Type II modifications).

Modifications to accelerate vesting may result in two different types of modifications of awards as described in Sections S8.2.1 (Type I modifications) and Section S8.2.3 or Section S8.2.4 (either Type III or Type IV modifications). For example, assume a company modifies an award subject to a service vesting condition to accelerate vesting such that the award is immediately vested. Further, assume the company had previously estimated that 5% of the outstanding awards would be forfeited. In recognizing compensation cost under the original grant, the company had determined that for a portion of the award, vesting was probable (95%), and that for another portion of the award, vesting was not probable (5%). Accordingly, compensation was not recognized for those awards where vesting was not considered probable (i.e., there was an assumption that the award would be forfeited). As a result, we believe the modification to accelerate vesting results in a probable-to-probable (Type I) modification for the awards where vesting was considered probable (95% of the award), and an improbable-to-probable (Type III) modification for the awards where forfeiture was expected prior to the modification (5% of the award). An example of the accounting for this type of modification is included in Section S8.2.3.2.
Section S2.7 discusses modifications to add a vesting requirement to previously issued shares.

S8.2.1 Type I (probable-to-probable) modification

When a vesting condition that is probable of achievement is modified and the new vesting condition also is probable of achievement, the compensation cost to be recognized if either the original vesting condition or the new vesting condition is achieved cannot be less than the grant-date fair value of the original award. That compensation cost is recognized if either the original or modified vesting condition is achieved. If the modification also increases the fair value of the award (e.g., if the exercise price of an option is reduced or the term extended), the FASB staff has indicated that the incremental compensation cost associated with the modification is recognized only if the modified vesting condition is satisfied. The following example from ASC 718 illustrates these concepts:

**Excerpt from Accounting Standards Codification**

*Compensation — Stock Compensation — Awards Classified as Equity*

**Implementation Guidance and Illustrations**

718-20-55-109

Cases A through D are all based on the same scenario: Entity T grants 1,000 share options to each of 10 employees in the sales department. The share options have the same terms and conditions as those described in Example 1 (see paragraph 718-20-55-4), [Section S4.4.1.6] except that the share options specify that vesting is conditional upon selling 150,000 units of product A (the original sales target) over the 3-year explicit service period. The grant-date fair value of each option is $14.69 (see paragraph 718-20-55-9) [Section S4.4.1.6]. For simplicity, this Example assumes that no forfeitures will occur from employee termination; forfeitures will only occur if the sales target is not achieved. Example 15 (see paragraph 718-20-55-120) provides an additional illustration of a Type III modification.

718-20-55-110

Cases A through D assume that the options are out-of-the-money when modified; however, that fact is not determinative in the illustrations (that is, options could be in- or out-of-the-money).
Case A: Type I Probable to Probable Modification

Based on historical sales patterns and expectations related to the future, management of Entity T believes at the grant date that it is probable that the sales target will be achieved. On January 1, 20X7, 102,000 units of Product A have been sold. During December 20X6, one of Entity T’s competitors declared bankruptcy after a fire destroyed a factory and warehouse containing the competitor’s inventory. To push the salespeople to take advantage of that situation, the award is modified on January 1, 20X7, to raise the sales target to 154,000 units of Product A (the modified sales target). Notwithstanding the nature of the modification’s probability of occurrence, the objective of this Case is to demonstrate the accounting for a Type I modification. Additionally, as of January 1, 20X7, the options are out-of-the-money because of a general stock market decline. No other terms or conditions of the original award are modified, and management of Entity T continues to believe that it is probable that the modified sales target will be achieved. Immediately before the modification, total compensation cost expected to be recognized over the 3-year vesting period is $146,900 or $14.69 multiplied by the number of share options expected to vest (10,000). Because no other terms or conditions of the award were modified, the modification does not affect the per-share-option fair value (assumed to be $8 in this Case at the date of the modification). Moreover, because the modification does not affect the number of share options expected to vest, no incremental compensation cost is associated with the modification.

This paragraph illustrates the cumulative compensation cost Entity T should recognize for the modified award based on three potential outcomes:

a. Outcome 1 – achievement of the modified sales target. In Outcome 1, all 10,000 share options vest because the salespeople sold at least 154,000 units of Product A. In that outcome, Entity T would recognize cumulative compensation cost of $146,900.

b. Outcome 2 – achievement of the original sales target. In Outcome 2, no share options vest because the salespeople sold more than 150,000 units of Product A but less than 154,000 units (the modified sales target is not achieved). In that outcome, Entity T would recognize cumulative compensation cost of $146,900 because the share options would have vested under the original terms and conditions of the award.

c. Outcome 3 – failure to achieve either sales target. In Outcome 3, no share options vest because the modified sales target is not achieved; additionally, no share options would have vested under the original terms and conditions of the award. In that case, Entity T would recognize cumulative compensation cost of $0.

Note that in the above example the fair value of the award did not change. If the employer in that example had modified other terms of the award such that the fair value of the award was greater (e.g., by extending the term of the options or reducing their exercise price), the
incremental fair value of that award would be recognized only if the modified sales goal was met. That is, the incremental fair value is effectively treated as a separate award and recognized only if the modified vesting condition is satisfied.

If the modification in the above example had resulted in a longer requisite service period than the original three-year period as well as incremental compensation cost, we understand (based on the conclusions of the Resource Group at its 26 May 2005 meeting) that there are two acceptable methods to attribute the remaining unrecognized compensation cost from the original award and the incremental compensation cost resulting from the modification:

1. The unrecognized compensation cost remaining from the original grant date valuation would be recognized over the remainder of the original requisite service period (because it would be recognized if the original service condition was met, even if the revised service condition was not met), while the incremental compensation cost would be recognized over the new service period (beginning on the modification date). Essentially, the unrecognized compensation cost is bifurcated and recognized as if the two components were separate awards with separate vesting periods.

2. The total compensation cost relating to the newly modified award (including both the unrecognized compensation cost remaining from the original grant date valuation and the incremental compensation cost resulting from the modification) is recognized ratably over the new requisite service period.

Because most share-based payment accounting systems do not have the capability to bifurcate an award for recognition purposes while treating the award as a single instrument for disclosure and other purposes, either of the above approaches are likely to require the implementation of procedures to ensure that the appropriate amount of compensation cost is recognized in the appropriate periods for each award (either (a) zero, if neither the original vesting condition nor the modified vesting condition is achieved, (b) the original grant date fair value if the original vesting condition is achieved but the modified vesting condition is not achieved, or (c) both the original grant date fair value and the incremental compensation cost if both the original and modified vesting conditions are achieved). Some members of the Resource Group indicated that they believed alternative 1 would be more difficult to apply within the constraints of existing accounting systems. However, alternative 1 avoids the possibility of accelerating compensation cost on an employee’s termination (if, for example, the application of alternative 2 results in the recognition as of the original vesting date of total compensation cost less than the original grant date fair value).

Regardless of the method selected, the ultimate amount of compensation cost recognized will not differ (although the timing of recognition likely will differ). The selection of either attribution approach is an accounting policy decision that must be applied consistently and, if material, must be disclosed in the notes to the financial statements.
If in the above example the sales target was reduced to 146,000 units rather than increased to 154,000 units, the accounting would be the same. If either the new sales target or the original sales target were achieved, the grant-date fair value of $14.69 per option would be recognized. Note that, absent the modification, if 150,000 units were not sold, the original award would not have vested and no compensation cost would have been recognized. However, because the 150,000 unit sales goal was probable of achievement on the modification date, the ultimate cost recognized if the award vests cannot be less than the grant-date fair value of the award.

S8.2.2 Type II (probable-to-improbable) modification

Modifications that cause a vesting condition to change from being probable of achievement to no longer being probable of achievement are rare in practice. However, the FASB provided the following example of such a modification to address all the possible permutations of modifications to vesting conditions:

Excerpt from Accounting Standards Codification

*Compensation — Stock Compensation — Awards Classified as Equity*

Implementation Guidance and Illustrations

718-20-55-109

Cases A through D are all based on the same scenario: Entity T grants 1,000 share options to each of 10 employees in the sales department. The share options have the same terms and conditions as those described in Example 1 (see paragraph 718-20-55-4) [Section S4.4.1.6], except that the share options specify that vesting is conditional upon selling 150,000 units of product A (the original sales target) over the 3-year explicit service period. The grant-date fair value of each option is $14.69 (see paragraph 718-20-55-9) [Section S4.4.1.6]. For simplicity, this Example assumes that no forfeitures will occur from employee termination; forfeitures will only occur if the sales target is not achieved. Example 15 (see paragraph 718-20-55-120) provides an additional illustration of a Type III modification.

Case B: Type II Probable to Improbable Modification

718-20-55-113

It is generally believed that Type II modifications will be rare; therefore, this illustration has been provided for the sake of completeness. Based on historical sales patterns and expectations related to the future, management of Entity T believes that at the grant date, it is probable that the sales target (150,000 units of product A) will be achieved. At January 1, 20X7, 102,000 units of product A have been sold and the options are out-of-the-money because of a general stock market decline. Entity T’s management implements a cash bonus program based on achieving an annual sales target for 20X7. The options are neither cancelled nor settled as a result of the cash bonus program. The cash bonus program would be accounted for using the same accounting as for other cash bonus arrangements. Concurrently, the sales target for the option awards is revised to 170,000 units of Product A.
No other terms or conditions of the original award are modified. Management believes that the modified sales target is not probable of achievement; however, they continue to believe that the original sales target is probable of achievement. Immediately before the modification, total compensation cost expected to be recognized over the 3-year vesting period is $146,900 or $14.69 multiplied by the number of share options expected to vest (10,000). Because no other terms or conditions of the award were modified, the modification does not affect the per-share-option fair value (assumed in this Case to be $8 at the modification date). Moreover, because the modification does not affect the number of share options expected to vest under the original vesting provisions, Entity T would determine incremental compensation cost in the following manner.

Fair value of modified share option $8
Share options expected to vest under original sales target 10,000
Fair value of modified award $80,000
Fair value of original share option $8
Share options expected to vest under original sales target 10,000
Fair value of original award $80,000
Incremental compensation cost of modification $0

718-20-55-114
In determining the fair value of the modified award for this type of modification, an entity shall use the greater of the options expected to vest under the modified vesting condition or the options that previously had been expected to vest under the original vesting condition.

718-20-55-115
This paragraph illustrates the cumulative compensation cost Entity T should recognize for the modified award based on three potential outcomes:

a. Outcome 1 – achievement of the modified sales target. In Outcome 1, all 10,000 share options vest because the salespeople sold at least 170,000 units of Product A. In that outcome, Entity T would recognize cumulative compensation cost of $146,900.

b. Outcome 2 – achievement of the original sales target. In Outcome 2, no share options vest because the salespeople sold more than 150,000 units of Product A but less than 170,000 units (the modified sales target is not achieved). In that outcome, Entity T would recognize cumulative compensation cost of $146,900 because the share options would have vested under the original terms and conditions of the award.

c. Outcome 3 – failure to achieve either sales target. In Outcome 3, no share options vest because the modified sales target is not achieved; additionally, no share options would have vested under the original terms and conditions of the award. In that case, Entity T would recognize cumulative compensation cost of $0.
S8.2.3 Type III (improbable-to-probable) modification

The most common type of modification to a vesting condition is the “Type III” modification, in which it previously was not probable that the vesting condition would be satisfied, and the modification causes it to become probable that the vesting condition will be satisfied. As discussed previously, because the original vesting condition is not probable of achievement on the modification date, the original grant-date fair value is no longer used to measure compensation cost for the award under any circumstances:

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Awards Classified as Equity*

**Implementation Guidance and Illustrations**

718-20-55-109

Cases A through D are all based on the same scenario: Entity T grants 1,000 share options to each of 10 employees in the sales department. The share options have the same terms and conditions as those described in Example 1 (see paragraph 718-20-55-4) [Section S4.4.1.6], except that the share options specify that vesting is conditional upon selling 150,000 units of product A (the original sales target) over the 3-year explicit service period. The grant-date fair value of each option is $14.69 (see paragraph 718-20-55-9) [Section S4.4.1.6]. For simplicity, this Example assumes that no forfeitures will occur from employee termination; forfeitures will only occur if the sales target is not achieved. Example 15 (see paragraph 718-20-55-120) provides an additional illustration of a Type III modification.

**Case C: Type III Improbable to Probable Modification**

718-20-55-116

Based on historical sales patterns and expectations related to the future, management of Entity T believes at the grant date that none of the options will vest because it is not probable that the sales target will be achieved. On January 1, 20X7, 80,000 units of Product A have been sold. To further motivate the salespeople, the sales target (150,000 units of Product A) is lowered to 120,000 units of Product A (the modified sales target). No other terms or conditions of the original award are modified. Management believes that the modified sales target is probable of achievement. Immediately before the modification, total compensation cost expected to be recognized over the 3-year vesting period is $0 or $14.69 multiplied by the number of share options expected to vest (zero). Because no other terms or conditions of the award were modified, the modification does not affect the per-share-option fair value (assumed in this Case to be $8 at the modification date). Since the modification affects the number of share options expected to vest under the original vesting provisions, Entity T will determine incremental compensation cost in the following manner.
Accounting for modifications, exchanges, and settlements

| Fair value of modified share option | $ 8 |
| Share options expected to vest under modified sales target | 10,000 |
| Fair value of modified award | $ 80,000 |
| Fair value of original share option | $ 8 |
| Share options expected to vest under original sales target | 0 |
| Fair value of original award | $ 0 |
| Incremental compensation cost of modification | $ 80,000 |

718-20-55-117

This paragraph illustrates the cumulative compensation cost Entity T should recognize for the modified award based on three potential outcomes:

a. **Outcome 1** — achievement of the modified sales target. In Outcome 1, all 10,000 share options vest because the salespeople sold at least 120,000 units of Product A. In that outcome, Entity T would recognize cumulative compensation cost of $80,000.

b. **Outcome 2** — achievement of the original sales target and the modified sales target. In Outcome 2, Entity T would recognize cumulative compensation cost of $80,000 because in a Type III modification the original vesting condition is generally not relevant (that is, the modified award generally vests at a lower threshold of service or performance).

c. **Outcome 3** — failure to achieve either sales target. In Outcome 3, no share options vest because the modified sales target is not achieved; in that case, Entity T would recognize cumulative compensation cost of $0.

**S8.2.3.1 Modification to accelerate vesting in connection with employee’s termination**

A common example of a Type III modification is a modification to accelerate service vesting in connection with the anticipation of, or concurrent with, the termination of an employee. In that case, because the employee is to be terminated and, therefore, is not expected to vest in the original award, any of the originally measured compensation cost is reversed, and the fair value of the award on the modification date is recognized over the period the employee is required to provide service to earn the award (if any). Essentially, the accounting follows the logic that the employee was terminated and forfeited the original award, but was granted a new, fully vested award.

**S8.2.3.2 Modification to accelerate vesting with no change in fair value**

As discussed in Section S8.2, modifications to accelerate vesting may result in several different types of modifications of awards: Type I, Type III, and Type IV modifications. For example, assume a company modifies an award subject to a service vesting condition to accelerate vesting. The award for 100,000 options was originally granted on 1 January 2005 and cliff vests after five years of service. The fair value of each option on the grant date was $10. Further, assume the company had previously estimated that 5% of the awards would be forfeited and compensation cost was not recognized for those awards prior to the modification.
date. Accordingly, the company recognized annual compensation cost of $190,000 (100,000 options × $10 per option × 95% expected to vest × 1/5 vesting per year).

On 1 January 2007, the award was modified so that the award is fully vested after four years of service rather than the original five-year service requirement. The fair value of the options on the modification date was $12. No other changes were made to the award, and the fair value was not impacted. As a result of the acceleration of vesting, the company now expects that 2% of the award will be forfeited.

At the modification date, we believe the modification to accelerate vesting results in three types of modifications: (1) a probable-to-probable (Type I) modification of the awards for which vesting was considered probable (95% of the award), (2) an improbable-to-probable (Type III) modification of the awards for which forfeiture was expected under the original terms (3% of the award) but is no longer expected as a result of the modification, and (3) an improbable-to-improbable (Type IV) modification for the 2% of the awards that were expected to be forfeited before the modification and still are expected to be forfeited.

The Type I modification results in no change to the measurement of the awards originally expected to vest. However, the $570,000 in remaining unrecognized compensation cost at the modification date must be recognized over the new two-year service requirement. Accordingly, $285,000 of compensation cost must be recognized for those awards in each of the next two years.

The Type III modification results in a new measurement of compensation cost (as discussed in Section S8.2.3, when vesting is modified and vesting previously was not probable, the original grant-date fair value of the award is no longer used to measure compensation cost for the award) for 3% of the awards. Therefore, compensation cost of $18,000 (100,000 options × $12 per option × 3% expected to vest × ½ vesting per year) must be recognized in each of the remaining two years.

Finally, with respect to the Type IV modification, no compensation cost will be recognized as a result of the modification because the awards are not expected to vest despite the modification. However, if the company’s estimate changes such that all or a portion of these awards are expected to vest, the company will need to recognize compensation cost of $12 per option for these awards (as discussed above, when vesting is modified and vesting previously was not probable, the original grant-date fair value of the award is no longer considered).

S8.2.4 Type IV (improbable-to-improbable) modification

Type IV modifications are not uncommon. For example, an employer may conclude that the original performance vesting conditions in an award are so far out of reach that the performance award no longer has the desired motivational effect on employees who hold the awards. As a result the employer may reduce the performance target such that the new performance condition remains a “stretch goal” (and, therefore, it may not be probable that
the new goal will be met), but the new goal is more likely to be achieved than the original performance target. As another example, it may be probable that the performance condition will be achieved, but it is expected that some portion of the awards will be forfeited because some employees will terminate before the completion of the service period. The following example from ASC 718 illustrates the accounting for such a modification. As previously discussed, because the original vesting condition was not probable of achievement at the modification date, the original grant-date fair value is no longer used to measure the compensation cost of the award.

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Awards Classified as Equity*

**Implementation Guidance and Illustrations**

**718-20-55-109**

Cases A through D are all based on the same scenario: Entity T grants 1,000 share options to each of 10 employees in the sales department. The share options have the same terms and conditions as those described in Example 1 (see paragraph 718-20-55-4) [Section S4.4.1.6], except that the share options specify that vesting is conditional upon selling 150,000 units of product A (the original sales target) over the 3-year explicit service period. The grant-date fair value of each option is $14.69 (see paragraph 718-20-55-9) [Section S4.4.1.6]. For simplicity, this Example assumes that no forfeitures will occur from employee termination; forfeitures will only occur if the sales target is not achieved. Example 15 (see paragraph 718-20-55-120) provides an additional illustration of a Type III modification.

**Case D: Type IV Improbable to Improbable Modification**

**718-20-55-118**

Based on historical sales patterns and expectations related to the future, management of Entity T believes that at the grant date it is not probable that the sales target will be achieved. On January 1, 20X7, 80,000 units of Product A have been sold. To further motivate the salespeople, the sales target is lowered to 130,000 units of Product A (the modified sales target). No other terms or conditions of the original award are modified. Entity T lost a major customer for Product A in December 20X6; hence, management continues to believe that the modified sales target is not probable of achievement. Immediately before the modification, total compensation cost expected to be recognized over the 3-year vesting period is $0 or $14.69 multiplied by the number of share options expected to vest (zero). Because no other terms or conditions of the award were modified, the modification does not affect the per-share-option fair value (assumed in this Case to be $8 at the modification date). Furthermore, the modification does not affect the number of share options expected to vest; hence, there is no incremental compensation cost associated with the modification.
This paragraph illustrates the cumulative compensation cost Entity T should recognize for the modified award based on three potential outcomes:

a. **Outcome 1** – achievement of the modified sales target. In Outcome 1, all 10,000 share options vest because the salespeople sold at least 130,000 units of Product A. In that outcome, Entity T would recognize cumulative compensation cost of $80,000 (10,000 × $8).

b. **Outcome 2** – achievement of the original sales target and the modified sales target. In Outcome 2, Entity T would recognize cumulative compensation cost of $80,000 because in a Type IV modification the original vesting condition is generally not relevant (that is, the modified award generally vests at a lower threshold of service or performance).

c. **Outcome 3** – failure to achieve either sales target. In Outcome 3, no share options vest because the modified sales target is not achieved; in that case, Entity T would recognize cumulative compensation cost of $0.

### S8.2.5 Modification to accelerate vesting on a change in control

When a company modifies an award to provide for the acceleration of vesting on a change in control, it may represent a Type I modification, a Type IV modification, or both. Modifications to provide for the acceleration of vesting on a change in control typically do not result in Type III modifications (improbable-to-probable modifications) because a change in control is not considered probable until the change in control actually happens (see further discussion in Section S4.4.2.2.1). If no other terms or conditions of the award are modified, the modification will result in a new measurement date for those awards that are expected to be forfeited, but will not impact the awards previously expected to vest.

For example, Entity A grants 100,000 options to employees on 1 January 2006. The options cliff vest at the end of four years. The grant-date fair value of each option is $5. Entity A assumes that 10% of the awards will be forfeited. On 1 January 2007, Entity A modifies the awards to provide for acceleration of vesting in the event of a change in control. The fair value of the options on the modification date is $4. No other terms or conditions of the original award are modified, and Entity A continues to believe that 10% of the awards will be forfeited. Prior to the modification, Entity A had recognized compensation cost of $112,500 (100,000 options × $5 per option × 90% expected to vest × ¼ vesting per year).

For the 90% of the options that are expected to vest, the modification represents a probable-to-probable (Type I) modification and, accordingly, does not change the measurement of compensation cost. Because the change in control is not considered probable, the requisite service period also remains unchanged. Accordingly, for these options, Entity A will continue to recognize $112,500 per year in compensation cost (assuming actual forfeitures equal estimated forfeitures).
For the 10% of options not expected to vest, an improbable-to-improbable (Type IV) modification has occurred. To the extent that these awards never vest, no compensation cost will be recognized. However, if the company’s estimate changes such that all or a portion of these awards are expected to vest, the company will need to recognize compensation cost of $4 per option for these awards (as discussed above, when vesting is modified and vesting previously was not probable, the original grant-date fair value of the award is no longer considered).

S8.3 Modifications of market conditions

The modification guidance in ASC 718-20-55-107 through 718-20-55-119 (discussed in Section S8.2) applies only to modifications of vesting conditions (e.g., service and performance conditions). ASC 718-20-55-107 clarifies that the guidance relating to Type I, II, III and IV modifications does not apply to modifications of market conditions.

The most significant difference in accounting for a modification of a market condition, compared to the accounting for a modification of a service or performance condition, arises as a result of the provisions of ASC 718-20-35-3, which states “Total recognized compensation cost for an equity award shall at least equal the fair value of the award at the grant date unless at the date of the modification the performance or service conditions of the original award are not expected to be satisfied. Thus, the total compensation cost measured at the date of a modification shall be (1) the portion of the grant-date fair value of the original award for which the requisite service is expected to be rendered (or has already been rendered) at that date plus (2) the incremental cost resulting from the modification.”

Unlike an award with a performance (or service) condition, when a market condition is modified, the probability of satisfying the original condition does not affect the total compensation cost that will be recognized. As a result, the total compensation cost recognized for a modified award with only a market condition will never be less than the grant-date fair value of the original award. Additionally, the effect of the modification on the number of instruments expected to vest must be considered when measuring incremental compensation cost. The following two examples illustrate these points.

Assume that Company X granted 1,000 options on 1 January 2005. The options have an exercise price of $15 (the market value of the shares on the grant date) and become exercisable when the Company's share price reaches $22 (a market condition). The Company used a binomial model to determine that the fair value of the options on the grant date was $4.50. The requisite service period for the award, derived from the binomial model, was 4 years. The Company estimated that 75% (or 750) of the options would vest (i.e., the Company expected that 75% of the employees that were granted options would remain employed by the Company throughout the four-year requisite service period). In 2005, the Company recognized $844 of compensation cost, calculated as $4.50 × (1,000 × 75%) × (1 year ÷ 4 years).
On 1 January 2006, when the Company’s stock price had dropped to $12, the Company modified the market condition so the options would become exercisable when the stock price reaches $17. In order to determine if the modification resulted in incremental compensation cost, the Company measured the fair value of the original award immediately before the modification, and compared that to the fair value of the modified award, $2.25 and $3.50, respectively. The requisite service period of the modified award, derived from the binomial model used to value the award, was two years. As a result of the shorter requisite service period, the Company estimated that 80% (or 800) of the options would vest. The additional 50 options that are expected to vest as a result of the modification must be included in the calculation of incremental compensation cost. Incremental compensation cost resulting from the modification is calculated as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fair value of modified option</td>
<td>$3.50</td>
</tr>
<tr>
<td>Options expected to vest (modified conditions)</td>
<td>800</td>
</tr>
<tr>
<td>Fair value of modified award</td>
<td>2,800</td>
</tr>
<tr>
<td>Fair value of original options</td>
<td>$2.25</td>
</tr>
<tr>
<td>Options expected to vest (original conditions)</td>
<td>750</td>
</tr>
<tr>
<td>Fair value of original award</td>
<td>1,688</td>
</tr>
<tr>
<td>Incremental compensation cost</td>
<td>$1,112</td>
</tr>
</tbody>
</table>

Total compensation cost relating to the modified award is calculated as the unrecognized compensation cost from the original award plus the incremental compensation cost resulting from the modification, $(3,375 – 844) + 1,112 = $3,643. The Company will recognize compensation cost of $3,643 over the new two-year requisite service period.

### S8.4 Modifications that change an award’s classification

A modification may change the balance sheet classification of an award. For example, an employee stock option that previously was classified as equity might be modified to provide the employee with the right to request cash settlement (see Chapter 5 for a discussion of the criteria for liability classification). If an entity modifies an award in that manner, ASC 718 requires that the entity account for that modification in accordance with the modification model described in ASC 718-20-35-3 and in Section S8.1. However, certain modifications are made to that “incremental fair value” model as described further below.

#### S8.4.1 Modification that changes classification from equity to a liability

Conceptually, a modification that changes an award’s classification from equity to a liability is similar to the cash settlement of an award. As discussed further in Section S8.7, cash settlements generally are accounted for as treasury-stock transactions, with the recognition of any previously measured but unrecognized compensation, as well as incremental compensation cost for any excess of the cash payment over the fair value of the award at settlement. Although conceptually similar, ASC 718 does not treat modifications that change an award’s classification from equity to a liability the same as a cash settlement.
The accounting approach for modifications that change the classification of an award from an equity instrument to a liability differs from the cash settlement accounting model in that the measure of compensation cost would include any increase in the fair value of the award between the grant date and the modification date. Accordingly, if an employer is considering converting an equity award that has increased in value to a cash award, it may wish to consider settling the award. Again, the settlement approach avoids recognizing any increases in value of the award after the grant date, while a modification that requires reclassification of an equity instrument to a liability does not.

We understand from discussions with the FASB staff that there are two key factors that must be considered in determining whether a transaction represents a settlement or a modification: (1) whether the obligation continues to be indexed to the employer’s shares and (2) whether future service is required. If either of these conditions exists, the transaction should be accounted for as a modification. If neither condition exists, the transaction is accounted for as a settlement as described in Section S8.7.

If the conversion of an equity award to a liability award is accounted for as a modification, incremental compensation cost should be measured as described in Section S8.1. The vested portion of the incremental compensation cost, if any, should be recognized at the date of the modification when the award is reclassified as a liability. ASC 718-20-35-3 requires that total recognized compensation cost for an equity award be at least equal to the grant-date fair value of the award, unless, at the date of the modification, the service or performance conditions of the original award are not expected to be satisfied. We understand from discussions with the FASB staff that when a modification results in the reclassification of an equity award to a liability award, the entity will recognize cumulative compensation cost equal to the greater of (a) the grant-date fair value of the original equity award plus any incremental compensation cost associated with the modification and (b) the fair value of the modified liability award when it is settled. This view is consistent with the principle in ASC 718 that the replacement award is a new award.

The recognition of incremental compensation cost can occur at the date of the modification even if the fair value of the liability is less than or equal to the grant-date fair value of the original award. For example, assume an employee of Company Y has a fully-vested out-of-the-money option at 31 December 20X7. The grant-date fair value of the award was $1,000. The current fair value of the award is $200. Further assume the Company agrees to modify the option to permit cash settlement and to reprice the option. The fair value of the modified award is $500. Company Y would make the following entries to reclassify the award from equity to liability at the date of the modification:

<table>
<thead>
<tr>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Compensation cost</td>
<td>$ 300</td>
</tr>
<tr>
<td>Dr. Additional paid-in capital</td>
<td>200</td>
</tr>
<tr>
<td>Cr. Liability</td>
<td>$ 500</td>
</tr>
</tbody>
</table>
The fair value of the modified award should be remeasured each reporting date through settlement. Adjustments to increase or decrease the liability are recorded either as compensation cost or as a charge to equity, as described further below. The cumulative measure of compensation cost can never be less than the sum of the grant date fair value of the original award plus the incremental compensation cost associated with the modification. The incremental compensation cost is remeasured, but only to the extent that the total fair value of the award is less than the modification date incremental compensation cost ($300 in this example).

To the extent the fair value of the liability in future periods increases by less than the amount remaining in equity from the grant date fair value of the original award ($800 in this example), any adjustment necessary to maintain the liability at fair value is recognized in equity. To the extent the fair value of the liability in future periods exceeds the sum of the amount recognized in equity for the original award plus any incremental fair value resulting from the modification, any adjustment is recognized as compensation cost. For example, if the award in the above example were settled for $1,500, the company would recognize $1,500 of cumulative compensation cost ($1,000 for the grant date fair value during the requisite service period plus $300 of incremental compensation at the modification date plus $200 for changes in the fair value of the liability after the modification date).

If the fair value of the liability at settlement is less than the sum of the grant date fair value of the original award plus the incremental compensation cost associated with the modification, but greater than the incremental compensation cost resulting from the modification, then the adjustment to decrease the liability is recognized in equity. In the above example, if the award were settled in the reporting period following the modification for $1,100 (i.e., the award is settled for less than the sum of the grant date fair value of the original award of $1,000 plus the incremental compensation cost associated with the modification of $300), $200 would be recorded in equity. In that circumstance, total compensation cost is equal to $1,300.

If the fair value of the liability at settlement is less than the incremental fair value of the modification on the modification date, any adjustment to reduce that measured incremental compensation is recognized as a reduction of compensation cost. For example, if the fair value of the award at settlement is $100, the incremental fair value is remeasured from $300 to $100 with the reduction recognized in compensation cost. The total compensation cost is equal to the remeasured incremental fair value ($100), plus the original grant date fair value of the award ($1,000), or $1,100.
The following table illustrates the compensation cost that would be recognized in the example provided above under a variety of settlement value scenarios:

<table>
<thead>
<tr>
<th>Grant date fair value</th>
<th>Fair value before modification</th>
<th>Fair value after modification</th>
<th>Fair value at settlement</th>
<th>Incremental compensation recognized at modification date</th>
<th>Compensation recognized between modification date and settlement</th>
<th>Cumulative compensation cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) $1,000</td>
<td>(B) $200</td>
<td>(C) $500</td>
<td>(D) $0</td>
<td>(E) $300</td>
<td>(F) = (A) + (E) + (F)</td>
<td>(G) $1,000</td>
</tr>
<tr>
<td>1,000</td>
<td>200</td>
<td>500</td>
<td>100</td>
<td>300</td>
<td>(200)</td>
<td>1,100</td>
</tr>
<tr>
<td>1,000</td>
<td>200</td>
<td>500</td>
<td>200</td>
<td>300</td>
<td>(100)</td>
<td>1,200</td>
</tr>
<tr>
<td>1,000</td>
<td>200</td>
<td>500</td>
<td>300</td>
<td>300</td>
<td></td>
<td>1,300</td>
</tr>
<tr>
<td>1,000</td>
<td>200</td>
<td>500</td>
<td>400</td>
<td>300</td>
<td></td>
<td>1,400</td>
</tr>
<tr>
<td>1,000</td>
<td>200</td>
<td>500</td>
<td>500</td>
<td>300</td>
<td></td>
<td>1,500</td>
</tr>
<tr>
<td>1,000</td>
<td>200</td>
<td>500</td>
<td>600</td>
<td>300</td>
<td></td>
<td>1,600</td>
</tr>
<tr>
<td>1,000</td>
<td>200</td>
<td>500</td>
<td>700</td>
<td>300</td>
<td></td>
<td>1,700</td>
</tr>
<tr>
<td>1,000</td>
<td>200</td>
<td>500</td>
<td>800</td>
<td>300</td>
<td></td>
<td>1,800</td>
</tr>
<tr>
<td>1,000</td>
<td>200</td>
<td>500</td>
<td>900</td>
<td>300</td>
<td></td>
<td>1,900</td>
</tr>
<tr>
<td>1,000</td>
<td>200</td>
<td>500</td>
<td>1,000</td>
<td>300</td>
<td></td>
<td>2,000</td>
</tr>
<tr>
<td>1,000</td>
<td>200</td>
<td>500</td>
<td>1,100</td>
<td>300</td>
<td></td>
<td>2,100</td>
</tr>
<tr>
<td>1,000</td>
<td>200</td>
<td>500</td>
<td>1,200</td>
<td>300</td>
<td></td>
<td>2,200</td>
</tr>
<tr>
<td>1,000</td>
<td>200</td>
<td>500</td>
<td>1,300</td>
<td>300</td>
<td></td>
<td>2,300</td>
</tr>
<tr>
<td>1,000</td>
<td>200</td>
<td>500</td>
<td>1,400</td>
<td>300</td>
<td>100</td>
<td>2,400</td>
</tr>
<tr>
<td>1,000</td>
<td>200</td>
<td>500</td>
<td>1,500</td>
<td>300</td>
<td>200</td>
<td>2,500</td>
</tr>
<tr>
<td>1,000</td>
<td>200</td>
<td>500</td>
<td>1,600</td>
<td>300</td>
<td>300</td>
<td>2,600</td>
</tr>
<tr>
<td>1,000</td>
<td>200</td>
<td>500</td>
<td>1,700</td>
<td>300</td>
<td>400</td>
<td>2,700</td>
</tr>
<tr>
<td>1,000</td>
<td>200</td>
<td>500</td>
<td>1,800</td>
<td>300</td>
<td>500</td>
<td>2,800</td>
</tr>
<tr>
<td>1,000</td>
<td>200</td>
<td>500</td>
<td>1,900</td>
<td>300</td>
<td>600</td>
<td>2,900</td>
</tr>
<tr>
<td>1,000</td>
<td>200</td>
<td>500</td>
<td>2,000</td>
<td>300</td>
<td>700</td>
<td>3,000</td>
</tr>
</tbody>
</table>

If a modification does not result in incremental compensation cost, then decreases in the liability award’s fair value through its settlement do not affect the amount of compensation cost recognized in future periods (i.e., compensation cost continues to be recognized based on the grant-date fair value of the equity award originally granted). Increases in the liability award’s fair value through its settlement in excess of amounts previously recognized based on the grant-date fair value of the original award are recorded as compensation cost.

Note that if the award is fully vested at the modification date, any incremental compensation arising as a result of the modification would be immediately recognized. Any subsequent

---

If (D) is less than or equal to (E), then (D) - (E) = (F). If (D) is greater than (E) but less than or equal to (A) + (E), then (F) = 0. If (D) is greater than (A) + (E), then (D) - (A) - (E) = (F).
compensation resulting from changes in the fair value of the liability award would be recognized in the period of the change in fair value.

Alternatively, if the award is not vested, the portion of incremental compensation that corresponds to the percentage of the requisite service period that has been rendered prior to the modification date would be recognized immediately, and the remainder of the incremental compensation would be recognized over the remaining requisite service period of the award. The objective underlying this principle is that, at any given point in time, the recognized compensation cost would be equal to the remeasured compensation cost times the percentage of the requisite service that has been rendered. For example, assume an employee of Company Y has an nonvested out-of-the-money option at 31 December 20X7 for which the employee has provided 25% of the requisite service. The grant-date fair value of the award was $1,000. The current fair value of the award is $200. Further assume the Company agrees to modify the option to permit cash settlement and to reprice the option. The fair value of the modified award is $500. As a result of the modification, an additional $300 of compensation is to be recognized. The award is ultimately settled for $2,000. Company Y would recognize 25% of the incremental compensation at the modification date, or $75, with the remainder ($225, or 75% of the incremental compensation) recognized over the remaining requisite service period of the award. As the award vests, Company Y would recognize the remaining $750 of compensation from the original grant date fair value measurement, $225 of incremental compensation arising from the modification, and $700 that arises as a result of subsequent remeasurement of the award.

The following examples from ASC 718 further illustrate the accounting for modifications that change the classification of an award from an equity instrument to a liability when incremental compensation cost does not arise.

**S8.4.1.1 Example — modification that changes classification from equity to a liability that continues to be indexed to employer’s shares**

*Excerpt from Accounting Standards Codification*

**Compensation — Stock Compensation — Awards Classified as Equity**

**Implementation Guidance and Illustrations**

**718-20-55-123**

Entity T grants the same share options described in Example 1, Case A (see paragraph 718-20-55-10) [See Section S4.4.1.6]. The number of options for which the requisite service is expected to be rendered is estimated at the grant date to be 821,406 (900,000 ×.97 3). For simplicity, this Case assumes that estimated forfeitures equal actual forfeitures. Thus, as shown in the table in paragraph 718-20-55-130, the fair value of the award at January 1, 20X5, is $12,066,454 (821,406 × $14.69), and the compensation cost to be recognized during each year of the 3-year vesting period is $4,022,151 ($12,066,454 ÷ 3). The journal entries for 20X5 are the same as those in paragraph 718-20-55-12. [See Section S4.4.1.6]
On January 1, 20X6, Entity T modifies the share options granted to allow the employee the choice of share settlement or net cash settlement; the options no longer qualify as equity because the holder can require Entity T to settle the options by delivering cash. Because the modification affects no other terms or conditions of the options, the fair value (assumed to be $7 per share option) of the modified award equals the fair value of the original award immediately before its terms are modified on the date of modification; the modification also does not change the number of share options for which the requisite service is expected to be rendered. On the modification date, Entity T recognizes a liability equal to the portion of the award attributed to past service multiplied by the modified award’s fair value. To the extent that the liability equals or is less than the amount recognized in equity for the original award, the offsetting debit is a charge to equity. To the extent that the liability exceeds the amount recognized in equity for the original award, the excess is recognized as compensation cost. In this Case, at the modification date, one-third of the award is attributed to past service (one year of service rendered/three-year requisite service period). The modified award’s fair value is $5,749,842 ($821,406 × $7), and the liability to be recognized at the modification date is $1,916,614 ($5,749,842 ÷ 3). The related journal entry follows.

Additional paid-in capital $1,916,614
Share-based compensation liability $1,916,614

To recognize the share-based compensation liability.

No entry would be made to the deferred tax accounts at the modification date. The amount of remaining additional paid-in capital attributable to compensation cost recognized in 20X5 is $2,105,537 ($4,022,151 – $1,916,614).

Paragraph 718-20-35-3(b) specifies that total recognized compensation cost for an equity award shall at least equal the fair value of the award at the grant date unless at the date of the modification the service or performance conditions of the original award are not expected to be satisfied. In accordance with that principle, Entity T would ultimately recognize cumulative compensation cost equal to the greater of the following:

a. The grant-date fair value of the original equity award
b. The fair value of the modified liability award when it is settled.
718-20-55-127
To the extent that the recognized fair value of the modified liability award is less than the recognized compensation cost associated with the grant-date fair value of the original equity award, changes in that liability award’s fair value through its settlement do not affect the amount of compensation cost recognized. To the extent that the fair value of the modified liability award exceeds the recognized compensation cost associated with the grant-date fair value of the original equity award, changes in the liability award’s fair value are recognized as compensation cost.

718-20-55-128
At December 31, 20X6, the fair value of the modified award is assumed to be $25 per share option; hence, the modified award’s fair value is $20,535,150 (821,406 × $25), and the corresponding liability at that date is $13,690,100 ($20,535,150 × 2/3) because two-thirds of the requisite service period has been rendered. The increase in the fair value of the liability award is $11,773,486 ($13,690,100 – $1,916,614). Before any adjustments for 20X6, the amount of remaining additional paid-in capital attributable to compensation cost recognized in 20X5 is $2,105,537 ($4,022,151 – $1,916,614). The cumulative compensation cost at December 31, 20X6, associated with the grant-date fair value of the original equity award is $8,044,302 ($4,022,151 × 2). Entity T would record the following journal entries for 20X6.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation cost</td>
<td>$9,667,949</td>
</tr>
<tr>
<td>Additional paid-in capital</td>
<td>$2,105,537</td>
</tr>
<tr>
<td>Share-based compensation liability</td>
<td>$11,773,486</td>
</tr>
</tbody>
</table>

To increase the share-based compensation liability to $13,690,100 and recognize compensation cost of $9,667,949 ($13,690,100 – $4,022,151).

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deferred tax asset</td>
<td>$3,383,782</td>
</tr>
<tr>
<td>Deferred tax benefit</td>
<td>$3,383,782</td>
</tr>
</tbody>
</table>

To recognize the deferred tax asset for additional compensation cost ($9,667,949 × .35 = $3,383,782).

718-20-55-129
At December 31, 20X7, the fair value is assumed to be $10 per share option; hence, the modified award’s fair value is $8,214,060 (821,406 × $10), and the corresponding liability for the fully vested award at that date is $8,214,060. The decrease in the fair value of the liability award is $5,476,040 ($8,214,060 – $13,690,100). The cumulative compensation cost as of December 31, 20X7, associated with the grant-date fair value of the original equity award is $12,066,454 (see paragraph 718-20-55-123). Entity T would record the following journal entries for 20X7.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation cost</td>
<td>$9,667,949</td>
</tr>
<tr>
<td>Additional paid-in capital</td>
<td>$2,105,537</td>
</tr>
<tr>
<td>Share-based compensation liability</td>
<td>$11,773,486</td>
</tr>
</tbody>
</table>

To increase the share-based compensation liability to $13,690,100 and recognize compensation cost of $9,667,949 ($13,690,100 – $4,022,151).

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deferred tax asset</td>
<td>$3,383,782</td>
</tr>
<tr>
<td>Deferred tax benefit</td>
<td>$3,383,782</td>
</tr>
</tbody>
</table>

To recognize the deferred tax asset for additional compensation cost ($9,667,949 × .35 = $3,383,782).
To recognize a share-based compensation liability of $8,214,060, a reduction of compensation cost of $1,623,646 ($13,690,100 − $12,066,454), and additional paid-in capital of $3,852,394 ($12,066,454 − $8,214,060).

Deferred tax expense $568,276
Deferred tax asset $568,276

To reduce the deferred tax asset for the reduction in compensation cost ($1,623,646 × .35 = $568,276).

### 718-20-55-130

<table>
<thead>
<tr>
<th>Year</th>
<th>Total value of award</th>
<th>Pretax cost for year</th>
<th>Cumulative pretax cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>20X5</td>
<td>$12,066,454 (821,406 × $14.69) $4,022,151 ($12,066,454 ÷ 3)</td>
<td>$4,022,151</td>
<td></td>
</tr>
<tr>
<td>20X6</td>
<td>$20,535,150 (821,406 × $25.00) $9,667,949 [($20,535,150 × ⅔) − $4,022,151]</td>
<td>$13,690,100</td>
<td></td>
</tr>
<tr>
<td>20X7</td>
<td>$12,066,454 (821,406 × $14.69) $(1,623,646) ($12,066,454 − $13,690,100)</td>
<td>$12,066,454</td>
<td></td>
</tr>
</tbody>
</table>

### 718-55-20-131

For simplicity, this Case assumes that all share option holders elected to be paid in cash on the same day, that the liability award’s fair value is $10 per option, and that Entity T has already recognized its income tax expense for the year without regard to the effects of the settlement of the award. In other words, current tax expense and current taxes payable were recognized based on income and deductions before consideration of additional deductions from settlement of the award.

### 718-55-20-132

The $8,214,060 in cash paid to the employees on the date of settlement is deductible for tax purposes. In the period of settlement, tax return deductions that are less than compensation cost recognized result in a charge to income tax expense except to the extent that there is any remaining additional paid-in capital from excess tax benefits from previous share-based payment awards available to offset that deficiency. The entity has sufficient taxable income, and the tax benefit realized is $2,874,921 ($8,214,060 × .35). As tax return deductions are less than compensation cost recognized, the entity must write off the deferred tax assets recognized in excess of the tax benefit ultimately realized from the exercise of employee stock options. Entity T has sufficient paid-in capital available from excess tax benefits from previous share-based payment awards to offset the entire tax deficiency. (See Subtopic 718-740 for guidance on the treatment of income taxes on employee stock compensation.) Therefore, the result is a debit to additional paid-in capital. The journal entries to reflect settlement of the share options are as follows.
### Share-based compensation liability

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share-based compensation liability</td>
<td>$8,214,060</td>
</tr>
<tr>
<td>Cash ($10 × 821,406)</td>
<td>$8,214,060</td>
</tr>
</tbody>
</table>

To recognize the cash paid to settle share options.

### Deferred tax expense

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deferred tax expense</td>
<td>$4,223,259</td>
</tr>
<tr>
<td>Deferred tax asset</td>
<td>$4,223,259</td>
</tr>
</tbody>
</table>

To write off deferred tax asset related to compensation cost ($12,066,454 × .35 = $4,223,259).

### Current taxes payable

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current taxes payable</td>
<td>$2,874,921</td>
</tr>
</tbody>
</table>

### Additional paid-in capital

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional paid-in capital</td>
<td>$1,348,338</td>
</tr>
<tr>
<td>Current tax expense</td>
<td>$4,223,259</td>
</tr>
</tbody>
</table>

To adjust current tax expense and current taxes payable for the tax benefit from deductible compensation cost upon settlement of share options.

#### 718-20-55-133

If instead of requesting cash, employees had held their share options and those options had expired worthless, the share-based compensation liability account would have been eliminated over time with a corresponding increase to additional paid-in capital. Previously recognized compensation cost would not be reversed. Similar to the adjustment for the actual tax deduction realized described in the preceding paragraph, all of the deferred tax asset of $4,223,259 would be charged to income tax expense except to the extent that there was any remaining paid-in capital available from excess tax benefits from previous share-based payment awards available to offset that deficiency when the share options expired.

### S8.4.1.2 Example — Modification that changes classification from equity to a liability not indexed to the company’s shares

#### Excerpt from Accounting Standards Codification

**Compensation — Stock Compensation — Awards Classified as Equity**

**Implementation Guidance and Illustrations**

**718-20-55-144**

Entity T grants the same share options described in Example 1, Case A (see paragraph 718-20-55-10) [See Section S4.4.1.6] and records similar journal entries for 20X5 (see paragraphs 718-20-55-12 through 55-16). By January 1, 20X6, Entity T’s share price has fallen, and the fair value per share option is assumed to be $2 at that date. Entity T provides its employees with an election to convert each share option into an award of a fixed amount of cash equal to the fair value of each share option on the election date ($2) accrued over the remaining requisite service period, payable upon vesting. The election does not affect vesting; that is, employees must satisfy the original service condition to vest in the award for a fixed amount of cash. This transaction is considered a modification because Entity T
continues to have an obligation to its employees that is conditional upon the receipt of future employee services. There is no incremental compensation cost because the fair value of the modified award is the same as that of the original award. At the date of the modification, a liability of $547,604 \((821,406 \times $2) \times (1 \text{ year of requisite service rendered} ÷ 3\text{-year requisite service period})\), which is equal to the portion of the award attributed to past service multiplied by the modified award’s fair value, is recognized by reclassifying that amount from additional paid-in capital. The total liability of $1,642,812 \(821,406 \times $2\) should be fully accrued by the end of the requisite service period. Because the possible tax deduction of the modified award is capped at $1,642,812, Entity T also must adjust its deferred tax asset at the date of the modification to the amount that corresponds to the recognized liability of $547,604. That amount is $191,661 \(547,604 \times .35\), and the write-off of the deferred tax asset is $1,216,092 \(1,407,753 - 191,661\). That write-off would be recognized in the income statement except to the extent that there is any remaining additional paid-in capital from excess tax benefits from previous share-based payment awards available to offset that deficiency. Compensation cost of $4,022,151 and a corresponding increase in additional paid-in capital would be recognized in each of 20X6 and 20X7 for a cumulative total of $12,066,454 (as calculated in Case A); however, that compensation cost has no associated income tax effect (additional deferred tax assets are recognized based only on subsequent increases in the amount of the liability).

In this example, the fair value of the equity award declined between the grant date and the modification date. If the fair value had increased instead, the liability amount in excess of the grant-date fair value also would be recognized as compensation cost. As discussed earlier in Section S8.4.1, the FASB’s model for modifications differs significantly from its model for cash settlements with regard to increases in stock price between the grant date and the modification or settlement date.

It should be noted that because the liability instrument in this example has a fixed pay-off, any excess deferred tax assets (i.e., any deferred tax assets recognized based on the amount of recognized compensation in excess of the fixed pay-off amount) should be written off at the modification date based on the overall model described in Chapter 10. In that case, no future tax benefits would be recognized in connection with the recognition of future compensation cost because, again, the overall tax benefit is limited by the amount of the fixed-cash payment. This accounting is different from other share-based payments in which the ultimate tax deduction is based on the value of the employer’s shares.
S8.4.2 Modification that changes classification from a liability to equity

The model for modifications that causes liability awards to become equity awards is much simpler than the model described in Section S8.4.1 because it does not require consideration of the grant-date fair value of the liability. Rather, the modification is effectively accounted for as the grant of an equity award in settlement of a liability, as illustrated in the following example:

S8.4.2.1 Example — modification that changes classification from a liability to equity

Excerpt from Accounting Standards Codification

Compensation — Stock Compensation — Awards Classified as Equity
Implementation Guidance and Illustrations

718-20-55-135
This Case is based on the facts given in Example 1 (see paragraph 718-30-55-1) [see Section S5.4.1]. Entity T grants cash-settled stock appreciation rights to its employees. The fair value of the award on January 1, 20X5, is $12,066,454 (821,406 × $14.69) (see paragraph 718-30-55-2).

718-20-55-136
On December 31, 20X5, the assumed fair value is $10 per stock appreciation right; hence, the fair value of the award at that date is $8,214,060 (821,406 × $10). The share-based compensation liability at December 31, 20X5, is $2,738,020 ($8,214,060 ÷ 3), which reflects the portion of the award related to the requisite service provided in 20X5 (1 year of the 3-year requisite service period). For convenience, this Case assumes that journal entries to account for the award are performed at year-end. The journal entries for 20X5 are as follows.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation cost</td>
<td>$ 2,738,020</td>
</tr>
<tr>
<td>Share-based compensation liability</td>
<td>$ 2,738,020</td>
</tr>
<tr>
<td>To recognize compensation cost.</td>
<td></td>
</tr>
<tr>
<td>Deferred tax asset</td>
<td>$ 958,307</td>
</tr>
<tr>
<td>Deferred tax benefit</td>
<td>$ 958,307</td>
</tr>
<tr>
<td>To recognize the deferred tax asset for the temporary difference related to compensation cost ($2,738,020 × .35 = $958,307).</td>
<td></td>
</tr>
</tbody>
</table>

718-20-55-137
On January 1, 20X6, Entity T modifies the stock appreciation rights by replacing the cash-settlement feature with a net share settlement feature, which converts the award from a liability award to an equity award because Entity T no longer has an obligation to transfer cash to settle the arrangement. Entity T would compare the fair value of the instrument immediately before the modification to the fair value of the modified award and recognize any
incremental compensation cost. Because the modification affects no other terms or conditions, the fair value, assumed to be $10 per stock appreciation right, is unchanged by the modification and, therefore, no incremental compensation cost is recognized. The modified award’s total fair value is $8,214,060. The modified award would be accounted for as an equity award from the date of modification with a fair value of $10 per share. Therefore, at the modification date, the entity would reclassify the liability of $2,738,020 recognized on December 31, 20X5, as additional paid-in capital. The related journal entry is as follows.

```
Share-based compensation liability $ 2,738,020
Additional paid-in capital $ 2,738,020
```
To reclassify the award as equity.

718-20-55-138
Entity T will account for the modified awards as equity going forward following the pattern given in Example 1, Case A (see paragraph 718-20-55-1) [see Section S4.4.1.6], recognizing $2,738,020 of compensation cost in each of 20X6 and 20X7, for a cumulative total of $8,214,060.

S8.4.3 Exchange of share-based payments for a combination of cash and modified equity instruments

In certain circumstances an employer may wish to exchange an outstanding employee stock option for a combination of a new equity award and cash. Generally, such an exchange should be accounted for as a combination of a modification and a cash settlement. Incremental compensation cost must be recognized to the extent that the combination of the fair value of the new equity award and the cash exceeds the fair value of the stock options before the modification. Additionally, the cash settlement may result in an acceleration of previously measured but unrecognized compensation cost. In certain circumstances, if the cash payment is subject to vesting or is indexed to the employer's stock, the cash payment will continue to be accounted for pursuant to ASC 718 as a modification that causes liability accounting for a portion of the award (rather than a cash settlement accounted for similar to a treasury stock transaction).

S8.4.3.1 Example – All options are vested before modification; options and cash are vested after modification

Company X grants 100,000 employee stock options with an exercise price of $10 per share. The fair value of the employer’s stock on the date of grant is $11 and the fair value of the options is $4 per option. The company offers to exchange the original employee stock options for 100,000 new options with an exercise price of $11 (the fair value of the shares on the original grant date) and a fair value of $5.20 per option and $1 per option in cash to be paid in three months. The employee need not be employed in three months to receive the cash payment. Immediately prior to the modification, the 100,000 options have a fair value of $6 per share.
The total consideration the employees will receive for their original options is $620,000. This value exceeds the fair value of the options immediately before the modification/settlement and, accordingly, the $20,000 in incremental fair value must be recognized as compensation cost on the modification/settlement date.

**S8.4.3.2 Example — Options were nonvested before modification; cash consideration is vested**

If options are not vested prior to modification, additional complexities arise in that the payment of fully vested cash effectively accelerates vesting for a portion of the award (see 718-20-35-7 and Section S8.7). Assume the facts in example in Section S8.4.3.1. Also assume that the options originally were subject to a five-year cliff vesting period, and had a remaining service period of two years at the date of the modification. After the modification, the options have a two-year remaining service period. The cash payment is fully vested.

The employer must determine what portion of the original award has been cash settled and how much unrecognized compensation cost remains to be recognized for that portion of the award. While we believe that there may be several ways to perform this calculation, we have illustrated one approach below that we believe is acceptable:

Under this approach, the cash consideration of $100,000 is first allocated to the incremental compensation cost ($20,000) that is recognized on the modification/settlement date, with the remainder ($80,000) considered a settlement of a portion of the award equal to the value of the cash ($80,000) divided by the fair value of the award immediately before the modification ($600,000), which results in a conclusion that 13.33% of the award was settled. That fraction is then multiplied by the originally measured compensation cost of $400,000, resulting in the settlement of $53,333 of the award. Because on the date of the modification 60% of the requisite service period had elapsed, 40% of the compensation cost for this portion of the award was unrecognized. Accordingly, in addition to the $20,000 in incremental compensation cost, an additional $21,333 (53,333 × 40%) in compensation cost would be recognized on the date of the modification/settlement for the partial acceleration of vesting.

The total compensation cost to be recognized for the award can be summarized as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation cost recognized before the modification</td>
<td>$240,000</td>
</tr>
<tr>
<td>Incremental cash compensation cost to be recognized on the modification date</td>
<td>20,000 ($620,000 - $600,000)</td>
</tr>
<tr>
<td>Acceleration of compensation cost to be recognized on the modification/settlement date</td>
<td>21,333 ($400,000 × 0.1333 × 40%)</td>
</tr>
<tr>
<td>Remaining compensation cost to be recognized over the remaining service period</td>
<td>138,667 ($400,000 × (1 - 0.1333) × 40%)</td>
</tr>
<tr>
<td>Total compensation cost</td>
<td>$420,000</td>
</tr>
</tbody>
</table>
S8.4.3.3 Options were nonvested before modification, cash consideration is subject to vesting

Assume the same facts as in the preceding example, except that the cash payment is subject to vesting over the same period the options are subject to vesting (two years from the modification date). As discussed in 718-20-55-144 and in Section S8.4.1.2 of the FRD, the exchange of a nonvested cash payment for nonvested equity awards is considered a modification that changes the classification of the award (or, in this case, a portion of the award) from an equity award to a liability. Under ASC 718, the liability must be recorded at fair value (for nonvested awards, the fair value of the award multiplied by the proportion of the service period that has elapsed), and to the extent that the fair value of the modified portion of the award is greater than the fair value of that portion of the award on the grant date, additional compensation cost must be recognized. However, the compensation cost for the liability subsequently will not be remeasured because the amount of the cash payment is fixed.

As in the previous example, $20,000 ($620,000 − $600,000) of incremental compensation cost is measured but, because that consideration is subject to vesting, it is recognized over the two-year service period. Additionally, 13.33% ($80,000 / $600,000) of the award has been modified such that liability classification is required. The original grant date fair value of that portion of the award was $53,333 ($400,000 × 13.33%), of which $21,333 (40%) has not yet been recognized and $32,000 (60%) has been recognized to date. However, because the portion of the award originally measured at $53,333 will be settled for $80,000, additional incremental fair value of $26,667 also must be recognized. Further, based on the guidance in 718-20-55-124, the compensation cost for the liability component must be trued up on the modification date based on the fair value of the award at that date and the portion of the service period that has elapsed. Accordingly, because 60% of the service period has passed and the fair value of the liability component is $80,000, a liability of $48,000 must be recognized on the balance sheet on the modification date. Because only $32,000 of compensation cost has been recognized through the modification date, an additional $16,000 ($26,667 × 60%) in compensation cost must be recognized on the modification date.

The total compensation cost to be recognized for the award can be summarized as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation cost recognized before the modification</td>
<td>$240,000 ($400,000 × 60%)</td>
</tr>
<tr>
<td>Compensation cost to be recognized on the modification date for the modified liability component</td>
<td>16,000 ($26,667 × 60%)</td>
</tr>
<tr>
<td>Incremental liability compensation cost to be recognized over the remaining service period</td>
<td>20,000 ($620,000 − $600,000)</td>
</tr>
<tr>
<td>Compensation cost for the modified liability component to be recognized over the remaining service period</td>
<td>21,333 32,000 ($80,000 − $32,000 − $16,000)</td>
</tr>
<tr>
<td>Compensation cost for the equity component to be recognized over the remaining service period</td>
<td>138,667 138,667 ($400,000 × (1 − .1333) × 40%)</td>
</tr>
<tr>
<td>Total compensation cost</td>
<td><strong>$446,667</strong> ($400,000 × .8667 + $100,000)</td>
</tr>
</tbody>
</table>
S8.5 Inducements

A short-term inducement is defined as “an offer by the entity that would result in modification of an award to which an award holder may subscribe for a limited period of time.” ASC 718 specifies the following accounting for a short-term inducement:

Excerpt from Accounting Standards Codification

| Compensation – Stock Compensation – Awards Classified as Equity |
| Subsequent Measurement |
| 718-20-35-5 |
| A short-term inducement shall be accounted for as a modification of the terms of only the awards of employees who accept the inducement. Other inducements are modifications of the terms of all awards subject to them and shall be accounted for as such. |

As a result of the above guidance, the modification accounting model should be applied differently to short-term and long-term inducements. Short-term inducements are to be treated as modifications only for award holders who accept the inducement offer. Long-term inducements will result in modifications of all awards subject to the inducement offer, regardless of whether the employee accepts the inducement offer. That is, the modification model described in this chapter should be applied to short-term and long-term inducements on the acceptance and offer dates, respectively. The FASB has provided little guidance to help determine whether an inducement is short term or long term except to state that a short-term inducement is one that is available for a “limited period of time.” Based on past practices with respect to offers to cancel and replace options, we would not expect the offer period of a short-term inducement to extend beyond a few months. More specifically, we would not expect the offer period for a short-term inducement to extend beyond (a) the period sufficient to allow the employee to receive, consider, and accept the offer, or (b) to comply with any offering period specified in applicable securities laws.

S8.6 Equity restructurings

The glossary of ASC 718 defines an equity restructuring as follows:

Excerpt from Accounting Standards Codification

| Compensation – Stock Compensation – Overall |
| Glossary |
| 718-10-20 |
| A nonreciprocal transaction between an entity and its shareholders that causes the per-share fair value of the shares underlying an option or similar award to change, such as a stock dividend, stock split, spinoff, rights offering, or recapitalization through a large, nonrecurring cash dividend. |
ASC 718 provides that a change to the terms of an award as a result of an equity restructuring is accounted for as a modification regardless of whether the terms of the award provide for an adjustment in the event of an equity restructuring. Further, a modification to add antidilution protection to an award also is a modification:

Excerpt from Accounting Standards Codification

**Compensation — Stock Compensation — Awards Classified as Equity**

**Subsequent Measurement**

718-20-35-6

Exchanges of share options or other equity instruments or changes to their terms in conjunction with an equity restructuring or a business combination are modifications for purposes of this Subtopic. Except for a modification to add an antidilution provision that is not made in contemplation of an equity restructuring, accounting for a modification in conjunction with an equity restructuring requires a comparison of the fair value of the modified award with the fair value of the original award immediately before the modification in accordance with paragraph 718-20-35-3. If those amounts are the same, for instance, because the modification is designed to equalize the fair value of an award before and after an equity restructuring, no incremental compensation cost is recognized. Example 13 (see paragraph 718-20-55-103) [Included in Section S8.6.1, S8.6.2 and S8.6.3] provides further guidance on applying the provisions of this paragraph. See paragraph 718-10-35-10 for an additional exception.

We discuss these concepts in connection with the examples that follow. The accounting model for a modification made in connection with an equity restructuring focuses on whether the modification (either the addition of an antidilution feature or the adjustment resulting from the equity restructuring) impacts the value of the award. For example, if an award includes a mandatory antidilution feature designed to equalize the fair value of the award as a result of an equity restructuring, the actual adjustment resulting from the equity restructuring would not impact the fair value of the award (because the adjustment was anticipated and, therefore, contemplated in the value of the award immediately before the equity restructuring).

Some plan documents provide that the company must make an equitable adjustment in the event of an equity restructuring, but there is discretion in how that adjustment is determined. For example, in the event of a large nonrecurring cash dividend, the company could choose to adjust the strike price and number of shares underlying the options to keep the employee whole, or make a cash payment to the employee and not adjust the terms of the option. We believe that as long as an equitable adjustment is required (even if some discretion is permitted in how to make an equitable adjustment), in many cases no incremental compensation cost will result from the modification. Conversely, if the company has the discretion to choose to not make the adjustment, the adjustment is not required, and significant incremental compensation cost generally will result. Because of the
dramatically different accounting resulting from a modification in connection with an equity restructuring when an award provides for mandatory antidilution protection compared to when such protection is offered at the discretion of the company, companies should reexamine all their awards to determine whether it is appropriate to add, or modify, antidilution protection for those awards that do not currently include, or require, such protection. When contemplating such a modification, the company also should consider any tax implications of the modification (e.g., potential disqualification of incentive stock options).

S8.6.1 Modification to add an antidilution protection to an award

<table>
<thead>
<tr>
<th>Excerpt from Accounting Standards Codification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Compensation – Stock Compensation – Awards Classified as Equity</strong></td>
</tr>
<tr>
<td>Implementation Guidance and Illustrations</td>
</tr>
<tr>
<td>718-20-55-2</td>
</tr>
</tbody>
</table>

In accordance with paragraph 718-20-35-6, accounting for a modification in conjunction with an equity restructuring requires a comparison of the fair value of the modified award with the fair value of the original award immediately before the modification, except as follows. If an award is modified to add an antidilution provision (that is, a provision designed to equalize an award’s value before and after an equity restructuring) and that modification is not made in contemplation of an equity restructuring, a comparison of the fair value of the modified award and the fair value of the original award immediately before the modification is not required. Example 13 (see paragraph 718-20-55-103) provides additional guidance on accounting for modifications of awards in the context of equity restructurings.

Conceptually, the addition of antidilution protection increases the fair value of an award. However, if an equity restructuring transaction is not anticipated, the FASB assumed that a market participant would not place significant value on that feature, and the valuation impact of the feature would be difficult to determine. Accordingly, the FASB concluded that it was not necessary to perform the “before and after” calculation required by ASC 718-20-35-3 in the above example. However, as discussed in the example in Section S8.6.2, if the antidilution feature is added to an award in contemplation of an equity restructuring, there would be significant value in that added feature. Accordingly, paragraph 51’s “before and after” calculation must be performed in this circumstance. This “before” calculation would reflect the lack of antidilution protection and the expectation that the value of the award will be diluted as a result of the anticipated equity restructuring; the “after” calculation would assume no dilution because of the protection provided by the added antidilution feature. The incremental fair value generally will approximate the present value of the anticipated distribution(s).
S8.6.2  Awards are adjusted and original award does not contain antidilution provisions or award provides for discretionary adjustment

As discussed in Section S8.6.1, a modification to add antidilution protection to an award in anticipation of an equity restructuring will result in incremental fair value and incremental compensation cost. As a result, the impact of the modification to add the antidilution protection and the impact of the adjustment resulting from the equity restructuring must be measured and recognized as described in the following example:

---

**Excerpt from Accounting Standards Codification**

*Compensation — Stock Compensation — Awards Classified as Equity*

**Implementation Guidance and Illustrations**

**Case B: Original Award Does Not Contain Antidilution Provisions**

**718-20-55-105**

In this Case, the original award does not contain antidilution provisions. On May 1 there is an announcement of a future equity restructuring. On July 26 the terms of an award are modified to add antidilution provisions in contemplation of an equity restructuring. On September 30 the equity restructuring occurs. In this Case, there are two modifications to account for. The first modification occurs on July 26, when the terms of the award are changed to add antidilution provisions. Because the modification to add antidilution provisions on July 26 is done in contemplation of an equity restructuring, there must be a comparison of the fair value of the award pre- and postmodification on July 26. The premodification fair value is based on the award without antidilution provisions taking into account the effect of the contemplated restructuring on its value. The postmodification fair value is based on an award with antidilution provisions, taking into account the effect of the contemplated restructuring on its value. [See further discussion of this calculation in Section 8.6.1] Any incremental value transferred would be recognized as additional compensation cost. Once the equity restructuring occurs, there is a second modification event on September 30 when the terms of the award are changed in accordance with the antidilution provisions. A second comparison of pre- and postmodification fair values is then required to determine whether any incremental value is transferred as a result of the modification. Changes to the terms of an award in accordance with its antidilution provisions generally would not result in additional compensation cost if the antidilution provisions were properly structured. The incremental value transferred, if any, would be recognized as additional compensation cost.
Case C: Original Award Does Not Contain an Antidilution Provision but Is Modified on the Date of Equity Restructuring

Assume the same facts as in Case B except the terms of the awards are modified on the date of the equity restructuring, September 30. In contrast to Case B in which there are two separate modifications, there is one modification that occurs on September 30 and the fair value is compared pre- and postmodification to determine whether any incremental value is transferred as a result of the modification. Any incremental value transferred would be recognized as additional compensation cost.

Assuming the terms of the equity restructuring transaction were announced prior to the modification to add antidilution protection, we believe that the incremental fair value recognized in both of the examples described above would be approximately the same. As discussed in Section S8.6.1, the incremental fair value would approximate the present value (in the first example) or the actual value (in the second example) of the expected distribution.

As previously discussed, some plans provide that any anti-dilution adjustments are made at the discretion of the compensation committee or board of directors. If the adjustment is not required, the award should be treated as if no antidilution protection is provided. In some cases it may not be clear whether the company’s discretion involves whether an adjustment must be made (which would result in incremental compensation cost) or how the adjustment must be made (which in most cases would not cause incremental compensation cost). If the language in the plan document is not clear, we believe that a legal determination must be made whether an adjustment is required with respect to the anticipated equity restructuring transaction. We believe it generally will be appropriate to obtain the opinion of legal counsel as to whether or not an equitable adjustment is required in connection with the contemplated equity restructuring transaction. If legal counsel is unable to offer an opinion that the adjustment is required, then we would conclude that an adjustment is not required and therefore the modification will result in incremental compensation cost as illustrated in the example above. If legal counsel provides an opinion that an anti-dilution adjustment is required for the contemplated transaction, the following additional factors also should be considered:

Understanding of compensation committee or board of directors – If the compensation committee or board of directors believes that they do not have discretion in determining whether or not an adjustment must be made, this would be an indicator that an adjustment is required.

Past Practice – If the company has in the past consistently made equitable adjustments for similar equity restructuring transactions, this would be an indicator that an adjustment is required.
S8.6.3 Original award contains antidilution provisions

The following example from ASC 718 describes how and when the compensation cost associated with an adjustment for an equity restructuring is measured when the award provides for antidilution protection. As previously discussed, if an award includes an antidilution feature designed to equalize the fair value of the award as a result of an equity restructuring, the actual adjustment resulting from the equity restructuring normally would not impact the fair value of the award (because the adjustment was anticipated and therefore contemplated in the value of the award immediately before the equity restructuring):

Excerpt from Accounting Standards Codification

*Compensation — Stock Compensation — Awards Classified as Equity*

Implementation Guidance and Illustrations

*Case A: Original Award Contains Antidilution Provisions*

718-20-55-104

In this Case, assume an award contains antidilution provisions. On May 1 there is an announcement of a future equity restructuring. On October 12 the equity restructuring occurs and the terms of the award are modified in accordance with the antidilution provisions. In this Case, the modification occurs on October 12 when the terms of the award are changed. The fair value of the award is compared pre- and postmodification on October 12. The calculation of fair value is necessary to determine if there is any incremental value transferred as a result of the modification, and if so, that incremental value would be recognized as additional compensation cost. If there is no incremental fair value, no additional compensation cost would be recognized.

Conceptually, if an award provides for an adjustment as a result of a transaction like an equity restructuring and that transaction is contemplated in advance, the measurement of the fair value of the award immediately before the change in terms will always approximate the fair value of the award after the change (because a market participant would have anticipated that change). However, because there is significant discretion involved in whether a company makes a nonreciprocal transfer like a cash dividend or a spinoff, we believe that this logic should only apply when the provisions of the award are designed to maintain the value of the award in the event of an equity restructuring. For example, if the “antidilution” feature provided for an adjustment to an employee award designed to double the value of a cash dividend, we believe that the excess value should be recognized as incremental compensation cost, even though a hypothetical trading price of the instrument would contemplate this adjustment immediately before the dividend is paid. In effect, the feature is designed to provide incremental value to the employee whenever a dividend is paid.

Most employee stock options provide for antidilution adjustments to be calculated based on the intrinsic value of an award rather than its fair value. While in the past the use of intrinsic value was at least in part intended to address the accounting requirements of Opinion 25’s
intrinsic-value model, we expect that many antidilution adjustments will continue to be based on intrinsic value even under ASC 718’s fair-value model. This is in part because the intrinsic value approach is more objective and, therefore, less subject to disputes over the required adjustment, which is one of the reasons why antidilution protection included in warrants and similar instruments sold to investors typically is based on intrinsic value. We believe that if antidilution protection is designed to maintain the same aggregate intrinsic value and ratio of intrinsic value to fair value, the actual adjustment resulting from the operation of that feature in most cases would not result in incremental compensation cost. However, in the event of a spin-off in which options are adjusted such that the grantee does not receive proportionate interests in both the spinnor and spinnee, incremental compensation could result. For example, if in connection with a spin-off, employees receive options only on the stock of the spinnee and the expected volatility of the spinnee’s stock is significantly higher than the expected volatility of the pre-spin company, maintaining the intrinsic value will lead to the employees receiving options with a greater fair value than those they held before the spin-off transaction.

S8.6.3.1 Adjustments in connection with a spinoff
The adjustment to an award illustrated in the example described in 718-20-55-104 (included in the preceding section) normally would not impact the fair value of an award because the adjustment was already provided for in the terms of the award and the adjustment is intended to maintain the same value before and after the equity restructuring. However, in some cases, the manner in which the adjustment is calculated could result in incremental fair value. Specifically, the issue of what are the appropriate stock prices to use in the analysis based on timing of events associated with a spinoff must be considered. That is, what stock price of the spinnor’s stock should be used to determine the fair value immediately before the spinoff, and what prices of the spinnor’s and spinnee’s stock should be used to determine the fair value immediately after the spinoff?

The SEC staff previously provided guidance on the stock prices that should be used to determine whether the equity restructuring criteria in Interpretation 44 are met, and we believe that this guidance should also be considered in connection with the measurement of incremental value under ASC 718. In a staff speech from the AICPA’s Twenty-Sixth Annual National Conference on Current SEC Developments in 1998, the SEC staff noted that the parent company’s stock price to use in the analysis should be based on the price for the parent company’s stock immediately before and after the distribution of the spinnee’s shares, as follows:

► The fair market value of the parent’s stock immediately before the modification should be the price immediately before the distribution of the spinnee’s shares of stock. Generally, the distribution of the spinnee’s shares will occur after the exchange closes on the distribution date (also commonly referred to as the “record date”). In these cases, the closing price on the distribution date of the parent company’s stock is the fair market value of the stock immediately before the modification to be used in the analysis.
The parent company's stock often will begin trading “ex-dividend” approximately three days prior to the distribution date, and will trade “ex-dividend” until the distribution occurs. As a result, the price at which the parent company's stock closes on the distribution date may already exclude the value of the spinnee. If that is the case, and the spinnee's stock is trading on a “when issued” basis, the distribution-date closing price of the spinnee's stock (adjusted as appropriate if the number of shares of the spinnee to be distributed differs from the outstanding shares of the parent) should be added to the market price of the parent's stock to determine the fair value of the stock immediately before the modification. Alternatively, if the parent's stock is trading “with due bills” (i.e., with rights to the dividend of spinnee stock), then that closing stock price may be used.

The fair value of the stock to be used in the analysis “immediately after the modification” is calculated as follows:

- For awards in the former parent's stock, the fair value of the parent company's stock immediately after the modification should be based on the closing price on the distribution date, adjusted to reflect the distribution of the spinnee’s shares (no adjustment is necessary if the parent's stock price is quote on an “ex-dividend” basis as described above). If the spinnee's stock is traded on a when-issued basis prior to the distribution date, the company can determine the “adjusted” parent company stock’s fair value by deducting the closing price of the spinnee’s stock (adjusted as appropriate if the number of shares of the spinnee to be distributed differs from the outstanding shares of the parent) from the closing price of the parent company’s stock on the distribution date.

  If the parent's stock did not trade on an ex-dividend basis and the spinnee's stock is not traded on a when-issued basis, the fair value of the parent company's stock “immediately after” the modification is the opening price on the first trading date following the distribution date.

- For awards in the spinnee’s stock, the fair value of the spinnee company’s stock immediately after the modification should be based on the closing price of the stock on the distribution date, if traded on a when-issued basis. If the spinnee company's stock is not traded on a when-issued basis prior to the distribution date, the fair value of the stock immediately after the modification should be the opening price on the first trading date following the distribution date.

The SEC staff has made clear that the stock prices to be used in performing this analysis must be at a point in time. That is, if the registrant bases the adjustment on average stock prices of the spinnee's or the spinnee's stock over a period, regardless of how short that period is, the measurement of incremental fair value must be made at the two points in time specified.

---

30 Once a spinnee’s registration statement is filed and declared effective, the spinnee’s shares generally will begin trading on a “when issued” basis until the date that the shares are distributed.
S8.6.4 Awards to individuals who are no longer employees as a result of a spinoff

In some spinoff transactions, an employee of Company A that held awards in Company A becomes an employee of spun-off Company B, but retains the awards in Company A. Therefore, from Company A’s perspective the individual option holder’s status technically has changed from that of an employee to a nonemployee. Alternatively, Company A employees may receive awards in Company B in connection with the spinoff, in which case the employee technically has received awards in stock of an entity that is not his or her employer.

In Interpretation 44, the FASB provided an exception for changes in employee status resulting from spinoff transactions and concluded in Question 5(c) of Interpretation 44 that a change from the intrinsic value to the fair value method for stock options or awards previously granted to the individual as an employee was not required. This exception applies only to changes in status occurring as a result of a spinoff transaction (i.e., a pro rata distribution to owners of an enterprise of shares of a subsidiary such that the enterprise no longer consolidates the former subsidiary) and only to share-based payments that were granted and outstanding at the date of the transaction. An award granted by the company to a nonemployee after the spinoff is accounted for as an award to a nonemployee.

While not specifically addressed in ASC 718, we understand the FASB agreed at a public Board meeting to provide a similar exception under ASC 718 such that remeasurement based on the measurement date guidance in ASC 505-50 (see further discussion in Section S3.9) would not be required after a spinoff. The FASB decided at that meeting that this exception would be considered temporary until nonemployee awards are addressed in the next phase of the Equity Based Compensation project. Additionally, the FASB reached the following decision at that Board meeting:

In connection with a spinoff transaction and as a result of the related modification, employees of the former parent may receive nonvested equity instruments of the former subsidiary, or employees of the former subsidiary may retain nonvested equity instruments of the former parent. The Board decided that, based on the current accounting model for spinoff transactions, the former parent and former subsidiary should recognize compensation cost related to the nonvested modified awards for those employees that provide service to each respective entity. For example, if an employee of the former subsidiary retains nonvested equity instruments of the former parent, the former subsidiary would recognize in its financial statements the remaining unrecognized

---

31 As of the date of this publication, the FASB has not added the second phase of the Equity Based Compensation project to its active agenda.
compensation cost pertaining to those instruments. In those cases, the former parent would recognize no compensation cost related to its nonvested equity instruments held by those former employees that subsequent to the spinoff provide services solely to the former subsidiary. [Minutes of the 1 September 2004, FASB Board Meeting]

While the above guidance was not included in ASC 718 because the example that was to provide this guidance was deleted shortly before issuance of ASC 718, we believe that the example was deleted for other reasons, and this guidance continues to be appropriate.

S8.7  Repurchases or cancellations of awards of equity instruments

Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Awards Classified as Equity

Subsequent Measurement

718-20-35-7

The amount of cash or other assets transferred (or liabilities incurred) to repurchase an equity award shall be charged to equity, to the extent that the amount paid does not exceed the fair value of the equity instruments repurchased at the repurchase date. Any excess of the repurchase price over the fair value of the instruments repurchased shall be recognized as additional compensation cost. An entity that repurchases an award for which the requisite service has not been rendered has, in effect, modified the requisite service period to the period for which service already has been rendered, and thus the amount of compensation cost measured at the grant date but not yet recognized shall be recognized at the repurchase date.

As discussed in Section S5.2.5, a pattern of cash settling equity awards may suggest that the substantive terms of the awards provide for cash settlement and, as a result, liability (variable) accounting would be required.

Under ASC 718, the fair value of an option immediately before settlement or modification is based on a new estimate of the expected term based on current circumstances (i.e., the originally estimated expected term is no longer relevant).

If an equity award is not immediately settled, but instead exchanged for a promise of cash or other assets in the future, the transaction must be evaluated to determine whether it represents a modification (that results in liability classification) or a settlement. We understand from discussions with the FASB staff that there are two key factors that must be considered in determining whether a transaction represents a settlement or modification: (1) whether the obligation continues to be indexed to the employer’s shares and (2) whether future service is required. If either of these conditions exists, the transaction should be accounted for as a modification as described in Section S8.4.1. If neither condition exists, the transaction is accounted for as a settlement. Accordingly, if an award is exchanged for a promise to pay an amount in the future that is not indexed to the company’s shares and does not require future service (e.g., a note payable), the transaction should be accounted for as a
settlement. If the present value of the settlement amount does not exceed the fair value of the settled award, no incremental compensation cost will result from the settlement (although interest expense will be recognized in the future). This treatment is in contrast to the liability model which would require that compensation cost be recognized for any appreciation in the share price since the grant date.

The following is an example of the accounting for a cash settlement of an award:

Excerpt from Accounting Standards Codification

Compensation — Stock Compensation — Awards Classified as Equity

Implementation Guidance and Illustrations

718-20-55-108

Rather than modify the share option terms, Entity T offers on January 1, 20X6, to settle the original January 1, 20X5, grant of share options for cash. Because the share price decreased from $30 at the grant date to $20 at the date of settlement, the fair value of each share option is $5.36, the same as in Case C [See S8.1.2.2]. If Entity T pays $5.36 per share option, it would recognize that cash settlement as the repurchase of an outstanding equity instrument and no incremental compensation cost would be recognized. However, the cash settlement of the share options effectively vests them. Therefore, the remaining unrecognized compensation cost of $9.79 per share option would be recognized at the date of settlement.

S8.8 Cancellation and replacement of awards of equity instruments

In some cases, rather than modify an award, an employer may choose to grant a new award in exchange for the cancellation of an old award. Such a transaction generally is accounted for as a modification, as described below:

Excerpt from Accounting Standards Codification

Compensation — Stock Compensation — Awards Classified as Equity

Subsequent Measurement

718-20-35-8

Cancellation of an award accompanied by the concurrent grant of (or offer to grant) a replacement award or other valuable consideration shall be accounted for as a modification of the terms of the cancelled award. (The phrase offer to grant is intended to cover situations in which the service inception date precedes the grant date. [See discussion in Section S4.3.1]) Therefore, incremental compensation cost shall be measured as the excess of the fair value of the replacement award or other valuable consideration over the fair value of the cancelled award at the cancellation date in accordance with paragraph 718-20-35-3. Thus, the total compensation cost measured at the date of a cancellation and replacement shall be the portion of the grant-date fair value of the original award for which the requisite service is expected to be rendered (or has already been rendered) at that date plus the incremental cost resulting from the cancellation and replacement.
The replacement award generally will be granted concurrently with the cancellation to compensate an employee for the cancellation. As such, the fact that the new award is a replacement of the old award usually will be apparent. If an award is cancelled without the concurrent\textsuperscript{32} grant or offer of a replacement award, the cancellation should be treated as a settlement for no consideration:

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Awards Classified as Equity*

**Subsequent Measurement**

718-20-35-9

A cancellation of an award that is not accompanied by the concurrent grant of (or offer to grant) a replacement award or other valuable consideration shall be accounted for as a repurchase for no consideration. Accordingly, any previously unrecognized compensation cost shall be recognized at the cancellation date.

**S8.8.1 Exchanges of options in business combinations**

ASC 718-20-35-6 states that exchanges of share options or other equity instruments or changes to their terms in conjunction with a business combination are modifications. However, ASC 718 provides no specific guidance on the accounting for employee stock options or nonvested stock awards exchanged for acquired company awards in a purchase business combination. ASC 805 provides additional guidance on the accounting for share-based payment arrangements in a purchase business combination.


The accounting for the income tax effects of share-based payments issued in a purchase business combination is discussed in Section S10.6.1.

**S8.8.1.1 Recognition of payroll taxes on options exchanged in a business combination**

An employer generally is required to pay payroll taxes on the intrinsic value of nonqualified options on the exercise date, and on the fair value of share awards on the vesting date. In a business combination, the acquirer should not recognize as part of purchase accounting the

\textsuperscript{32} The FASB previously concluded that a modification of an award, regardless of whether that modification is in the form of a cancellation of an existing award and grant of a replacement award, would be explained as such to the employees affected by the transaction. Thus, a cancellation and grant of (or offer to grant) a replacement award must occur concurrently if the transaction is to be accounted for as a modification. Otherwise, cancellation of an award is accounted for as a settlement in accordance with ASC 718-20-35-7 and 35-9.
potential liability for employer payroll taxes on awards exchanged in the business combination if the event that triggers measurement and payment of the tax has not occurred as of the consummation date. For example, for a nonqualified stock option in the United States, the obligating event generally is the exercise of the option. Accordingly, if the stock option is not exercised as of the consummation date, a payroll tax liability is not recognized as part of purchase accounting. Furthermore, if the triggering event occurs after the consummation date, no adjustment should be made to purchase accounting. This guidance is consistent with 718-10-25-22 (see Section S10.8) which stipulates that the liability and corresponding expense for employee payroll taxes on employee stock compensation should not be recognized until the obligating event that triggers measurement and payment of the payroll tax to the taxing authority occurs.

S8.9 Implications of frequent modifications
The FASB discussed whether a different model should apply to awards that are frequently modified. For example, in some cases frequent modifications may suggest that the terms of the award are not mutually understood at the initial agreement date, and, therefore, a grant date and measurement date cannot be achieved. Though not retained in the Codification, the Basis for Conclusions in Statement 123(R) explained why the FASB ultimately decided not to provide any special guidance regarding frequent modifications:

The FASB previously considered whether multiple modifications of the same award might in some circumstances indicate that an employer and employees who benefit from the change(s) to their awards no longer have a mutual understanding of the award’s key terms and conditions. The accounting result of a determination that such a mutual understanding does not exist would be to account for that award, and possibly similar awards, based on their estimated fair value at each reporting date until settlement. The Board considered several possible means of identifying awards to be accounted for as if a grant date has not yet occurred and concluded that each possible method could result in significant implementation problems. The Board also noted that most modifications of awards will result in recognition of incremental compensation cost. Accordingly, the Board decided not to establish special accounting requirements for multiple modifications of the same award.

We believe that repeated modifications generally will not lead to a conclusion that there is not a mutual understanding of the terms of an award, and a grant date (and measurement date) has not yet occurred. However, if it is apparent from the facts and circumstances that the initial terms of the award were provided as “place holders” to be modified in the future, we believe that a grant date would not be achieved until the modification date. We would expect such circumstances to be rare.

Also note that repeated cash settlements do have potential accounting implications (i.e., potential liability classification), which are discussed in Sections S8.7 and S5.2.5.
S8.10 Modifications and settlements of awards granted prior to the adoption of ASC 718

This chapter discusses in detail the accounting for modifications and settlements of awards under ASC 718 and generally assumes that the grant of the original award was accounted for under ASC 718. However, for several years after the adoption of ASC 718 many modifications and settlements will involve awards granted prior to its adoption. We believe that the implications of such modifications and settlements will vary depending on how an entity adopted ASC 718.

S8.10.1 Modified prospective and modified retrospective adopters

For companies that adopt ASC 718 using the modified-prospective- or modified-retrospective-transition methods, we believe that the accounting for modifications and settlements of equity awards granted prior to adoption of ASC 718 is the same as those granted after adoption of ASC 718. That is, because Opinion 25 accounting ceases at the adoption date and ASC 718 accounting begins based on the nonvested portion of the award, if any, the accounting is essentially as if the awards always had been accounted for under Statement 123 or ASC 718.

S8.10.2 Prospective adopters

Prospective adopters accounted for employee stock options using the minimum value method for purposes of financial statement recognition or pro forma disclosure. Accordingly, they never recognized the full grant-date fair value of employee stock options (because minimum value excluded the impact of stock volatility). ASC 718 does not address how to account for modifications of equity awards that were granted by a nonpublic company utilizing the minimum value method prior to the adoption of ASC 718. The accounting for such modifications was discussed at the 26 May 2005 meeting of the Resource Group.

Companies that accounted for employee stock options under Opinion 25 and measured compensation cost using the minimum value method for pro forma disclosure purposes should recognize the sum of (a) the incremental fair value of the modification measured on the modification date based on the requirements of ASC 718 and (b) any remaining originally measured but unrecognized compensation cost measured at intrinsic value, over the requisite service period of the modified award. That is, neither the fair value of the award at the original grant date (which was never measured) nor the minimum value measured on the grant date are recognized after the modification.

If the original award was accounted for as a variable award under Opinion 25, variable accounting would cease at the time of the modification. Unrecognized compensation cost associated with the original award would be subject to a final measurement on the modification date.
For companies that accounted for share-based payments to employees under Statement 123 for purposes of financial statement recognition, but measured the cost of employee stock options using the minimum value method, we believe that the sum of (a) the incremental fair value resulting from the modification based on the requirements of ASC 718 and (b) any remaining originally measured but unrecognized compensation cost measured at minimum value, should be recognized over the requisite service period of the modified award.

S8.11 Modifications of awards held by former employees

Modifications of awards made after the grantee has terminated his or her employment can result in the reclassification of the award from equity to a liability. The accounting in such circumstances is discussed in Section S5.3.3.
S9  Accounting for share-based payment transactions with nonemployees

S9.1  Share-based payments to nonemployees
Share-based payments to nonemployee suppliers of goods and services, such as vendors and independent contractors, are measured based on the fair value of goods or services received or the equity instruments granted, whichever is more reliably determinable. The FASB did not reconsider the accounting for share-based payments to nonemployees in Statement 123(R). As a result, previously issued guidance for the accounting for awards to nonemployees (codified primarily in ASC 505-50) continues to apply, with the following exceptions:

S9.1.1  Excess tax benefits must be presented as financing cash flows
Excess tax benefits resulting from share-based payments to employees and nonemployees must be presented as financing cash flows in the statement of cash flows (see further discussion in Section S10.3.1.1).

S9.1.2  Application of ASC 718 to nonemployee awards by analogy
While most of the guidance in ASC 718 does not apply to share-based payments to nonemployees, the FASB discussed in its Basis for Conclusions in Statement 123(R) that they believe, and we agree, that much of the guidance in ASC 718 that applies to share-based payments to employees has and will be applied by analogy to awards to nonemployees. For example, we believe that, for the most part, guidance in ASC 718 with respect to liability classification (Chapter 5) prior to the completion of service, accounting for income taxes (Chapter 10), and accounting for modifications (Chapter 8) should be applied by analogy to share-based payments to nonemployees because: (a) there generally is no other applicable literature that addresses these issues, and (b) there is no reason to believe that the accounting models for liabilities (except as described in Section S9.1.2.2), income taxes and modifications should differ between employee and nonemployee awards.

The SEC staff provided similar guidance in SAB Topic 14.A:

Excerpt from SAB Topic 14.A
With respect to questions regarding nonemployee arrangements that are not specifically addressed in other authoritative literature, the staff believes that the application of guidance in Statement 123R would generally result in relevant and reliable financial statement information. As such, the staff believes it would generally be appropriate for entities to apply the guidance in Statement 123R by analogy to share-based payment transactions with nonemployees unless other authoritative accounting literature more clearly addresses the appropriate accounting, or the application of the guidance in Statement 123R would be inconsistent with the terms of the instrument issued to a nonemployee in a share-based payment arrangement.  

For example, the staff believes the guidance in Statement 123R on certain transactions with related parties or other holders of an economic interest in the entity would generally be applicable to share-based payment transactions with nonemployees. The staff encourages registrants that have additional questions related to accounting for share-based payment transactions with nonemployees to discuss those questions with the staff. [Footnote 7 omitted]
Additionally, as discussed in Section S5.2.3.5, SAB Topic 14 indicates that its guidance requiring the application of ASR 268 to redeemable share-based payments on grant of the instrument also applies to share-based payments to nonemployees.

S9.1.2.1 Measurement of share-based liabilities
Prior practice under Statement 123 was to measure liability awards to nonemployees based on intrinsic value, remeasuring that value until the liability was settled. This approach was based on an analogy to Statement 123’s accounting for awards to employees. Because share-based liabilities granted to employees by public companies are required to be measured at fair value (see Chapter 5), the source for this analogy no longer exists. Accordingly, we believe (and the Resource Group confirmed at its 13 September 2005 meeting) that on adoption of ASC 718, companies should remeasure share-based liabilities granted to nonemployees at fair value, and any adjustment resulting from the remeasurement from intrinsic value to fair value should be recognized as the cumulative effect of a change in accounting principles (see Section S13.6.2.2).

S9.1.2.2 Classification of share-based payments to nonemployees
As indicated above, we generally believe it is appropriate to apply by analogy the classification guidance in ASC 718 to share-based payments to nonemployees. However, as discussed in Section S5.3, the provisions of ASC 718-10-35-9 do not apply to awards to nonemployees. That is, for awards to nonemployees, once the terms of the award no longer are subject to change based on the nonemployee providing goods or services, the classification guidance in ASC 718 will not apply.

The derivatives and hedging literature discussed in ASC 815 includes similar guidance which indicates that share-based payments to nonemployees are not within its scope “when performance has not yet occurred. However, this Issue applies to contracts issued to acquire goods or services from nonemployees when performance has occurred.” Accordingly, options granted to nonemployees generally will be subject to the requirements of ASC 815 when performance is complete. Because of the stringent requirements of ASC 815, some share-based payments to nonemployees will be reclassified from equity to liabilities once performance is complete.

In most cases an award to a nonemployee must be remeasured at fair value until performance is complete (see Section S9.3). When performance is complete (i.e., the terms of the award are no longer affected by the nonemployee’s performance), the award will become subject to other accounting literature that may require continued remeasurement at fair value. The FASB provided the following guidance for determining when a share-based payment is no longer subject to ASC 718 and becomes subject to other accounting literature:
A freestanding financial instrument ceases to be subject to this Topic and becomes subject to the recognition and measurement requirements of Topic 480 or other applicable GAAP when the rights conveyed by the instrument to the holder are no longer dependent on the holder being an employee of the entity (that is, no longer dependent on providing service). That principle shall be applied to specific types of instruments subject to that Topic or other applicable GAAP as illustrated by the following examples:

a. A mandatorily redeemable share becomes subject to that Topic or other applicable GAAP when an employee has rendered the requisite service in exchange for the instrument and could terminate the employment relationship and receive that share.

Generally, grants of stock to nonemployees, or to employees if they are modified after termination, will become subject to other accounting literature when they are vested. However, unless the shares include repurchase features, they generally will not become subject to any other literature that impacts their accounting. If the shares are subject to repurchase features, they are subject to all of the requirements of the SEC’s guidance on redeemable securities (see Sections S5.2.3.5 and S9.5.1.3) on issuance, and, if mandatorily redeemable, all the requirements of ASC 480 on issuance (see Section S5.2.2 and our Financial Reporting Developments publication, *Distinguishing Liabilities from Equity*).

b. A share option or similar instrument that is not transferable and whose contractual term is shortened upon employment termination continues to be subject to this Topic until the rights conveyed by the instrument to the holder are no longer dependent on the holder being an employee of the entity (generally, when the instrument is exercised). A share option or similar instrument may become subject to that Topic or other applicable GAAP before its settlement. For instance, if a vested share option becomes exercisable for one year after employment termination, the rights conveyed by the instrument to the holder would no longer be dependent on the holder being an employee of the entity upon the employee’s termination. Vested share options are typically exercisable for a short period of time (generally, 60 to 90 days) after the termination of the employment relationship. Notwithstanding the requirements of this paragraph, such a provision, in and of itself, shall not cause the award to become subject to other applicable GAAP for that short period of time.
For a stock option issued to a nonemployee, or modified after an employee’s termination, whether the stock option becomes subject to other accounting literature (generally ASC 815-40 or ASC 480) is dependent on how the terms of the option are affected when the nonemployee ceases to provide goods or services, and the evaluation must continue for the life of the option. If ceasing to provide goods or services can cause the stock options to be forfeited, they remain subject to ASC 718 at least until they vest. If the contractual term of the stock option truncates when the nonemployee ceases to provide goods or services, the options remain subject to ASC 718 until the services are terminated or, in some cases, when the services could be terminated and the remaining contractual term of the award would be unaffected. For example, if an option with a 10-year contractual term provides that on termination of services the grantee has the lesser of the remainder of the original contractual term or one year to exercise, the option would become subject to other accounting literature when:

1. Services are terminated (as mentioned above in ASC 718-10-35-13), because the option is now a one-year option that is no longer affected by providing services; or

2. The option has been outstanding for nine years (because if the services are terminated after this point, the grantee will always have the remainder of the original contractual term to exercise). While not mentioned, we believe that this conclusion is apparent based on the principle described in ASC 718-10-35-13.

However, as discussed above, the FASB provided an exception from these requirements if the option term truncates to a short time period on termination of services. In that case, even though the services have been terminated, or the remaining contractual term of the option is less than the term that would be available once the services are terminated, the award does not become subject to other accounting literature. It is clear, based on the discussion in ASC 718-10-35-13 above that a period of up to 90 days would qualify as a “short period of time.” It also is clear that one year is not a “short period of time.” The FASB has provided no additional guidance on the definition of a short period of time. Generally, we believe the time period should be considered “short” if the period is not longer than reasonably necessary to give the grantee sufficient time to exercise the option on termination of services.

We believe that a reclassification from equity to liabilities as a result of the initial application of ASC 815-40 to a share-based payment should be made consistent with the requirements of ASC 815-40-35-9. That is, the current fair value of the share-based payment would be reclassified from equity to liability and “the change in fair value of the contract during the period the contract was classified as equity shall be accounted for as an adjustment to stockholders' equity. The contract subsequently shall be marked to fair value through earnings.”
S9.2 Overview of ASC 505-50

ASC 505-50 addresses: (a) the measurement date for transactions in which equity instruments (including stock options, shares of stock, nonvested stock, and stock appreciation rights payable in shares) are issued to nonemployees in exchange for the receipt of goods or services, and (b) the manner in which to recognize such transactions. For example, ASC 505-50 covers transactions in which stock options are issued in exchange for consulting services, or as a sales incentive to a customer to purchase specified quantities of the issuer’s products. Frequently, the transaction may be in exchange for services provided over several reporting periods (e.g., in which stock options are issued in exchange for services being performed under a three-year outsourcing contract).

As previously indicated, ASC 718 requires that share-based payments to nonemployees be measured based on the fair value of the goods or services received or the fair value of the share-based payments, whichever is more reliably measurable. As a practical matter, it is rare that the fair value of the goods and services is more reliably measurable than the fair value of the equity instruments. In those circumstances, ASC 505-50 provides guidance on how and when to measure the fair value of the equity instrument when it is determined that the equity instrument is more reliably measurable.

Essentially, ASC 505-50 requires that the fair value of the equity instruments issued to a nonemployee be measured on the earlier of: (1) the performance commitment date, or (2) the date the services required under the arrangement have been completed. Therefore, under many arrangements, the measurement date to determine the fair value of a share-based payment to a nonemployee may not be the date of grant.

The guidance in ASC 505-50 is very complicated, fact-intensive, and often is difficult to apply. Several alternative models were considered for accounting for equity instruments issued to nonemployees that would have permitted grant date measurement for many awards. Ultimately, however, the SEC staff played a central role in developing the accounting model required by ASC 505-50.

ASC 505-50 does not apply to equity instruments issued to a lender or investor who provides financing to the issuer, or to equity instruments issued in a business combination. ASC 505-50 also does not address transactions in which the fair value of the goods or services provided by the counterparty is more reliably measurable than the fair value of the equity instruments exchanged. Further, ASC 505-50 does not discuss the distinction between nonemployees and employees. See Section S2.2 for guidance on determining whether the grantee of an equity instrument is an employee.
S9.3 Measurement date

Under ASC 718, the fair value of equity awards granted to employees generally is measured at the date of grant. ASC 718 does not specify the measurement date for awards granted to nonemployees, which is addressed within ASC 505-50.

**Excerpt from SAB Topic 14.A**

Statement of Financial Accounting Standards No. 123(R) does not supersede any of the authoritative literature that specifically addresses accounting for share-based payments with nonemployees. For example, Statement of Financial Accounting Standards No. 123(R) does not specify the measurement date for share-based payment transactions with nonemployees when the measurement of the transaction is based on the fair value of the equity instruments issued. For determining the measurement date of equity instruments issued in share-based transactions with nonemployees, a company should refer to Emerging Issues Task Force ("EITF") Issue No. 96-18, Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services.

Under ASC 505-50, the fair value of equity awards to nonemployees is not necessarily measured at the date of grant, unless specific requirements are met. In a rising stock market, using a later measurement date could result in a significantly higher cumulative compensation cost.

This difference in measurement date methodology between ASC 718’s employee model and ASC 505-50’s nonemployee model is based on the view that there is a fundamental difference between employees and nonemployees, and their relationships with the company granting the awards. When a company grants equity instruments to an employee, performance is presumed because of the employee’s relationship with the company. Most employees are economically dependent on the company and, therefore, presumptively will perform the required service. In contrast, a nonemployee likely does not have the same level of dependence on the issuing company and generally has multiple sources of revenue. In fact, it is possible that the nonemployee may choose to complete or not complete an assignment based on changes in the value of the equity award subsequent to grant. As such, because of the nature of the relationship between the nonemployee and the company, performance cannot be presumed unless the arrangement contains a substantive disincentive for nonperformance, such as a significant specified economic penalty, that compels the nonemployee to perform.
Under ASC 505-50, the company granting an nonvested equity instrument measures the fair value of the award at the earlier of either of the following:

1. The date at which a commitment for performance by the counterparty to earn the equity instruments is reached (a “performance commitment”); or

2. The date at which the counterparty’s performance is complete.

In other words, in order for the issuer of the equity instruments to finalize the measurement of the fair value of the equity instruments at the grant date, the transaction must contain either a performance commitment, or performance must already have occurred. In addition, ASC 505-50 does not permit the use of the calculated-value method as defined in ASC 718-10-20 to estimate the value of equity awards granted to nonemployees.

S9.3.1 Performance commitment

A performance commitment is a commitment under which performance by the counterparty to earn the equity instruments is probable because of a sufficiently large disincentive for nonperformance (e.g., an economic penalty). The disincentive must be substantive; merely returning the equity instruments in the event of nonperformance is not a sufficiently large disincentive. Also, we believe that the possibility of legal proceedings in the event of nonperformance alone is not a sufficiently large disincentive for nonperformance. We believe that to satisfy the requirement for a sufficiently large disincentive for nonperformance, the economic penalty must be specified in the agreement and must be significant to the counterparty. Further, while some nonemployees may arguably be economically dependent on the issuer (similar to an employee relationship), we do not believe economic dependence qualifies as a performance commitment under ASC 505-50.

To illustrate the application of this guidance, assume Company A engages Company B (an unrelated entity) to perform services for five years in exchange for $100,000 per year and 50,000 options to buy Company A stock which vest 20% per year as the services are performed. If there is no specific economic penalty to Company B for failure to perform (besides the loss of nonvested options), the final measurement of the fair value of the options would be made on the vesting dates. On the other hand, if the contract specifically called for Company B to make a significant payment if it breaches the contract (which qualifies as a sufficiently large disincentive for nonperformance), the measurement date would be the date of grant (i.e., Company B would have a performance commitment).

If the equity instrument is an option or warrant, the fair value should be estimated on the measurement date using an option-pricing model and the measurement assumptions discussed in Chapter 7 (except that, as discussed in Section S9.4, the contractual term of the option generally must be used instead of the expected term).
The disincentive for nonperformance must result from a relationship between the issuer and the counterparty. For example, assume Company A agrees to give Company B 10,000 stock options if Company B purchases 500,000 computer modems from Company A. Company B has a separate agreement with a computer manufacturer, Company C, whereby Company B agrees to supply Company C with 500,000 modems. If Company B does not supply 500,000 modems to Company C, Company B must pay $1 million to Company C, which is a significant disincentive for Company B not to perform. Even though Company B has a performance commitment with Company C (i.e., to deliver 500,000 modems), no performance commitment exists between Company A and Company B.

S9.3.1.1 Performance commitments on long-term sales contracts
In cases in which warrants are granted to a customer as an inducement to enter into a long-term sales contract (e.g., greater than one year) and the warrants vest as sales are made to the customer, we believe it is highly unlikely that a penalty could be large enough to make performance probable because the customer may at some point no longer need or be able to use the product. Furthermore, a slowdown in the economy or a decrease in the grantor’s stock price may affect the economics of the arrangement such that the customer may ultimately believe it is more economical to cancel the transaction and pay the penalty. Accordingly, the penalty typically is inadequate to qualify as a sufficiently large disincentive for nonperformance for a long-term sales contract because it would not necessarily deter the customer from nonperformance. As a result, the measurement date will be established at the point in time that performance is completed by the customer. Furthermore, if the equity instruments that are issued to a customer will not vest or become exercisable without purchases by the customer, the related cost, which is measured based on the stock price over the vesting period, should be reported as a reduction of revenue in the issuer’s income statement. ASC 815-40 provides further guidance on the accounting for payments made to customers.

S9.3.2 Completed performance
The counterparty has completed performance when it has delivered or purchased, as the case may be, the goods or services required under the arrangement and, therefore, is entitled to keep or exercise the award. Performance is not complete if the awards are forfeitable in the event performance is not completed, such as when the award vests over the performance period of the award. For example, performance under an award that cliff vests at the end of three years would not be considered completed until the end of the third year.

In some arrangements, counterparty performance may be required over a period of time (for example, three years), but the equity award granted to the party performing the services is fully vested on the date of grant. If the counterparty fails to perform, the arrangement in this example does not specifically require the equity instruments (or any gains that may have been realized by the counterparty on exercise or sale of the equity instruments) to be forfeited, nor does it otherwise specify monetary damages. The issuer’s only recourse in the
event of nonperformance would be to file a lawsuit against the counterparty and rely on a decision of the courts. We would expect such a circumstance to be unusual because typically vesting provisions would exist (either explicitly or implicitly). ASC 505-50 states that the measurement date for an award that is nonforfeitable and that vests immediately should be the date the award is issued (in most cases, when the agreement is entered into), even though services have not yet been performed. In essence, signing the agreement was all that was necessary for the counterparty to “perform” in order to receive the fully vested award (absent any subsequent changes in the quantity and terms, as described below). The classification of fully vested equity instruments and any related asset received is discussed in Section S9.5.1.2.

In some arrangements an entity will grant fully vested, nonforfeitable equity instruments that are exercisable by the grantee only after a specified period of time and the terms of the award provide for earlier exercisability if the grantee achieves specified performance conditions. In ASC 505-50, the grantor should measure the fair value of the award on the date of the grant, consistent with the award in the preceding paragraph. If the exercisability of the award is accelerated, the acceleration is a “modification” of the award that is subject to modification accounting under ASC 718 (See Chapter 8 for further discussion of accounting for modifications). However, the acceleration of exercisability generally will not result in incremental fair value or an additional charge to the grantor.

S9.4 Measurement approach

ASC 718 provides the following guidance for measuring the fair value of share-based payments granted to nonemployees:

---

**Excerpt from Accounting Standards Codification**

**Equity – Equity-Based Payments to Non-Employees**

Initial Measurement

505-50-30-6
If the fair value of goods or services received in a share-based payment transaction with nonemployees is more reliably measurable than the fair value of the equity instruments issued, the fair value of the goods or services received shall be used to measure the transaction. In contrast, if the fair value of the equity instruments issued in a share-based payment transaction with nonemployees is more reliably measurable than the fair value of the consideration received, the transaction shall be measured based on the fair value of the equity instruments issued.

505-50-30-5
The consideration received for issuing equity instruments, like the consideration involved in a repurchase of treasury shares, may include stated or unstated rights. Subtopic 505-30 provides pertinent guidance on the repurchase of treasury shares.
In most cases, the fair value of the equity securities granted is more reliably determinable than the fair value of the goods or services received. The fair value of an equity award granted to a nonemployee generally is determined in the same manner as an equity award granted to an employee under ASC 718 (see further discussion in Chapters 6 and 7). However, at the 1997 AICPA Conference on Current SEC Developments, the SEC staff stated that for nonemployee awards, it generally will expect the full contractual term to be used in the fair value calculations (unlike for awards to employees, where an expected term may be estimated). This point was reiterated in SAB Topic 14, in which the SEC staff indicated the following:

**Excerpt from SAB Topic 14.A**

For example, due to the nature of specific terms in employee share options, including nontransferability, nonhedgability and the truncation of the contractual term due to post-vesting service termination, Statement 123R requires that when valuing an employee share option under the Black-Scholes-Merton framework, the fair value of an employee share option be based on the option’s expected term rather than the contractual term. If these features (i.e., nontransferability, nonhedgability and the truncation of the contractual term) were not present in a nonemployee share option arrangement, the use of an expected term assumption shorter than the contractual term would generally not be appropriate in estimating the fair value of the nonemployee share options. [Footnote 7]

As a result, the fair value of an option granted to a nonemployee generally will be greater than the fair value of a comparable award to an employee.

Additionally, for nonpublic companies that use the minimum value method to measure employee stock options prior to the adoption of ASC 718, the FASB staff indicated that the minimum value method (which assumes a volatility of zero) is not an acceptable method for determining the fair value of nonemployee awards. Similarly, we believe that the ability for certain nonpublic companies to use a “calculated value” (see Section S3.2.4.1) rather than fair value for awards to employees does not apply to awards to nonemployees.

**S9.4.1 Accounting prior to the measurement date**

If the issuer must recognize any cost of the transaction during periods prior to the measurement date, the equity instruments are measured at their then-current fair values at each interim financial reporting date. Those fair values should be determined in accordance with the guidance described below. Changes in fair value between interim reporting dates are attributed in accordance with the methods illustrated in Example 5 of ASC 505-50-55 (consistent with Interpretation 28), which is consistent with the manner in which changes in the fair value of liabilities are accounted for under ASC 718 (see Chapter 5). The reference to Example 5 of ASC 505-50-55 is not intended to require nonemployee awards with graded vesting to be recognized using the accelerated attribution method as discussed in S4.4.1.4. We believe nonemployee awards that contain only service conditions can be recognized either using the accelerated recognition method or the straight-line recognition method, consistent with the policy election available for employee awards containing only service conditions as discussed within section S4.4.1.4.
S9.4.2 Changes in quantity or terms subsequent to the measurement date

At the measurement date, the quantity or terms of equity instruments may be subject to change based on future conditions. In assessing the impact of such potential changes on the measurement of an equity instrument granted to a nonemployee, there is different accounting treatment for those awards that change based on the achievement of market conditions and those awards that change based on the achievement of performance conditions. The impact of those changes is discussed further below.

S9.4.2.1 Changes resulting from market conditions

S9.4.2.1.1 Measurement on and prior to the measurement date

Some equity awards may provide that the quantity or other terms of the award may change subsequent to the measurement date based on the achievement of “market conditions.” Market conditions are defined as those that relate to achievement of a specified market target, such as attaining a specified stock price or specified amount of intrinsic value of a stock option (we believe that this definition is consistent with that provided in ASC 718—see Section S3.4.4). For example, a company may agree to pay a nonemployee $10,000 in cash and issue 1,000 options with a strike price of $45 for consulting services. The company also agrees to issue 200 additional options at the same exercise price to that individual if the stock price is not at least $50 a share one year from the completion of the consulting services.

If the quantity or any of the terms of the equity instruments are dependent on the achievement of market conditions, the issuer should determine the fair value of the equity instruments on the measurement date for recognition purposes (the market condition alone would not require subsequent remeasurement of the fair value of the instrument). That fair value would be calculated as the fair value of the equity instruments without regard to the market condition (in the example in the previous paragraph, the fair value of 1,000 options with a $45 exercise price) plus the fair value of the issuer’s commitment to change the quantity or other terms of the equity instruments based on whether the market condition is met (in the example in the previous paragraph, the fair value of the commitment to issue 200 additional options with a strike price of $45 if the stock price is not $50 after one year). In other words, the fair value of the instrument is determined on the measurement date and includes the incremental fair value associated with the potential change resulting from achievement of the market condition. Note that this measurement approach is essentially the same as that provided for in ASC 718 (see Section S3.4.4). Example 9-5 in Section S9.6 illustrates the accounting for a nonemployee award with a market condition.

S9.4.2.1.2 Accounting after the measurement date

The issuer should, to the extent necessary, recognize and classify changes in the post-measurement date fair value of a commitment related to a market condition in accordance with relevant accounting literature on financial instruments, such as ASC 815-40.

ASC 505-50 contains several examples of transactions that have market conditions, and should be referred to when analyzing such arrangements.
S9.4.2.2 Changes resulting from performance conditions

S9.4.2.2.1 Measurement on and prior to the measurement date

Some equity awards may provide that the quantity and terms of the award may change subsequent to the measurement date based on the achievement of “counterparty performance conditions.” ASC 505-50-20 defines counterparty performance conditions as “those conditions that relate to the achievement of a specified performance target, for example, attaining a specified increase in market share for a specified product.” A counterparty performance condition might pertain either to the performance of the enterprise as a whole or to some part of the enterprise, such as a division.

The FASB staff indicated that it believes that the phrase “performance condition” is a better indication of what is meant by “counterparty performance conditions” in ASC 505-50. Specifically, the FASB staff believes that the performance conditions subject to the accounting described below are not limited to those conditions that are solely within the counterparty’s control. For example, the issuer may grant warrants to a vendor to acquire components that will be used in the production of computers. The quantity of shares that can be acquired by exercising the warrants may vary based on the issuer’s sales of those computers. The FASB staff believes, and we agree, that in such a circumstance the warrants should be accounted for in accordance with the guidance on changes to quantities or other terms resulting from the achievement of performance conditions as described below.

If changes to the quantity or other terms of the equity instruments could result from the achievement of performance conditions, then the issuer should utilize the lowest aggregate amount (i.e., the variable terms with the lowest value times the applicable number of equity instruments) within the range of potential values for measurement and recognition purposes. This amount may be zero.

S9.4.2.2.2 Accounting after the measurement date

Once the measurement date has been reached, an enterprise is required to account for any additional value in the award resulting from the achievement of a counterparty performance condition as an award modification. That is, the adjustment is measured at the date of the change in the quantity or terms of the equity instruments as the difference between: (1) the then-current fair value of the revised instruments utilizing the then-known quantity or other terms, and (2) the then-current fair value of the old equity instruments immediately before the quantity or other terms becomes known. The “then-current fair value” is calculated using the assumptions that result in the lowest aggregate fair value if the quantity or any other terms remain unknown.

ASC 505-50-55 contains several examples of transactions that have performance conditions, and should be referred to when analyzing such arrangements.
S9.4.2.3 Changes resulting from both market conditions and performance conditions

S9.4.2.3.1 Measurement on and prior to the measurement date
An equity instrument granted to a nonemployee may specify quantities or terms that are subject to change as a result of the achievement of both market conditions and performance conditions. In that circumstance, the measurement approach for the instrument is the same as for an instrument subject to changes in quantity or other terms resulting only from the achievement of performance conditions. That is, on the measurement date the issuer should utilize the lowest aggregate (i.e., the variable terms times the applicable number of equity instruments) amount within the range of potential values for measurement and recognition purposes.

S9.4.2.3.2 Accounting after the measurement date
After the measurement date, through the date the last performance-related condition is resolved, the issuer should apply modification accounting (as described in Section S9.4.2.2.2) for the resolution of both performance conditions and market conditions. If, at the time the last performance condition is resolved, one or more market conditions remain, then the issuer should measure the then-current fair value of the issuer’s commitment to issue additional equity instruments or change the other terms of the equity instruments based on whether the market condition is met. In other words, as long as performance conditions remain unresolved, the measurement approach specified above for instruments with quantities or other terms that change only as a result of achievement of performance conditions should be utilized. If after the last performance condition is resolved one or more market conditions remain to be resolved, the guidance described in Section S9.4.2.1.1 should be applied.

After all performance conditions are resolved and the equity instrument is measured under ASC 505-50, the instrument is accounted for pursuant to other accounting literature (for options and warrants, ASC 815-40).

Example 3 in ASC 505-50-55 illustrates the application of this guidance on instruments with terms that could change based on achievement of both market conditions and performance conditions.

S9.5 Period and manner of recognition
ASC 505-50 does not specifically address the period(s) or the manner (i.e., capitalize versus expense) in which an enterprise should recognize the fair value of the equity instruments that will be issued. However, ASC 505-50 states that the fair value of the equity instruments issued should be recognized as an asset, expense, or sales discount in the same period and in the same manner (i.e., capitalize versus expense) as if the enterprise had paid cash for the goods or services. In many situations, even though a final measure of the value of the award will not occur until performance is complete, estimated amounts will need to be recognized as the option-holder performs under the arrangement. Those estimates will be trued up on the final measurement date (as well as each intervening balance sheet date).
We understand that the SEC staff believes that when equity instruments are issued to customers or potential customers in arrangements where the instrument will not vest or become exercisable without purchases by the recipient, the cost of the equity instruments must be reported as a sales discount—in other words, as a reduction of revenue. Similarly, when equity instruments are issued to suppliers or potential suppliers, and the instruments will not vest or become exercisable unless the recipient provides goods or services to the issuer, the SEC staff believes that the cost of the equity instrument should be reported as a cost of the related goods or services. In some situations, companies have issued equity instruments in arrangements that do not appear to require any performance from the counterparty. In the absence of any required future performance, the SEC staff generally believes that the issuance of such equity instruments relates to past transactions between the entities and believes that the cost should be classified accordingly (unless sufficient evidence exists that the issuer will receive a separate direct benefit in return for the equity instrument). In very rare and limited circumstances when there is not a performance commitment or a past relationship between the companies, the SEC staff has accepted classification of the cost of the equity instruments as a marketing expense if such classification appeared reasonable, so long as detailed and transparent disclosures of the transaction were made.

ASC 505-50 also states that a recognized asset, expense, or sales discount should not be reversed if stock options, that the counterparty has the right to exercise, expire unexercised.

S9.5.1 Balance sheet presentation

S9.5.1.1 Balance sheet presentation of nonvested equity instruments

ASC 505-50-S99-1 addresses the appropriate balance sheet presentation of arrangements where nonvested, forfeitable equity instruments are issued to an independent third party (counterparty) as consideration for future services. The arrangements addressed by the SEC staff entitle the issuer to recover the specific consideration paid, plus a substantial mandatory penalty, as a minimum measure of damages for counterparty nonperformance. Consequently, pursuant to ASC 505-50, sufficiently large disincentives for counterparty nonperformance exist such that a performance commitment and measurement date have been achieved as of the date of issuance.

Prior to this announcement, practice was mixed as to whether such transactions were recognized at the measurement date. Some registrants did not recognize the equity instrument until performance occurred and the resulting cost was recognized, while others recognized the fair value of the equity instruments as equity at the measurement date and an offsetting amount either as an asset or as a reduction of stockholders’ equity (contra equity). In ASC 505-50-S99-1, the SEC staff announced that if an issuer receives a right to receive future services in exchange for nonvested, forfeitable equity instruments, the securities are considered unissued until future services are received. Consequently, there would be no recognition of the instrument on the measurement date. The issuer should recognize the
compensation cost over the period that the services are provided, and the award is “earned” by the counterparty. This accounting is consistent with the accounting for share-based payments to employees as described in Section S4.1.1.

**S9.5.1.2 Balance sheet presentation of vested equity instruments**

If an entity grants fully vested, nonforfeitable equity instruments at the date the parties enter into the contract, the grantor should recognize the measured cost in the same periods and in the same manner (i.e., capitalize or expense) as if the grantor had paid cash for the goods or services. In addition, in the event that an asset (other than a note or a receivable) is acquired in exchange for the fully vested, nonforfeitable equity instruments, the asset should not be displayed as contra-equity by the grantor of the equity instrument. In the event that a note or receivable is acquired in exchange for the fully vested, nonforfeitable equity instruments, the note or receivable should be displayed as contra-equity by the grantor. However, we interpret the term “receivable” broadly in this context. For example, if the stock-based award was paid for legal services yet to be provided (i.e., legal services receivable), the grantor should not record a prepaid asset (e.g., prepaid legal services). Rather, it should recognize expense and offsetting credits to equity as services are received or, preferably, recognize the service receivable as contra equity.

**S9.5.1.3 Application of ASR 268 to nonemployee awards**

As discussed in Section S5.2.3.5, share-based payments to employees are subject to the provisions of the SEC’s guidance on redeemable securities upon being granted (even while subject to the provisions of ASC 718). Similarly, the SEC staff explicitly observed that the guidance relating to the applicability of the SEC’s guidance on redeemable securities should also be applied to awards to nonemployees that are subject to redemption outside of the issuer’s control:

<table>
<thead>
<tr>
<th>Excerpt from SAB Topic 14.E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Question 3:</strong> Would the methodology described for employee awards in the Interpretive Response to Question 2 above [Section S5.2.3.5] apply to nonemployee awards to be issued in exchange for goods or services with similar terms to those described above?</td>
</tr>
<tr>
<td><strong>Interpretive Response:</strong> See Topic 14.A for a discussion of the application of the principles in Statement 123R to nonemployee awards. The staff believes it would generally be appropriate to apply the methodology described in the Interpretive Response to Question 2 above to nonemployee awards.</td>
</tr>
<tr>
<td>However, the exceptions to the requirements of ASC 480-10-S99-3A(3)(d) described in Section S5.2.3.5.7 would not apply to awards to nonemployees.</td>
</tr>
</tbody>
</table>
S9.6 Illustrative examples

The complexities of ASC 505-50 can be best illustrated through examples. The following examples build on a single fact pattern, and illustrate how varying provisions in the agreement affect the total cost to be recognized. Additional examples are included in ASC 505-50-55.

Basic facts

On 31 December 20X1, Company A enters into an arrangement with an attorney to defend it in a lawsuit. On 31 December 20X1, the attorney agrees to perform the services in exchange for 1,000 stock options with an exercise price of $10 and an exercise period of 10 years that become exercisable (vest) when the case is disposed of (e.g., by judgment, settlement, dismissal). Assume the aggregate fair value of the options (estimated based on the maximum term of the award) is $22,000 on 31 December 20X1. The attorney begins work on the case on 1 January 20X2, and finishes work on the case on 31 December 20X3. The options become exercisable when the judge decides the case (which occurs on 31 December 20X3), at which time the fair value of the options is $54,000.

Example 9-1 – The quantity and terms of the equity instruments to be issued are known up front, and there is a performance commitment

Assume in this example that if the attorney quits the case, he is subject to specified monetary damages that, in the circumstances, constitute a “sufficiently large disincentive for nonperformance.” Accordingly, 31 December 20X1 is the performance commitment date and, therefore, the date at which Company A will measure the fair value of the 1,000 stock options with an exercise price of $10. Company A will recognize $22,000 during the course of 20X2-20X3 in the same periods and in the same manner as if it had agreed to pay $22,000 in cash for the attorney’s services; that is, spread over the two year period.
Example 9-2 – The quantity and terms of the equity instruments to be issued are known up front, but there is no performance commitment

For this example, assume the same facts as above, except that the attorney is not subject to specified monetary damages that constitute a “sufficiently large disincentive for nonperformance.” Accordingly, because no performance commitment exists, the measurement date is not the grant date and must be held open until performance is complete.

In this example, Company A would measure the fair value of the 1,000 stock options at each financial reporting date during the performance period 20X2-20X3, using the current stock price and other assumptions as of those dates. Company A ultimately would recognize the aggregate fair value of the options measured at the date performance is complete (i.e., 31 December 20X3).

For example, assume the 1,000 stock options have a fair value of $25,000 at 31 March 20X2 and $27,000 at 30 June 20X2. Interim measurements that Company A would make through 30 June 20X2 to recognize the appropriate portion of the cost of the attorney’s services during each period the work is performed would be based on the $25,000 and $27,000 for the quarters ended 31 March 20X2 and 30 June 20X2, respectively. The pro rata portion of any change in fair value, relating to the service provided to date, is recognized in the period that the change occurs. This is essentially the same as the accounting for liability awards prescribed by ASC 718-30-35-3. Company A ultimately would recognize $54,000, the fair value of the options at 31 December 20X3 (measurement date).
Example 9-3 – The quantity and terms of the equity instruments can change after the initial measurement date due to a performance condition, and there is a performance commitment

In this example assume a significant performance commitment exists, but that the quantity and terms depend on the fulfillment of a performance condition. Specifically, assume the attorney will receive 1,000 options with an exercise price of $10 if the company wins the case, whereas the attorney will receive only 500 options with an exercise price of $15 if the company loses the case.

Because a performance commitment exists, 31 December 20X1 is the date at which Company A will measure the fair value of the 1,000 options with an exercise price of $10 and the 500 options with an exercise price of $15. Company A will select whichever fair value is lower, in the aggregate, and recognize that cost during the course of 20X2-20X3 in the same periods and in the same manner as if it had agreed to pay cash for the services.

Assume the aggregate fair values at 31 December 20X1 are $42,000 and $16,000 for the $10 and $15 options, respectively. Company A is required to select the lower fair value, $16,000, and recognize it during the course of 20X2-20X3. In effect, in this example, the guidance in ASC 505-50 requires recognizing the minimum expense, without regard to the probability of winning the case. If the attorney loses the case, $16,000 is the total amount of expense that would be recognized.

Assume instead, however, that the attorney wins the case on 31 December 20X3 and is entitled to the 1,000 options at $10. Under ASC 505-50, that additional amount that was contingent is recognized using the modification accounting approach described in ASC 718. Using current assumptions as of 31 December 20X3, Company A would measure the fair value of both the $10 and the $15 stock options and recognize additional cost equal to the difference between those two fair values.

Assume that on 31 December 20X3, the $10 and $15 options have an aggregate fair value of $96,000 and $43,000, respectively. Company A will recognize an additional $53,000 (that is, $96,000-$43,000) of expense on 31 December 20X3 to reflect the fact that the case was won and, therefore, the terms of the options have been modified. Therefore, a total of $69,000 ($16,000+$53,000) of expense would be recognized by Company A if it wins the case. Thus, if there is a performance condition that allows for more than one possible outcome, different measurement dates may have to be used to measure the components of the total expense.
Example 9-4 – The quantity and terms of the equity instruments can change due to a counterparty performance condition, and no performance commitment exists

Assume the same fact pattern as Example 9-3, except that in this example the attorney is not subject to specified monetary damages that constitute a “sufficiently large disincentive for nonperformance” and, as such, no performance commitment exists.

The aggregate fair values of the stock options at 31 December 20X1 are $42,000 and $16,000 for the $10 and $15 options, respectively.

Because a performance commitment does not exist, the stock options are ultimately measured when performance is complete (i.e., once the attorney has rendered his services). In our example, performance by the attorney is complete at the end of 20X3. During the two years ended 20X3, Company A would continue to remeasure the fair value of the 500 stock options (the $15 stock options have a lower aggregate fair value) as of each financial reporting date within the two year period and recognize the pro rata portion of any change in fair value, relating to the service provided to date, in the period that the change occurs. Assume that the fair value of the 500 options is $43,000 at 31 December 20X3.

At 31 December 20X3, if the attorney lost the case, Company A would ultimately recognize $43,000 of expense related to the 500 stock options, because the final measurement of the minimum aggregate fair value of the options could not occur until the attorney’s performance was complete. Contrast this with the $16,000 of expense that would have been recognized in Example 9-3 had the attorney lost the case. The difference results because in Example 3 the attorney had a performance commitment and, therefore, it was appropriate to finalize the measurement date of the minimum number of stock options that the attorney would earn at the inception of the agreement. No such performance commitment exists in Example 9-4, so the measurement of the lowest aggregate fair value cannot occur until performance is complete.

Now assume that on 31 December 20X3, the attorney wins the case and is entitled to the 1,000 options with the $10 exercise price. The fair value of the 1,000 stock options would be measured using current stock prices and assumptions at 31 December 20X3 (note that modification accounting need not be applied in this example because no measurement date occurred prior to the verdict in the case). The aggregate fair value of the $10 stock options at that date is $96,000. Therefore, if the case is won, the total expense is $96,000, compared to only $69,000 had a performance commitment existed (Example 9-3).

Example 9-5 – The quantity of the equity instruments can change after the initial measurement date due to a market condition, and there is a performance commitment

The following example is not based on the previous fact pattern. This example is Example 3 from ASC 505-50-55:
Excerpt from Accounting Standards Codification

Equity — Equity-Based Payments to Non-Employees

Implementation Guidance and Illustrations

Example 3: Arrangement Contains a Market Condition

505-50-55-13
An entity agrees to pay cash and issue 1,000 stock options in exchange for an architectural design firm to design for the entity a new research laboratory and to deliver the plans within a year. The design firm is subject to a significant penalty if it does not complete the design of the research laboratory within one year. This penalty is considered to be of a magnitude that is a sufficiently large disincentive for nonperformance; thus, the arrangement contains a performance commitment. The quantity and terms of the stock options are known at the performance commitment date, except that if 2 years after the design firm has received the 1,000 stock options the entity's stock price is below $35 per share, the entity will issue to the design firm, based on a sliding scale, up to 250 additional stock options.

505-50-55-14
The entity would measure the 1,000 stock options on the performance commitment date pursuant to the requirements of paragraph 505-50-30-28. Assume this fair value is $10,000. At the performance commitment date the entity would also measure the fair value of the issuer's commitment to potentially issue another 250 stock options, regardless of whether this commitment is in the money at that date. Assume this fair value is $2,000. The total cost of the transaction to be recognized is thus $12,000. After the performance commitment date, the entity would account for the commitment to potentially issue the 250 additional stock options in accordance with the relevant accounting guidance on financial instruments, including Subtopic 815-40.
The accounting for the income tax effects of share-based payments is one of the most complex aspects of ASC 718, particularly for multinational companies that grant share-based payments to employees in numerous jurisdictions. ASC 718 typically requires the use of sophisticated award and tax-benefit tracking systems for companies that make significant use of share-based payments to compensate employees.

Certain of the issues addressed in this chapter have been discussed by the Resource Group but the Resource Group was unable to reach conclusions on those issues. As a result, the FASB or its staff may in the future reach different conclusions on certain issues regarding the interaction of ASC 718 and ASC 740 than the views expressed herein. Accordingly, the activities of the FASB should be monitored carefully.

Under ASC 718, the income tax effects of share-based payments are recognized for financial reporting purposes only if such awards are structured to result in deductions on the company's income tax return.

Determining whether a share-based payment will result in a future tax deduction depends on the type of award. Under current United States federal income tax law, employee stock options are treated as either statutory (e.g., incentive) stock options or nonstatutory (e.g., nonqualified) stock options. Nonstatutory options are discussed in Section S10.1. Statutory options are discussed further in Section S10.7.

**S10.1 Tax effects of awards that normally result in a tax deduction**

Under a nonqualified stock option plan, an employer generally receives a U.S. tax deduction in an amount equal to the excess of the market price of the stock on the date of exercise over the exercise price (i.e., the intrinsic value). Nonvested stock is treated similarly to nonqualified stock options under current U.S. federal income tax law in that the employer generally receives a tax deduction equal to the market value of the stock on the date the restrictions lapse (usually the vesting date), less any amounts paid by the employee.

---

**Excerpt from Accounting Standards Codification**

*Income Taxes – Compensation – Stock Compensation*

**Overview and Background**

*718-740-05-4*

Income tax regulations specify allowable tax deductions for instruments issued under share-based payment arrangements in determining an entity’s income tax liability. For example, under tax law, allowable tax deductions may be measured as the intrinsic value of an instrument on a specified date. The time value component, if any, of the fair value of an instrument generally may not be tax deductible. Therefore, tax deductions may arise in different amounts and in different periods from compensation cost recognized in financial statements. Similarly, the amount of expense reported for an employee stock ownership plan during a period may differ from the amount of the related income tax deduction prescribed by income tax rules and regulations.
As indicated above, the fair-value method of ASC 718 results in compensation cost being recognized in the financial statements in different amounts and in different periods than the related income tax deductions. The remainder of this chapter describes how to account for those differences.

### S10.1.1 Calculating deferred taxes for deductible awards

**Excerpt from Accounting Standards Codification**

*Income Taxes – Compensation – Stock Compensation*

**Recognition**

718-740-25-2

The cumulative amount of compensation cost recognized for instruments classified as equity that ordinarily would result in a future tax deduction under existing tax law shall be considered to be a deductible temporary difference in applying the requirements of Subtopic 740-10. The deductible temporary difference shall be based on the compensation cost recognized for financial reporting purposes. Compensation cost that is capitalized as part of the cost of an asset, such as inventory, shall be considered to be part of the tax basis of that asset for financial reporting purposes.

718-740-25-3

Recognition of compensation cost for instruments that ordinarily do not result in tax deductions under existing tax law shall not be considered to result in a deductible temporary difference. A future event can give rise to a tax deduction for instruments that ordinarily do not result in a tax deduction. The tax effects of such an event shall be recognized only when it occurs. An example of a future event that would be recognized only when it occurs is an employee's sale of shares obtained from an award before meeting a tax law's holding period requirement, sometimes referred to as a disqualifying disposition, which results in a tax deduction not ordinarily available for such an award.

718-740-25-4

The cumulative amount of compensation cost recognized for instruments classified as liabilities that ordinarily would result in a future tax deduction under existing tax law also shall be considered to be a deductible temporary difference. The deductible temporary difference shall be based on the compensation cost recognized for financial reporting purposes.

**Initial Measurement**

718-740-30-1

The deferred tax benefit (or expense) that results from increases (or decreases) in the recognized share-based payment temporary difference, for example, an increase that results as additional service is rendered and the related cost is recognized or a decrease that results from forfeiture of an award, shall be recognized in the income statement.
Accordingly, temporary differences arising under ASC 718 for both equity and liability awards that would result in a future tax deduction under existing tax law will result in the recognition of deferred tax benefits in the income statement with a corresponding increase to a deferred tax asset. Those tax benefits (deductible temporary differences) generally are calculated as the amount of compensation cost recognized multiplied by the appropriate tax rate (i.e., the employer's statutory tax rate) in the jurisdiction(s) in which the employer will receive a deduction.

Expected forfeitures (the expected number of awards that will be forfeited because the requisite service has not been provided) as well as actual forfeitures are incorporated into the estimate of compensation cost (as discussed in Chapter 4) and, therefore, are indirectly included in the amount of tax benefit recognized (because the tax benefit for awards that will result in a tax deduction generally is calculated as the compensation cost recognized multiplied by the statutory income tax rate). As a result, a separate adjustment to the deferred tax asset to reflect estimated or actual forfeitures is not necessary. An example of the calculation of deferred tax benefits is provided in Section S10.4.1.

S10.1.2 Balance sheet classification of deferred tax assets arising from share-based payments

ASC 740-10-45-4 requires that the current and noncurrent components of deferred tax balances be reported separately based on the financial statement classification of the related asset or liability giving rise to the temporary difference. If a deferred tax asset or liability is not related to an asset or liability that exists for financial reporting purposes (including deferred tax assets related to carryforwards), the deferred tax asset or liability would be classified as current or noncurrent based on the expected reversal date of the temporary difference. Accordingly, the tax benefits associated with share-based payments classified as equity should be classified based on the expected period of the tax event (option exercise or share vesting, unless an employee makes a Section 83(b) election, as discussed in Section S10.3.3.4). We would expect the assumptions regarding when options will be exercised to be consistent with the assumptions about the expected term of the option or exercise behavior of employees, which is discussed further in Section S7.3.1. The tax benefits associated with share-based payments classified as liabilities should be classified consistent with the classification of the liability balance.

S10.1.3 The effect on deferred tax assets of the IRC Section 162(m) limitation

Section 162(m) of the Internal Revenue Code generally limits a publicly held corporation's deduction for non-performance-based compensation paid to its CEO and next four most highly compensated officers to $1 million per year. Performance-based compensation, which is not subject to this limitation, generally includes (a) compensation that is payable only if the covered officer satisfies objective performance targets set by a committee composed of outside directors based on shareholder-approved performance goals and (b) stock options or
stock appreciation rights (if not granted “in-the-money”) granted by outside directors under a shareholder-approved plan that contains limits on the number of awards that can be granted to individual participants. Common types of compensation that are considered non-performance based and therefore are subject to the Section 162(m) limitation include salary, nonvested stock subject only to service-based vesting, and options granted “in-the-money” that are subject only to service-based vesting.

An issue arises as to whether and how the Section 162(m) limitation should affect the recognition of a tax benefit and a corresponding deferred tax asset as compensation cost is recognized over the requisite service period. Consider the following example:

- Base salary for a particular executive is expected to be $1,000,000 for each year.
- 100,000 shares of nonvested stock are granted on 1 January 2005.
- The fair value of stock on date of grant is $10 per share (total fair value of award is $1,000,000).
- All 100,000 shares cliff vest on 1 January 2007 provided the employee continues to provide service through that date. Vesting is not subject to performance or market conditions.
- The fair value of stock remains constant for all periods.
- Excluding executive compensation, pretax loss (income) is $0.
- The combined federal and state statutory tax rate is 40%.

The Resource Group discussed the above example at its 13 September 2005 meeting and agreed that, in many cases, tax strategies (e.g., compensation deferral) can be utilized to avoid the Section 162(m) limitation. The Resource Group agreed that if the company were expected to utilize alternatives that would avoid the Section 162(m) limitation and realize a tax benefit (e.g., if instead of restricted stock, the employer had granted restricted stock units for which settlement is deferred until the tax year after the grantee’s employment is terminated), it would recognize a tax benefit and a deferred tax asset as it recognized the compensation cost of the award (i.e., the Section 162(m) limitation would not affect the accounting for the deferred tax asset).

The Resource Group concluded that if the use of the tax strategies are not within the control of the employer (e.g., if the employee must make an election to defer compensation and had not yet done so), it would be inappropriate in the above example to recognize a tax benefit and a deferred tax asset in full for the award of nonvested stock. In that case, it would be acceptable to recognize a tax benefit for the share-based payment as compensation cost is recognized under one of two approaches:

1. Pro rata – Under this approach, the employer would estimate the employee’s anticipated total taxable compensation subject to the Section 162(m) limitation in the year that the share-based payment would result in a tax deduction, based on the current estimate of
the fair value of the award and the estimate of other compensation that would be paid to the employee during the year the award becomes taxable to the employee. The proportion of the expected deduction for the share-based payment to the total expected compensation deduction for that individual during that tax year (without consideration of the Section 162(m) limitation) would be multiplied by the deferred tax benefit that would be recognized during that year considering the Section 162(m) limitation. In the previous example, the employer expects $1,000,000 in cash compensation and $1,000,000 of nonvested stock (based on a current estimate of the fair value of the stock) to become deductible during 2007. The share-based payment represents 50% of the compensation deduction during the year. Because the total deduction is limited to $1,000,000, deferred taxes for the share-based payment would be recognized on only 50% of the recognized compensation cost, or $500,000. As a result, the employer would recognize a deferred tax benefit of $200,000 in each of the two years during the vesting period with respect to the grant of nonvested stock.

2. Share-based payment last – Under this approach, the employer would estimate the employee's total taxable compensation subject to the Section 162(m) limitation in the year that the share-based payment would result in a tax deduction as described above. The expected deduction would be allocated first to compensation other than share-based payments. Any remaining deductible amounts would be allocated to share-based payments on a pro-rata basis based on the percentage of the award that is expected to become deductible. In the previous example, the employer expects $1,000,000 in cash compensation and $1,000,000 of nonvested stock (based on a current estimate of the fair value of the stock) to become deductible during 2007. Because the Section 162(m) limitation is fully absorbed by the cash compensation expected to be paid during that year, no deferred tax asset is recognized for the nonvested stock.

In addition, we are aware that a third approach, known as the share-based payment first approach, is also applied in practice.

Any accounting policy election must be applied consistently to the recognition of deferred tax assets for all share-based payments subject to the potential limitations (whether they become subject to the limitations on the grant date or a later date) and, if the impact of the policy is material to the financial statements, this policy should be disclosed as a significant accounting policy.

**S10.1.3.1 Section 162(m)(6) limitations for certain health insurance providers**

Section 162(m) (6) of the Internal Revenue Code limits to $500,000 the deduction for compensation earned by all officers, employees, directors and other workers or service providers (collectively, “employees”) who provide services for a covered health insurance provider without regard to whether such compensation is paid during the taxable year or a subsequent taxable year (the “Section 162(m)(6) limitation”).
Unlike the general limitation on deductibility in Section 162(m) discussed above, there are no exceptions (as to either the group of employees affected or the type of compensation included) to the Section 162(m)(6) limitation. In addition, the limitation under Section 162(m)(6) is determined based upon the year in which services are provided, rather than the year in which compensation is paid, as is the case under Section 162(m).

Under Section 162(m)(6), all compensation arrangements earned by the employee in a taxable year are included in the calculation of the $500,000 deduction limitation. All compensation includes compensation that may not be deductible in the year it is earned (e.g., share-based compensation or deferred compensation arrangements). That is, the deduction for share-based compensation or deferred compensation arrangements is based on the amount of the compensation earned by an employee in the year(s) when the services are performed, rather than the compensation paid to the employee in the year when the deduction occurs.

For tax purposes, the employer’s share-based compensation deduction is determined in the year the compensation is included in the employee’s tax return (e.g., the year in which stock options are exercised or restricted stock grants vest). For Section 162(m)(6) limitation purposes, this deduction is then allocated ratably to the periods the compensation was earned. Following this allocation, if the sum of the allocated share-based compensation plus other forms of compensation (e.g., cash salary) attributable to each period exceeds the Section 162(m)(6) limitation ($500,000), the share-based compensation deduction is limited. The Section 162(m)(6) limitation is effective for compensation paid in tax years beginning after 31 December 2012 for services performed in tax years beginning after 31 December 2009.

We expect an entity that is subject to the Section 162(m) limitations in general to apply existing accounting policy elections in accounting for limitations of compensation deductions. However, with respect to the Section 162(m)(6) limitations, additional complexities arise for share-based compensation arrangements that are earned during a taxable year but are deductible in a later year.

Due to the lower compensation deduction limits and the expanded scope of the Section 162(m)(6) limitation, tax planning generally used to avoid Section 162(m) limits may not be available to avoid the Section 162(m)(6) limitation. Additionally, if the use of tax planning is not within the control of the employer (e.g., if the employee must make an election to defer compensation and has not yet done so), we believe it would be inappropriate to recognize a tax benefit and a deferred tax asset in full for share-based payment arrangements as if they were not limited.
Because of the mechanics of the Section 162(m)(6) limitation and the requirement to maximize a deduction in the year in which the deduction is available\(^{34}\), we believe the share-based payment last method described above for general Section 162(m) limitations is the most appropriate way for a covered health insurance providers to determine the income tax effects of share-based compensation subject to the Section 162(m)(6) limitation. That is, because the Section 162(m)(6) limitation is first absorbed by the cash compensation paid during a particular year, the share-based compensation that may become deductible in a future period generally is ordered last, resulting in the recognition of a deferred tax asset consistent with this approach.

Any accounting policy election must be applied consistently to the recognition of deferred tax assets for all share-based payments subject to the potential limitations (whether they become subject to the limitations on the grant date or a later date) and, if the impact of the policy is material to the financial statements, this policy should be disclosed as a significant accounting policy.

**S10.2 Valuation allowances on deferred tax assets**

Once the deferred tax asset is recognized pursuant to the preceding section, consideration must be given to whether the deferred tax asset is realizable:

<table>
<thead>
<tr>
<th>Excerpt from Accounting Standards Codification</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Income Taxes – Compensation – Stock Compensation</em></td>
</tr>
<tr>
<td><strong>Initial Measurement</strong></td>
</tr>
<tr>
<td><strong>718-740-30-2</strong></td>
</tr>
<tr>
<td>Subtopic 740-10 requires a deferred tax asset to be evaluated for future realization and to be reduced by a valuation allowance if, based on the weight of the available evidence, it is more likely than not that some portion or all of the deferred tax asset will not be realized. Differences between the deductible temporary difference computed pursuant to paragraphs 718-740-25-2 through 25-3 and the tax deduction that would result based on the current fair value of the entity’s shares shall not be considered in measuring the gross deferred tax asset or determining the need for a valuation allowance for a deferred tax asset recognized under these requirements.</td>
</tr>
</tbody>
</table>

740-10-30-5(e) requires companies to evaluate deferred tax assets on a gross basis (i.e., before consideration of deferred tax liabilities) to determine if it is more likely than not that the future tax benefits represented by the deferred tax assets will be realized. As discussed in Section T6 of our Financial Reporting Developments publication, Accounting for Income Taxes, if, based on the weight of the available evidence, it is more likely than not that some

\(^{34}\) A taxpayer cannot choose to limit the deduction of cash compensation in a period to allow for a larger deduction for share-based compensation earned in the same period but deductible in a future period.
portion or all of the deferred tax asset will not be realized, a valuation allowance is recognized to reduce the net carrying amount of the deferred tax asset to an amount that is more likely than not to be realized.

When considering the need for, or amount of, a valuation allowance for deferred tax assets recognized as a result of share-based payments, companies should consider whether or not future taxable income will be sufficient to recover the deferred tax assets (as originally measured) in the periods in which the deduction would otherwise be recognized for tax purposes. A valuation allowance to reduce the carrying amount of those deferred tax assets should be established only if the company believes, based on the weight of all available evidence, that it is more likely than not that future taxable income will not be sufficient to realize all or a portion of the deferred tax assets.

Changes in the intrinsic value of the award subsequent to the grant date should not be considered in determining the need for, or amount of, a valuation allowance. For example, assume an at-the-money option was granted with a fair value of $10 and, based on the employer’s statutory tax rate, the employer recognized a deferred tax asset of $4. Further, assume that the underlying stock price declines after the grant date and remains well below the exercise price of the option for the entire term of the option. Despite the fact that the award is not expected to result in any tax deduction at current stock-price levels, this factor is not considered in the recognition of the deferred tax asset or in determining the need for a valuation allowance. If the company expects to have sufficient taxable income to result in realization of the $4 tax benefit, no valuation allowance would be recognized. However, if the option expires out of the money, the tax benefit would be written off as discussed in Section S10.3.2, which addresses circumstances in which recognized compensation cost for an award exceeds the realized tax deduction.

While a valuation allowance is not recognized on a deferred tax asset solely because the intrinsic value of the award is less than the grant date fair value of the award, we believe that in some circumstances it may be appropriate to disclose the potential write-off of the deferred tax asset as a significant risk or uncertainty pursuant to ASC 275-10. For example, if the employer has outstanding a significant number of deeply-out-of-the-money options that are approaching contractual expiration and the write-off of the related deferred tax asset would be material to the employer’s financial position or results of operations, we believe disclosure of the possible write-off and the factors that may contribute to such a write-off would be necessary in the notes to the financial statements (and, for public companies, a discussion in MD&A also would be appropriate).
S10.3 Realization of tax benefits

ASC 718 provides that, after all compensation cost has been recognized over the vesting period, a company does not adjust the deferred tax asset\(^{35}\) until an option is exercised, expires, or is forfeited, a share vests or is forfeited, or any award is settled or is modified (as discussed in Chapter 8).

S10.3.1 Tax deduction exceeds recognized compensation cost

**Excerpt from Accounting Standards Codification**

*Income Taxes – Compensation – Stock Compensation*

**Subsequent Measurement**

**718-740-35-3**

If a deduction reported on a tax return for an award of equity instruments exceeds the cumulative compensation cost for those instruments recognized for financial reporting, any resulting realized tax benefit that exceeds the previously recognized deferred tax asset for those instruments is the excess tax benefit. If only a portion of an award is exercised, determination of the excess tax benefits shall be based on the portion of the award that is exercised.

**Other Presentation Matters**

**718-740-45-2**

An excess tax benefit determined pursuant to paragraph 718-740-35-3 shall be recognized as additional paid-in capital, except that an excess of a realized tax benefit for an award over the deferred tax asset for that award shall be recognized in the income statement to the extent that the excess stems from a reason other than changes in the fair value of an entity’s shares between the measurement date for accounting purposes and a later measurement date for tax purposes.

ASC 718 provides that if a tax deduction taken on the company’s income tax return for the award exceeds the cumulative amount of compensation cost recognized in the financial statements for that award, the company would recognize the excess tax benefit as an increase to additional paid-in capital. (See Section S10.4.1 for an example of the accounting in this circumstance). However, ASC 718 also provides that the deduction must be “realized” before this benefit is recognized in the financial statements. (See Section S10.3.3 for a discussion of when a deduction is “realized”).

---

\(^{35}\) The deferred tax asset would be adjusted if the applicable income tax rate changes. In that circumstance, the deferred tax asset would be recomputed based on the compensation cost recognized to date multiplied by the new tax rate, with any adjustment to the deferred tax asset recognized in income tax expense during the period of the tax rate change. See Section T8 of our Financial Reporting Developments publication, *Accounting for Income Taxes*, for additional guidance on accounting for changes in income tax rates.
**S10.3.1.1 Presentation of excess tax benefits in the statement of cash flows**

Cash retained by the company as a result of excess tax benefits relating to share-based payments to employees, as well as nonemployees, is presented in the statement of cash flows as a financing cash inflow (and a corresponding reduction in operating cash flows).

It should also be noted that the calculation of excess tax benefits that must be presented as a financing cash flow must be performed on an option-by-option basis. That is, while the credits recognized in additional paid-in capital during a reporting period (see Section S10.3.1) may be reduced by write-offs of deferred tax assets to additional paid-in capital (i.e., presented net, as discussed in Section S10.3.2), the amount presented in the statement of cash flows as a financing activity is based on a gross calculation without offset from any deferred tax asset write-offs to additional paid-in capital.

Additional complexities arise in the calculation of cash flows from excess tax benefits resulting from awards granted prior to the adoption of ASC 718 for companies that adopt ASC 718 using other than the full modified-retrospective transition method. Similar to the measurement of the excess tax benefit available to absorb deferred tax asset write-offs described in Section S10.5.1, the excess tax benefit to be presented as a financing cash flow must include consideration of the “pro forma deferred tax asset” (unless the award was fully vested on the date of adoption of ASC 718 and the company elects to use the alternative method of calculating the initial pool of excess tax benefits discussed in Section S10.5.1.4). For example, for a company that adopted ASC 718 using the modified prospective method that previously accounted for share-based payments to employees pursuant to Opinion 25, an at-the-money fixed stock option that was fully vested on the date of adoption of ASC 718 would not have an associated deferred tax asset on the balance sheet (because no compensation cost was recognized for the award in the financial statements). Accordingly, if the option is exercised and results in a tax deduction to the employer, the benefit of the entire tax deduction will be recognized in additional paid-in capital. However, as discussed and illustrated in Section S10.5.1 (assuming the company elected to calculate the initial pool of excess tax benefits pursuant to the method originally deliberated by the FASB and described in Section S10.5.1.2, rather than the alternative method permitted by the FASB and described in Section S10.5.1.4), the amounts of qualifying excess tax benefits available to absorb future deferred tax asset write-offs must be calculated by taking into account the pro forma deferred tax asset (i.e., based on the compensation cost recognized in the pro forma disclosure). This same amount (on an option-by-option basis) is recognized as a financing cash flow, and will result in a smaller amount of tax benefit recognized as a financing activity than if the pro forma deferred tax asset was not considered. An excess tax benefit will be reported in financing activities in the statement of cash flows only if the tax deduction exceeds the grant date fair value (plus any incremental fair value resulting from any modifications) of the award.

The write-off of deferred tax assets relating to the excess of recognized compensation cost over the tax deduction resulting from the award would be reflected within operating cash flows.
S10.3.2 Tax deduction is less than recognized compensation cost

Excerpt from Accounting Standards Codification

Income Taxes – Compensation – Stock Compensation

Subsequent Measurement

718-740-35-5

The amount deductible for an award of equity instruments on the employer’s tax return may be less than the cumulative compensation cost recognized for financial reporting purposes. The write-off of a deferred tax asset related to that deficiency, net of the related valuation allowance, if any, shall first be offset to the extent of any remaining additional paid-in capital from excess tax benefits arising from previous awards granted, modified, or settled in cash in fiscal years beginning after December 15, 1994, and measured in accordance with a fair value based method of accounting.

718-740-35-7

An entity that continued to use the intrinsic value method for measuring and recognizing awards permitted prior to the requirements of this Subtopic shall calculate the amount available for offset as the net amount of excess tax benefits that would have qualified as such had it instead adopted the fair value based method of accounting used in the entity's fair value disclosures for its intrinsic value based awards. In determining that amount, no distinction shall be made between excess tax benefits attributable to different types of equity awards, such as restricted shares or share options. An entity shall exclude from that amount excess tax benefits from share-based payment arrangements that are outside the scope of this Subtopic, excess tax benefits from employee stock ownership plans, and excess tax benefits that have not been realized pursuant to the requirements established in paragraph 718-740-25-10. See Examples 1, Case A (paragraph 718-20-55-10); 8 (paragraph 718-20-55-7); 15, Case A (paragraph 718-20-55-123); and Example 1 (paragraph 718-30-55-1), which provide illustrations of accounting for the income tax effects of various awards.

Other Presentation Matters

718-740-45-4

Paragraphs 718-740-35-5 through 35-8 contain measurement guidance on how much, if any, of the write-off of a deferred tax asset from a tax deficiency shall be offset against additional paid-in capital. The remaining balance, if any, of the write-off of a deferred tax asset related to a tax deficiency shall be recognized in the income statement.

As discussed above, if the tax deduction reported in the tax return for an individual award is less than the cumulative compensation cost recognized for financial reporting purposes for that award, the write-off of the related deferred tax asset in excess of the benefits of the tax deduction is recognized (1) in equity to the extent that additional paid-in capital has been recognized for excess tax deductions from previous share-based payments in fiscal years beginning after 15 December 1994, or (2) in operations (income tax expense), to the extent
the write-off exceeds previous qualifying excess tax benefits recognized in equity. Similarly, if a fully vested option expires unexercised – thus yielding no tax deduction, any deferred tax asset would be written off to income to the extent the write-off exceeds previous excess tax benefits recognized in equity. However, to the extent additional paid-in capital has been recognized for qualifying excess tax deductions from previous share-based payments (see Section S10.5.1.1 for a discussion of the alternative methods of calculating the initial pool of excess tax benefits that is available on transition to ASC 718), the write-off of the deferred tax asset is charged to additional paid-in capital (see Example 10-2 in Section S10.4.2).

Because future accounting for deferred tax assets may depend on the paid-in capital balances available from previous awards, companies should have a recordkeeping system to track excess tax deductions recognized as additional paid-in capital (or as “pro forma additional paid-in capital,” as discussed in Section S10.5.1).

**S10.3.2.1 Determining the pool of excess tax benefits**

We use the term “qualifying” excess tax deductions to distinguish those that are eligible to absorb write-offs of unrealized deferred tax assets under ASC 718 from those that are not. The following provides guidance on how to measure qualifying excess tax benefits:

1. **Limited to awards accounted for under ASC 718** – The excess tax deduction must be generated from awards within the scope of ASC 718 to be considered qualifying. Accordingly, any deductions resulting from employee stock ownership plans would not qualify. Companies that adopted ASC 718 using the modified-prospective or modified-retrospective transition methods, any excess tax deduction realized for awards accounted for under ASC 718 (e.g., regardless of the type of award or the jurisdiction in which the tax benefit is generated) would be eligible to absorb write-offs of deferred tax assets for any awards accounted for under ASC 718. See Section S10.5.2 for a discussion of nonpublic companies that adopted ASC 718 using the prospective method.

2. **May have a single pool for employee and nonemployee awards** – The Resource Group concluded at its 21 July 2005 meeting that because the accounting for income taxes for nonemployee awards are within the scope of ASC 718 (see Section 9.1.2) and ASC 718 does not require separate pools of excess tax benefits for separate types of awards, the excess tax benefits of employee and nonemployee awards may be combined in a single pool of excess tax benefits. In that circumstance, deferred tax asset write-offs resulting from deficient deductions on employee awards may be offset against previous excess tax benefits arising from nonemployee awards, and vice versa.

Alternatively, the Resource Group also believes it is acceptable to maintain separate pools of excess tax benefits for awards to employees and nonemployees, and not offset deferred tax asset write-offs resulting from deficient deductions on employee awards against previous excess tax benefits arising from nonemployee awards, and vice versa.
Companies should select an accounting policy from the above alternatives if they grant share-based payments to both employees and nonemployees, disclose that policy (to the extent material), and apply it consistently to all awards.

3. Interim reporting – While not explicitly addressed in ASC 718, the Resource Group concluded at its 21 July 2005 meeting that the determination of a company’s excess tax deductions or benefits to offset deferred tax asset write-offs should be made on an annual basis. This annual approach is consistent with the basic premise in ASC 740 that the annual provision is not impacted by whether a company reports on a quarterly basis. That is, if a company has a deferred tax asset write-off associated with deficient tax deductions in the first month of the year (without a pool of available excess tax benefits at that time) and generates a qualifying excess tax benefit in the last month of the year, the deferred tax asset should be written off to additional paid-in capital in the annual financial statements to the extent that the excess tax benefit is sufficient to absorb the write-off. This raises the additional question of whether in the interim financial statements for the first quarter the company can anticipate future excess tax benefits in calculating its effective tax rate pursuant to ASC 270. The Resource Group agreed that because of the difficulty in predicting stock prices and whether options with excess benefits or deficiencies would be exercised, entities should not project excesses or deficiencies but, rather, should account for those events as discrete items in the reporting period they occur. Therefore, anticipated excesses and deficiencies would not be considered in estimating the effective tax rate for purposes of applying ASC 270. For example, if a net deficiency is recognized as a charge to income tax expense in the first quarter and a net excess is recognized in the second quarter, the first quarter deficiency (up to the amount of the second quarter excess) would be reversed by crediting income tax expense in the second quarter.

4. Must be realized – The excess tax deduction must be realized to qualify for recognition and addition to the pool of excess tax benefits. Realization of excess tax benefits is discussed in Section S10.3.3. See Section S10.5.1 for a discussion of the application at transition of the requirement that an excess tax benefit be realized.

5. Transition pool of excess tax benefits – The FASB decided to expand the pool of qualifying excess tax benefits for companies that adopted ASC 718 using the modified-prospective or modified-retrospective transition methods to include any remaining additional paid-in capital from excess tax benefits arising from previous awards granted, modified, or settled in cash in fiscal years beginning after 15 December 1994. That is, companies adopting ASC 718 will be able to utilize excess tax benefits that previously were only “recognized” for purposes of the pro forma disclosures (and were not utilized to absorb deferred tax asset write-offs in calculating pro forma net income). The FASB also provided an alternative approach to calculating the pool of excess tax benefits on initial adoption of ASC 718, which is discussed in Section S10.5.1.4.
S10.3.2.2 Entities to be included in the pool of excess tax benefits

Questions frequently arise regarding the impact of acquisitions or dispositions on the pool of excess tax benefits. Specifically, should the excess tax benefits associated with an acquired or disposed entity be included in the parent’s (or former parent’s) pool of excess tax benefits?

We believe that the pool of excess tax benefits should include the excess tax benefits from awards granted by any entities that are currently consolidated within the reporting entity’s consolidated financial statements, regardless of the jurisdiction (i.e., country) associated with the tax benefit. Accordingly, we believe the pool of excess tax benefits should be calculated based on the following considerations:

1. **Sale of a subsidiary** – We believe that the excess tax benefits recognized prior to the sale of a subsidiary that result from share-based payments granted by entities currently in the consolidated group to employees of former subsidiaries previously sold should remain within the consolidated group’s pool of excess tax benefits. Excess tax benefits from awards granted by the sold subsidiary (i.e., in the equity of the sold subsidiary prior to the sale) should not be included in the former parent’s pool of excess tax benefits.

2. **Business combinations** – We believe that, because of the application of a new basis of accounting in a purchase business combination, the excess tax benefits recognized by the acquired company before the business combination are not included in the pool of excess tax benefits of the acquiring company. However, we believe that the excess tax benefits resulting from share-based payments issued by the acquirer in exchange for the share-based payments held by employees of the acquired company should be included in the pool of excess tax benefits of the acquiring company. See Section S10.6.1 for a discussion of the accounting for share-based payments issued in a purchase business combination and related deferred taxes.

3. **Equity method investments** – We believe that excess tax benefits generated by equity method investees (whether generated by awards in the investee’s equity or investor’s equity) are not included in the investor’s pool of excess tax benefits.

4. **Spin-off of a subsidiary** – We believe that it is acceptable to allocate the pre-spin excess tax benefits under either of the following methods, provided that the method is applied consistently:

   a. Excess tax benefits should be recognized by the entity that received the services. That is, if the grantee was employed by the spun-off subsidiary (generally assessed at the time of the taxable event), the excess tax benefit would be allocated to the subsidiary. Otherwise the excess tax benefit would be allocated to the parent, or,

   b. Excess tax benefits should be allocated to the entity whose equity the awards were granted in (i.e., the same approach described above for subsidiaries sold).
Subsequent to the spin-off, we believe that the excess tax benefits should be recognized by the entity that receives the tax deduction (generally, the entity that employs the grantee).

5. **Bankruptcy** – Similar to purchase business combinations, if a company applies fresh start accounting (i.e., a new basis in all assets and liabilities is established) under ASC 852-10, on emergence from bankruptcy, its pool of excess tax benefits is zero.

Note that the conclusions on Items 2 and 3, above, were confirmed by the Resource Group at its 21 July 2005 meeting.

**S10.3.2.3 Net unrealized excess tax benefits acquired in a purchase business combination**

A company acquired in a purchase business combination may have previous unrealized excess tax benefits that increased a tax net operating loss. The Resource Group considered whether, when recognizing the assets acquired and liabilities assumed in the business combination, the prohibition in ASC 718-740-25-10 on recognizing excess tax benefits before they are realized would apply to the acquired net operating loss carryforwards.

The Resource Group agreed at its 21 July 2005 meeting that if a business combination results in a new basis of accounting for financial reporting purposes, and if the target company had net operating loss carryforwards that resulted partly from excess tax benefits, the net operating loss carryforwards would lose their “taint” after the acquisition. That is, a deferred tax asset could be recognized for the net operating loss carryforward, subject to any necessary valuation allowance, without regard to whether the net operating loss was generated from excess tax benefits or other sources. However, in a transaction that results in assets and liabilities being accounted for at their historical-cost basis for financial reporting purposes (e.g., pooling-of-interests business combination or a spin-off), the net operating loss carryforwards generated by excess tax benefits would not lose their “taint,” and the benefit must be realized pursuant to ASC 718-740-25-10.

**S10.3.3 Determining when an excess tax benefit is realized and measuring the excess tax benefit**

Excerpt from Accounting Standards Codification

*Income Taxes – Compensation – Stock Compensation*

**Recognition**

718-740-25-10

A share option exercise may result in a tax deduction before the actual realization of the related tax benefit because the entity, for example, has a net operating loss carryforward. In that situation, a tax benefit and a credit to additional paid-in capital for the excess deduction would not be recognized until that deduction reduces taxes payable.
ASC 718-740-25-10 specifies that if the grantor will not benefit from the excess tax benefit resulting from the true-up of deferred taxes at the time of the taxable event (e.g., option exercise or share vesting) because, for example, it has a net operating loss carryforward that is increased by the excess tax benefit, then the tax benefit and the credit to additional paid-in capital would not be recognized until the deduction reduces current taxes payable. See Section S10.5.1 for a discussion of the accounting for previously recognized excess tax benefits prior to the adoption of ASC 718 that were not realized in accordance with ASC 718-740-25-10.

Numerous complexities arise in the determination of whether excess tax benefits have been realized and in measuring those excess tax benefits. For example, questions arise about whether an excess tax benefit has been realized if, absent the tax benefit, an existing net operating loss carryforward could have been utilized to reduce income taxes payable to zero. Questions about realization and measurement also arise with options exercised by employees in foreign jurisdictions, which may result in the realization of a tax benefit in a different amount than the ultimate overall benefit that will be realized in the parent’s U.S. tax return. In addition, stock compensation deductions interact with numerous other provisions of the tax code, often limiting available credits (e.g., R&D credits).

**S10.3.3.1 Identifying and measuring deductions realized during the period**

As discussed above, the share-based payment guidance prohibits recognition of a deferred tax asset for an excess tax benefit that has not been realized. For example, if the excess tax benefit increases a net operating loss carryforward, that benefit would not be realized and no deferred tax asset would be recognized (the Resource Group concluded at its 13 September 2005 meeting that it would not be acceptable to record a deferred tax asset and offsetting valuation allowance in this circumstance).

The Resource Group discussed how the share-based payment guidance interacts with the intraperiod allocation rules under ASC 740, where historically excess tax benefits are recognized last. Consider the following example:

| Assume a company has a $2,000 net operating loss carryforward at the beginning of the year that is related to operating losses and that the associated deferred tax asset has a full valuation allowance. During the year, the company has operating income of $1,000 and excess tax deductions from stock options of $1,000, resulting in net taxable income of $0. The combined statutory tax rate is 40% tax. |

Historically, when applying ASC 740's intraperiod allocation provisions, excess tax benefits have been recognized last using a “with-and-without” approach as described in ASC 740-20. In other words, excess tax benefits should be recognized in additional paid-in capital only if an incremental tax benefit would be realized after considering all other tax benefits presently available to the company. Based on this approach, the excess tax benefit from stock option exercises would not be recognized in additional paid-in capital in the above example as the
company could have used existing net operating loss carryforwards from prior operating losses to shelter current year taxable income from operations. Said another way, the company's tax liability would not have been greater absent the excess tax benefit. As a result, the company would recognize a tax benefit for one-half of the net operating loss carryforward and would not recognize a tax benefit for the excess tax deduction related to share-based payments currently utilized on its tax return. This method would be applied on an aggregate or cumulative basis if the deductions span several years. In other words, as long as previously existing net operating loss carryforwards (or other types of carryforwards that might be available to offset current period taxable income, such as foreign tax or R&D tax credits) exceeded taxable income before consideration of excess tax deductions, there would be no recognition of any excess benefits. This method diverges from how the net operating loss carryforward is tracked under U.S. tax law, in which the benefit of the deductions for the exercise of stock options would be utilized before the net operating loss carryforward.

While the Resource Group agreed that the use of the with-and-without method appeared consistent with the provisions of ASC 718, the Resource Group observed that the application of the with-and-without approach becomes very complex and requires significant recordkeeping because, for example, the tax benefits of net operating losses would be assumed to be used in different periods for book and tax reporting purposes. Many Resource Group members also expressed significant reservations about the with-and-without approach when the “indirect effects” of the excess tax deduction are considered (i.e., when the amount of the excess tax deduction affects other deductions or credits, such as the effect on federal research and development tax credits). The Resource Group also noted that use of the with-and-without approach is not explicitly mandated by ASC 718 for the accounting for excess tax benefits.

At the 13 September 2005 meeting, the Resource Group concluded that ASC 718 did not specify a particular methodology for ordering tax benefits and, therefore, the Resource Group believes that there are two approaches that would be acceptable for purposes of determining whether an excess tax benefit had been realized:

1. Follow the tax law – A company could follow the ordering provisions of the tax law and not consider indirect effects of excess tax deductions. For example, under the tax law current period deductions are utilized prior to existing net operating loss carryforwards. Applying this approach to the previous example would result in the conclusion that the $1,000 excess tax deduction ($400 excess tax benefit) was realized. The Resource Group also agreed that if the tax law did not specify the ordering in a particular circumstance, then a pro-rata approach should be used.

2. With-and-without approach – A company could follow the with-and-without approach described in ASC 740-20. In this circumstance, the Resource Group believed that an additional accounting policy election must be made with respect to certain indirect effects of excess tax deductions (described above).
The Resource Group believed that a company could elect an accounting policy to either (a) include in or (b) exclude from the measurement of the excess tax deduction any indirect effects of the excess tax deduction. However, regardless of the accounting policy selected, excesses or deficiencies should arise only as a result of a difference between the fair value of the award at the date of the tax event (usually the award’s intrinsic value) and the accounting measurement date (generally the grant date for equity awards). For example, an option that ultimately results in a tax deduction equal to the compensation cost recognized for financial reporting purposes would not result in an excess or deficient tax deduction.

Any accounting policy election (alternative 1 (a) or 1(b), or 2(a) or 2(b)) regarding the ordering of tax benefits to determine whether an excess tax benefit was realized as well as the policy to measure that excess tax benefit (e.g., ignoring or including indirect effects) must be applied consistently and, if the impact of the policy is material to the financial statements, should be disclosed as a significant accounting policy. The approach (e.g., to ordering and measurement) should be applied consistently both for purposes of identifying and measuring excess tax benefits associated with the tax deduction taken after adoption as well as the calculation of the initial pool of excess tax benefits available at adoption. Companies should carefully elect an accounting policy in this regard on adoption of ASC 718 (or the first time the company is required to determine whether an excess tax benefit has been realized). Future changes to a company’s initial policy election would be considered voluntary accounting changes, and ASC 250 would be applied.

**S10.3.3.2 Identifying and measuring excess tax benefits in foreign jurisdictions**

U.S. companies generally do not receive a tax deduction on their U.S. income tax return for share-based payments granted to employees of a foreign subsidiary. The foreign subsidiary generally will not receive a deduction on its foreign income tax return unless it is charged for the benefit by the parent. To obtain a deduction in the foreign jurisdiction, the parent company may institute a management charge to the foreign subsidiary equal to the intrinsic value of the share-based payment on exercise of an option or vesting of a share. Generally, no U.S. taxes are owed on the payment because the payment is for the purpose of purchasing the U.S. company’s shares.

At its 21 July 2005 meeting, the Resource Group discussed how companies should determine when excess tax benefits from options granted to employees of foreign subsidiaries have been realized and how to measure those excess tax benefits. The Resource Group agreed that the tax benefit that should be accounted for under the share-based payment model is limited to the actual benefit of the tax deduction taken on the local income tax return. As such, deferred taxes and any excess or deficient tax benefit should be measured at the local statutory income tax rate. Any benefit from the ability to repatriate earnings from the foreign jurisdiction to the parent’s home jurisdiction (assuming such earnings are not indefinitely reinvested) would be recognized as a consequence of accounting for any outside-basis difference under ASC 740-30.
For example, assume a U.S. parent company grants options to employees of a subsidiary in Country X with a grant-date fair value of $1,000. The U.S. parent is subject to a U.S. statutory income tax rate of 35%. The subsidiary in Country X is subject to a local statutory tax rate of 15% and, because the parent will charge the subsidiary for the shares delivered under the options, the subsidiary will take an income tax deduction for the intrinsic value of the options at exercise in its income tax return filed in Country X. The company would recognize in its consolidated financial statements $1,000 of compensation cost and a related deferred tax benefit (and asset) of $150 for the options granted to employees of the subsidiary. If the intrinsic value of the options at exercise is $1,500 and that tax deduction is realized on the subsidiary’s tax return, the parent company would also record in additional paid-in capital an excess tax benefit of $75 (($1,500 - $1,000) × 15%). Any additional benefit from the parent’s ability to remit $1,500 without paying income tax would be recognized pursuant to ASC 740-30.

**S10.3.3.3 Realization of tax benefits on awards subject to graded vesting**

As discussed in Section S4.4.1.4, some share-based payments are subject to graded vesting. For example, an employer may grant employee stock options on 400 shares, 100 of which vest and become exercisable at the end of each year through year four. As discussed in Section S7.3.1.3, the fair value of such an award may be estimated based on the values of four separate awards (each with a different vesting period and, most likely, a different expected term). Alternatively, fair value may be estimated for the award as a whole using an expected term based on the average of the expected terms of each vesting tranche. While the former approach will most likely result in a better estimate of fair value, it complicates the accounting because each vesting tranche will have a different fair value (detailed examples of the accelerated and straight-line attribution models are provided in Section S4.4.1.6) and a different resulting tax benefit. The FASB addressed the accounting in such circumstances as follows:

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Awards Classified as Equity*

**Implementation Guidance and Illustrations**

**718-20-55-34**

Accounting for the tax effects of awards with graded vesting follows the same pattern illustrated in paragraphs 718-20-55-20 through 55-23. However, unless Entity T identifies and tracks the specific tranche from which share options are exercised, it would not know the recognized compensation cost that corresponds to exercised share options for purposes of calculating the tax effects resulting from that exercise. If an entity does not know the specific tranche from which share options are exercised, it should assume that options are exercised on a first-vested, first-exercised basis (which works in the same manner as the first-in, first-out [FIFO] basis for inventory costing).
That is, the earlier vesting tranches, generally with lower fair values (and lower tax benefits) because of the use of a shorter expected term, should be assumed to be exercised first. However, the FASB staff has confirmed that the above guidance only applies when the company has valued the award by treating the individual vesting tranches as separate awards and is using the accelerated attribution model described in Section S4.4.1.4.

If the award is valued as a single award with a single average expected term, the instruments in each vesting tranche would have the same fair value and the tracking issue described in paragraph 718-20-55-34 would not arise. Additionally, for awards that are valued as separate awards but the company then recognizes the aggregate fair value of all tranches using the straight-line method as if it was a single award, the FASB staff believes that the separate values for each tranche are no longer meaningful from an attribution or tax standpoint. For these awards (i.e., any award subject to graded vesting for which compensation cost is being attributed using the straight-line method), the realization of tax benefits would be based on ASC 718-74025 which states, in part, “[t]he deductible temporary difference shall be based on the compensation cost recognized for financial reporting purposes.”

That is, the tax deductions that arise from the different vested tranches for an award measured as a single award would be indistinguishable from the others, despite the fact that the options are subject to graded vesting. Accordingly, deferred taxes would be allocated to exercised options on a pro-rata basis (i.e., the deferred tax asset for each underlying share would be the same for all options granted at the same time with the same exercise price).

**S10.3.3.4 Tax effects of liability awards and Section 83(b) elections**

In certain cases the ultimate tax benefit realized will equal the tax benefit recognized in the financial statements. This generally will occur whenever the measurement dates for the compensation cost recognized for financial reporting purposes corresponds to the date that the employer’s tax benefit is measured. In that case, compensation cost measured for financial reporting purposes will equal the tax deduction taken on the employer’s tax return and, therefore, the tax benefit recognized in the financial statements and reported on the tax return will be equal. We believe that there are at least two circumstances in which this likely will be the case:

1. **Liability awards** – As discussed in Chapter 5, the final measurement of compensation cost for a liability award (e.g., a cash-settled stock appreciation right) is made on the settlement date. This generally is the date that the employee’s taxable income and the employer’s tax deduction are measured. Therefore, in most cases the tax benefits of a liability award will be recognized as a reduction of income tax expense.

2. **Section 83(b) elections on nonvested stock** – Under Internal Revenue Code Section 83(b), an employee who receives nonvested stock (and certain other types of “property”) is allowed to make an election to accelerate the inclusion of the value of the stock
(measured on the grant date) in his or her ordinary income. The benefit of making the Section 83(b) election is that any subsequent appreciation in the value of the stock is treated as a capital gain, rather than ordinary income. However, the election generally cannot be revoked and, therefore, if the stock is worth less on the vesting date than on the grant date, the employee must still include in his or her ordinary income the value of the stock on the grant date (if the employee ultimately sells the shares for less than his or her basis in the shares determined on the date of the Section 83(b) election, the employee will receive a deduction for a capital loss). Assuming the grant of nonvested stock is accounted for as an equity award under ASC 718, both the compensation cost and the tax deduction are measured on the grant date. At its 21 July 2005 meeting, the Resource Group concluded that on the grant date, the employer recognizes a deferred tax liability (for the difference between the financial reporting and tax basis of the recognized compensation cost) as well as a reduction in taxes payable (the employer has recognized a tax deduction before it has recognized compensation cost in the financial statements). The company reduces the deferred tax liability as it recognizes compensation cost and a corresponding tax benefit over the requisite service period.

### S10.4 Examples of the accounting for the tax consequences of nonqualified stock options

#### S10.4.1 Example 10.1 – Tax deduction exceeds the amount of cumulative compensation cost recognized

Assumptions:

- Date of grant: 31 December 20X0
- Award: 3,000 nonqualified stock options
- Expected forfeitures: 0
- Market value of stock at date of grant: $10
- Option exercise price: $10
- Fair value of option at date of grant: $3
- Vesting: 100% at the end of three years – three years is the requisite service period.
- Tax rate: 35%
- Date of exercise: 31 December 20X5
- Market value of stock at the exercise date: $15

The compensation cost to be recognized over the vesting period of the options is $9,000 (3,000 options × $3), or $3,000 per year for three years. The deferred tax benefit recognized would be $1,050 per year ($3,000 × 35%).
The journal entries to be recorded through the exercise date (assuming the compensation cost is recognized as compensation expense, rather than capitalized) are as follows:

**Annual entry – years 1-3**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation expense</td>
<td>$3,000</td>
</tr>
<tr>
<td>Additional paid-in capital</td>
<td>$3,000</td>
</tr>
</tbody>
</table>

To recognize compensation expense over the requisite service period.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deferred tax asset</td>
<td>$1,050</td>
</tr>
<tr>
<td>Deferred income tax benefit</td>
<td>$1,050</td>
</tr>
</tbody>
</table>

To recognize the related deferred tax asset over the requisite service period. (At the end of the vesting period the deferred tax asset totals $3,150 based on $9,000 of cumulative compensation expense).

**On exercise**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>$30,000</td>
</tr>
<tr>
<td>Additional paid-in capital</td>
<td>$9,000</td>
</tr>
<tr>
<td>Common stock and additional paid-in capital</td>
<td>$39,000</td>
</tr>
</tbody>
</table>

To recognize the cash proceeds and issuance of stock on exercise of 3,000 options.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deferred income tax expense</td>
<td>$3,150</td>
</tr>
<tr>
<td>Deferred tax asset</td>
<td>$3,150</td>
</tr>
</tbody>
</table>

To reverse the deferred tax asset accumulated over the vesting period.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current income taxes payable</td>
<td>$5,250</td>
</tr>
<tr>
<td>Current income tax benefit</td>
<td>$3,150</td>
</tr>
<tr>
<td>Additional paid-in capital – excess tax benefits</td>
<td>$2,100</td>
</tr>
</tbody>
</table>

To adjust current income taxes payable (3,000 options × $5 intrinsic value per option × 35% tax rate) and current income tax benefit from deductible stock options on exercise (3,000 options × $3 fair value per option × 35% tax rate). To credit additional paid-in capital for the benefit (based on a 35% tax rate) of a tax return deduction (3,000 options × $5 appreciation per share) in excess of the $9,000 of compensation expense recognized in the financial statements [(15,000-9,000) × 35%].

For illustrative purposes, the above entries, and those in the following example, assume that current taxes payable originally were recorded ignoring the effect of the tax deduction associated with the option exercise, and the tax benefit is realized as a reduction of current taxes payable on exercise. As such, the journal entries to recognize the tax effects of option exercise reflect the incremental tax benefits resulting from the option exercise.
Summary:

<table>
<thead>
<tr>
<th></th>
<th>20X1</th>
<th>20X2</th>
<th>20X3</th>
<th>20X5</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation expense</td>
<td>$3,000</td>
<td>$3,000</td>
<td>$3,000</td>
<td>$—</td>
<td>$9,000</td>
</tr>
<tr>
<td>Deferred tax expense (benefit)</td>
<td>(1,050)</td>
<td>(1,050)</td>
<td>(1,050)</td>
<td>3,150</td>
<td>—</td>
</tr>
<tr>
<td>Current tax benefit</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>(3,150)</td>
<td>(3,150)</td>
</tr>
<tr>
<td>Net impact on earnings</td>
<td>$1,950</td>
<td>$1,950</td>
<td>$1,950</td>
<td>$—</td>
<td>$5,850</td>
</tr>
</tbody>
</table>

**S10.4.2 Example 10-2 – Tax deduction is less than the amount of cumulative compensation cost recognized**

Assume the same facts as in Example 10-1, except that the market price of the stock on exercise is $11, and that paid-in capital includes $800 of excess tax benefits relating to previous employee share-based payments granted subsequent to the effective date of ASC 718 (and the excess tax benefits are based on the measurements required by ASC 718, including the realization requirement discussed in Section S10.3.3). The accounting and recognition of compensation expense and the deferred tax asset would be identical to that in Example 10-1 at the grant date and interim reporting dates, but would differ at exercise as the deferred tax asset at the date of exercise of $3,150 is not fully recoverable from the tax benefit of the actual tax deduction.

Because the tax deduction on exercise of $3,000 (3,000 options × $1 per share appreciation) is less than the cumulative compensation expense of $9,000 recognized for financial reporting purposes, a portion of the deferred tax asset must be written-off. The company will realize a benefit of only $1,050 (based on a deduction of $3,000), but it previously recognized a deferred tax asset of $3,150 (based on $9,000 of compensation expense.) The excess recorded deferred tax asset of $2,100 must be written off.

To determine the amount of the $2,100 write-off that must be recognized in income tax expense, the company needs to assess the sufficiency of its previous excess tax benefits from employee share-based payments (including the initial pool of excess tax benefits calculated based on the alternatives described in Section S10.5.2). In this example, the write-off of the excess deferred tax asset of $2,100 exceeds the $800 of excess tax benefits in additional paid-in capital related to share-based payments. Accordingly, the difference of $1,300 ($2,100 – $800) is charged against income tax expense and $800 is charged to paid-in capital. The sum of the two write-offs ($2,100) represents the write-off of the deferred tax asset ($3,150) in excess of the actual income tax benefit ($1,050).
It should be noted that if the $800 of paid-in capital related to share-based payments had not been available, the charge to income tax expense would have been $2,100 ($3,150 − $1,050).

Exercise date (31 December 20X5)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Current income taxes payable</td>
<td>$1,050</td>
</tr>
<tr>
<td>Deferred income tax expense</td>
<td>$2,350</td>
</tr>
<tr>
<td>Additional paid-in capital – excess tax benefits</td>
<td>$800</td>
</tr>
<tr>
<td>Deferred tax asset</td>
<td>$3,150</td>
</tr>
<tr>
<td>Current income tax benefit</td>
<td>$1,050</td>
</tr>
</tbody>
</table>

Summary:

<table>
<thead>
<tr>
<th></th>
<th>20X1</th>
<th>20X2</th>
<th>20X3</th>
<th>20X5</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation expense</td>
<td>$3,000</td>
<td>$3,000</td>
<td>$3,000</td>
<td>-</td>
<td>$9,000</td>
</tr>
<tr>
<td>Deferred tax expense (benefit)</td>
<td>(1,050)</td>
<td>(1,050)</td>
<td>(1,050)</td>
<td>2,350</td>
<td>(800)</td>
</tr>
<tr>
<td>Current tax benefit</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(1,050)</td>
<td>(1,050)</td>
</tr>
<tr>
<td>Net impact on earnings</td>
<td>$1,950</td>
<td>$1,950</td>
<td>$1,950</td>
<td>$1,300</td>
<td>$7,150</td>
</tr>
</tbody>
</table>

In this example, while compensation expense in each of the vesting years is presented net of a 35% income tax benefit, the effective income tax rate in the year of exercise will be impacted by the $1,300 in additional income tax expense. This example also demonstrates the consequences of ASC 718’s requirement to ignore subsequent changes in the market price of the stock in evaluating the need for a valuation allowance.

In each of these examples, it was assumed that a valuation allowance for the deferred tax asset was not required under ASC 740 for reasons unrelated to stock options (e.g., operating losses that would necessitate a valuation allowance were assumed not to exist). In addition, other aspects of ASC 740 that may affect the deferred tax accounting for share-based payments are not illustrated in the above examples (such as its provisions on accounting for changes in tax rates and laws).

S10.5 Transition issues

S10.5.1 Deferred taxes in transition – Modified prospective transition

When using the modified-prospective method, no adjustment should have been made to the deferred tax balances associated with share-based payments that continued to be classified as equity awards under ASC 718 (except for those adjustments resulting from the cumulative effect adjustments to recognize expected forfeitures, as discussed in Section S13.3.2.3). For nonqualified awards for which the requisite service had not yet been provided as of the adoption date, deferred taxes should have been recognized after the date of adoption based on the compensation cost subsequently recognized in the financial statements. As such, the deferred taxes relating to awards granted prior to the adoption of ASC 718 for which the
requisite service was not completed at the adoption date only reflected the compensation cost recognized in the financial statements (not the compensation cost recognized in the pro forma disclosures). The difference between this hybrid deferred tax asset and the actual tax deduction received (if any) was required to be recognized either in equity or as income tax expense, based on ASC 718’s requirements discussed in Section S10.3.1.

As a result of the accounting required under the modified-prospective method, companies had to track the amount of compensation cost recognized in the financial statements for each option to determine the appropriate deferred tax asset accounting. That is, they were not able to assume that compensation cost recognized was simply equal to the grant-date fair value of the award because only a portion of that fair value would have been recognized as compensation cost in the financial statements and, as such, generated a deferred tax asset. As a result, accounting for the excess tax benefits was more complicated under the modified-prospective method than under the modified-retrospective method. Since the deferred tax assets related to awards that are nonvested on the date of adoption of ASC 718 generally would have been smaller under the modified-prospective method, the amount of deferred tax asset that would have to be subsequently written off (potentially as income tax expense) if the deferred tax asset was not realized also would have been smaller under the modified prospective method.

Note that, as previously discussed, the pool of excess tax benefits recognized in equity that is available for future write-offs of deferred tax assets is based on the excess tax benefits arising from previous awards granted, modified, or settled in cash in fiscal years beginning after 15 December 1994. However, for companies that adopted ASC 718 using the modified prospective method, deferred tax assets were recognized based only on compensation cost recognized in the financial statements. Accordingly, for companies that accounted for share-based payments to employees under Opinion 25 prior to the adoption of ASC 718, compensation cost for tax-deductible awards recognized only for pro forma purposes results in a “pro forma deferred tax asset” that has not been recognized in the financial statements. As previously discussed, these pro forma amounts are excluded from the deferred tax asset on the balance sheet that potentially could be written off as a charge to income tax expense. However, the pro forma deferred tax asset must still be considered in calculating the pool of available excess tax benefits because the pool is calculated from excess tax benefits arising from previous awards granted, modified, or settled in cash in fiscal years beginning after 15 December 1994 (although the pro forma deferred tax asset need not be included in the calculation of excess tax benefits for awards that were fully vested on the date of adoption of ASC 718 if the company uses the alternative method to calculate the initial pool of excess tax benefits (see Section S10.5.1.4)). This requirement is illustrated in the following example. Note that the accounting described in this example relates to an award that was partially vested on the date of adoption of ASC 718; therefore, the example applies whether the company was following the original transition method (Section S10.5.1.2) or the alternative transition method (Section S10.5.1.4):
Example – 10-3 – Modified Prospective Transition – Income Tax Effects of Awards Granted Prior to Adoption of ASC 718 That Continue to Vest After Adoption

Assume that on 1 January 2005, a company grants 50,000 options with a grant date fair value of $5 per option. The company adopts ASC 718 using the modified prospective method on 1 January 2006, and the options cliff vest on 31 December 2009 (the award is 25% vested on the date of adoption). Employees exercise 25,000 options on 1 January 2010.

In this example, compensation cost of $250,000 (50,000 options × $5 per option) was measured for the options, but only $187,500 ($250,000 × 75%) of that amount was recognized in the financial statements after adoption of ASC 718 and $62,500 ($250,000 × 25%) was recognized only in the pro forma disclosures. Assuming a 35% statutory tax rate, the company has recognized a deferred tax asset of $65,625 ($187,500 × 35%) on the balance sheet and $21,875 ($62,500 × 35%) in the pro forma balance sheet. With regard to the exercise of 25,000 options, deferred taxes recognized in the balance sheet and the pro forma balance sheet of $32,813 ($65,625 × 50% of options exercised) and $10,938 ($21,875 × 50% of options exercised), respectively, must be derecognized at exercise. The combination of the pro forma and the actual deferred tax asset of $43,750 (difference due to rounding) must be considered in rolling forward the pool of available excess tax benefits (and for reporting excess tax benefits as financing cash flows), but if the pool of excess tax benefits is not sufficient to absorb a deferred tax asset write-off, only the amount of the deferred tax asset recognized on the balance sheet ($32,813) in excess of the pool of excess tax benefits would be written off to income tax expense. The following illustrates the calculation of deferred tax asset write-offs and changes to excess tax benefits under several scenarios:

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Intrinsic value at exercise</th>
<th>Tax benefit</th>
<th>Associated deferred tax asset on balance sheet</th>
<th>Associated deferred tax asset in pro formas</th>
<th>Total deferred tax asset</th>
<th>Increase (reduction) to APIC pool</th>
<th>DTA write-off recognized in the financial statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$2</td>
<td>$17,500</td>
<td>$32,813</td>
<td>$10,938</td>
<td>$43,750</td>
<td>($26,250)</td>
<td>($15,313)</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>35,000</td>
<td>32,813</td>
<td>10,938</td>
<td>43,750</td>
<td>(8,750)</td>
<td>N/A</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>61,250</td>
<td>32,813</td>
<td>10,938</td>
<td>43,750</td>
<td>17,500</td>
<td>N/A</td>
</tr>
</tbody>
</table>

In Scenario 1, the tax benefit (calculated as the intrinsic value of the options at exercise [$2 per option × 25,000 options exercised] times the statutory tax rate of 35%) is less than the total deferred tax asset as well as the balance sheet deferred tax asset. If the pool of prior excess tax benefits is sufficient to absorb the write-off of the excess tax benefit ($26,250), then that entire amount is considered a reduction of the pool of available excess tax benefits even though the actual reduction to additional paid-in capital only reflects the difference between the deferred tax asset on the balance sheet ($32,813) and the actual
tax benefit ($17,500), which is $15,313. If there are no available prior excess tax benefits to absorb the deferred tax asset write-off, only the $15,313 write-off is recognized in income tax expense (the pro forma deferred tax write-off is not recognized, and the pool of excess tax benefits is not reduced below zero).

In Scenario 2, the actual tax benefit is less than the total deferred tax asset (inclusive of the pro forma deferred tax asset) but exceeds the balance sheet deferred tax asset. As a result, no write-off of the balance sheet deferred tax asset is required, but the excess of the total deferred tax asset (based on the sum of the actual and pro forma deferred tax benefits) over the tax benefit, or $8,750, reduces the pool of available excess tax benefits.

In Scenario 3, the actual tax benefit exceeds the total deferred tax asset balance; therefore, no deferred tax asset write-off is required, and the excess of the tax benefit over the total deferred tax asset, or $17,500, is added to the pool of available excess tax benefits. However, the amount credited to additional paid-in capital equals $28,437 ($61,250 − $32,813). This amount exceeds the amount added to the pool of excess tax benefits ($17,500) because only a portion of the deferred tax asset related to the award was recognized in the balance sheet (with the remainder of the deferred tax asset recognized only in the pro forma balance sheet).

The accounting in transition for tax benefits resulting from disqualifying dispositions of incentive stock options is based on an approach similar to that described above, and is discussed in greater detail in Section S10.7.1.

S10.5.1.1 Calculating APIC credits available for deferred tax asset write-offs

As previously discussed, ASC 718 provides that tax benefits resulting from income tax deductions in excess of recognized compensation cost are recognized in additional paid-in capital. If the tax deductions are less than the cumulative compensation cost, the write-off of the related excess deferred tax asset is recognized as income tax expense, except to the extent of any remaining additional paid-in capital from excess tax benefits arising from previous awards granted, modified, or settled in cash in fiscal years beginning after 15 December 1994.

There were two methods to calculate the initial pool of excess tax benefits on adoption of ASC 718 using the modified prospective method or modified retrospective transition methods. The first method, referred to in this publication as the “original method,” is discussed in Section S10.5.1.2. The alternative method is discussed in Section S10.5.1.4.
S10.5.1.2 Calculating the initial pool of excess tax benefits under the original method

Under the original method, the pool of available credits in additional paid-in capital included all excess tax benefits relating to employee share-based payments granted or modified in fiscal years beginning after 15 December 1994, regardless of whether an entity elected to recognize compensation cost for employee share-based payments under Statement 123 in the financial statements or only in the pro forma disclosures prior to the adoption of ASC 718. Those credits were calculated as the benefits of tax deductions in excess of the compensation cost recognized (either in the financial statements or included in the pro forma disclosures) in accordance with Statement 123 and were reduced by any write-offs of excess deferred tax assets (either in the financial statements or included in the pro forma disclosures); essentially rolling forward the net excess tax deduction from the original effective date of Statement 123. The calculations generally should have been prepared to ensure that any deferred tax asset write-offs were appropriately recognized in operations or additional paid-in capital, as previously discussed. This is true regardless of whether share-based payments to employees were recognized under Statement 123 in the financial statements or only included in the pro forma disclosures.

The calculation of qualifying excess tax benefits under the original method was based solely on awards granted, modified or settled in years beginning after 15 December 1994. For those awards that ultimately vest and that result in tax deductions (including those awards that ultimately resulted in a tax deduction because of disqualifying dispositions of incentive stock options or shares acquired in a qualifying employee stock purchase plan), the company was required to prepare an annual rollforward of the excess tax benefit. The rollforward included all awards for which a tax event occurred or which expired without a tax benefit. Accordingly, the rollforward included the following transactions relating to awards granted, modified, or settled after in years beginning after 15 December 1994:

► shares and similar instruments that vested
► options that were exercised
► options that expired (either at the end of their contractual term or earlier as a result of post-vesting employee terminations) or were cancelled
► shares that were sold in disqualifying dispositions (shares obtained through a qualifying employee stock purchase plan or by exercising incentive stock options that were sold within a specified time after grant or purchase) for which the company received a tax deduction.
The rollforward was required to compare the benefit resulting from the tax deduction to the deferred tax asset that was recognized (in the financial statements or the pro forma financial statements). Any net excess deductions recognized during the year (excess tax deductions during the year reduced by tax benefit deficiencies during the year) were added to the pool from the prior year (if any). Any net tax benefit deficiencies were subtracted from the prior year pool; however, the cumulative excess tax benefits at the end of any year could not be less than zero because the portion of a deferred tax asset write-off that exceeds the available pool of excess tax credits was required to be recognized as income tax expense (either in the financial statements or the pro forma disclosures).

The calculation of the pool of excess tax benefits is further complicated by a change in the timing of the recognition of excess tax benefits resulting from share-based payments. Prior to the adoption of ASC 718, most companies recognized excess tax benefits when the taxable event occurred (i.e., generally, option exercise or share vesting), even if the tax deduction did not reduce current taxes payable but instead increased a net operating loss carryforward. However, under ASC 718, the excess tax benefit (and resulting credit to additional paid-in capital) cannot be recognized until the tax benefit is “realized” (i.e., the deduction reduces current taxes payable – the concept of realization is discussed further in Section S10.3.3)). ASC 718 provides for prospective application of this change in accounting for excess tax benefits. However, when computing the available pool of excess tax benefits under ASC 718, credits that have not been “realized” as of the date of adoption must be excluded (even if companies that have recognized share-based payments to employees under the fair-value method have credited additional paid-in capital for these excess tax benefits). Accordingly, at the effective date, companies were required to reduce the amount of excess tax benefits that were recognized for previous awards granted, modified, or settled in cash in fiscal years beginning after 15 December 1994 by any amounts that have not been realized on the effective date, as illustrated in the following example. We believe that the method of ordering and measuring the benefits of excess tax deductions must be consistently applied in the calculation of the initial pool of excess tax benefits as well as to changes to that pool after adoption of ASC 718.
**Example – 10-4 Calculation of the pool of excess tax benefits at adoption**

Assume a company was formed in 1998 and, in that year, granted 10,000 employee stock options that were accounted for under Opinion 25. The options cliff vested on 31 December 1998. The options were granted with an exercise price of $10 when the stock price was $10 and, accordingly, no compensation cost was recognized for those options under Opinion 25. The fair value of those options was $3 per option, and the resulting compensation cost of $30,000 was recognized only in the pro forma disclosures. Exercises of those options are indicated below. Assume for purposes of this illustration that no other options were granted to employees, and the company adopts ASC 718 on 1 January 2005, using the modified-prospective transition method. Also assume that based on the weight of the available evidence the company had concluded that it was more likely than not that it would realize its deferred tax assets despite the losses incurred for tax purposes in 2002 and 2003 (i.e., it did not recognize a valuation allowance against its pro forma deferred tax assets). The company computes its available excess tax benefits under the original method as follows, based on an assumed statutory tax rate of 35%:

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of options exercised</th>
<th>Grant date fair value</th>
<th>Stock price on exercise date</th>
<th>Tax deduction</th>
<th>Opinion 25 excess tax deduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>1,000</td>
<td>$3,000</td>
<td>$12</td>
<td>$2,000</td>
<td>$2,000</td>
</tr>
<tr>
<td>2000</td>
<td>2,500</td>
<td>7,500</td>
<td>20</td>
<td>25,000</td>
<td>25,000</td>
</tr>
<tr>
<td>2001</td>
<td>700</td>
<td>2,100</td>
<td>11</td>
<td>700</td>
<td>700</td>
</tr>
<tr>
<td>2002</td>
<td>2,000</td>
<td>6,000</td>
<td>18</td>
<td>16,000</td>
<td>16,000</td>
</tr>
<tr>
<td>2003</td>
<td>1,500</td>
<td>4,500</td>
<td>15</td>
<td>7,500</td>
<td>7,500</td>
</tr>
<tr>
<td></td>
<td>7,700</td>
<td>$23,100</td>
<td></td>
<td>$51,200</td>
<td>$51,200</td>
</tr>
</tbody>
</table>

\[
A = \text{No. of options exercised} \\
B = A \times 3 \\
C = \text{Grant date fair value} \\
D = (C - \$10) \times A \\
E = D \\
F = D - B \\
G = \text{Assumed taxable income (loss) prior to stock option deductions} \\
H = G - D \\
I = E \times 35\% \\
\]

[See Note 1]

<table>
<thead>
<tr>
<th>Year</th>
<th>Statement 123 excess tax benefit (deficiency)</th>
<th>Statement 123 excess tax benefit prior to stock option deductions</th>
<th>Taxable income (loss) after stock option deductions</th>
<th>Opinion 25 excess tax benefit (deficiency)</th>
<th>Statement 123 DTA written off as income tax expense</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>$17,500</td>
<td>$30,000</td>
<td>$8,750</td>
<td>$17,920</td>
<td>$10,185</td>
</tr>
<tr>
<td>2001</td>
<td>(1,400)</td>
<td>10,000</td>
<td>9,300</td>
<td>245</td>
<td>(490)</td>
</tr>
<tr>
<td>2002</td>
<td>10,000</td>
<td>(5,000)</td>
<td>(21,000)</td>
<td>5,600</td>
<td>3,500</td>
</tr>
<tr>
<td>2003</td>
<td>3,000</td>
<td>5,000</td>
<td>(2,500)</td>
<td>2,625</td>
<td>1,050</td>
</tr>
<tr>
<td></td>
<td>$28,100</td>
<td>$45,000</td>
<td>$17,920</td>
<td>$10,185</td>
<td>$10,185</td>
</tr>
</tbody>
</table>

Statement 123 excess tax benefits not realized at the date of adoption ($6,200 × 35%) $2,170

ASC 718 pool of excess tax benefits $8,015
Note 1: The final two columns are calculated as “f × 35%.” To the extent that the amount is positive (an excess) or, if negative, does not exceed the balance of the pool of excess tax benefits at the beginning of the period, the amount is included in the column under the heading “Statement 123 Excess Tax Benefit (Deficiency).” To the extent that the calculated amount is negative (a “deficiency”) and exceeds the balance of the pool at the beginning of the period, that excess amount is included under the heading “Statement 123 DTA Written Off As Income Tax Expense” (which would have been reflected only in the pro forma disclosures as the company accounted for share-based payments under Opinion 25 at that time).

Note 2: In determining whether the excess tax deductions have been realized in the above example, we have applied a “with-and-without” approach under which the tax benefit is considered realized only to the extent that taxes payable would have been greater absent the excess tax deduction. In this example, the excess tax deductions were considered unrealized to the extent they were included in a net operating loss that could not be carried back against taxable income in previous years. As discussed in Section S10.3.3.1, the company alternatively could have applied an approach in which it determines whether a benefit has been realized by following the tax law. If the tax law does not provide guidance on the order of the use of deductions under the alternative approach, the company would have applied a pro rata approach. If a pro rata approach had been applied in the above example, the company would multiply the net operating loss for the year that could not be carried back by the proportion of the excess tax benefit deductions to total tax deductions during the period. The results of that calculation would be considered the portion of the excess tax benefits that were not realized. For example, if total tax deductions during 2002 were $75,000 and $3,700 of those deductions were unrealized (of the $21,000 net operating loss carryforward, only $17,300 could be carried back to the prior periods because of insufficient taxable income in those periods), the calculation of the unrealized excess tax benefit would be as follows: $3,700 unrealized deduction × $10,000 in excess tax deductions/$75,000 in total tax deductions = $493. Accordingly, $9,507 of the excess tax deduction would be considered realized, and the resulting tax benefit of $3,327 ($9,507 × 35%) would be recognized as an increase to the pool of excess tax benefits. The unrealized portion of the excess tax benefit ($493) would be tracked and recognized only when the net operating loss carryforward is utilized.

Through 31 December 2004, the company has recognized $17,920 of excess tax benefits in equity based on the requirements of Opinion 25. For purposes of the pro forma disclosures provided pursuant to Statement 123, in 1999 the company charged to pro forma expense a $350 pro forma excess deferred tax asset because no prior excess tax benefits had been recognized in pro forma equity. In 2001, the company was able to write-off the pro forma excess deferred tax asset to pro forma additional paid-in capital because it had generated a credit in pro forma additional-paid-in capital for an excess tax benefit in the prior year that exceeded the amount of the 2001 write-off. Accordingly, as of the date of adoption of
ASC 718, the company has recognized cumulative credits in pro forma additional paid-in capital under Statement 123 in the amount of $10,185. However, not all of the excess tax benefits were “realized” because certain of those benefits are recognized as a deferred tax asset associated with a net operating loss carryforward (NOL). As a result, the amount of the NOL deferred tax asset of $2,170 (using a with-and-without approach) must be excluded from the pool of excess tax benefits available to absorb future write-offs of deferred tax assets, although the amount remains in additional paid-in capital (i.e., no adjustment is permitted to remove that amount from additional paid-in capital on adoption of ASC 718). Those amounts will be added to the pool when the excess deduction is utilized to reduce taxes payable.

As described above, the calculation of excess tax benefits available under the original method was very complex. If the company was unable to perform the calculations required by the original method, it was required to use the alternative method described in Section S10.5.1.4 (for both financial statement and earnings per share purposes).

S10.5.1.3 SEC View – When the calculation of the pool of excess tax benefits must be performed

SAB Topic 14.J indicates that it may not be necessary to calculate the amount of realized excess tax benefits on the effective date of ASC 718:

**Excerpt from SAB Topic 14.J**

*Share-Based Payment*

SAB Topic 14.J

Statement 123R [Subtopic 718-740] will necessitate the tracking of tax attributes relating to share-based payment transactions with employees for a number of reasons, including the requirements related to any required write-off of excess deferred tax assets upon settlement of a share option. While it is important that appropriate detailed information be available when needed for consideration, the timing as to when such information actually affects financial reporting will vary from company to company. In preparation for the adoption of Statement 123R [Subtopic 718-740], Company L should evaluate the level of detail which may be required considering its particular facts and circumstances.

Statement 123R [Subtopic 718-740] is silent as to when the additional paid-in capital available for offset should be calculated. However, the staff notes that Company L would not be required to calculate the additional paid-in capital available for offset by the date it adopts Statement 123R. In addition, the staff notes that Statement 123R [Subtopic 718-740] does not require disclosure of the additional paid-in capital available for offset. The staff believes that Company L need only calculate the additional paid-in capital available for offset if and when Company L faces a situation in which deductions reported on its tax return are less than the relevant deferred tax asset. In addition, Company L need only perform the calculations periodically to the extent necessary to conclude that sufficient paid-in capital is available for the offset of the deduction shortfall. [Footnote 98 omitted]
While it may not be necessary to calculate excess tax benefits on the effective date for accounting purposes, it often will be necessary to perform this calculation for purposes of calculating earnings per share. Specifically, as discussed in Section S11.2.2, when calculating the dilutive impact of employee stock options or nonvested stock, the assumed proceeds used in the treasury stock calculation are adjusted for any excess tax benefits or deferred tax asset write-offs that would be recognized in additional paid-in capital. As a result, in the likely event that companies will have some tax deduction deficiencies inherent in outstanding share-based payments on adoption (because the current intrinsic value of an award is less than the grant date fair value, which typically would be the case for recently granted stock options), companies will be required to determine whether their pool of qualifying excess tax benefits (combined with any excess tax benefits inherent in other outstanding share-based payments) is sufficient to absorb the projected deferred tax asset write-off in time to calculate EPS for the quarter in which ASC 718 is adopted. This calculation would be required for EPS purposes every period, while for financial statement purposes it generally would not be required until options are exercised or shares vest. While companies may not be required to calculate the entire excess tax benefit, they will have to perform the calculation as far back as necessary to identify qualifying excess tax benefits (combined with any excess tax benefits inherent in other outstanding share-based payments) sufficient to absorb the deferred tax asset write-off inherent in outstanding dilutive share-based payments.

**S10.5.1.4 Calculating the initial pool of excess tax benefits under the alternative method**

Because of the difficulties that some companies faced in calculating their pool of excess tax benefits under the original method, the FASB provided an alternative method, which is a simplified method to calculate the beginning pool of excess tax benefits. The alternative method also provided a method of determining the subsequent impact on the pool of awards that are outstanding and fully or partially vested on the adoption of ASC 718. Finally, the alternative method provided guidance on how to present excess tax benefits in the statement of cash flows when the alternative pool calculation is used.

**S10.5.1.4.1 Initial pool calculation**

The FASB permitted the initial pool of excess tax benefits to be computed as follows under the alternative method:

**Step 1:**

The sum of all net increases of additional paid-in capital recognized in an entity’s annual financial statements related to tax benefits from stock-based employee compensation during fiscal periods subsequent to the adoption of Statement 123 but prior to the adoption of ASC 718. The above amounts generally were readily available because they were determined on an annual basis and were obtained directly from the separate line in the statement of changes in stockholders’ equity, regardless of whether a company followed Opinion 25 or Statement 123. Those amounts should have included all periods for which the pro forma
disclosures were provided pursuant to Statement 123, which were required beginning in fiscal years beginning after 15 December 1994. Accordingly, a calendar-year company would have included in the calculation net increases to additional paid-in capital recognized from 1 January 1995 until the date of adoption of ASC 718.

Additionally, it should be noted that under the alternative method, the increases to additional paid-in capital prior to the adoption of ASC 718 were included in the calculation even if those increases would not have been considered “realized” pursuant to ASC 718-74025-10. This differs from the original approach to calculating the pool of excess tax benefits described in the original method under which unrealized excess tax benefits were required to be excluded from the pool of excess tax benefits. Finally, as discussed in Section S10.5.1.4.2, subsequent to the adoption of ASC 718 excess tax benefits are not recognized unless they have been realized in accordance with ASC 718-74025-10, regardless of the method used to calculate the initial pool of excess tax benefits.

Step 2:

Less:

The cumulative incremental pretax employee compensation costs that would have been recognized if Statement 123 had been used to account for stock-based employee compensation costs, multiplied by the entity’s blended statutory tax rate upon adoption of ASC 718, inclusive of federal, state, local, and foreign taxes. Cumulative incremental compensation costs were the total stock-based employee compensation costs included in pro forma net income as if the fair-value-based method had been applied to all awards pursuant to the provisions of Statement 123, less the stock-based compensation costs included in the entity’s determination of net income as reported.

The compensation cost described above is essentially the pre-tax compensation cost added to the compensation cost actually recognized in the financial statements to arrive at the pro forma net income amount required to be disclosed under Statement 123, subject to the adjustments described in footnotes 1 and 2, below.

The failure to identify awards that do not result in tax deductions would reduce the amount of the pool, thereby encouraging entities to diligently attempt to identify such awards. Such

---

36 In calculating cumulative incremental compensation costs, entities excluded compensation costs associated with an award that ordinarily does not result in tax deductions under existing tax law (as described in ASC 718-740-25-3) [e.g., incentive stock options and qualifying employee stock purchase plans] unless the award has resulted in a tax deduction prior to the adoption of ASC 718 [e.g., because of a disqualifying disposition prior to the effective date of ASC 718 or the entity is unable to obtain the information necessary to determine the amount of such cost.]

37 In calculating cumulative incremental compensation costs, entities excluded compensation costs associated with awards that are partially vested upon the adoption of ASC 718.
awards should have included incentive stock options, qualifying employee stock purchase plans, and awards in foreign jurisdictions that do not result in tax deductions.

Compensation cost for partially vested awards was excluded from the initial pool of excess tax benefits because that compensation cost would have been included in the calculation of excess tax benefits when the award resulted in a tax deduction, as discussed further below.

If a company had recognized more compensation cost in the financial statements under Opinion 25 than under Statement 123 (e.g., because of a repricing that resulted in variable accounting), they may have had a cumulative decrement when calculating “cumulative incremental pre-tax employee compensation costs that would have been recognized if Statement 123 had been used.” The FASB staff confirmed that the company could not subtract such a decrement when calculating the "incremental pro forma compensation cost" as part of the initial pool of excess tax benefits.

Calculating the blended tax rate – The alternative method provided no guidance on how to determine the blended statutory tax rate. We believe that entities should develop an approach that reasonably blends the rates in consideration of the relative compensation cost recognized in each jurisdiction. For example, we believe it would be acceptable to calculate the blended tax rate based on the statutory rates in effect in the various jurisdictions on the date of adoption, weighted based on the amount of share-based compensation cost recognized in each jurisdiction compared to total share-based compensation cost recognized in the most recent reporting period.

S10.5.1.4.2 Subsequent recognition of tax benefits

Awards Fully Vested on the Effective Date of ASC 718 – For awards that were fully vested at the date of adoption of ASC 718 (for which compensation cost was multiplied by the blended tax rate and deducted from the pool of excess tax benefits), the entire benefit of a tax deduction that was realized in accordance with ASC 718-740-25-10 and recognized in equity after the effective date of ASC 718 should be added to the pool of excess tax benefits (because the compensation cost associated with those awards already impacted the pool). That is, the amount actually credited to equity, considering only the deferred tax asset recognized on the balance sheet, would be added to the pool of excess tax benefits. We also believe that if a recognized (on the balance sheet) deferred tax asset associated with the award would be written-off to equity, the pool would be reduced by that amount.
We believe that there are two acceptable approaches to determining whether an award subject to graded vesting (with tranches that vest on different dates) is partially or fully vested on the date of adoption of ASC 718. Note that under ASC 718, when attributing compensation cost of an award subject to graded service vesting to reporting periods, an entity may treat each vesting tranche as a separate award or may treat all of the combined vesting tranches as a single award and recognize compensation cost on a straight-line basis (subject to certain constraints, see Section S4.4.1.4).

- For companies that treat each vesting tranche as a separate award for cost attribution purposes (often characterized as the “accelerated method”), the assessment of whether an award is partially or fully vested is based on the legal vesting status of each tranche. That is, if an award provided for graded vesting over three years such that 1/3 of the award vested each year, and if on the date ASC 718 is adopted 1.5 years had passed and 1/3 of the award was legally vested, 1/3 of the award would be considered fully vested and subject to the guidance in the preceding paragraph while 2/3 of the award would be partially vested and subject to the guidance described below.

- For companies that attribute the cost of the award as if it were a single award with a single vesting period (i.e., the straight-line method), we believe the entity may select an accounting policy to either follow the method described in the preceding bullet or to treat the entire award subject to graded vesting as partially vested if any vesting tranche remains nonvested on the date of adoption of ASC 718. That is, if an award provided for graded vesting over three years such that 1/3 of the award vested each year, and, if on the date ASC 718 is adopted 1.5 years had passed and 1/3 of the award was legally vested, the entire award would be considered partially vested. Because compensation cost associated with the award will not be deducted from the initial pool of excess tax benefits under the simplified method if the entire award is considered partially vested, all of the compensation cost associated with the award must be included in subsequent calculations of the excess tax benefits and deficiencies, as discussed below.

The selection of an accounting policy should be applied consistently to all awards subject to graded service vesting and should be disclosed as a significant accounting policy if the policy is material to the financial statements.

Awards Partially Vested on the Effective Date of ASC 718 – For awards that were partially vested at, or granted subsequent to, the date of adoption of ASC 718 (for which compensation cost did not affect the initial pool of excess tax benefits), the existing provisions of ASC 718 should be applied (see Section S10.5.1). That is, the tax deduction should be compared with the sum of compensation cost recognized or disclosed for that award under Statements 123 and ASC 718 (e.g., the combined pro forma compensation cost as well as the compensation cost recognized in the financial statements). The tax effect of any resulting excess deduction that was realized in accordance with ASC 718-740-25-10 should increase the pool of excess tax benefits; the tax effect of any resulting deficient deduction should be deducted from the pool of excess tax benefits.
Effect on statement of cash flows – ASC 718 requires that the excess tax benefit associated with an individual share-based payment be included in the statement of cash flows as a cash inflow from financing activities and a cash outflow from operating activities. The information necessary to determine the appropriate classification in the statement of cash flows under that guidance is similar to the information required to perform the retrospective calculation of the beginning pool of excess tax benefits specified in the original method. The lack of availability of such information in certain cases is one of the reasons the alternative transition approach is necessary. Accordingly, for an entity that elects the alternative method to calculate the initial pool of excess tax benefits, the excess tax benefits to be presented as financing cash flows should be computed in a manner consistent with the calculation of additions to the pool of excess tax benefits. That is:

- For awards that were fully vested at the date of adoption of ASC 718, the entire benefit of a tax deduction that was realized in accordance with ASC 718-740-25-10 and recognized in equity after the effective date of ASC 718 should be presented as a cash inflow from financing activities and an operating cash outflow.

For awards that were partially vested at or granted subsequent to the date of adoption of ASC 718, the existing provisions of ASC 718 should be applied (see Section S14.1.2). That is, any excess tax benefit should be determined as if the entity had always followed a fair-value-based method of recognizing compensation cost in its financial statements (i.e., considering both the pro forma compensation cost recognized in the pro forma disclosures and compensation cost recognized in the financial statements) and should be included as a cash inflow from financing activities and a cash outflow from operating activities within the statement of cash flows.

Example – 10-5 Application of the Alternative Method

Entity A, a calendar-year company, adopted Statement 123 for disclosure purposes on 1 January 1996, and elected to continue to apply the recognition provisions of Opinion 25 for purposes of determining its net income. In accordance with the transition provisions of Statement 123, Entity A’s pro forma disclosures included the effects of all awards granted since 1 January 1995. The awards granted by Entity A are ordinarily expected to result in a tax deduction under existing tax law. From 1 January 1995, through 31 December 2005, Entity A recognized the following net increases in additional paid-in capital (that is, the amounts that have been included in its statement of changes in stockholders’ equity for each of the respective years) in connection with its stock-based employee compensation plans.

Tax benefits from stock-based compensation plans

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$100</td>
<td></td>
<td></td>
<td>$120</td>
<td></td>
<td></td>
<td>$180</td>
<td>$480</td>
<td></td>
<td>$180</td>
<td>$150</td>
<td></td>
<td>$1,210</td>
</tr>
</tbody>
</table>
During the same period, the following incremental pretax compensation costs would have been recognized if Statement 123 had been used to account for stock-based employee compensation costs. Assume $400 of the cumulative compensation cost disclosed relates to awards that are partially vested. The company’s current blended statutory tax rate is 40%. This illustration assumes that the tax benefits realized upon exercise of the awards are also 40% of the related tax deduction. However, the tax benefit realized upon the exercise of an award should be determined based on the tax rates in effect (for the applicable taxing jurisdictions) at the date of the related tax reduction.

### Incremental stock-based compensation costs

<table>
<thead>
<tr>
<th>Year</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>-</td>
</tr>
<tr>
<td>1996</td>
<td>$100</td>
</tr>
<tr>
<td>1997</td>
<td>$100</td>
</tr>
<tr>
<td>1998</td>
<td>$200</td>
</tr>
<tr>
<td>1999</td>
<td>$200</td>
</tr>
<tr>
<td>2000</td>
<td>$200</td>
</tr>
<tr>
<td>2001</td>
<td>$300</td>
</tr>
<tr>
<td>2002</td>
<td>$300</td>
</tr>
<tr>
<td>2003</td>
<td>$200</td>
</tr>
<tr>
<td>2004</td>
<td>$200</td>
</tr>
<tr>
<td>2005</td>
<td>$200</td>
</tr>
<tr>
<td>Total</td>
<td>$2,100</td>
</tr>
</tbody>
</table>

**Beginning balance**

On 1 January 2006, Entity A adopted ASC 718 and elected the alternative method for calculating the initial pool of excess tax benefits. Entity A would compute the beginning balance of its APIC pool as the cumulative credits recognized in additional paid-in capital from 1 January 1995, until the adoption of ASC 718 ($1,210) less the tax effect of incremental stock-based compensation costs that would have been recognized if Statement 123 had been used to account for stock-based compensation costs, excluding the cost associated with partially vested awards (($2,100 − $400) × 40%).

Beginning balance of APIC pool = [$1,210 − (($2,100 − $400) × 40%)] = $530

**Fully vested awards**

Assuming all the same facts as above, on 1 January 1998, Entity A grants 100 employee share options each with a grant-date fair value of $6 and a 10-year contractual term. The awards vest at the end of 3 years of service and have an exercise price of $20 (the entity’s closing share price on the date of grant). The awards are exercised in 2006 when the share price is $30, resulting in an aggregate tax deduction of $1,000 (($30 − $20) × 100).

Because the award qualifies as a fixed award under Opinion 25, no compensation cost or associated deferred tax asset was recognized in the financial statements prior to the adoption of ASC 718. As a result, the tax benefit of the deduction ($400 = $1,000 × 40%) is recognized in APIC in 2006. Under the alternative transition method the exercise would increase the APIC pool by the same amount ($400).
Partial vested awards

Assuming all the same facts as above, on 1 January 2004, Entity A grants 100 employee share options each with a grant-date fair value of $6. The awards vest at the end of 3 years of service and have an exercise price of $25 (the entity’s closing share price on the date of grant). The awards are exercised in 2009 when the share price is $32, resulting in an aggregate tax deduction of $700 (($32 − $25) × 100). Because Entity A adopted ASC 718 on 1 January 2006, 33.3 % (1 of 3 years) of the award will be recorded as compensation cost in the financial statements with a corresponding deferred tax asset. Pursuant to the provisions of ASC 718, upon exercise of the award Entity A would adjust its APIC pool for an excess tax benefit or tax deficiency as if it had always followed the fair value measurement principles for recognition purposes. That is, the aggregate tax deduction ($700) less the cumulative compensation cost recognized or disclosed for the award under Statements 123 and ASC 718 ($600 = $400 + $200) is $100. The tax benefit of the excess deduction ($40 = $100 × 40%) increases the entity’s APIC pool. The total tax benefit of the award ($280 = $700 × 40%) in excess of the deferred tax asset related to compensation cost recognized in earnings ($80 = $200 × 40%), or $200, is recognized in APIC.

S10.5.1.5 Calculating the initial APIC pool for companies that went public after 1994

One of the complicating factors in calculating the initial pool of excess tax benefits was that the guidance in ASC 718 focuses on how the pool should be calculated for a company that adopts ASC 718 using either the modified-prospective or modified-retrospective methods. As discussed in Section S10.5.2, for prospective adopters (i.e., nonpublic companies who measured compensation cost under Statement 123 using the minimum value method), we confirmed with the FASB staff that the initial pool of excess tax benefits under ASC 718 was zero (because ASC 718 is only applied to new awards). However, companies that completed an initial public offering after the effective date of Statement 123 (fiscal years beginning after 15 December 1994) but prior to the adoption of ASC 718 were required to adopt ASC 718 using a combination of the modified-prospective and prospective transition methods. This hybrid transition requirement was discussed in Section S13.6.1.3. However, it was not clear how such companies would calculate the initial pool of excess tax benefits on adoption of ASC 718.

Based on discussions with the FASB staff, we understand that those companies were to include in the calculation of their initial pool of excess tax benefits all options granted, modified, or settled since the original effective date of Statement 123, even though some of those awards were originally measured at minimum value (not fair value). The FASB’s conclusion was based on the concept that adopting ASC 718 using in part the modified-prospective transition method subjects the company to all of the relevant paragraphs of ASC 718 that apply to the modified-prospective transition method, including the calculation of the pool of excess tax benefits. This pool of excess tax benefits would be used to absorb
tax deficiencies for all share-based awards accounted for at minimum or fair value under Statements 123 or ASC 718 (but not to awards accounted for in the financial statements at intrinsic value pursuant to Opinion 25). In addition, we understand that companies who adopted ASC 718 partially using the modified-prospective transition method and partially using the prospective transition method could also use the alternative method of computing the initial pool of excess tax benefits (discussed in detail in Section S10.5.1.4).

As a result of the above conclusions, companies who adopted ASC 718 using in part the modified-prospective transition method would have a larger initial pool of excess tax benefits than a company that adopts ASC 718 using only the prospective transition method. Additionally, partial modified-prospective adopters would have a larger pool of excess tax benefits than an otherwise similar company that adopted ASC 718 using the full modified-prospective method because compensation cost for at least some awards was recognized at minimum value (which is less than the fair value measurement used by a comparable public company), so a larger portion of the tax benefit from the award would be considered an excess tax benefit.

**S10.5.1.6 Summary of deferred tax effects under modified-prospective transition**

As discussed in Chapters 10, 11, 13, and 14, the accounting for deferred taxes under ASC 718 is complex and not only affects the balance sheet and income statement, but also the presentation of cash flows and the calculation of diluted EPS. These effects are complicated further for those companies that adopt ASC 718 using the modified prospective method, and, in particular, for those companies that utilize the alternative method to calculate the initial pool of excess tax benefits.

The complexities associated with the accounting for deferred taxes revolve around the issue of whether the accounting should be based only on the actual deferred tax asset reflected on the balance sheet, or whether the “pro forma deferred tax asset” should also be considered. The pro forma deferred tax asset is the asset that would be recognized on a hypothetical pro forma balance sheet as if compensation cost had been recognized for all awards granted since the original effective date of Statement 123, and is based on the compensation cost recognized in the pro forma disclosures under Statement 123.

The following table indicates whether the entire pro forma deferred tax asset or only the deferred tax asset recognized on the balance sheet should be included in the described calculations for a company that adopts ASC 718 using the modified-prospective transition method. The table describes the effects separately for companies that calculate the initial pool of excess tax benefits at transition using the original method (see further discussion in Section S10.5.1.2) and the alternative method (see further discussion in Section S10.5.1.4).
### Income tax accounting considerations

#### Financial reporting development

- **Share-based payment**

<table>
<thead>
<tr>
<th>Calculation of:</th>
<th>Original method for pool calculation</th>
<th>Alternative pool calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional paid-in capital and deferred income tax expense</td>
<td>Actual DTA on balance sheet</td>
<td>Actual DTA on balance sheet</td>
</tr>
<tr>
<td>Pool of excess tax benefits and financing cash flows</td>
<td>Pro Forma DTA</td>
<td>Fully vested – actual DTA on balance sheet</td>
</tr>
<tr>
<td></td>
<td></td>
<td>partially vested – pro forma DTA</td>
</tr>
<tr>
<td>Diluted EPS alternative 1</td>
<td>Actual DTA on balance sheet</td>
<td>Actual DTA on balance sheet or</td>
</tr>
<tr>
<td>Diluted EPS alternative 2</td>
<td>Pro Forma DTA</td>
<td>Fully vested – actual DTA on balance sheet</td>
</tr>
<tr>
<td></td>
<td></td>
<td>partially vested – pro forma DTA</td>
</tr>
</tbody>
</table>

**a** This calculation is used to determine how the deferred tax asset is “trued up” on the date the company receives a tax deduction for a share-based payment. The recognition of an (a) excess tax benefit in equity or (b) a deficiency in (1) equity or (2) income tax expense is always measured based on the actual deferred tax asset recognized on the balance sheet. See further discussion in Section S10.5.1.

**b** The pool of excess tax benefits is calculated considering the pro forma deferred tax asset (i.e., as if the company had applied Statement 123 since its original effective date), subject to adjustments if the company uses the alternative method to calculate the pool of excess tax benefits. See further discussion in Section S10.5.1.

**c** ASC 718 requires the presentation of excess tax benefits as financing cash flows. Based on conclusions reached by the Resource Group, we believe that the determination of the amount of excess tax benefit that must be presented as an operating cash outflow and a financing cash inflow must be consistent with the calculation of amounts to be added to the pool of excess tax benefits as described in note b, above. See further discussion in Section S14.1.2.

**d** As discussed above, under the alternative method of calculating the initial pool of excess tax benefits, the measurement of excess tax benefits that are additive to the pool and reported as cash inflows from financing activities for awards granted prior to the adoption of ASC 718 depends on whether or not the award is fully vested on the date of adoption. For these purposes, if the award is only partially-vested on the date of adoption of ASC 718, excess tax benefits are measured the same way as if the company had calculated the initial pool of excess tax benefits under the original method. If the awards are fully vested on the date of adoption, the entire amount of tax benefit that has been realized and recognized in equity is added to the pool of excess tax benefits. Determining the vested status of an award subject to graded vesting (with tranches that vest on different dates) is discussed in Section S10.5.1.4.

**e** As discussed in Section S11.2.2, we believe that whether a company uses the actual or pro forma deferred tax asset in its calculation of the assumed proceeds when applying the treasury stock method is an accounting policy decision that must be consistently applied. We believe that companies that elect to use the pro forma deferred tax asset in the calculation of assumed proceeds and apply the alternative method to calculate the pool of excess tax benefits should include only the deferred tax asset recognized on the balance sheet for awards that were fully vested on the date of adoption of ASC 718, but would use the pro forma deferred tax asset for awards that were partially vested on the date of adoption of ASC 718. This approach provides for consistency between the calculation of excess tax benefits for purposes of the pool of excess tax benefits, the statement of cash flows, and the calculation of diluted EPS.
S10.5.2 Deferred taxes in transition – prospective transition

As discussed in Section S13.5, nonpublic companies that adopted ASC 718 using the prospective transition method (because they used the minimum-value method to measure the value of employee stock options, either for recognition or pro forma disclosure purposes) would continue to account for awards granted prior to the adoption date (that are not subsequently modified) pursuant to Opinion 25’s intrinsic value method or Statement 123’s minimum-value method, as applicable. Additionally, deferred taxes, excess tax benefits, and tax deduction deficiencies also will continue to be accounted for under those methods. Accordingly, the concepts in ASC 718-740-25-10 regarding the realization of excess tax benefits would not apply to the excess tax benefits associated with the awards unless those awards were modified after the effective date of ASC 718.

We believe (and have confirmed with the FASB staff) that under the prospective method, tax deduction deficiencies should be written off only against excess tax benefits previously recognized under the same accounting standard. For example, for an award granted prior to the effective date of ASC 718 and accounted for under Opinion 25, any tax deduction deficiency (i.e., deferred tax write-off) should be written-off to additional paid-in capital only to the extent of remaining excess tax benefits that were generated by awards accounted for under Opinion 25. Similarly, for an award granted after the effective date of ASC 718, any tax deduction deficiency (i.e., deferred tax write-off) should be written-off to additional paid-in capital only to the extent of remaining excess tax benefits that were generated by awards accounted for under ASC 718. Essentially, under the prospective method the pool of excess tax benefits for awards accounted for under ASC 718 starts at zero on the adoption date for awards accounted for under ASC 718.

S10.5.3 Accounting for valuation allowances on excess tax benefits recognized prior to the adoption of ASC 718

In practice under Opinion 25 or Statement 123, deferred tax assets have been recognized for net operating loss carryforwards comprised of deductions for excess tax benefits from stock-based compensation. Under this approach, a valuation allowance would be established when it is more likely than not that the benefit would not be realized. An issue arises as to how and when this valuation allowance should be reversed subsequent to the adoption of ASC 718 (as discussed in Section S10.3.3, subsequent to adoption excess tax benefits are only recognized when they are realized).

The Resource Group discussed this issue at its 13 September 2005 meeting and agreed that the subsequent accounting for the valuation allowance would depend on when the valuation allowance was recognized. If a valuation allowance for the deferred tax asset resulting from the excess tax deduction was recognized in the same period that the excess tax benefit was recognized (and, therefore, additional paid-in capital did not increase for the excess tax benefit), then, in effect, the benefit of the excess tax deduction was never recognized and the valuation allowance should therefore not be reversed until the excess tax benefit has been
realized (i.e., realized by reducing taxes payable, see Section S10.3.3). Further, the Resource Group agreed that it would not object if a company chose to derecognize both the deferred tax asset for the excess tax benefit and the offsetting valuation allowance on adoption of ASC 718.

The Resource Group agreed that if the valuation allowance was recognized in a year subsequent to the recognition of the excess tax deduction, then the excess tax deduction had in effect been realized (prior practice would have required the initial recognition of the deferred tax benefit through a credit to APIC, while the valuation allowance would have been recognized by a charge to income tax expense). Accordingly, the valuation allowance would become subject to the general requirements of ASC 740 and the valuation allowance would be reversed with a credit to income tax expense when it is more likely than not that the asset would be realized.

The Resource Group agreed that the above guidance would apply to deferred tax assets for excess tax benefits recognized under either Opinion 25 or Statement 123.

The Resource Group also noted that if an excess tax benefit were recorded before adoption of ASC 718 without recording an associated valuation allowance, any valuation allowance recognized after adoption of ASC 718 would be charged to income tax expense.

### **S10.6 Other issues**

#### **S10.6.1 Income tax effects of replacement awards classified as equity issued in a business combination**

ASC 805 requires that deferred taxes, if any, related to the cost of replacement awards classified as equity issued in a business combination and considered part of consideration transferred be accounted for as an element of consideration transferred in the business combination if the replacement award is expected to result in a future tax deduction under existing tax law. To the extent that the cost of replacement awards classified as equity is recognized as postcombination compensation cost, a deferred tax asset would generally be established (through income tax expense) as that compensation cost is recognized. However, any ultimately realized tax benefit associated with the replacement share-based payment awards (i.e., the excess or deficiency) is accounted for without regard to whether the benefit is related to (sourced from) consideration transferred in the business combination or postcombination compensation cost.

Any difference between the eventual tax benefit received and the amount of deferred tax asset associated with a replacement award should be recognized in accordance with the guidance on accounting for the tax effects of share-based payment awards in ASC 718. That is, any excess of the benefit of the ultimate tax deduction over the recognized deferred tax asset would generally be credited to additional paid-in-capital and added to the pool of excess tax benefits. Any deficiencies of the benefit of the ultimate tax deduction compared to the recognized deferred tax asset would generally be charged to additional paid-in-capital and to the pool of excess tax benefits, or to income tax expense, depending on the status of the pool of excess tax benefits on the date the tax deduction is realized.
ASC 805 also states that an acquirer should not recognize a deferred tax asset for the portion of a replacement award that is attributed to past service if the replacement award would not result in a future tax deduction under current tax law. However, a future event, such as a disqualifying disposition, may result in a tax deduction for an award that ordinarily does not qualify for a tax deduction. For further discussion on the application of this accounting requirement, please refer to our Financial Reporting Developments publication, *Accounting for Income Taxes*.

**S10.6.2 Impact of research and development cost-sharing arrangements on deferred taxes**

Related companies that plan to share the cost of developing intangible property may choose to enter into what is commonly characterized as a “cost-sharing agreement” whereby one company bears certain expenses on behalf of another company and is reimbursed for those expenses. U.S. tax regulations specify the expenses that must be included in a pool of shared costs; such expenses include costs related to share-based payments granted in tax years beginning after 26 August 2003.

The tax regulations provide two methods for determining the amount and timing of stock-based compensation that is to be included in the pool of shared costs: the “exercise method” and the “grant method.” Under the exercise method, the timing and amount of the allocated expense is based on the intrinsic value of the award on the exercise date. Companies that elect to follow the grant method allocate expense based on the grant-date fair values that are to be included in a pool of shared costs. Under the grant method, companies must include such costs in U.S. taxable income regardless of whether the options are ultimately exercised by the holder and result in an actual U.S. tax deduction.

The impact of R&D cost-sharing arrangements was discussed by the Resource Group at its 21 July 2005 meeting. The Resource Group concluded that companies should consider the impact of cost-sharing arrangements when measuring the deferred tax assets and excess tax benefits resulting from share-based payments based on the tax election they have made or plan to make. The following example illustrates how those arrangements would be considered in the tax accounting for share-based payments:
Example – 10-7 Illustration of the impact of R&D cost-sharing agreements on the accounting for deferred taxes and excess tax benefits

Assume that Company A, located in the United States, enters into a cost-sharing arrangement with its subsidiary, Company B, which is located in Switzerland. Under the arrangement, the two companies share costs associated with the research and development of certain technology. Company B reimburses Company A for 30% of the research and development costs incurred by Company A. The U.S. tax rate is 40%.

Cumulative compensation cost recognized for financial reporting purposes for a fully vested option is $100 for the year ending on 31 December 2006. The award is exercised during 2007, when the intrinsic value of the option is $150.

Exercise method: If Company A uses the exercise method to determine the cost of share-based payments to be included in the cost-sharing pool, on 31 December 2006, it records $28 as the deferred tax asset related to the option ($100 [GAAP compensation expense] x 70% [percentage not subject to reimbursement] x 40% [tax rate]). When, in 2007, the option is exercised, any net tax benefit that exceeds the deferred tax asset is an excess tax benefit and credited to additional paid-in capital. The company is entitled to a U.S. tax deduction (net of the inclusion) of $42 ($150 [intrinsic value when the option is exercised] x 70% [percentage not reimbursed] x 40%). Accordingly, $14 ($42 − $28) would be recognized in additional paid-in capital.

Grant method: If Company A uses the grant method to determine the cost of share-based payments to be included in the cost-sharing pool, the tax impact of the cost-sharing agreement is an increase in currently payable U.S. taxes each period. However, in contrast to the exercise method, the cost-sharing method should have no direct impact on the carrying amount of the U.S. deferred tax asset related to share-based compensation. If there was $100 of stock-based compensation during 2006, the impact of the cost sharing arrangement on the 2006 current tax provision would be $12 ($100 [book compensation expense] x 30% [percentage reimbursed] x 40%). If the stock-based charge under ASC 718 is considered a deductible temporary difference, a deferred tax asset also should be recognized in 2006 for the financial statement expense, in the amount of $40 ($100 [GAAP compensation expense] x 40%). The net impact on the 2006 income statement is a tax benefit of $28 ($40 − $12). At settlement, the excess tax deduction of $20 ($50 x 40%) would be recognized in additional paid-in capital.
### S10.6.3 Accounting for income tax benefits of dividends on share-based payments

<table>
<thead>
<tr>
<th>Excerpt from Accounting Standards Codification</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Income Taxes – Compensation – Stock Compensation</em></td>
</tr>
<tr>
<td>Other Presentation Matters</td>
</tr>
<tr>
<td><strong>718-740-45-8</strong></td>
</tr>
<tr>
<td>A realized income tax benefit from dividends or dividend equivalents that are charged to retained earnings and are paid to employees for any of the following equity classified awards shall be recognized as an increase to additional paid-in capital:</td>
</tr>
<tr>
<td>a. Nonvested equity shares</td>
</tr>
<tr>
<td>b. Nonvested equity share units</td>
</tr>
<tr>
<td>c. Outstanding equity share options.</td>
</tr>
<tr>
<td><strong>718-740-45-9</strong></td>
</tr>
<tr>
<td>The amount recognized in additional paid-in capital for the realized income tax benefit from dividends on the awards identified in the preceding paragraph shall be included in the pool of excess tax benefits available to absorb tax deficiencies on share-based payment awards (as described in Section 718-740-35 and this Section).</td>
</tr>
<tr>
<td>Dividends or dividend equivalents paid to employees for the awards identified in paragraph 718-740-45-8 may result in a tax deduction prior to the actual realization of the related tax benefit because the employer, for example, has a net operating loss carryforward. Paragraph 718-740-25-10 requires the income tax benefit of those dividends not be recognized until the deduction reduces income taxes payable. Unrealized income tax benefits from dividends on equity-classified employee share-based payment awards shall be excluded from the pool of excess tax benefits available to absorb potential future tax deficiencies on share-based payment awards.</td>
</tr>
<tr>
<td><strong>718-740-45-10</strong></td>
</tr>
<tr>
<td>Paragraph 718-10-55-45 requires dividends or dividend equivalents paid to employees on the portion of an award of equity shares or other equity instruments that vests be charged to retained earnings. If the related award is not expected to vest, that paragraph requires the dividends or dividend equivalents to be recognized as compensation costs. Dividends and dividend equivalents shall be reclassified between retained earnings and compensation cost in a subsequent period if the entity changes its forfeiture estimates (or actual forfeitures differ from previous estimates).</td>
</tr>
</tbody>
</table>
Adjustments to additional paid-in capital for reclassifications of the tax benefits from dividends on the awards discussed in the preceding paragraph in subsequent periods increase or decrease the entity's pool of excess tax benefits available to absorb tax deficiencies by a corresponding amount. Additionally, the tax benefits from dividends that are reclassified from additional paid-in capital to the income statement (that is, as a reduction of income tax expense or an increase of income tax benefit) if an entity's estimate of forfeitures increases (or actual forfeitures exceed the entity's estimates) shall be limited to the entity's pool of excess tax benefits available to absorb tax deficiencies on the date of the reclassification.

In some cases, employees may receive, as part of a share-based payment arrangement, dividend payments from the date the award is granted even though the award is subject to vesting requirements. As discussed further in Section S3.6.1, nonforfeitable dividend payments are charged to retained earnings if the award is expected to vest; however, dividend payments that are not expected to vest are recognized as compensation expense. ASC 718-10-55-45 requires the reclassification of dividends and dividend equivalents between retained earnings and compensation cost when the entity changes its forfeiture estimates (or actual forfeitures differ from previous estimates).

In some cases, the payment of nonforfeitable dividends or dividend equivalents on nonvested shares (or nonvested share units) and unexercised options is treated as deductible compensation for income tax purposes. Questions have arisen about the accounting for income tax benefits related to the treatment of dividends on nonvested share-based payments charged to retained earnings under ASC 718. That is, how should nonforfeitable dividends on share-based payments that are expected to vest be accounted for when those dividends result in an income tax deduction for the employer?

ASC 718-740-45-8 provides that a realized income tax benefit from dividends or dividend equivalents that are charged to retained earnings and are paid to employees for nonvested share-based payments should be recognized as an increase in additional paid-in capital. The amount recognized in additional paid-in capital for the realized income tax benefit from dividends on nonvested share-based payments should be included as part of the pool of excess tax benefits available to absorb tax deficiencies by a corresponding amount. Further, adjustments to additional paid-in capital for reclassifications of the tax benefits from dividends on nonvested share-based payments in subsequent periods (that is, when the entity's estimate of forfeitures changes and the related dividends are reclassified between retained earnings and compensation expense) would increase or decrease the entity's pool of excess tax benefits.
The amount of tax benefits from dividends reclassified from additional paid-in capital to the income statement (that is, as a reduction of income tax expense or an increase of income tax benefit) when an entity's estimate of forfeitures increases (or actual forfeitures exceed the entity's estimates) is limited to the amount of the entity's pool of excess benefits on the date of the reclassification. Companies will have to determine if there are sufficient excess tax benefits available to absorb tax deficiencies on the date of any reclassification, considering their policies with respect to measuring and ordering excess tax benefits. Because changes in the pool of excess tax benefits are aggregated on an annual basis, companies will need to adopt an accounting policy with respect to interim reporting periods in order to assess the sufficiency of the pool of excess tax benefits when evaluating a potential reclassification entry. However, we expect the issue of reclassifications in the face of an insufficient pool of excess tax benefits to arise infrequently.

ASC 718-740-45-10 considers that dividends or dividend equivalents paid to employees for nonvested share-based payments that are charged to retained earnings may result in a tax deduction prior to the actual realization of the related tax benefit because the employer, for example, has a net operating loss carryforward. Pursuant to ASC 718-740-25-10, the income tax benefit of those dividends would not be recognized until the deduction reduces income taxes payable. Unrealized income tax benefits from dividends on share-based payments should be excluded from the pool of excess tax benefits available to absorb tax deficiencies.

S10.7  Tax effects of awards that normally do not result in a tax deduction

<table>
<thead>
<tr>
<th>Excerpt from Accounting Standards Codification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Income Taxes – Compensation – Stock Compensation – Overall</strong></td>
</tr>
<tr>
<td><strong>Recognition</strong></td>
</tr>
<tr>
<td><strong>718-740-25-2</strong></td>
</tr>
<tr>
<td>The cumulative amount of compensation cost recognized for instruments classified as equity that ordinarily would result in a future tax deduction under existing tax law shall be considered to be a deductible temporary difference in applying the requirements of Subtopic 740-10. The deductible temporary difference shall be based on the compensation cost recognized for financial reporting purposes. Compensation cost that is capitalized as part of the cost of an asset, such as inventory, shall be considered to be part of the tax basis of that asset for financial reporting purposes.</td>
</tr>
</tbody>
</table>
Recognition of compensation cost for instruments that ordinarily do not result in tax deductions under existing tax law shall not be considered to result in a deductible temporary difference. A future event can give rise to a tax deduction for instruments that ordinarily do not result in a tax deduction. The tax effects of such an event shall be recognized only when it occurs. An example of a future event that would be recognized only when it occurs is an employee's sale of shares obtained from an award before meeting a tax law's holding period requirement, sometimes referred to as a disqualifying disposition, which results in a tax deduction not ordinarily available for such an award.

Initial Measurement

The deferred tax benefit (or expense) that results from increases (or decreases) in the recognized share-based payment temporary difference, for example, an increase that results as additional service is rendered and the related cost is recognized or a decrease that results from forfeiture of an award, shall be recognized in the income statement.

One type of statutory stock option is an incentive stock option (ISO). The employer generally does not receive a tax deduction on employee exercise of an ISO. Similarly, an Internal Revenue Code Section 423 qualified employee stock purchase plan (ESPP) (see Section S2.6) normally does not provide a tax deduction for the employer. In addition, options exercised in some foreign jurisdictions may not result in any tax benefits.

The financial statement recognition of compensation cost for share-based payments for a arrangement that is not ordinarily deductible for tax purposes does not create deductible temporary differences under ASC 740 Temporary differences are described in ASC 740-10-05-10 as events recognized in earnings that, based on provisions in the tax law, result in taxable or deductible amounts in future periods even though identifiable assets or liabilities are not recognized for financial reporting purposes related to those events. Accordingly, if future tax deductions are ordinarily not available to the employer based on current tax law and the nature of the stock-based compensation arrangement (e.g., an ISO or qualified employee stock purchase plan), a temporary difference is not created by the recognition of stock-based compensation in earnings and, accordingly, deferred taxes are not recognized for financial reporting purposes. Thus, neither a company's income tax expense nor its deferred tax accounts are impacted by incentive stock options, statutory employee stock purchase plans, and similar arrangements that do not ordinarily result in tax deductions.
S10.7.1 Accounting for a change in the tax status of an award (e.g., disqualifying disposition)

A future event can give rise to an employer’s tax deduction for an award that ordinarily does not result in a tax deduction for the employer (e.g., an employee’s disqualifying disposition\(^{38}\) of stock granted under an ISO, ESPP, or a qualifying stock formula plan). Although many companies with ISOs, ESPPs, and similar qualified plans have sufficient history of employee actions to reasonably estimate the level of disqualifying dispositions in future periods, ASC 718-740-25-3 precludes companies from anticipating disqualifying dispositions by employees. In other words, the tax benefits from disqualifying dispositions are required to be recognized in the period the employee makes the disqualifying disposition. On the occurrence of the future event that converts nondeductible awards into deductible awards (e.g., disqualifying dispositions), the tax benefit recognized in earnings is equal to the lesser of (a) the actual benefit of the tax deduction or (b) the cumulative compensation cost previously recognized in the financial statements for the disqualified award multiplied by the statutory tax rate (this accounting was confirmed by the Resource Group at its 21 July 2005 meeting). Any excess benefit should be recognized as an increase to additional paid-in capital in a manner similar to that discussed in Section S10.3.1.

The Resource Group also discussed the application of the above guidance in transition for companies using the modified-prospective transition method. Specifically, the Resource Group discussed whether the model described in the preceding paragraph should be applied after adoption of ASC 718 for awards for which some or all of the compensation cost was recognized only in the pro forma disclosures and not in the financial statements. The Resource Group agreed that the accounting described in the preceding paragraph would not apply to the extent that compensation cost was not recognized in the financial statements. Similar to the approach described in Section S10.3 for awards of nonqualified options or stock, only the tax benefit associated with the tax deduction up to the compensation cost recognized in the financial statements should be recognized as an income tax benefit. Thus, if ISOs were vested at the date of adoption and a disqualifying disposition that resulted in a tax deduction occurred subsequent to adoption, the entire tax benefit would be recognized in additional paid-in capital.

For ISOs that were partially vested as of adoption of ASC 718, the ultimate tax benefit would be bifurcated and the tax benefit related to the vested portion would be recognized in additional paid-in capital, but the tax benefit for the portion that vested subsequent to

\(^{38}\) Tax regulations require that an employee hold the shares purchased through an ESPP or the shares obtained on exercise of an ISO for a specified period of time in order to achieve the beneficial tax treatment associated with such plans. Any sale of shares prior to the end of the required holding period is considered a disqualifying disposition. A disqualifying disposition generally results in adverse tax consequences for the employee and allows the employer to take a tax deduction relating to a share-based payment award that would not otherwise result in a tax deduction.
adoption would be recognized as described at the beginning of this section. The actual tax
deduction would be allocated on a pro-rata basis to the pro forma deferred tax asset and the
recognized deferred tax asset. For options subject to graded vesting, the Resource Group
agreed that in determining which vesting tranche was exercised after adoption of ASC 718,
the company could: (a) identify the specific vesting tranche exercised or (b) if the entity does
not know the specific tranche from which share options are exercised, it should assume that
options are exercised on a first vested, first-exercised basis, consistent with the guidance in
paragraph 718-20-55-34.

S10.7.1.1 Modifications of incentive stock options
A modification (e.g., an acceleration of vesting) may cause the disqualification of an ISO. If
ISO status is disallowed because of a disqualifying modification, then the award should be
treated as if it had been a nonqualified option from its grant date. That is, deferred taxes
should be recognized on all compensation cost previously recognized for the award on the
date of the modification. Thereafter, the tax effect of the award would be accounted for the
same as any other nonqualified award.

S10.8 Accounting for payroll taxes on share-based payments

Excerpt from Accounting Standards Codification

<table>
<thead>
<tr>
<th>Compensation – Stock Compensation – Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognition</td>
</tr>
<tr>
<td>718-10-25-22</td>
</tr>
<tr>
<td>A liability for employee payroll taxes on employee stock compensation shall be recognized on the date of the event triggering the measurement and payment of the tax to the taxing authority (for a nonqualified option in the United States, generally the exercise date).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>718-10-25-23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payroll taxes, even though directly related to the appreciation on stock options, are operating expenses and shall be reflected as such in the statement of operations.</td>
</tr>
</tbody>
</table>

When an employee exercises a nonqualified stock option, the difference between the exercise
price paid and the fair value of the acquired stock on the exercise date (the “intrinsic value”) is considered ordinary income for purposes of determining the employee's federal income taxes. Similar tax treatment results from the exercise of qualified stock options that are subsequently disqualified. In the period the option is exercised or the disqualifying disposition occurs, the employer is entitled to a federal income tax deduction in an amount equal to the employee's ordinary income. Because the intrinsic value of exercised options is considered the equivalent of compensation paid directly to the employee, the employer must pay payroll related taxes (e.g., Medicare taxes, and, perhaps, FICA taxes depending on the employee’s aggregate compensation level).
In addition, when an employee receives stock for services, the excess of the fair value of the stock over the purchase price is taxed currently as ordinary income. However, if the stock is subject to a “substantial risk of forfeiture” and is nontransferable, taxation is deferred until the risk of forfeiture lapses or the stock becomes transferable. In the period that the employee recognizes ordinary income, the employer is entitled to a corresponding deduction and the employer must pay any applicable payroll related taxes.

ASC 718-10-25-22 states that the liability for employee payroll taxes on employee share-based payment arrangements should be recognized on the date of the event that triggers measurement and payment of the payroll tax to the taxing authority. As a result, no liability should be recognized until that event occurs. For example, in the U.S. the obligating event for the payroll tax liability associated with a nonqualified stock option generally is the stock option exercise date.

ASC 718-10-25-23 states that employer-paid payroll taxes associated with stock option exercises are operating expenses and should be reflected as such in the statement of operations. Although a portion of the income tax benefits of share-based payments may be recognized in additional paid-in capital rather than in operations, the FASB concluded that the Medicare and FICA taxes could not be charged to capital, even though it is based on the same measurement as the compensation deduction, because these are not income taxes.
S11 Earnings per share

S11.1 Overview

Excerpt from Accounting Standards Codification

Earnings Per Share – Overall
Other Presentation Matters
260-10-45-28

The provisions in paragraphs 260-10-45-28A through 45-31 apply to share-based awards issued to employees under a share-based compensation arrangement and to other than employees in exchange for goods and services.

Share-based payments have several unique characteristics that can have a significant effect on earnings per share (EPS) calculations, as described below. The following provisions apply to share-based payments made to employees and nonemployees in exchange for goods or services.

Under ASC 260, employee stock options and nonvested stock generally are not included in the calculation of basic EPS (even though nonvested stock may be legally outstanding). However, these equity awards are factored into the computation of diluted EPS using the treasury stock method. Further, in some cases, equity awards may be deemed participating securities and affect basic EPS as a result of the application of the two-class method, as discussed further in Section S11.8.

The vesting provisions of an equity award determine how the award affects diluted EPS. Awards that vest or become exercisable based on the achievement of performance or market conditions (as defined in Sections S3.4.3 and S3.4.4) are treated as contingently issuable shares (e.g., for nonvested stock) or contingently issuable potential common shares (e.g., for stock options) and are discussed in Section S11.4.

Share-based payments (whether stock options or shares) that vest based solely on the achievement of service conditions (as defined in Section S3.4.2) are treated similarly to warrants using the treasury stock method. However, ASC 260 provides for certain adaptations to the treasury stock method to accommodate the unique characteristics of share-based payments. Under ASC 260, the “assumed proceeds” used under the treasury stock method include not only the exercise price of the options, but they also include: (a) any tax benefits that will be credited on exercise to additional paid-in capital (or proceeds are reduced by any deferred taxes that will be written off to additional paid-in capital), and (b) the average measured but unrecognized compensation cost during the period.
By including tax benefits to be credited to additional paid-in capital and the average measured but unrecognized compensation cost in the assumed proceeds, in some cases a larger number of shares is considered “repurchased” under the treasury stock method. However, in many cases the assumed proceeds will be reduced by any deferred taxes that will be written off to additional paid-in capital.

**S11.2 Employee stock options – the treasury stock method**

<table>
<thead>
<tr>
<th>Excerpt from Accounting Standards Codification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Earnings Per Share – Overall</strong></td>
</tr>
<tr>
<td><strong>Other Presentation Matters</strong></td>
</tr>
<tr>
<td><strong>260-10-45-28A</strong></td>
</tr>
<tr>
<td>Awards of share options and nonvested shares (as defined in Topic 718) to be issued to an employee under a share-based compensation arrangement are considered options for purposes of computing diluted EPS. Such share-based awards shall be considered to be outstanding as of the grant date for purposes of computing diluted EPS even though their exercise may be contingent upon vesting. Those share-based awards are included in the diluted EPS computation even if the employee may not receive (or be able to sell) the stock until some future date. Accordingly, all shares to be issued shall be included in computing diluted EPS if the effect is dilutive. The dilutive effect of share-based compensation arrangements shall be computed using the treasury stock method. If the equity share options or other equity instruments are outstanding for only part of a period, the shares issuable shall be weighted to reflect the portion of the period during which the equity instruments were outstanding. See Example 8 (paragraph 260-10-55-68).</td>
</tr>
</tbody>
</table>

**Glossary**

| **260-10-20** |
| **Option** |
| Unless otherwise stated, a call option that gives the holder the right to purchase shares of common stock from the reporting entity in accordance with an agreement upon payment of a specified amount. Options include, but are not limited to, options granted to employees and stock purchase agreements entered into with employees. Options are considered securities. |

---

39 ASC 260 provides that only potential common shares that are dilutive (i.e., reduce EPS) are included in the calculation. Accordingly, grants of awards that would be antidilutive, including those that would be antidilutive as a result of the unrecognized compensation cost, should be excluded from the calculation of diluted EPS.
Treasury stock method

A method of recognizing the use of proceeds that could be obtained upon exercise of options and warrants in computing diluted EPS. It assumes that any proceeds would be used to purchase common stock at the average market price during the period.

Other Presentation Matters

260-10-45-28B

In applying the treasury stock method, all dilutive potential common shares, regardless of whether they are exercisable, are treated as if they had been exercised. The treasury stock method assumes that the proceeds upon exercise are used to repurchase the entity's stock, reducing the number of shares to be added to outstanding common stock in computing EPS.

260-10-45-29

In applying the treasury stock method described in paragraph 260-10-45-23, the assumed proceeds shall be the sum of all of the following:

a. The amount, if any, the employee must pay upon exercise.

b. The amount of compensation cost attributed to future services and not yet recognized. (This provision applies only to those share-based awards for which compensation cost will be recognized in the financial statements in accordance with Topic 718.)

c. The amount of excess tax benefits, if any, that would be credited to additional paid-in capital assuming exercise of the options. Assumed proceeds shall not include compensation ascribed to past services. The excess tax benefit is the amount resulting from a tax deduction for compensation in excess of compensation expense recognized for financial reporting purposes. That deduction arises from an increase in the market price of the stock under option between the measurement date and the date at which the compensation deduction for income tax purposes is determinable. The amount of the tax benefit shall be determined by a with-and-without computation. Paragraph 718-740-35-5 states that the amount deductible on an employer's tax return may be less than the cumulative compensation cost recognized for financial reporting purposes. If the deferred tax asset related to that resulting difference would be deducted from additional paid-in capital (or its equivalent) pursuant to that paragraph assuming exercise of the options, that amount shall be treated as a reduction of assumed proceeds.

The dilutive effect of outstanding employee stock options generally should be reflected in diluted EPS by application of the treasury stock method. Employee stock options will have a dilutive effect under the treasury stock method only when the average price of the common stock during the period exceeds the exercise price of the options (including the additions to the exercise proceeds discussed below). However, awards may not be dilutive even if the average market price exceeds the exercise price if, for example, the sum of the assumed proceeds, including unrecognized compensation cost and any related excess tax benefits, exceeds the difference between the market price and the exercise price.
The determination of whether the stock options are dilutive should be made separately for quarterly and year-to-date calculations for each grant, not in the aggregate. If employee stock options are not dilutive in one period, but the options become dilutive in a subsequent period, previously reported EPS data is not retroactively adjusted as a result of changes in the market price of common stock.

Dilutive options that are issued, expire, or are canceled during a period should be included in the denominator of diluted EPS for the portion of the period that they were outstanding. Likewise, dilutive options exercised during the period should be included in the denominator of diluted EPS for the period prior to actual exercise. The common shares issued when options are exercised are included in the denominator for basic and diluted EPS for the period after the exercise date, as part of the weighted-average shares outstanding. Incremental shares assumed issued under the treasury stock method should be weighted for the period the options were outstanding for diluted EPS.

Under the treasury stock method:

- Exercise of options should be assumed at the beginning of the period (or at the date of grant, if later).

- The proceeds from exercise should be assumed to be used to purchase common stock at the average market price during the period. As previously discussed, the assumed proceeds include: (a) the amount, if any, the employee must pay upon exercise, (b) any tax benefits that will be credited on exercise to additional paid-in capital (or proceeds are reduced by any deferred taxes that will be written off to additional paid-in capital) and (c) the average measured but unrecognized compensation cost during the period.

- The incremental shares (the difference between the number of shares assumed issued and the number of shares assumed purchased) should be included in the denominator of the diluted EPS computation.

**Example 11-1 – Treasury stock method applied to fully vested incentive stock options**

Entity A previously granted 45,000 incentive stock options exercisable at $25 per share. The average market price of the common stock during the reporting period is $30.

Exercise of the options and issuance of 45,000 shares of common stock at the beginning of the period would be assumed. The proceeds of $1,125,000 (45,000 options × $25) that are assumed to be realized from exercise of the options then would be assumed to be used to acquire 37,500 ($1,125,000/$30) shares of common stock in the market. Therefore, the 7,500 (45,000-37,500) incremental shares assumed to be issued would be added to the denominator in the diluted EPS calculation for the period. The numerator is not changed under the treasury stock method.
This very simple example assumes that there is neither unrecognized compensation cost (because the options are fully vested) nor future tax benefits (because incentive stock options typically do not result in a tax deduction to the employer) resulting from the options. A more complex example is provided later in this section.

Detailed guidance regarding the computation of the average market price and the application of the treasury stock method to annual and year-to-date diluted EPS calculations is included in Section E1.0 of the Ernst & Young Accounting Manual.

As previously discussed, how share-based payments affect diluted EPS is dependent on their vesting provisions. Awards that vest or become exercisable based on the achievement of performance or market conditions are treated as contingently issuable shares or contingently issuable potential common shares and are discussed in Section S11.4. Awards that vest based solely on the achievement of service conditions are treated similar to warrants using the treasury stock method as discussed in Section S11.2.1.

### S11.2.1 Options that vest based only on service conditions

Options subject only to service-based vesting should be considered outstanding as of the grant date for purposes of computing diluted EPS even though their exercise may be contingent on satisfying a service condition. Although the numerator of the diluted EPS calculation excludes compensation cost associated with options that are not expected to vest (i.e., estimated forfeitures), the calculation of the denominator of the diluted EPS calculation described below includes the incremental common shares associated with all outstanding options, including those that are expected to be forfeited. Section S11.2.3 includes a discussion of the effect of forfeitures on the computation of diluted EPS, and Section S11.2.4 includes a discussion and example of the impact of expected forfeitures on the assumed proceeds from option exercises used in the treasury stock method when calculating diluted EPS.

If stock options were granted, exercised, forfeited, or expired during the period, the shares issuable must be weighted to reflect the portion of the period during which the options were outstanding.

In applying the treasury stock method for awards of nonvested shares, stock options and similar instruments, the assumed proceeds used to buy back shares at the average market price for the period would include the following:

1. The amount, if any, the employee must pay on exercise.

2. Plus, the average amount of compensation cost during the period, if any, attributed to future service and not yet recognized (i.e., unrecognized compensation cost) for the specific award being considered for inclusion in the denominator of diluted EPS. For instruments that are outstanding for the entire period, this can be computed as the average of the beginning and ending amounts of unrecognized compensation cost for the period. For instruments that are outstanding for only part of the reporting period, a daily average of unrecognized compensation cost must be computed.
3. Plus, the amount of tax benefits (deferred and current), if any, that would be credited to additional paid-in capital assuming a hypothetical exercise of the options (or vesting of shares) in the period of the diluted EPS calculation (excess tax benefits). This adjustment, computed for the specific award being considered for inclusion in the denominator of diluted EPS on an award-by-award basis, is discussed further in Section S11.2.2.

4. Minus, the amount of deferred tax assets (deferred and current), if any, that would be debited to additional paid-in capital assuming a hypothetical exercise of the options (or vesting of shares) in the period of the diluted EPS calculation (deficient tax benefits). For nonqualified stock options or other awards resulting in tax deductions, the write-off of deferred tax assets resulting from an excess of compensation cost recognized for financial reporting purposes over the tax deduction realized is recognized either (a) in additional-paid in capital, to the extent of previous realized excess tax benefits calculated as described in Section S10.5.1.1 or (b) in income tax expense. This adjustment, computed for the specific award being considered for inclusion in the denominator of diluted EPS on an award-by-award basis, is discussed further in Section S11.2.2.

Future compensation (i.e., compensation cost relating to nonvested or partially vested options that has been measured but has not yet been recognized as a cost in the financial statements) and income tax benefits to be credited (debited) to equity are considered proceeds (or reductions to proceeds) because they represent future consideration (or reductions to the future consideration) a company expects to receive for the shares to be issued that have not been recognized in the financial statements, similar to the exercise price the employee must pay in cash. Compensation related to past services that already has been recognized as an expense is not considered part of the proceeds.

The treasury stock method must be applied separately to each award. For example, assumed proceeds from the exercise of awards that are antidilutive are not included in the treasury stock calculation for dilutive awards.

**S11.2.2 Computing the tax adjustment to assumed proceeds**

For share-based payments that give rise to a tax deduction (e.g., nonqualified stock options), the amount of the tax deduction generally is determined based on the difference between the market price of the common stock on the exercise date and the exercise price. Therefore, for periods prior to the exercise date, estimates are necessary to determine the tax effect of any excess (or deficiency that would be charged against additional paid-in capital) of the tax deduction compared to the compensation cost recognized for financial reporting purposes that would comprise the tax benefit component of the proceeds under the treasury stock method. An estimate of the tax deduction would be based on the average market price of the stock underlying the option, while the estimate of the compensation cost for financial reporting purposes would be based on the requirements of ASC 718.
Under ASC 718, the total compensation cost to be recognized over the life of a share-based payment for financial reporting purposes generally is known as of the date of grant (i.e., the grant-date fair value), and it should be used in computing the tax effect of the excess estimated tax deduction, even if only a portion of that compensation cost has been recognized to date (i.e., the vesting period has not ended). Thus, the tax effect of the excess (deficient) estimated tax deduction over (less than) the compensation cost to be recognized over the life of the award for financial reporting purposes will fluctuate each period as the market price of the common stock affects the estimated tax deduction. The “book” compensation cost generally is fixed at the date of grant.

If the average intrinsic value of an award in the period of the diluted EPS calculation is greater than the total compensation cost to be recognized in the financial statements for the instrument, the tax benefit resulting from the excess tax deduction would be credited to additional-paid in capital and results in an increase to the assumed proceeds in the treasury stock calculation. However, if the intrinsic value of an award is less than total compensation cost to be recognized in the financial statements (as typically would be the case early in the life of an employee stock option that was granted with no intrinsic value), the company must determine whether its pool of available excess tax benefits (both from previous option exercises and vesting of shares as well as from any excess tax benefits calculated for diluted EPS purposes as described in the preceding sentence) is sufficient to absorb the shortfall. If so, the effect of the hypothetical deferred tax asset write-off reduces the assumed proceeds in the treasury stock calculation. If there is no pool of available excess tax benefits, or if the amount of the pool is insufficient to absorb the entire hypothetical deficient tax deduction, the amount of the deficiency that is hypothetically charged to income tax expense is not considered to be a reduction of the assumed proceeds.

In performing the diluted EPS calculation in periods prior to option exercise or share vesting, some companies may conclude, based on the weight of all available evidence, that it is more likely than not that this excess tax benefit will not be realized for the foreseeable future and, therefore, will not be recognized in the financial statements. Although the scenario discussed above is not addressed by ASC 260 or ASC 740, we believe the company should assess whether excess tax deductions for share-based payments are expected to be realized when computing diluted EPS. That is, if a company believes it is unlikely to recognize excess tax benefits from the share-based payment for the foreseeable future, it would be reasonable to exclude such benefits from the diluted EPS calculation. The company’s analysis of the likelihood of realization of the excess tax benefit would be expected to be sufficiently detailed to assess the qualitative and quantitative aspects of management’s assertions relative to the exclusion of the future tax benefits from the assumed proceeds for the diluted EPS computation. Also, the determination of whether a tax benefit is expected to be realized should be based on the same accounting policy used for the recognition of excess tax benefits discussed in Section S10.3.3 (e.g., with and without versus prorata).
For share-based awards that generally do not give rise to a tax deduction (e.g., incentive stock options), the expected tax benefits resulting from expected disqualifying dispositions cannot be anticipated when computing the assumed proceeds for use in the treasury stock calculation. This concept is discussed in more detail in Section S12.6 related to an employee stock purchase plan, which is another instrument that generally does not give rise to a tax deduction.

S11.2.2.1 Calculation of assumed proceeds for awards that are fully or partially vested on the date of adoption of ASC 718

For awards granted prior to the transition to ASC 718 by companies that adopted ASC 718 using the modified-prospective method, an issue arises as to whether the adjustments to assumed proceeds for tax benefits or deficiencies that would be recognized in equity should be calculated based on (a) deferred tax asset amounts that would actually be recognized on the balance sheet or (b) pro forma deferred tax assets (which would take into account pro forma deferred tax assets with respect to compensation cost recognized for pro forma disclosure purposes prior to the adoption of ASC718, similar to the measurement of the excess tax benefit available to absorb deferred tax asset write-offs described in Section S10.3.3).

Because current US GAAP is not clear on this issue, we believe that companies that adopted ASC 718 using the modified-prospective transition method should select one of the following acceptable accounting policies with respect to the calculation of assumed proceeds:

1. Calculate the adjustment to assumed proceeds based on the actual deferred tax asset that will be recognized in the financial statements when the share-based payment is vested (i.e., exclude any “pro forma deferred tax assets” that will not be recognized in the balance sheet). We believe that this approach is most consistent with the requirements of ASC 260. However, this approach will reduce comparability of current reported diluted EPS amounts to pro forma diluted EPS amounts previously presented, as well as to diluted EPS amounts presented in the future when a greater proportion of awards have been accounted for under ASC 718.

2. Calculate the adjustment to assumed proceeds based on the sum of the “pro forma deferred tax asset” resulting from the tax benefit previously recognized in pro forma diluted EPS as well as the deferred tax asset that will be recognized in the financial statements as the share-based payment vests.

The interplay between these alternatives, the calculation of the pool of excess tax benefits, and the accounting for excess tax benefits in the financial statements is discussed in detail in Section S10.5.1.6.
S11.2.2.2 Out-of-the-money options for which adjustments to assumed proceeds results in an “in-the-money option”

The Resource Group previously addressed whether a company should include in its treasury stock computation any outstanding employee stock options that are currently “out-of-the money” (i.e., the exercise price is greater than the average market price) if the tax deficiency that would be charged to additional paid-in capital (and therefore would serve to reduce assumed proceeds) from assumed exercise is an amount that would make the award dilutive. Consider the following example:

On 1 January 2006, Entity A grants 1,000 awards with an exercise price of $21 and a grant-date fair value of $10 that are fully vested. The average fair value of the shares underlying the award for the reporting period is $20 and Entity A’s combined statutory tax rate is 40%. The assumed proceeds for the year ended 31 December 2009 are calculated as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise price ($21 × 1,000)</td>
<td>$ 21,000</td>
</tr>
<tr>
<td>Deficient tax benefit (($10) × 1,000 × 40%)</td>
<td>(4,000)</td>
</tr>
<tr>
<td></td>
<td>$ 17,000</td>
</tr>
</tbody>
</table>

If assumed proceeds, as calculated above, are compared to the average exercise price, the result would be dilutive:

- Number of shares reacquired ($17,000 / $20) = 850
- Number of incremental shares issued (1,000 – 850) = 150

The Resource Group agreed that the treasury stock method is only intended to be applied to awards in which a holder might actually convert into a common share. This conclusion is based on the guidance in ASC 260-10-45-25: “Options and warrants will have a dilutive effect under the treasury stock method only when the average market price of the common stock during the period exceeds the exercise price of the options or warrants (they are in the money)” [emphasis added]. Given that the award described in the example above is currently out-of-the-money, a reasonable person would not exercise this award and, therefore, the award should not be included in the calculation of diluted EPS.
S11.2.3 Effect of forfeitures on diluted EPS

Excerpt from Accounting Standards Codification

Earnings Per Share – Overall

Other Presentation Matters

260-10-45-29A

Under paragraph 718-10-35-3, the effect of forfeitures is taken into account by recognizing compensation cost only for those instruments for which the requisite service has been rendered, and no compensation cost shall be recognized for instruments that employees forfeit because a service condition or a performance condition is not satisfied. See Example 8 (paragraph 260-10-55-68) for an illustration of this guidance.

Compensation – Stock Compensation – Overall

Other Presentation Matters

718-10-45-1

Topic 260 requires that employee equity share options, nonvested shares, and similar equity instruments granted to employees be treated as potential common shares in computing diluted earnings per share (EPS). Diluted EPS shall be based on the actual number of options or shares granted and not yet forfeited, unless doing so would be antidilutive. If vesting in or the ability to exercise (or retain) an award is contingent on a performance or market condition, such as the level of future earnings, the shares or share options shall be treated as contingently issuable shares in accordance with paragraphs 260-10-45-48 through 45-57. If equity share options or other equity instruments are outstanding for only part of a period, the shares issuable shall be weighted to reflect the portion of the period during which the equity instruments are outstanding.

ASC 260 provides that the shares issuable under a share-based payment arrangement must be weighted to reflect the portion of the period during which the share-based payment awards were outstanding. This requirement applies to forfeitures (and expired options) as well as to grants during the period. In addition, under ASC 260, forfeitures do not affect the calculation of proceeds under the treasury stock method until the forfeitures actually occur, despite the fact that forfeitures must be estimated for purposes of computing compensation cost under ASC 718 (see example in Section S11.2.4).
### S11.2.4 Example calculation of the dilutive effect of employee stock options

**Excerpt from Accounting Standards Codification**

*Earnings Per Share – Overall*

Implementation Guidance and Illustrations

**Example 8: Application of the Treasury Stock Method to a Share-Based Payment Arrangement**

260-10-55-68

This Example illustrates the guidance in paragraph 260-10-45-28A for the application of the treasury stock method when share options are forfeited.

260-10-55-69

Entity A adopted a share option plan on January 1, 20X7, and granted 900,000 at-the-money share options with an exercise price of $30. All share options vest at the end of three years (cliff vesting). At the grant date, Entity A assumes an annual forfeiture rate of 3 percent and therefore expects to receive the requisite service for 821,406 [900,000 × (.97 to the third power)] share options. On January 1, 20X7, the fair value of each share option granted is $14.69. Employees forfeited 15,000 stock options ratably during 20X7. The average stock price during 20X7 is $44. Net income for the period is $97,385,602 (inclusive of $2,614,398 of share-based compensation, net of income taxes of $1,407,753). Entity A’s tax rate is 35 percent. For the year ended December 31, 20X7, there are 25,000,000 weighted-average common shares outstanding. Entity A has sufficient previously recognized excess tax benefits in additional paid-in capital from prior share-based payment arrangements to offset any write-off of deferred tax assets associated with its grant of share options on January 1, 20X7. All share options are the type that upon exercise give rise to deductible compensation cost for income tax purposes. This guidance also applies if the service inception date precedes the grant date.

260-10-55-70

The following table illustrates computation of basic EPS for the year ended December 31, 20X7.

**Computation of Basic EPS for the Year Ended December 31, 20X7:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net income(a)</td>
<td>$ 97,385,602</td>
</tr>
<tr>
<td>Weighted-average common shares outstanding</td>
<td>25,000,000</td>
</tr>
<tr>
<td>Basic earnings per share</td>
<td>$ 3.90</td>
</tr>
</tbody>
</table>

*Footnote:*

(a) Net income is inclusive of $2,614,398 of share-based compensation, net of income taxes of $1,407,753.
**Computation of assumed proceeds for diluted earnings per share:**

Amount employees would pay if the weighted-average number of options outstanding were exercised using the average exercise price $(892,500^{(b)} \times $30)$  
\[ \text{Average unrecognized compensation cost in 20X7 (see computation)} \]
\[ \text{Tax benefit deficiency that would be offset in paid-in capital (see computation)} \]
\[ \text{Assumed proceeds} \]
\[ $26,775,000 \]
\[ 10,944,050 \]
\[ (215,539) \]
\[ $37,503,511 \]

**Computation of average unrecognized compensation cost in 20X7:**

<table>
<thead>
<tr>
<th>Beginning of period</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unrecognized compensation cost $(900,000 \times $14.69)$</td>
<td>$13,221,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>End of the period</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning of period</td>
<td>$13,221,000</td>
</tr>
<tr>
<td>Annual compensation cost recognized during 20X7, based on estimated forfeitures $(4,022,151)^{(a)}$</td>
<td></td>
</tr>
<tr>
<td>Annual compensation cost not recognized during the period related to outstanding options at December 31, 20X7, for which the requisite service is not expected to be rendered $(311,399)^{(c)}$</td>
<td></td>
</tr>
<tr>
<td>Total compensation cost of actual forfeited options $(220,350)^{(d)}$</td>
<td></td>
</tr>
<tr>
<td>Total unrecognized compensation cost, end of the period, based on actual forfeitures</td>
<td>$8,667,100</td>
</tr>
<tr>
<td>Subtotal</td>
<td>$21,888,100</td>
</tr>
<tr>
<td>Average total unrecognized compensation, based on actual forfeitures</td>
<td>$10,944,050</td>
</tr>
</tbody>
</table>
Note that average unrecognized compensation cost could also have been calculated in this example as follows (this alternative calculation is provided to illustrate the concept, but would not be appropriate in other circumstances; for example, if options were not outstanding for the entire reporting period, or if an award were subject to graded vesting):

<table>
<thead>
<tr>
<th>Calculation</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning of period (900,000 × $14.69) =</td>
<td>$ 13,221,000</td>
</tr>
<tr>
<td>End of period (900,000 options − 15,000 forfeited options)/3 years vesting term × 2 years of remaining vesting = 590,000 × $14.69 fair value =</td>
<td>8,667,100</td>
</tr>
<tr>
<td>Subtotal</td>
<td>21,888,100</td>
</tr>
<tr>
<td>Average total unrecognized compensation cost, based on actual forfeitures</td>
<td>$ 10,944,050</td>
</tr>
</tbody>
</table>

**Excerpt from Accounting Standards Codification**

**Earnings Per Share — Overall**

**Implementation Guidance and Illustrations**

260-10-55-70 (continued)

**Computation of tax benefit:**

Total compensation cost of average outstanding options $ 13,110,825(e)

Intrinsic value of average outstanding options for the year ended December 31, 20X7 [892,500 × ($44 − $30)] (12,495,000)

Excess of total compensation cost over estimated tax deduction 615,825

Tax benefit deficiency ($615,825 x .35) $ 215,539

**Assumed repurchase of shares:**

Repurchase shares at average market price during the year ($37,503,511 ÷ $44) 852,353

Incremental shares (892,500 − 852,353) 40,147
Computation of Diluted EPS for the Year Ended December 31, 20X7:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net income</td>
<td>$ 97,385,602</td>
</tr>
<tr>
<td>Weighted-average common shares outstanding</td>
<td>25,000,000</td>
</tr>
<tr>
<td>Incremental shares</td>
<td>40,147</td>
</tr>
<tr>
<td>Total shares outstanding</td>
<td>25,040,147</td>
</tr>
<tr>
<td>Diluted earnings per share</td>
<td>$ 3.89</td>
</tr>
</tbody>
</table>

(a) Pre-tax annual share-based compensation cost is $4,022,151 \([(821,406 × $14.69) ÷ 3]\). After-tax share-based compensation cost included in net income is $2,614,398 ($4,022,151 − $1,407,753). ($4,022,151 × .35) = $1,407,753.

(b) Share options granted at the beginning of the year plus share options outstanding at the end of the year divided by two equals the weighted-average number of share options outstanding in 20X7: \([(900,000 + 885,000) ÷ 2]\) = 892,500. This example assumes that forfeitures occurred ratably throughout 20X7.

(c) 885,000 (options outstanding at December 31, 20X7) − 821,406 (options for which the requisite service is expected to be rendered) = 63,594. 63,594 options × $14.69 (grant-date fair value per option) = $934,196 (total fair value). $934,196 ÷ 3 = $311,399 (annual share-based compensation cost).

(d) 15,000 (forfeited options) × $14.69 (grant-date fair value per option) = $220,350 (total fair value).

(e) (892,500 × $14.69) = $13,110,825.

S11.3 Nonvested stock that vests based on service conditions

For purposes of calculating diluted EPS, nonvested stock granted to employees that vests solely based on continued service is treated as the equivalent of an option grant that also is subject solely to service conditions. The treasury stock method is applied to determine the number of shares to be included in the denominator. Typically, there is no exercise price to be paid, so the proceeds are equal to the unrecognized compensation cost adjusted for any tax consequences that will be recognized directly in equity. Nonvested stock is to be considered outstanding as of the grant date for purposes of computing diluted EPS even though its issuance is contingent on future service vesting.

Nonvested stock is not included in basic EPS until the time-based vesting restriction has lapsed. However, see the discussion of the two-class method in Section S11.8 for nonvested stock that pays nonforfeitable dividends during the vesting period.
S11.4  Awards that vest or become exercisable based on the achievement of performance or market conditions

Excerpt from Accounting Standards Codification

Earnings Per Share – Overall

Other Presentation Matters

260-10-45-31
Awards with a market condition, a performance condition, or any combination thereof (as defined in Topic 718) shall be included in diluted EPS pursuant to the contingent share provisions in paragraphs 260-10-45-48 through 45-57.

260-10-45-32
Fixed employee stock options (fixed awards) and nonvested stock (including restricted stock) shall be included in the computation of diluted EPS based on the provisions for options and warrants in paragraphs 260-10-45-22 through 45-27. Even though their issuance may be contingent upon vesting, they shall not be considered to be contingently issuable shares (see Section 815-15-55 and paragraph 260-10-45-48). However, because issuance of performance-based stock options (and performance-based nonvested stock) is contingent upon satisfying conditions in addition to the mere passage of time, those options and nonvested stock shall be considered to be contingently issuable shares in the computation of diluted EPS. A distinction shall be made only between time-related contingencies and contingencies requiring specific achievement.

Share-based payments that vest or become exercisable based on the achievement of performance or market conditions are considered contingently issuable in the EPS calculation. A performance condition is a condition that is based on the operations or activities of the employer or employee. A market condition is a condition that relates to the achievement of: (a) a specified price of the issuer’s shares or a specified amount of intrinsic value indexed solely to the issuer’s shares, or (b) a specified price of the issuer’s shares in terms of a similar (or index of similar) equity security (securities). Performance and market conditions are discussed in greater detail in Chapter 3.

Because performance and market conditions are considered contingencies under ASC 260, the criteria for contingent shares must first be applied before determining the dilutive effect of these types of share-based payments. Prior to the end of the contingency period (i.e., before the performance or market conditions have been satisfied), the number of contingently issuable shares (for nonvested stock) or contingently issuable potential common shares (for stock options) to be included in diluted EPS should be based on the number of shares, if any, that would be issuable under the terms of the arrangement if the end of the reporting period were the end of the contingency period (e.g., the number of shares that would be issuable based on current period earnings or period-end market price) assuming the result would be dilutive. Those contingently issuable shares or potential common shares should be included in
the denominator of diluted EPS as of the beginning of the period, or as of the grant date of the share-based payment, if later. The contingently issuable shares guidance is discussed in greater detail in Section E1.0 of the Ernst & Young Accounting Manual.

When it is determined that potential common shares resulting from an award subject to performance or market conditions should be included in diluted EPS (based on the provisions discussed above), their impact on the computation of diluted EPS is reflected by applying the treasury stock method as previously described in Section S11.2. Again, contingently issuable shares included in the diluted EPS denominator still may be subject to continued employment vesting because only performance or market conditions are considered contingencies. Continued employment vesting is not considered a contingency under ASC 260.

ASC 260’s contingent share provisions would be followed in computing diluted EPS even if for expense recognition purposes under ASC 718 it was deemed probable that a different number of shares would be issued than the number assumed to be issued for the EPS computation. For example, assume that the award states that if earnings in 20X1 for Entity A (with a calendar year-end) exceed $1,000,000, options for 10,000 shares will vest. If earnings exceed $2,000,000, options for 40,000 shares ultimately will vest (the expected outcome). If earnings are $750,000 in the first quarter ended 31 March 20X1, none of the options would be assumed to be outstanding for diluted EPS. If at 30 June 20X1 year-to-date earnings are $1,600,000, the treasury stock method would be applied only to 10,000 shares in the second quarter, even if compensation expense was recognized in both quarters based on the assumption that the 40,000 shares ultimately will vest. The EPS numerator would not be adjusted for this difference in approach between the diluted EPS treatment (ASC 260) and the determination of compensation cost (ASC 718). Under the contingent share provisions of ASC 260, the incremental 30,000 options would not be included in the calculation until Entity A’s earnings exceed $2,000,000.

Further, for awards subject to vesting or exercisability based on the achievement of market conditions (such as a target stock price), compensation cost is required to be recognized over the requisite service period regardless of whether the market condition required for the option to become exercisable is achieved. However, under ASC 260, awards subject to vesting or exercisability based on the achievement of market conditions are treated as contingently issuable shares and included in the calculation of the denominator for diluted EPS only when the target stock price is met. To illustrate, assume 40,000 options will vest if the market price of Entity A’s common stock exceeds $20 per share. The target stock price is not considered a performance condition under ASC 718, and compensation cost based on the fair value of the 40,000 options (inclusive of the impact of the market condition) must be recognized regardless of whether the market price threshold is met as long the requisite service is provided. However, for diluted EPS purposes, no additional shares will be assumed outstanding unless the target price is achieved.
Example 11-2 – Performance-based stock awards

Assume the following:

- Entity A, a calendar year-end company, issued 10,000 nonqualified stock options to management on 1 January 20X1.
- The options vest at the end of 5 years. If earnings are less than $10,000,000 in 20X1, no options vest. If earnings are less than $15,000,000 but at least $10,000,000 in 20X1, 5,000 options will vest. If 20X1 earnings equal or exceed $15,000,000, all 10,000 options vest at the end of the 5 year period (provided that the employee continues to provide service through that date).
- The exercise price of the options is $6.
- The fair value of the options on the date of grant is $2.
- The average market price of Entity A’s stock for the quarter ended 30 September 20X1 was $10 (only the third quarter is illustrated below).
- For the quarter-ended 30 September 20X1, year-to-date earnings are $13,000,000, and therefore, 5,000 shares are issuable assuming the total amount of year-to-date earnings remains unchanged.
- The statutory tax rate is 40%.

For the quarter ended 30 September 20X1, the shares that would be included in the denominator for diluted EPS related to the stock options are calculated as follows:

**Proceeds:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise price component (5,000 shares × $6)</td>
<td>$30,000</td>
</tr>
<tr>
<td>Unrecognized compensation component [(5,000 × $2 × 18/20 quarters remaining) + (5,000 × $2 × 17/20 quarters remaining)]/2</td>
<td>$8,750</td>
</tr>
<tr>
<td>Tax benefit component: [($10 average market price − $6 exercise price) − $2 expense to be recognized per option] × 5,000 shares × 40% tax rate</td>
<td>$4,000</td>
</tr>
<tr>
<td>Total assumed “proceeds”</td>
<td>$42,750</td>
</tr>
<tr>
<td>Shares assumed repurchased ($42,750/$10)</td>
<td>4,275</td>
</tr>
<tr>
<td>Incremental shares to be added (5,000 shares − 4,275 shares)</td>
<td>725</td>
</tr>
</tbody>
</table>
In the above example, under ASC 260, diluted EPS is computed assuming 5,000 shares will be awarded, regardless of how many shares are used to compute compensation cost under ASC 718. If during the fourth quarter ended 31 December 20X1, annual earnings exceed $15,000,000 as appears likely based on the earnings through 30 September 20X1, then the fourth quarter’s diluted EPS computations will be based on 10,000 shares. However, this increase cannot be assumed for EPS purposes at 30 September 20X1. Further, diluted EPS cannot be retroactively adjusted when the quarter ended 30 September 20X1 is presented in the future after the $15,000,000 threshold has been surpassed.

S11.5 Awards that may be settled in stock or cash

Excerpt from Accounting Standards Codification

Earnings Per Share — Overall

Other Presentation Matters

260-10-45-30
If stock-based compensation arrangements are payable in common stock or in cash at the election of either the entity or the employee, the determination of whether such stock-based awards are potential common shares shall be made based on the provisions in paragraph 260-10-45-45. If an entity has a tandem award (as defined in Topic 718) that allows the entity or the employee to make an election involving two or more types of equity instruments, diluted EPS for the period shall be computed based on the terms used in the computation of compensation expense for that period.

260-10-45-45
If an entity issues a contract that may be settled in common stock or in cash at the election of either the entity or the holder, the determination of whether that contract shall be reflected in the computation of diluted EPS shall be made based on the facts available each period. It shall be presumed that the contract will be settled in common stock and the resulting potential common shares included in diluted EPS (in accordance with the relevant provisions of this Topic) if the effect is more dilutive. Stock-based compensation arrangements that are payable in common stock or in cash at the election of either the entity or the employee shall be accounted for pursuant to this paragraph and the following paragraph. An example of such a contract is a written put option that gives the holder a choice of settling in common stock or in cash.

260-10-45-46
A contract that is reported as an asset or liability for accounting purposes may require an adjustment to the numerator for any changes in income or loss that would result if the contract had been reported as an equity instrument for accounting purposes during the period. That adjustment is similar to the adjustments required for convertible debt in paragraph 260-10-45-40(b). The presumption that the contract will be settled in common stock may be overcome if past experience or a stated policy provides a reasonable basis to believe that the contract will be paid partially or wholly in cash.
The references in paragraphs 260-10-45-30 and 260-10-45-45 for stock-based compensation arrangements that are payable in common stock or in cash at the election of either the entity or the employee refer to using the guidance in paragraph 260-10-45-45 for purposes of determining whether shares issuable in accordance with such plans are included in the denominator for purposes of computing diluted EPS amounts. Accordingly, the numerator is not adjusted in those circumstances. Paragraph 260-10-55-36A illustrates these requirements.

For contracts in which the counterparty controls the means of settlement, past experience or a stated policy is not determinative. Accordingly, in those situations, the more dilutive of cash or share settlement shall be used.

Certain share-based payments to employees may be settled either in stock or cash at the election of either the company or the employee. An example of such an award is a stock appreciation right (“SAR”) payable in stock or cash at the company’s election.

Similar to other contracts that may be settled in stock or cash (see additional guidance in Section E1.0 of the Ernst & Young Accounting Manual), the computation of diluted EPS must consider such awards based on the facts and circumstances each period. However, it is presumed that the award will be settled in stock and the resulting potential common shares included in diluted EPS, if the effect is more dilutive. This presumption may be overcome if past experience or a stated policy provides a reasonable basis to believe that the award will be settled partly or wholly in cash. Of course, if that presumption were overcome, the substantive terms of the plan would be assumed to require cash settlement under ASC 718 and, as a result, the award would be accounted for as a liability as described in Chapter 5. For a liability award in which share settlement is assumed, the numerator in the diluted EPS computation should not be adjusted for any changes in income or loss resulting from the liability award during the period as discussed in ASC 260-10-55-33. This guidance is discussed in greater detail in Section E1.0 of the Ernst & Young Accounting Manual.

**S11.6 Awards of subsidiary stock or stock options**

Securities issued by a consolidated subsidiary that allow employees to obtain the subsidiary’s common stock (e.g., stock options) affect not only the subsidiary’s diluted EPS (if it is a public company), but also that of its parent. Such securities generally do not impact basic EPS. After calculating the subsidiary’s diluted EPS considering these employee awards, the subsidiary’s EPS is multiplied by the shares assumed to be owned by the parent after conversion. The result is substituted for the parent’s share of the actual earnings of the subsidiary when included in the consolidated entity’s numerator for the consolidated diluted EPS calculation.
Under this method, the subsidiary’s diluted EPS must be calculated on a stand-alone basis regardless of whether it is publicly held. These provisions also are applicable to investments in common stock of corporate joint ventures and investee companies accounted for under the equity method when those entities issue options (or other awards) in their own stock. An illustration is provided below. For further information regarding potential common shares of subsidiaries, see Section E1.0 of the Ernst & Young Accounting Manual.

Example 11-3 – Employee stock options of a consolidated subsidiary:

Assumptions:

Parent company –

- Net income (excluding income of the subsidiary): $10,000
- 10,000 common shares outstanding
- Owns 900 shares (90%) of subsidiary common stock

Subsidiary company –

- Net income: $3,600 (including applicable adjustments to eliminate intercompany adjustments made in consolidation that have not been recorded by the subsidiary)
- 1,000 common shares outstanding
- Granted fully vested incentive stock options (for which a tax deduction normally is not received) to its employees to purchase 200 shares of its common stock at $10 per share (average market price for period is $20)

Diluted EPS calculations:

- Subsidiary’s diluted EPS
  - $3,600 ÷ (1,000 + 100) = $3.27
- Consolidated diluted EPS
  - ($10,000 + $2,943) ÷ 10,000 = $1.29

Incremental shares from applying the treasury stock method [($20 − $10) / $20] × 200 = 100. Because the options are fully vested and do not result in a tax deduction, there is no unrecognized compensation cost or excess tax benefits to include in the proceeds in the treasury stock method computation. See further discussion of the treasury stock method in Section S11.2.

Parent’s proportionate interest in subsidiary’s earnings (900 × $3.27 per share) = $2,943.
Note that for the consolidated diluted EPS calculation, the effect of the options to buy stock of the subsidiary affect only the numerator. In consolidation, net income attributable to the parent company includes $3,240 (90% of $3,600) from the subsidiary, but diluted EPS is based on income of only $2,943. The outstanding shares of the parent are not affected.

### S11.7 Employee stock purchase plans

Employee stock purchase plans (ESPPs) generally provide a broad group of employees the right to acquire employer stock through payroll deductions. A typical plan (e.g., one that qualifies under Section 423 of the Internal Revenue Code – a “Section 423 Plan”) allows employees to buy the employer’s stock, at a discount from the market price at the date of grant, over a period of time (e.g., two years), usually through payroll deductions.

Shares issued under ESPPs are outstanding shares and are included in the calculation of both basic and diluted EPS. However, ASC 260 does not provide specific guidance on how to calculate the EPS effect of ESPPs prior to share issuance. Historical practice has been to follow ASC 260’s contingently issuable shares guidance (discussed in Section S11.4 with respect to performance and market conditions) based on footnote 1 of FTB 97-1, which is not included in the Codification.

In the case of ESPPs, we believe that the contingency is the employees’ payment of funds through payroll withholdings (effectively the “acceptance” of the employer’s “offer” of shares or options). As a result, we believe that the shares or options contingently issuable do not impact EPS until the respective payroll amounts are withheld.

As previously indicated, most ESPPs have a withholding feature under which the employer deducts an agreed amount from the participating employee’s pay and, after a specified period of time, the accumulated cash is used to purchase shares. We believe that whether the withholding of cash compensation to purchase shares is considered an option (in which case the treasury stock method is applied to compute diluted EPS) or contingent shares depends on whether the withheld amounts are refundable. If refunds are permitted, we believe that the substance of the plan is that options are issued to the employee each pay period as salary is withheld. If withheld amounts are not refundable, but employees authorize withholding of wages and salaries to be used to purchase stock at a designated future date, we believe that the shares currently purchasable with the amounts withheld should be included in weighted-average shares outstanding for both basic and diluted EPS.

We understand that because of the lack of specificity in FTB 97-1 regarding the EPS effect of employee stock purchase plans, other interpretations of how to calculate the dilutive effect of employee stock purchase plans exist. Specifically, we are aware of an alternative view under which the withholding of cash is not considered a contingency or acceptance of an offer of shares or options. Under this alternative view, the dilutive impact of the employee stock purchase plan is calculated considering all the funds to be withheld during the purchase period (similar to the valuation of an employee stock purchase plan award under ASC 718-50), not just the funds that have been withheld to date. Under this alternative method, the calculation of the assumed proceeds used to “buy back” shares under the treasury stock
method would include the average unrecognized compensation cost for the award, thereby limiting the dilutive impact of the award (note that the average unrecognized compensation cost is not included in the calculation described in the preceding paragraph because that unrecognized cost relates to shares to be purchased with future withholdings, which are excluded from the EPS calculation in the preceding paragraph). We believe this interpretation of how to calculate the EPS impact of employee stock purchase plans also is acceptable.

Regardless of the method used to calculate the dilutive impact of employee stock purchase plans, the incremental number of shares to be added to the diluted EPS calculation for plans with “look-back” options should consider the share price at the end of the reporting period. For example, if the plan provides the employee the right to purchase shares at 85% of the lower of the grant date share price or the purchase date share price, the calculation of the number of shares issued in the treasury stock calculation should be based on a purchase price of 85% of the lower of the grant date share price or the share price at the end of the reporting period.

S11.8 Participating share-based payment awards and the two-class method

Excerpt from Accounting Standards Codification

Earnings Per Share – Overall
Other Presentation Matters
260-10-45-61
Fully vested stock-based compensation subject to the provisions of Topic 718, including fully vested options and fully vested stock, that contain a right to receive dividends declared on the common stock of the issuer, are subject to the guidance in paragraph 260-10-45-60A.

260-10-45-61A
Unvested share-based payment awards that contain nonforfeitable rights to dividends or dividend equivalents (whether paid or unpaid) are participating securities and shall be included in the computation of EPS pursuant to the two-class method under the requirements of paragraph 260-10-45-60A.

260-10-45-68B
Paragraph 718-10-55-45 requires that nonrefundable dividends or dividend equivalents paid on awards for which the requisite service is not (or is not expected to be) rendered be recognized as additional compensation cost and that dividends or dividend equivalents paid on awards for which the requisite service is (or is expected to be) rendered be charged to retained earnings. As a result, an entity shall not include dividends or dividend equivalents that are accounted for as compensation cost in the earnings allocation in computing EPS. To do so would include the dividend as a reduction of earnings available to common shareholders from both compensation cost and distributed earnings. Undistributed earnings
shall be allocated to all outstanding share-based payment awards, including those for which the requisite service is not expected to be rendered. An entity’s estimate of the number of awards for which the requisite service is not expected to be rendered for the purpose of determining EPS under this Topic shall be consistent with the estimate used for the purposes of recognizing compensation cost under Topic 718. Paragraph 718-10-35-3 requires that an entity apply a change in the estimate of the number of awards for which the requisite service is not expected to be rendered in the period that the change in estimate occurs. This change in estimate will affect net income in the current period; however, a current-period change in an entity’s expected forfeiture rate would not affect prior-period EPS calculations. See Example 9 for an illustration of this guidance.

ASC 260 requires companies with multiple classes of common stock or with securities other than common stock that participate in dividends with the common stock (i.e., participating securities) to use the two-class method of computing EPS. The two-class method is an earnings allocation method that determines EPS for each class of common stock and participating security according to dividends declared (or accumulated) and participation rights in undistributed earnings as if all such earnings had been distributed during the period.

The sections that follow provide detailed application guidance for the two-class method as it specifically relates to share-based payment awards. The application of the two-class method is discussed more broadly in Section E1.0 of the Ernst & Young Accounting Manual and at ASC 260-10-45-59A through 45-70 and ASC 260-10-55-23A through 55-31.

**S11.8.1 Determining whether a nonvested share-based payment award is a participating security**

Nonvested share-based payment awards that contain rights to receive nonforfeitable dividends are participating securities, and thus, should be included in the two-class method of computing EPS. These awards are considered participating securities because the award holders participate in distributions of earnings with common shareholders from the date the awards are granted because no service has to be rendered to earn the dividends. By comparison, nonvested share-based payment awards that contain rights to receive dividends only if the award fully vests do not represent a participation right. These awards are not considered participating securities because the award holder does not have the right to retain the dividend unless the requisite service has been rendered.

In accordance with ASC 260-10-45-62, nonvested share-based payment awards would not be considered participating securities if the dividends transferred could only be applied as a reduction in the exercise price of the award. These types of awards are not considered participating securities because the holder does not have the nonforfeitable right to participate in the distribution of earnings with the common shareholders unless the award is exercised.
S11.8.2 Allocation of earnings and losses

The allocation of earnings to participating share-based payment awards generally is consistent with the base framework in ASC 260. However, because of certain issues that result from the accounting for nonforfeitable dividends paid to the holders of share-based payment awards pursuant to ASC 718, ASC 260 also includes allocation guidance to address these issues. ASC 718 states that nonrefundable dividends paid on awards that are not expected to (or do not) vest are recognized as additional compensation expense. Accordingly, ASC 260-10-45-68B states that dividends recognized in earnings as compensation expense should not be included in the allocation of earnings when computing EPS, because to do so would result in these dividends being subtracted from earnings available to common shareholders twice. As such, the amount of distributed earnings allocated to the nonvested share-based payment awards should be the total dividends distributed to all share-based payment awards less dividends transferred to awards that are expected to be forfeited. However, ASC 260-10-45-68B requires that undistributed earnings be allocated to all outstanding share-based payment awards, including those that are expected to be forfeited. This approach is necessary because, under the two-class method, an entity assumes that it distributes all of its earnings for the period. If an entity distributed all of its earnings, it would be required to distribute earnings to the holders of all outstanding participating awards (not just those awards that are expected to vest), which would reduce the earnings available to distribute to common shareholders.

Generally, undistributed losses (resulting from either a net loss or distributed income in excess of net income) would not be allocated to share-based payment awards as those awards generally do not have a contractual obligation to share in the losses of the issuing entity as discussed in ASC 260-10-45-67 and 45-68. See Chapter E1.0 of the Ernst & Young Accounting Manual for further discussion of allocating losses to participating securities under the two-class method.

S11.8.3 Earnings per nonvested share-based payment award

The requirement in ASC 260 to reduce distributed earnings to nonvested participating award holders by the amount of dividends transferred that were also recognized as additional compensation expense will result in a distributed earnings per share amount for nonvested participating awards that does not equal the declared dividend per share amount (unless no forfeitures are expected or actually occur). In addition, when nonvested participating awards participate equally with common shares, the calculated basic EPS amount for the nonvested participating awards will be different than the calculated basic EPS amount for common shares (unless no forfeitures are expected or actually occur). These differences will occur because of the computational guidance included in ASC 260 regarding awards not expected to vest.
Pursuant to the provisions of ASC 260, basic and diluted EPS are required to be disclosed only for common stock. As nonvested participating awards are not considered a class of common stock prior to the vesting or exercise of the awards, companies are not required to disclose EPS for these awards. However, presentation of EPS for participating securities is not precluded. If a company decides to disclose the EPS amounts for its nonvested participating awards, we encourage them to include additional disclosures in their financial statements to mitigate the potential for any confusion on the part of the nonvested participating share-based award holders that may result from the fact that EPS for their awards will differ from EPS for common stock. For example, entities may consider reconciling earnings per nonvested participating share-based payment award and earnings per common share by reference to the dividends recognized as compensation cost. In practice, most companies do not include separate disclosure of EPS for nonvested participating share-based payments. We believe it would be least confusing to simply exclude a separate disclosure of EPS for nonvested participating share-based payments as the holders of such awards do in fact participate on the same basis as common shareholders and can look to reported EPS for common stock.

S11.8.4 Changes in forfeiture rates
ASC 260-10-45-68B states that the estimated number of awards expected to be forfeited used in the two-class calculation should be consistent with the estimate made under ASC 718 for the purpose of determining compensation expense. In addition, consistent with the guidance in ASC 718, ASC 260 requires that any changes in the estimated number of forfeitures be reflected in the EPS calculation in the period that a change in estimate occurs. As such, the change in estimated forfeitures will only affect net income and EPS in the period a change in estimate occurs and will not affect EPS reported for prior periods (i.e., EPS in prior periods is not restated for changes in estimates of expected forfeitures). ASC 260 includes an example (Case D of Example 9 starting at ASC 260-10-55-76A) that illustrates how a change in the forfeiture rate affects the computation of basic EPS using the two-class method.

S11.8.5 Diluted EPS
There is limited guidance in ASC 260 regarding the calculation of diluted EPS under the two-class method. However, we believe the dilutive effect of each participating security or second class of common stock should be calculated using the more dilutive of the following approaches:

- The treasury stock method, reverse treasury stock method, if-converted method or contingently issuable share method, as applicable, provided a participating security or second class of common stock is a potential common share. The dilutive effect of other potential common shares (e.g., stock options) should also be considered in conjunction with the antidilution sequencing provisions in ASC 260.
The two-class method assuming a participating security or second class of common stock is not exercised or converted. Under this method, the dilutive effect of other potential common shares is determined in conjunction with the antidilution sequencing provisions in ASC 260, and undistributed earnings are reallocated between common shares and participating securities.

The calculation that results in the most dilutive EPS amount for the common stock is reported in the financial statements. Diluted EPS for a second class of common stock and each participating security would be calculated using the two-class method discussed above. However, disclosure in the financial statements is only required for classes of common stock. Disclosure of the diluted EPS amount for a participating security is permitted, but not required. The example in Section S11.8.6 illustrates these concepts.

S11.8.6 Illustrative example

Entity A had 50,000 shares of common stock outstanding during 20X9 and net income of $150,000. On 1 January 20X9, Entity A issued 5,000 shares of nonvested stock to employees, each with a grant-date fair value of $40. These shares will vest at the end of five years (i.e., cliff vest). As of 1 January 20X9, Entity A estimated that 250 shares would not vest. During 20X9, no shares were actually forfeited and the estimated forfeiture rate was not revised. The nonvested shareholders have a nonforfeitable right to participate in dividends with common shareholders on a dollar-for-dollar basis.

On 1 January 20X9, Entity A also issued options to employees to purchase 8,000 shares of common stock at the then-current market price of $40. The options have a grant-date fair value of $5 and vest at the end of 5 years (cliff vest). The option holders do not have rights to participate in dividends with the common shareholders. For ease of illustration, assume Entity A expects all of the options to vest.

On 31 December 20X9, Entity A declares and pays a $1.00 per share dividend (or dividends of $50,000 and $5,000 paid to the common shareholders and holders of nonvested shares, respectively). The average market price of Entity A’s common stock for the year was $50 per share. Entity A’s tax rate for 20X9 was 40%.
Basic EPS under the two-class method for the year ended 31 December 20X9 would be computed as follows:

Net income $150,000

Less dividends to:

<table>
<thead>
<tr>
<th>Shares</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common shares</td>
<td>$50,000</td>
</tr>
<tr>
<td>Nonvested shares</td>
<td>$4,750</td>
</tr>
</tbody>
</table>

Undistributed 20X9 net income $95,250

Allocation of undistributed net income:

To common shares:

50,000 shares ÷ (5,000 shares + 50,000 shares) × $95,250 = $86,591
$86,591 ÷ 50,000 shares = $1.73 per share

To nonvested shares:

5,000 shares ÷ (5,000 shares + 50,000 shares) × $95,250 = $8,659
$8,659 ÷ 5,000 shares = $1.73 per share

Basic EPS amounts:

<table>
<thead>
<tr>
<th>Shares</th>
<th>Common shares</th>
<th>Nonvested shares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distributed earnings</td>
<td>$1.00</td>
<td>$0.95</td>
</tr>
<tr>
<td>Undistributed earnings</td>
<td>1.73</td>
<td>1.73</td>
</tr>
<tr>
<td>Totals</td>
<td>$2.73</td>
<td>$2.68</td>
</tr>
</tbody>
</table>

42 Amount represents the dividends paid to the holders of nonvested share-based payment awards (5,000 nonvested shares x $1.00 dividend per share = $5,000) less the dividends paid to the holders of awards that are not expected to vest (250 shares expected to be forfeited x $1.00 dividend per share = $250). As dividends paid on awards that are not expected to vest already are recognized in net income as compensation expense, these dividends are excluded from the allocation of distributed earnings.

43 The shares used to determine the allocation of undistributed net income and per share amounts are the weighted average common and nonvested shares outstanding for the reporting period.

44 $50,000 of earnings distributed to common shareholders ÷ 50,000 weighted average common shares outstanding

45 $4,750 of earnings distributed to nonvested shareholders ÷ 5,000 weighted average nonvested shares outstanding
Diluted EPS under the two-class method for the year ended 31 December 20X9 would be computed as follows:

**Step 1 – Antidilution sequencing**

<table>
<thead>
<tr>
<th>Options</th>
<th>Increase in earnings available to common shareholders</th>
<th>Increase in number of common shares</th>
<th>Earnings per incremental share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonvested shares</td>
<td>13,409(^{47})</td>
<td>1,000(^{48})</td>
<td>$13.41</td>
</tr>
</tbody>
</table>

\(^{46}\) Incremental shares outstanding from assumed exercise of the outstanding options:

- Assumed proceeds received from the exercise of options: $40 \times 8,000 = $320,000
- Average unrecognized compensation cost: \((40,000 + 32,000) \div 2 = $36,000\)
- Excess tax benefit: \(((50 - 40) - 5) \times 8,000 \times 40\% = $16,000\)
- Total assumed proceeds: $320,000 + 36,000 + 16,000 = $372,000
- Shares repurchased: $372,000 \div 50 = 7,440 shares
- Incremental shares: 8,000 - 7,440 = 560 shares

\(^{47}\) $4,750 of earnings distributed to nonvested shareholders + $8,659 of undistributed earnings allocated to nonvested shareholders

\(^{48}\) Incremental shares outstanding from assumed conversion of the outstanding nonvested shares:

- Average unrecognized compensation cost: \((200,000 + 160,000) \div 2 = $180,000\)
- Excess tax benefit: \(((50 - 0) - 40) \times 5,000 \times 40\% = $20,000\)
- Total assumed proceeds: $180,000 + 20,000 = $200,000
- Shares repurchased: $200,000 \div 50 = 4,000 shares
- Incremental shares: 5,000 - 4,000 = 1,000 shares
Step 2 – Calculation of diluted EPS using the treasury stock method for the nonvested shares and options

<table>
<thead>
<tr>
<th>Undistributed &amp; distributed earnings to common shareholders</th>
<th>Common shares</th>
<th>EPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>As reported – basic</td>
<td>$136,591</td>
<td>50,000</td>
</tr>
<tr>
<td>Options</td>
<td>–</td>
<td>560</td>
</tr>
<tr>
<td>Subtotal</td>
<td>136,591</td>
<td>50,560</td>
</tr>
<tr>
<td>Nonvested shares</td>
<td>13,409</td>
<td>1,000</td>
</tr>
<tr>
<td>Diluted EPS – common shares</td>
<td>$150,000</td>
<td>51,560</td>
</tr>
</tbody>
</table>

Step 3 – Calculation of diluted EPS using the two-class method

<table>
<thead>
<tr>
<th>Undistributed &amp; distributed earnings to common shareholders</th>
<th>Common shares</th>
<th>EPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>As reported – basic</td>
<td>$136,591</td>
<td>50,000</td>
</tr>
<tr>
<td>Add-back:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undistributed earnings allocated to nonvested shareholders</td>
<td>8,659</td>
<td>–</td>
</tr>
<tr>
<td>Options</td>
<td>–</td>
<td>560</td>
</tr>
<tr>
<td>Less:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undistributed earnings reallocated to nonvested shareholders</td>
<td>(8,572)</td>
<td>–</td>
</tr>
<tr>
<td>Diluted EPS – common shares</td>
<td>$136,678</td>
<td>50,560</td>
</tr>
</tbody>
</table>

49 The purpose of the calculation in Step 2 is calculate the dilutive effect on the common shares of an assumed exercise of the nonvested participating awards using the treasury stock method (inclusive of the dilutive effects of other potential common shares). As such, the EPS calculation must include the assumed exercise of the nonvested participating awards even if it results in an EPS amount that is antidilutive.

50 \((5,000 \div (5,000 + 50,000 + 560)) \times 95,250\) undistributed earnings = $8,572
In this example, Entity A is required to disclose diluted EPS per common share of $2.70 using the two-class method because using the treasury stock method results in a less dilutive EPS amount of $2.91. Although not required to be disclosed pursuant to the disclosure requirement in ASC 260, Entity A is not precluded from disclosing the EPS amounts for its nonvested shares. If Entity A decided to disclose EPS amounts for its nonvested shares, they would disclose $2.66 as the diluted EPS amount for the nonvested shares (see Section S11.8.3 for a discussion on disclosing EPS for nonvested participating awards). The following table summarizes the basic and diluted EPS amounts for the common and nonvested shares:

<table>
<thead>
<tr>
<th>Nonvested shares</th>
<th>Undistributed &amp; distributed earnings to nonvested shareholders</th>
<th>Nonvested shares</th>
<th>EPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>As reported – basic</td>
<td>$13,409</td>
<td>5,000</td>
<td>$2.68</td>
</tr>
<tr>
<td>Less:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undistributed earnings allocated to nonvested shareholders</td>
<td>(8,659)</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Add-back:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undistributed earnings reallocated to nonvested shareholders</td>
<td>8,572</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Diluted EPS – nonvested shares</td>
<td>$13,322</td>
<td>5,000</td>
<td>$2.66</td>
</tr>
</tbody>
</table>

S11.8.7 Dividend equivalents paid on participating share-based liabilities

Certain share-based payment awards classified as liabilities may be deemed participating securities. We believe that dividends declared on share-based payment awards classified as liabilities should be recorded in the income statement as compensation expense (see Section S3.6.2). Therefore, similar to dividends on awards not expected to vest (see Section S11.8.2), we believe that net income (loss) should not be adjusted for dividends declared on participating share-based liabilities a second time in the earnings allocation process in applying the two-class method of computing EPS.
S11.8.8 Quarterly and year-to-date calculations

For a year-to-date or annual period, we believe that the application of the two-class method of computing EPS should be made without regard to the quarterly computations. That is, income (loss) for the annual period should be allocated to participating securities independent of the quarterly EPS calculations. Additionally, we believe that the approach followed for computing diluted EPS (see Section S11.8.5) should be made independently for each quarter and year-to-date period.

S11.8.9 Equity restructurings

ASC 718 defines an “equity restructuring” as “(a) nonreciprocal transaction between an entity and its shareholders that causes the per-share fair value of the shares underlying an option or similar award to change, such as a stock dividend, stock split, spinoff, rights offering, or recapitalization through a large, nonrecurring cash dividend.” We generally do not believe that participating share-based payment awards or other participating securities with a contractual antidilution provision, in the event of an equity restructuring or similar event, is a means by which those securities participate in earnings. We believe that equity restructurings should affect only the outstanding shares (i.e., the denominator) in the calculation of EPS under the two-class method. This is consistent with the approach discussed in ASC 260-10-55-12 for stock dividends and stock splits in that there is no adjustment to the numerator in the EPS calculation as a result of these transactions.

S11.8.10 Discontinued operations

Questions have arisen as to how to apply the two-class method of computing EPS when an entity has discontinued operations. Specifically, how should earnings (losses) be allocated to participating securities if there is a loss from continuing operations but net income after giving consideration to the income from discontinued operations? Alternatively, how should earnings (losses) be allocated to participating securities if there is income from continuing operations but a net loss after giving consideration to the loss from discontinued operations?

The questions generally stem from the provisions of ASC 260 that indicate that an entity would allocate losses to a participating security (whether or not convertible into common stock) in periods of net loss if, based on the contractual terms, the participating security has a contractual obligation to share in the losses of the issuing entity on a basis that is objectively determinable (see Section S11.8.2 for further discussion). In practice, it is uncommon for a participating security to have a contractual obligation to share in losses of the issuing entity, so an entity must determine whether income (losses) will be allocated using undistributed income (loss) from continuing operations as the “control number” or undistributed net income (loss) as the “control number.” While ASC 260 indicates that an entity that reports a discontinued operation should use income from continuing operations as the “control number” in determining whether potential common shares are dilutive, we believe this is a distinction and computational guidance for the denominator in the diluted EPS calculation. While ASC 260 specifically does not address the application of the two-class method when an
entity has discontinued operations, generally we believe undistributed net income (loss) should be the “control number” for computing the numerator in the EPS calculation. Under other approaches, the sum of income (loss) from continuing operations per share and income (loss) from discontinued operations per share may not equal net income (loss) per share. The following examples illustrate these concepts.

**Example 1**

- Assume the following for an entity:
  - Income from continuing operations of $1,000
  - Loss from discontinued operations of $1,500
  - Common shares outstanding during the period of 1,000
  - Participating securities outstanding during the period of 200. The participating securities participate in dividends with common shareholders on a 1:1 basis. The participating securities do not participate in losses of the entity.
  - No dividends declared during the period

Basic EPS for the common shareholders would be calculated as follows:

<table>
<thead>
<tr>
<th></th>
<th>Income from continuing operations</th>
<th>Loss from discontinued operations</th>
<th>Net loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic EPS</td>
<td>$1,000</td>
<td>$(1,500)</td>
<td>$(500)</td>
</tr>
</tbody>
</table>

In this example, the “control number” is the undistributed net loss of $(500) (as no dividends were declared during the period). As the participating securities do not participate in the losses of the entity, all of the income (loss) for each respective line item is allocated to the common shareholders.
Example 2

- Assume the following for an entity:
  - Loss from continuing operations of $1,000
  - Income from discontinued operations of $1,500
  - Common shares outstanding during the period of 1,000
  - Participating securities outstanding during the period of 200. The participating securities participate in dividends with common shareholders on a 1:1 basis. The participating securities do not participate in losses of the entity.
  - No dividends declared during the period

Basic EPS for the common shareholders would be calculated as follows:

<table>
<thead>
<tr>
<th></th>
<th>Basic EPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss from continuing operations</td>
<td>$ (1,000)</td>
</tr>
<tr>
<td>Income from discontinued operations</td>
<td>1,500</td>
</tr>
<tr>
<td>Net income</td>
<td>$ 500</td>
</tr>
</tbody>
</table>

In this example, the “control number” is the undistributed net income of $500 (as no dividends were declared during the period). As the participating securities participate in the income of the entity on a 1:1 basis with common shareholders, the income (loss) for each respective line item is allocated to both the common shareholders and the participating securities. Note that this results in the common shareholders being allocated income (loss) at a proportion of 1,000/1,200.

In the event that dividends were declared in a period in either Examples 1 or 2, the declared dividends would be subtracted from the net income (loss) amounts to determine the “control number” (i.e., undistributed net income (loss)). Additionally, we generally believe that any distributed income per share should be included in the income (loss) from continuing operations line item.
S12 Employee stock purchase plans

Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Employee Share Purchase Plans

Overview and Background

718-50-05-1
This Subtopic provides guidance to entities that use employee share purchase plans. The entity must first determine whether the plan is compensatory or noncompensatory. This is determined by the terms of the plan (see paragraphs 718-50-25-1 through 25-2). A plan with an option feature, for example a look-back feature, is considered compensatory. For a compensatory plan the calculation of the amount of the compensation is important (see Section 718-50-55).

Scope and Scope Exceptions

718-50-15-1
This Subtopic has its own discrete scope, which is separate and distinct from the pervasive scope for this Topic as outlined in Section 718-10-15.

718-50-15-2
The guidance in this Subtopic applies to all entities.

Employee stock purchase plans (“ESPPs”) generally provide a broad group of employees the right to acquire employer stock through payroll deductions. A typical plan (e.g., one that qualifies for favorable tax treatment under Section 423 of the Internal Revenue Code: a “Section 423 Plan”) allows employees to buy the employer’s stock over a period of time (e.g., two years) at a discount from the market price at the date of grant. Many ESPPs provide for (a) purchases at a discount from the current stock price and (b) option features. ASC 718 provides specific criteria to determine whether an ESPP would be considered compensatory or noncompensatory.
S12.1 Noncompensatory plans

Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Employee Share Purchase Plans

Recognition

718-50-25-1

An employee share purchase plan that satisfies all of the following criteria does not give rise to recognizable compensation cost (that is, the plan is noncompensatory):

a. The plan satisfies either of the following conditions:

   1. The terms of the plan are no more favorable than those available to all holders of the same class of shares. Note that a transaction subject to an employee share purchase plan that involves a class of equity shares designed exclusively for and held only by current or former employees or their beneficiaries may be compensatory depending on the terms of the arrangement.

   2. Any purchase discount from the market price does not exceed the per-share amount of share issuance costs that would have been incurred to raise a significant amount of capital by a public offering. A purchase discount of 5 percent or less from the market price shall be considered to comply with this condition without further justification. A purchase discount greater than 5 percent that cannot be justified under this condition results in compensation cost for the entire amount of the discount. Note that an entity that justifies a purchase discount in excess of 5 percent shall reassess at least annually, and no later than the first share purchase offer during the fiscal year, whether it can continue to justify that discount pursuant to this paragraph.

b. Substantially all employees that meet limited employment qualifications may participate on an equitable basis.

c. The plan incorporates no option features, other than the following:

   1. Employees are permitted a short period of time – not exceeding 31 days – after the purchase price has been fixed to enroll in the plan.

   2. The purchase price is based solely on the market price of the shares at the date of purchase, and employees are permitted to cancel participation before the purchase date and obtain a refund of amounts previously paid (such as those paid by payroll withholdings).

Each of these criteria is discussed further below.
S12.1.1 Terms of the plan are available to all stockholders

As indicated above, if the terms of an ESPP are no more favorable than the terms offered to all holders of that class of shares, and the plan also meets the requirements described in Sections S12.1.3 and S12.1.4 below, the plan is not deemed compensatory. We would expect that this exception rarely would be applicable to an ESPP because such plans usually have more favorable terms than are available to all shareholders. One circumstance in which this exception might apply involves employee participation in a dividend reinvestment plan (DRIP), provided the employees purchase shares based on the same terms available to any nonemployees who participate in the DRIP. However, care should be taken to ensure that the terms offered to the employees are no more favorable than to nonemployees, as illustrated in the following example:

Excerpt from Accounting Standards Codification

**Compensation – Stock Compensation – Employee Share Purchase Plans**

**Implementation Guidance and Illustrations**

718-50-55-35

Another criterion is that the terms are no more favorable than those available to all holders of the same class of shares. For example, Entity A offers all full-time employees and all nonemployee shareholders the right to purchase $10,000 of its common stock at a 5 percent discount from its market price at the date of purchase, which occurs in 1 month. The arrangement is not compensatory because its terms are no more favorable than those available to all holders of the same class of shares. In contrast, assume Entity B has a dividend reinvestment program that permits shareholders of its common stock the ability to reinvest dividends by purchasing shares of its common stock at a 10 percent discount from its market price on the date that dividends are distributed and Entity B offers all full-time employees the right to purchase annually up to $10,000 of its common stock at a 10 percent discount from its market price on the date of purchase. Entity B's common stock is widely held; hence, many shareholders will not receive dividends totaling at least $10,000 during the annual period. Assuming that the 10 percent discount cannot be justified as the per-share amount of share issuance costs that would have been incurred to raise a significant amount of capital by a public offering, the arrangement is compensatory because the number of shares available to shareholders at a discount is based on the quantity of shares held and the amounts of dividends declared. Whereas, the number of shares available to employees at a discount is not dependent on shares held or declared dividends; therefore, the terms of the employee share purchase plan are more favorable than the terms available to all holders of the same class of shares. Consequently, the entire 10 percent discount to employees is compensatory. If, on the other hand, the 10 percent discount can be justified as the per-share amount of share issuance costs that would have been incurred to raise a significant amount of capital by a public offering, then the entire 10 percent discount to employees is not compensatory. If an entity justifies a purchase discount in excess of 5
percent, it would be required to reassess that discount at least annually and no later than the first share purchase offer during the fiscal year. If upon reassessment that discount is not deemed justifiable, subsequent grants using that discount would be compensatory.

Further, ASC 718-50-25-1(a)(1) states, “a transaction subject to an employee share purchase plan that involves a class of equity shares designed exclusively for and held only by current or former employees or their beneficiaries may be compensatory depending on the terms of the arrangement.”

While this guidance may not be particularly informative, we believe the objective of this guidance is to preclude potential abuses of the exception for ESPPs that provide terms that are no more favorable than the terms offered to all holders of that class of shares. For example, assume a company created a series of Class B common stock to be sold only to employees that has substantially the same rights as the employer’s Class A common stock. The employer sells the Class B stock at a 20% discount from the fair value of the Class A stock, and does not sell the Class A stock at a discount. While the employer may technically offer this discounted price to all Class B shareholders and comply with the literal requirements of ASC 718-50-25-1(a)(1), we believe that the sale of Class B stock is compensatory. We believe that the Class B stock held only by employees in this example is not substantively different from the Class A stock held by nonemployees and a 20% discount from the value of the Class A stock is not justifiable under ASC 718-50-25-1(a)(2).

**S12.1.2 Discount does not exceed the estimated issuance costs for a public offering**

As discussed in Section S12.1, if the terms of an ESPP provide for a purchase discount that does not exceed the issuance costs that would have been incurred to raise a significant amount of capital by a public offering, and the requirements of Sections S12.1.3 and S12.1.4 are met, the plan is deemed noncompensatory. The focus of this test is on whether a per-share discount provided under an ESPP results in proceeds to the employer that are no less than the proceeds it would have received in a public offering of shares to raise a significant amount of capital. That is, the discount offered to employees can be no greater than the underwriter’s discount that would be incurred in connection with a significant public offering of shares. The FASB’s basis for this exception from compensatory accounting is that if the discount offered to employees is no greater than offering costs avoided, the transactions arguably are capital raising transactions rather than compensatory transactions.

ASC 718 provides that a “safe-harbor” discount of 5% is allowed. Note that if a company allows employees a discount greater than 5% and cannot justify that discount under these criteria, the entire discount is treated as compensation cost, not just the incremental portion above 5%.
To justify a discount of greater than 5%, the employer will have to obtain objective data regarding underwriter’s discounts incurred by similar companies in underwritten offerings. The supporting data should be based on companies that are similar to the employer. Factors to consider in determining whether companies are similar include size, industry, growth stage, relative profitability, and any other factors that would be expected to impact an underwriter’s discount. As a practical matter, we believe that only smaller or nonpublic companies would be able to justify a discount materially greater than 5%.

It should be noted that if an entity is able to justify a discount of greater than 5% as noncompensatory, ASC 718-50-25-1(a)(2) requires that the employer reassess that discount “at least annually and no later than the first share purchase offer during the fiscal year.” If on reassessment that discount is no longer justifiable as noncompensatory, all subsequent grants using that discount would be compensatory.

S12.1.3 Substantially all employees may participate on an equitable basis
ASC 718 specifies that for a plan to be considered noncompensatory, substantially all employees that meet limited employment qualifications must be allowed to participate on an equitable basis.

We believe that the term “substantially all” has been interpreted such that companies need not offer the plan to all employees worldwide. However, in any country where the plan is offered, it must be offered to substantially all employees in that country that meet limited employment qualifications in order to qualify as noncompensatory.

While the term “limited employment qualifications” is not defined in ASC 718, the FASB did provide the following example:

**Excerpt from Accounting Standards Codification**

**Compensation – Stock Compensation – Employee Share Purchase Plans**

**Implementation Guidance and Illustrations**

718-50-55-34

Paragraph 718-50-25-1 stipulates the criteria that an employee share purchase plan must satisfy to be considered noncompensatory. One of those criteria specifies that substantially all employees that meet limited employment qualifications may participate on an equitable basis. Examples of limited employment qualifications might include customary employment of greater than 20 hours per week or completion of at least 6 months of service.

Generally, employment qualifications should be evaluated based on the facts and circumstances such that if qualifications are designed to exclude a large group of employees, the qualifications likely would cause the plan to be considered compensatory.
We believe that if stock is offered to eligible employees equally or based on a uniform percentage of salary or wages (the plan may limit the number of shares of stock that an employee may purchase through the plan), participation in the plan would be on an “equitable basis.”

S12.1.4 The plan incorporates no option features

A company would not normally offer options to nonemployees without receiving consideration in return (with the exception of certain rights distributed to all shareholders). Accordingly, the FASB decided that option features, with limited exceptions, preclude characterizing a plan as noncompensatory. The following are examples of option features that would preclude treating a plan as noncompensatory:

Excerpt from Accounting Standards Codification

<table>
<thead>
<tr>
<th>Compensation – Stock Compensation – Employee Share Purchase Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognition</td>
</tr>
<tr>
<td>718-50-25-2</td>
</tr>
</tbody>
</table>

A plan provision that establishes the purchase price as an amount based on the lesser of the equity share’s market price at date of grant or its market price at date of purchase, commonly called a look-back plan, is an example of an option feature that causes the plan to be compensatory. Similarly, a plan in which the purchase price is based on the share’s market price at date of grant and that permits a participating employee to cancel participation before the purchase date and obtain a refund of amounts previously paid contains an option feature that causes the plan to be compensatory. Section 718-50-55 provides guidance on determining whether an employee share purchase plan satisfies the criteria necessary to be considered noncompensatory.

The option described above, commonly characterized as a “look-back option,” is included in many ESPPs. As discussed further in Section S7.4.7, the ability to purchase shares at the lower of the purchase date stock price or the grant date stock price is an option feature and, therefore, any plan with such a feature is compensatory.

Again, the ability to fix the purchase price at the grant date and subsequently choose whether or not to purchase the shares is an option, and, therefore, any plan with such a feature is compensatory.

The following are option features that ASC 718 indicates would not cause a plan to be considered compensatory:

Employees are permitted a short period of time – not exceeding 31 days – after the purchase price has been fixed to enroll in the plan. An enrollment period limited to 31 days is not considered an option feature that would cause the plan to be considered compensatory. However, a plan with such an enrollment term may nonetheless have one
of the other option features described above that would cause the plan to be considered compensatory. For example, if the purchase price was established on the grant date rather than the purchase date, and the employees have the ability to cancel their participation after enrollment, the plan would be considered compensatory.

The purchase price is based solely on the market price of the shares at the date of purchase, and employees are permitted to cancel participation before the purchase date and obtain a refund of amounts previously paid (such as those paid by payroll withholdings). While the employees have the “option” of whether to purchase the shares or not, because the purchase price is established on the purchase date, rather than the grant date, this feature would not provide the economics of a stock option and, therefore, would not require compensatory accounting for the plan.

S12.2 Valuation of ESPPs (including look-back options)

Look-back options often are included in ESPPs. These options establish the exercise price at a specified percentage of the lower of the underlying stock’s market price on two dates. Section 423 of the Internal Revenue Code permits the exercise price to be set at 85% of the lower of the stock’s value at the beginning or at the end of a period of up to 27 months while retaining favorable tax treatment. ASC 718-50 illustrates the approach to estimating the fair value of a variety of look-back options.

The concept underlying the estimation of the fair value of a look-back option is to separate the option into components that can be more easily valued. This approach is demonstrated in the following illustration in ASC 718:

Excerpt from Accounting Standards Codification

Compensation – Stock Compensation – Employee Share Purchase Plans

Initial Measurement

718-50-30-1

Paragraph 718-10-30-6 states that the objective of the fair value measurement method is to estimate the fair value of the equity instruments, based on the share price and other measurement assumptions at the grant date, that are issued in exchange for employee services. That objective also applies to the fair value measurements associated with grants under a compensatory employee share purchase plan and is the basis for the approach described in Example 1, Case A (see paragraph 718-50-55-10).

718-50-30-2

Many employee share purchase plans with a look-back option have features in addition to or different from those of the plan described in Example 1, Case A (see paragraph 718-50-55-10). For example, some plans contain multiple purchase periods, others contain reset mechanisms, and still others allow changes in the withholding amounts or percentages after the grant date (see Example 1, Cases B through E [see paragraphs 718-50-55-22 through 55-33]).
In some circumstances, applying the measurement approaches described in this Subtopic at the grant date may not be practicable for certain types of employee share purchase plans. Paragraph 718-20-35-1 provides guidance on the measurement requirements if it is not possible to reasonably estimate fair value at the grant date.

Implementation Guidance and Illustrations

This Section may contain summaries or references to specific tax code or other regulations that existed at the time that the standard was issued. The Financial Accounting Standards Board (FASB) does not monitor such code or regulations and assumes no responsibility for the current accuracy of the summaries or references. Users must evaluate such code or regulations to determine consistency of the current code or regulation with that presented.

The following are some of the more common types of employee share purchase plans with a look-back option that currently exist and the features that differentiate each type:

a. Type A plan – Maximum number of shares. This type of plan permits an employee to have withheld a fixed amount of dollars from the employee's salary (or a stated percentage of the employee's salary) over a one-year period to purchase stock. At the end of the one-year period, the employee may purchase stock at 85 percent of the lower of the grant date stock price or the exercise date stock price. If the exercise date stock price is lower than the grant date stock price, the employee may not purchase additional shares (that is, the maximum number of shares that may be purchased by an employee is established at the grant date based on the stock price at that date and the employee's elected withholdings); any excess cash is refunded to the employee. This is the basic type of employee share purchase plan shown in Example 1, Case A [see paragraph 718-50-55-10].

b. Type B plan – Variable number of shares. This type of plan is the same as the Type A plan except that the employee may purchase as many shares as the full amount of the employee's withholdings will permit, regardless of whether the exercise date stock price is lower than the grant date stock price (see Example 1, Case B [paragraph 718-50-55-22]).

c. Type C plan – Multiple purchase periods. This type of plan permits an employee to have withheld a fixed amount of dollars from the employee's salary (or a stated percentage of the employee's salary) over a two-year period to purchase stock. At the end of each six-month period, the employee may purchase stock at 85 percent of the lower of the grant date stock price or the exercise date stock price based on the amount of dollars withheld during that period (see Example 1, Case C [paragraph 718-50-55-26]).

d. Type D plan – Multiple purchase periods with a reset mechanism. This type of plan is the same as the Type C plan except that the plan contains a reset feature if the market price of the stock at the end of any six-month purchase period is lower than the stock price at
the original grant date. In that case, the plan resets so that during the next purchase period an employee may purchase stock at 85 percent of the lower of the stock price at either the beginning of the purchase period (rather than the original grant date price) or the exercise date (see Example 1, Case D [paragraph 718-50-55-28]).

e. Type E plan – Multiple purchase periods with a rollover mechanism. This type of plan is the same as the Type C plan except that the plan contains a rollover feature if the market price of the stock at the end of any six-month purchase period is lower than the stock price at the original grant date. In that case, the plan is immediately cancelled after that purchase date, and a new two-year plan is established using the then-current stock price as the base purchase price (see Example 1, Case D [paragraph 718-50-55-28]).

f. Type F plan – Multiple purchase periods with semifixed withholdings. This type of plan is the same as the Type C plan except that the amount (or percentage) that the employee may elect to have withheld is not fixed and may be changed (increased or decreased) at the employee’s election immediately after each six-month purchase date for purposes of all future withholdings under the plan (see Example 1, Case D [paragraph 718-50-55-28]).

g. Type G plan – Single purchase period with variable withholdings. This type of plan permits an employee to have withheld an amount of dollars from the employee's salary (or a stated percentage of the employee's salary) over a one-year period to purchase stock. That amount (or percentage) is not fixed and may be changed (increased or decreased) at the employee's election at any time during the term of the plan for purposes of all future withholdings under the plan. At the end of the one-year period, the employee may purchase stock at 85 percent of the lower of the grant date stock price or the exercise date stock price (see Example 1, Case D [paragraph 718-50-55-28]).

h. Type H plan – Multiple purchase periods with variable withholdings. This type of plan combines the characteristics of the Type C and Type G plans in that there are multiple purchase periods over the term of the plan and an employee is permitted to change (increase or decrease) withholding amounts (or percentages) at any time during the term of the plan for purposes of all future withholdings under the plan (see Example 1, Case D [paragraph 718-50-55-28]).

i. Type I plan – Single purchase period with variable withholdings and cash infusions. This type of plan is the same as the Type G plan except that an employee is permitted to remit catch-up amounts to the entity when (and if) the employee increases withholding amounts (or percentages). The objective of the cash infusion feature is to permit an employee to increase withholding amounts (or percentages) during the term of the plan and remit an amount to the entity such that, on the exercise date, it appears that the employee had participated at the new higher amount (or percentage) during the entire term of the plan (see Example 1, Case E [paragraph 718-50-55-32]).
The distinguishing characteristic between the Type A plan and the Type B plan is whether the maximum number of shares that an employee is permitted to purchase is fixed at the grant date based on the stock price at that date and the expected withholdings. Each of the remaining plans described above (Type C through Type I plans) incorporates the features of either a Type A plan or a Type B plan. The above descriptions are intended to be representative of the types of features commonly found in many existing plans. The accounting guidance in this Subtopic shall be applied to all plans with characteristics similar to those described above.

The measurement approach described in Example 1, Case A (see paragraph 718-50-55-10) was developed to illustrate how the fair value of an award under a basic type of employee share purchase plan with a look-back option could be determined at the grant date by focusing on the substance of the arrangement and valuing separately each feature of the award. Although that general technique of valuing an award as the sum of the values of its separate components applies to all types of employee share purchase plans with a look-back option, the fundamental components of an award may differ from plan to plan thus affecting the individual calculations. For example, the measurement approach described in that Case assumes that the maximum number of shares that an employee may purchase is fixed at the grant date based on the grant date stock price and the employee's elected withholdings (that is, the Type A plan described in paragraph 718-50-55-2). That approach needs to be modified to appropriately determine the fair value of awards under the other types of plans described in that paragraph, including a Type B plan, that do not fix the number of shares that an employee is permitted to purchase.

Although many employee share purchase plans with a look-back option initially limit the maximum number of shares of stock that the employee is permitted to purchase under the plan (Type A plans), other employee share purchase plans (Type B plans) do not fix the number of shares that the employee is permitted to purchase if the exercise date stock price is lower than the grant date stock price. In effect, an employee share purchase plan that does not fix the number of shares that may be purchased has guaranteed that the employee can always receive the value associated with at least 15 percent of the stock price at the grant date (the employee can receive much more than 15 percent of the grant date value of the stock if the stock appreciates during the look-back period). That provision provides the employee with the equivalent of a put option on 15 percent of the shares with an exercise price equal to the stock price at the grant date. In contrast, an employee who participates in a Type A plan is only guaranteed 15 percent of the lower of the stock price as of the grant date or the exercise date, which is the equivalent of a call option on 85 percent of the shares (as described more fully in paragraph 718-50-55-16). A participant in a Type B plan receives the equivalent of both a put option and a call option.
Case A: Basic Look-Back Plans

718-50-55-10
Some entities offer share options to employees under Section 423 of the U.S. Internal Revenue Code, which provides that employees will not be immediately taxed on the difference between the market price of the stock and a discounted purchase price if several requirements are met. One requirement is that the exercise price may not be less than the smaller of either:

a. 85 percent of the stock’s market price when the share option is granted
b. 85 percent of the price at exercise.

718-50-55-11
A share option that provides the employee the choice of either option above may not have a term in excess of 27 months. Share options that provide for the more favorable of two (or more) exercise prices are referred to as look-back share options. A look-back share option with a 15 percent discount from the market price at either grant or exercise is worth more than a fixed share option to purchase stock at 85 percent of the current market price because the holder of the look-back share option is assured a benefit. If the share price rises, the holder benefits to the same extent as if the exercise price was fixed at the grant date. If the share price falls, the holder still receives the benefit of purchasing the stock at a 15 percent discount from its price at the date of exercise. An employee share purchase plan offering share options with a look-back feature would be compensatory because the look-back feature is an option feature (see paragraph 718-50-25-1).

718-50-55-12
For example, on January 1, 20X5, when its share price is $30, Entity A offers its employees the opportunity to sign up for a payroll deduction to purchase its stock at either 85 percent of the share’s current price or 85 percent of the price at the end of the year when the share options expire, whichever is lower. The exercise price of the share options is the lesser of $25.50 ($30 × .85) or 85 percent of the share price at the end of the year when the share options expire.

718-50-55-13
The look-back share option can be valued as a combination position. (This Case presents one of several existing valuation techniques for estimating the fair value of a look-back option. In accordance with this Topic, an entity shall use a valuation technique that reflects the substantive characteristics of the instrument being granted in the estimate of fair value.) In this situation, the components are as follows:

a. 0.15 of a share of nonvested stock
b. 0.85 of a 1-year share option held with an exercise price of $30.
Supporting analysis for the two components is discussed below.

Beginning with the first component, a share option with an exercise price that equals 85 percent of the value of the stock at the exercise date will always be worth 15 percent (100% − 85%) of the share price upon exercise. For a stock that pays no dividends, that share option is the equivalent of 15 percent of a share of the stock. The holder of the look-back share option will receive at least the equivalent of 0.15 of a share of stock upon exercise, regardless of the share price at that date. For example, if the share price falls to $20, the exercise price of the share option will be $17 ($20 × .85), and the holder will benefit by $3 ($20 − $17), which is the same as receiving 0.15 of a share of stock for each share option.

If the share price upon exercise is more than $30, the holder of the look-back share option receives a benefit that is worth more than 15 percent of a share of stock. At prices of $30 or more, the holder receives a benefit for the difference between the share price upon exercise and $25.50 − the exercise price of the share option (.85 × $30). If the share price is $40, the holder benefits by $14.50 ($40 − $25.50). However, the holder cannot receive both the $14.50 value of a share option with an exercise price of $25.50 and 0.15 of a share of stock. In effect, the holder gives up 0.15 of a share of stock worth $4.50 ($30 × .15) if the share price is above $30 at exercise. The result is the same as if the exercise price of the share option was $30 ($25.50 + $4.50) and the holder of the look-back share option held 85 percent of a 1-year share option with an exercise price of $30 in addition to 0.15 of a share of stock that will be received if the share price is $30 or less upon exercise.

An option-pricing model can be used to value the 1-year share option on 0.85 of a share of stock represented by the second component. Thus, assuming that the fair value of a share option on one share of Entity A's stock on the grant date is $4, the compensation cost for the look-back option at the grant date is as follows.

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.15 of a share of nonvested stock ($30 × 0.15)</td>
<td>$4.50</td>
</tr>
<tr>
<td>Share option on 0.85 of a share of stock, exercise price of $30 ($4 × .85)</td>
<td>3.40</td>
</tr>
<tr>
<td>Total grant date value</td>
<td>$7.90</td>
</tr>
</tbody>
</table>

For a look-back option on a dividend-paying share, both the value of the nonvested stock component and the value of the share option component would be adjusted to reflect the effect of the dividends that the employee does not receive during the life of the share option. The present value of the dividends expected to be paid on the stock during the life of the share option (one year in this Case) would be deducted from the value of a share that
receives dividends. One way to accomplish that is to base the value calculation on shares of stock rather than dollars by assuming that the dividends are reinvested in the stock.

718-50-55-19

For example, if Entity A pays a quarterly dividend of 0.625 percent (2.5% ÷ 4) of the current share price, 1 share of stock would grow to 1.0252 (the future value of 1 using a return of 0.625 percent for 4 periods) shares at the end of the year if all dividends are reinvested. Therefore, the present value of 1 share of stock to be received in 1 year is only 0.9754 of a share today (again applying conventional compound interest formulas compounded quarterly) if the holder does not receive the dividends paid during the year.

718-50-55-20

The value of the share option component is easier to compute; the appropriate dividend assumption is used in an option-pricing model in estimating the value of a share option on a whole share of stock. Thus, assuming the fair value of the share option is $3.60, the compensation cost for the look-back share option if Entity A pays quarterly dividends at the annual rate of 2.5 percent is as follows.

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.15 of a share of nonvested stock ($30 × 0.15 × 0.9754)</td>
<td>$ 4.39</td>
</tr>
<tr>
<td>Share option on 0.85 of a share of stock, $30 exercise price, 2.5%, dividend yield ($3.60 × 0.85)</td>
<td>$ 3.06</td>
</tr>
<tr>
<td>Total grant date value</td>
<td>$ 7.45</td>
</tr>
</tbody>
</table>

718-50-55-21

The first component, which is worth $4.39 at the grant date, is the minimum amount of benefits to the holder regardless of the price of the stock at the exercise date. The second component, worth $3.06 at the grant date, represents the additional benefit to the holder if the share price is above $30 at the exercise date.

Case B: Look-Back Plan Variable versus Maximum Number of Shares

718-50-55-22

On January 1, 20X0, when its stock price is $50, Entity A offers its employees the opportunity to sign up for a payroll deduction to purchase its stock at the lower of either 85 percent of the stock's current price or 85 percent of the stock price at the end of the year when the options expire. Thus, the exercise price of the options is the lesser of $42.50 ($50 x 85 percent) or 85 percent of the stock price at the end of the year when the option is exercised. Two employees each agree to have $4,250 withheld from their salaries; however, Employee A is not allowed to purchase any more shares than the $4,250 would buy on the grant date (that is, 100 shares [$4,250/$42.50]) and Employee B is permitted to buy as many shares as the $4,250 will permit under the terms of the plan. In both cases, the 15 percent purchase price discount at the grant date is worth $750 (100 shares x $50 x 15 percent). Depending on the stock price at the end of the year, the value of the 15 percent discount for each employee is as follows.
As illustrated above, both awards provide the same value to the employee if the stock price at the exercise date has increased (or remained unchanged) from the grant date stock price. However, the award under the Type B plan is more valuable to the employee if the stock price at the exercise date has decreased from the grant date stock price because it guarantees that the employee always will receive at least 15 percent of the stock price at the grant date, whereas the award under the Type A plan only guarantees that the employee will receive 15 percent of the ultimate (lower) stock purchase price.

Using the component measurement approach described in Case A as the base, the additional feature associated with a Type B plan that shall be included in the fair value calculation is 15 percent of a put option on the employer's stock (valued by use of a standard option-pricing model, using the same measurement assumptions that were used to value the 85 percent of a call option). If the plan in that Case had the provisions of a Type B plan (that is, a plan that does not fix the number of shares that may be purchased), the fair value of the award would be calculated at the grant date as follows.

With the same values the fair value of the Type A employee share purchase plan award described in Case A is determined as follows:

In Cases B through E, total compensation cost would be measured at the grant date based on the number of shares that can be purchased using the estimated total withholdings and market price of the stock as of the grant date, and not based on the potentially greater number of shares that may ultimately be purchased if the market price declines. In other words, assume that on January 1, 20X0, Employee A elects to have $850 withheld from his pay for the year to purchase stock. Total compensation cost for the Type B plan award to Employee A would be $291 ($14.57 x 20 grant-date-based shares [$850/$42.50]). For purposes of determining the number of shares on which to measure compensation cost, the stock price as of the grant date less the discount, or $50 x 85 percent in this case, is used.

Case C: Look-Back Plan with Multiple Purchase Periods

In substance, an employee share purchase plan with multiple purchase periods (a Type C plan) is a series of linked awards, similar in nature to how some view a graded vesting stock option plan. Accordingly, the fair value of an award under an employee share purchase plan with multiple purchase periods shall be determined at the grant date in the same manner as an award under a graded vesting stock option plan. Under the graded vesting approach, awards under a two-year plan with purchase periods at the end of each year would be valued as having two separate option tranches both starting on the initial grant date (using the Case A approach if the plan has the characteristics of a Type A plan or using the Case B approach if the plan has the characteristics of a Type B plan) but with different lives of 12 and 24
months, respectively. All other measurement assumptions would need to be consistent with the separate lives of each tranche.

718-50-55-27

For example, if the plan in Case A was a two-year Type C plan with purchase periods at the end of each year, the fair value of each tranche of the award would be calculated at the grant date as follows.

**Tranche No. 1:**

0.15 of a share of nonvested stock ($50 \times 0.15) $7.50

One-year call on 0.85 of a share of stock, exercise price of $50 ($7.56 \times 0.85) \(^{(a)}\) 6.43

Total grant date fair value of the first tranche $13.93

**Tranche No. 2:**

0.15 of a share of nonvested stock ($50 \times 0.15) $7.50

Two-year call on 0.85 of a share of stock, exercise price of $50 ($11.44 \times 0.85) \(^{(a)}\) 9.72

Total grant date fair value of the second tranche $17.22

\(^{(a)}\) The other assumptions are $50 stock price, an expected life of 1 year, expected volatility of 30 percent, risk-free interest rate of 6.8 percent, and a zero dividend yield (same assumptions as in footnote \([a]\) of the table in paragraph 718-50-55-24). To simplify the illustration, the fair value of each of the tranches is based on the same assumptions about volatility, the risk-free interest rate, and expected dividend yield. In practice, each of those assumptions would be related to the expected life of the respective tranche, which means that at least the risk-free interest rate, and perhaps all three assumptions, would differ for each tranche.

Unfortunately, the above described valuation approach for look-back options does not apply to all forms of look-back options. Other look-back options may provide for the purchase of a variable number of shares (e.g., because the number of options is determined based on payroll withholdings and, potentially, the exercise date stock price). Still other look-back options may provide for multiple option periods. ASC 718-50-55 provides examples illustrating how to estimate the fair value of some of these more complicated look-back options. Additionally, ASC 718-50 reiterates the exception to fair value measurement in ASC 718-10-30-21 and 22. Accordingly, although we would expect such situations to be rare, for complex ESPPs it may be appropriate to measure compensation cost as the ultimate value conveyed to the employee on stock purchase (i.e., the discount to current market value on the purchase date), with interim estimates of compensation cost based on the discount that would result if the stock was purchased at the balance sheet date.
S12.3 Requisite service period for ESPPs

ASC 718 provides the following guidance with respect to the requisite service period for ESPPs:

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Employee Share Purchase Plans*

**Recognition**

718-50-25-3

The requisite service period for any compensation cost resulting from an employee share purchase plan is the period over which the employee participates in the plan and pays for the shares.

Generally, the requisite service period for an ESPP begins at the start of the offering period and ends on the date the shares are purchased. If there is no offering period (and no post-purchase service requirements), any resulting compensation cost is recognized on the purchase date.

In many cases an employee stock purchase plan may provide for multiple purchase periods beginning on a single date. For example, a plan may provide for four purchase periods beginning on 1 January 20X5 and ending on 30 June 20X5, 31 December 20X5, 30 June 20X6, and 31 December 20X6, and the purchase price for each purchase tranche is based on the lower of 85% of the grant-date fair value (1 January 20X5) or the purchase-date fair value. These awards effectively include options that are subject to graded vesting. We believe that the accounting policy decision to use either an accelerated or straight-line cost attribution method for awards subject to graded vesting (see Section S4.4.1.4) applies to ESPPs with multiple purchase periods and should be applied consistently to all awards subject to graded vesting. If the impact of the policy is material to the financial statements, the policy should be disclosed as a significant accounting policy.

S12.4 Changes in withholdings and rollovers

The guidance for measuring the cost of ESPPs is found primarily in ASC 718-50. Under the approach described in ASC 718-50, the compensation cost resulting from an ESPP is measured on the grant date based on the employee’s expected withholdings (i.e., the amounts the employee agreed to have withheld from his or her cash compensation prior to the purchase period). ASC 718-50 also addresses the accounting implications when an employee elects to increase or decrease those withholdings prospectively or elects to roll those withholdings over into a new purchase contract. Increases in withholdings for reasons other than increases in cash compensation are accounted for as modifications as described in Chapter 8. Decreases in withholdings are essentially ignored (they are the equivalent of an employee failing to exercise a stock option) unless the employee fails to provide the requisite service, in which case the event is accounted for as a forfeiture and any recognized compensation cost is reversed.
S12.4.1 Increase in withholdings

ASC 718-50 provides for the following accounting for increases in withholdings that apply prospectively (i.e., the employee is not allowed to retroactively increase withholdings in prior periods). The guidance distinguishes between (a) a change in the percentage of the employee’s compensation to be withheld (which is a modification measured on the date of the change in election) and (b) a change that results from salary increases (i.e., that changes the total amount of withholdings, but not the percentage), which is measured based on the incremental number of shares that may be purchased multiplied by the grant date (not modification date) fair value of the award.

**Excerpt from Accounting Standards Codification**

*Compensation – Stock Compensation – Employee Share Purchase Plans*

**Subsequent Measurement**

**718-50-35-1**

Changes in total employee withholdings during a purchase period that occur solely as a result of salary increases, commissions, or bonus payments are not plan modifications if they do not represent changes to the terms of the award that was offered by the employer and initially agreed to by the employee at the grant (or measurement) date. Under those circumstances, the only incremental compensation cost is that which results from the additional shares that may be purchased with the additional amounts withheld (using the fair value calculated at the grant date). For example, an employee may elect to participate in the plan on the grant date by requesting that 5 percent of the employee's annual salary be withheld for future purchases of stock. If the employee receives an increase in salary during the term of the award, the base salary on which the 5 percent withholding amount is applied will increase, thus increasing the total amount withheld for future share purchases. That increase in withholdings as a result of the salary increase is not considered a plan modification and thus only increases the total compensation cost associated with the award by the grant date fair value associated with the incremental number of shares that may be purchased with the additional withholdings during the period. The incremental number of shares that may be purchased is calculated by dividing the incremental amount withheld by the exercise price as of the grant date (for example, 85 percent of the grant date stock price).

**Implementation Guidance and Illustrations**

**718-50-55-29**

Likewise, although not a change to the terms of the employee share purchase plan, an election by an employee to increase withholding amounts (or percentages) for future services (Type F through Type H plans) is a modification of the terms of the award to that employee, which, in substance, is similar to an exchange of the original award for a new award with different terms. Accordingly, the fair value of an award under an employee share
purchase plan with variable withholdings shall be determined at the grant date (using the Type A, Type B, or Type C measurement approach, as applicable) based on the estimated amounts (or percentages) that a participating employee initially elects to withhold under the terms of the plan. After the grant date (except as noted in paragraph 718-50-35-1), any increases in withholding amounts (or percentages) for future services shall be accounted for as a plan modification in accordance with the guidance in paragraph 718-20-35-3.

718-50-55-30
To illustrate, if the plan described in Case C allowed an employee to elect to change withholdings at the end of the first year, modification accounting would be applied at the date the employee elected to increase withholdings to determine the amount, if any, of incremental compensation cost. Assume that on January 1, 20X0, Employee A initially elected to have $850 per year withheld from his pay for each purchase period. However, at the end of Year 1 when the stock price is $60 (and assume that no other factors have changed), Employee A elects to have a total of $1,275 withheld for the second purchase period. At that date, $1,275 is equivalent to 30 shares eligible for purchase at the end of the second year ($1,275/$42.50). At the date Employee A elects to increase withholdings, modification accounting shall be applied to determine the amount of any incremental fair value associated with the modified award as follows.

Fair value of the old option (Tranche No 2) before modification:

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.15 of a share of nonvested stock ($60 × 0.15)</td>
<td>$9.00</td>
</tr>
<tr>
<td>One-year call on 0.85 of a share of stock, exercise price of $50 ($15.10 × 0.85)</td>
<td>$12.84</td>
</tr>
<tr>
<td>Total fair value of each option</td>
<td>$21.84</td>
</tr>
<tr>
<td>Number of grant date shares ($850 ÷ $42.50) x 20</td>
<td>$437</td>
</tr>
</tbody>
</table>

Fair value of the new option after modification:

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.15 of a share of nonvested stock ($60 × 0.15)</td>
<td>$9.00</td>
</tr>
<tr>
<td>One-year call on 0.85 of a share of stock, exercise price of $50 ($15.10 × 0.85)</td>
<td>$12.84</td>
</tr>
<tr>
<td>Total fair value of each option</td>
<td>$21.84</td>
</tr>
<tr>
<td>Number of modification date shares ($1,275 ÷ $42.50) x 30</td>
<td>$655</td>
</tr>
<tr>
<td>Total fair value</td>
<td>$655</td>
</tr>
<tr>
<td>Incremental compensation</td>
<td>$218</td>
</tr>
</tbody>
</table>
The incremental value is determined based on the fair value measurements at the date of the modification using the then-current stock price. To simplify the illustration, the fair value at the modification date is based on the same assumptions about volatility, the risk-free interest rate, and expected dividend yield as at the grant date.

The accounting for changes in withholdings that may be applied retroactively also is described in ASC 718-50:

**Excerpt from Accounting Standards Codification**

**Compensation – Stock Compensation – Employee Share Purchase Plans**

**Implementation Guidance and Illustrations**

**718-50-55-32**

As with all employee share purchase plans, the objective of the measurement process for employee share purchase plans with a look-back option is to reasonably measure the fair value of the award at the grant date. Unlike Type F through Type H plans, which permit an employee to increase withholding amounts (or percentages) only prospectively, the Type I plan permits an employee to make a retroactive election to increase withholdings. Under a Type I plan, an employee may elect not to participate (or to participate at a minimal level) in the plan until just before the exercise date, thus making it difficult to determine when there truly is a mutual understanding of the terms of the award, and thus the date at which the grant occurs. For example, assume that the Type A employee share purchase plan in Case A permits an employee to remit catch-up amounts (up to a maximum aggregate withholding of 15 percent of annual salary) to Entity A at any time during the term of the plan. On January 1, 20X0, Employee A elects to participate in the plan by having $100 (0.04 percent) of her $250,000 salary withheld monthly from her pay over the year. On December 20, 20X0, when the stock price is $65, Employee A elects to remit a check to Entity A for $36,300, which, together with the $1,200 withheld during the year, represents 15 percent of her salary.

**718-50-55-33**

In that situation, December 20, 20X0 is the date at which Entity A and Employee A have a mutual understanding of the terms of the award in exchange for the services already rendered and Entity A becomes contingently obligated to issue equity instruments to Employee A upon the fulfillment of vesting requirements. The fair value of the entire award to Employee A is therefore measured as of December 20, 20X0.
S12.4.2 Decrease in withholdings

As previously indicated, an employee’s failure to purchase shares, or an employee’s election to decrease withholdings, is essentially ignored when accounting for the compensation cost resulting from ESPPs.

Excerpt from Accounting Standards Codification

*Compensation – Stock Compensation – Employee Share Purchase Plans*

**Subsequent Measurement**

718-50-35-2

Any decreases in the withholding amounts (or percentages) shall be disregarded for purposes of recognizing compensation cost unless the employee services that were valued at the grant date will no longer be provided to the employer due to a termination. However, no compensation cost shall be recognized for awards that an employee forfeits because of failure to satisfy a service requirement for vesting. The accounting for decreases in withholdings is consistent with the requirement in paragraph 718-10-35-3 that the total amount of compensation cost that must be recognized for an award be based on the number of instruments for which the requisite service has been rendered (that is, for which the requisite service period has been completed).

S12.4.3 Rollover of plan withholdings

The FASB also address the accounting for an employee’s failure to purchase shares at the end of a purchase period and the rollover of withheld amounts into a new purchase agreement:

Excerpt from Accounting Standards Codification

*Compensation – Stock Compensation – Employee Share Purchase Plans*

**Implementation Guidance and Illustrations**

718-50-55-28

The basic measurement approach described in Case C for a Type C plan also should be used to value awards under employee share purchase plans with multiple purchase periods that incorporate reset or rollover mechanisms (that is, Type D and Type E plans). The fair value of those awards initially can be determined at the grant date using the graded vesting measurement approach. However, at the date that the reset or rollover mechanism becomes effective, the terms of the award have been modified (the exercise price has been decreased and, for a grant under a Type E plan, the term of the award has been extended), which, in substance, is similar to an exchange of the original award for a new award with different terms. Share-based payment modification accounting (see paragraphs 718-20-35-3 through 35-9) shall be applied at the date that the reset or rollover mechanism becomes effective to determine the amount of any incremental fair value associated with the modified grant.
S12.5  **ESPPs with a fixed monetary value**

As discussed in Section S5.2.2, compensation cost for an award that provides a "fixed monetary value" would be classified as a liability on the balance sheet based on the requirements of ASC 480. Contracts for which the monetary value is predominantly fixed are sometimes characterized as "stock-settled debt" (e.g., an award in which the employee will receive a variable number of shares with a fair value equal to a predominantly fixed dollar amount on the delivery date).

Awards with predominantly fixed values will arise most frequently in connection with ESPPs that provide a fixed discount from the share price on the purchase date (no look-back features). For example, assume that an employer and employee agree that the employer will withhold from the employee's payroll $1,000 over the course of a six-month period and at the end of that period, the $1,000 will be applied to buy shares at a 10% discount from the market price of the employer's shares on the purchase date. That is, regardless of the market price of the shares on the purchase date, the employee will receive stock with a fair value of $1,111 in exchange for $1,000. As a result, the benefit to the employee is fixed at $111. Accordingly, the $111 compensation cost should be recognized ratably over the six-month purchase period and recognized, along with any payroll withholdings, as a liability (i.e., stock-settled debt) on the balance sheet. We do not believe this liability classification applies to circumstances in which the ESPP incorporates option features (including look-back options), as the monetary value of the instrument as a whole is not fixed in those circumstances.

S12.6  **Accounting for disqualifying dispositions**

The disqualifying disposition (a disposition of shares prior to the end of the holding period specified in Section 423 of the Internal Revenue Code) of shares acquired through an ESPP can give rise to an employer's tax deduction for an ESPP that otherwise would not have provided the employer a tax deduction. Although many companies with ESPPs and similar qualified plans have sufficient history of employee actions to reasonably estimate an expected level of disqualifying dispositions ASC 718-740-25-2 and 25-3 precludes companies from anticipating disqualifying dispositions by employees. In other words, the tax benefits from disqualifying dispositions are required to be recognized in the period the employee makes the disqualifying disposition. On the occurrence of the future event that converts nondeductible awards into deductible awards (e.g., disqualifying dispositions), the tax benefit recognized in earnings is equal to the lesser of (a) the actual benefit of the tax deduction or (b) the cumulative compensation cost previously recognized in earnings for the disqualified award multiplied by the appropriate statutory tax rate. Any excess benefit should be recognized as an increase to additional paid-in capital in the same manner as discussed in Section S10.3.

S12.7  **Earnings per share**

The impact of ESPPs on EPS is discussed in Section S11.7.
The FASB provided several alternative transition methods and effective dates for ASC 718. The determination of which alternatives apply to a given entity depended on whether the entity was public or nonpublic, as defined by ASC 718, at the adoption date. Further, for nonpublic companies, the determination of the transition method depended on whether the entity previously measured employee stock options using the fair-value method or the minimum-value method for purposes of applying Statement 123. Finally, the effective date for small business issuers differed from the effective date for other public entities. These provisions, as well as various implementation considerations, are discussed below.

S13.1 Effective date

S13.1.1 Public entities

The provisions of ASC 718 were effective for public entities (excluding small business issuers as defined in Item 10(a) of Regulation S-B\(^5\)) in the first annual reporting period beginning after 15 June 2005. Calendar year-end companies were required to adopt ASC 718 in the first quarter of 2006.

---

**Excerpt from Accounting Standards Codification**

_Compensation — Stock Compensation — Overall_

_Glossary_

_Public Entities_

An entity that meets any of the following criteria:

a. Has equity securities that trade in a public market, either on a stock exchange (domestic or foreign) or in an over-the-counter market, including securities quoted only locally or regionally

b. Makes a filing with a regulatory agency in preparation for the sale of any class of equity securities in a public market

c. Is controlled by an entity covered by the preceding criteria. That is, a subsidiary of a public entity is itself a public entity.

An entity that has only debt securities trading in a public market (or that has made a filing with a regulatory agency in preparation to trade only debt securities) is not a public entity.

This definition is discussed in greater detail in Section S2.9.

---

\(^5\) In December 2007, the SEC published its final rule, _Smaller Reporting Company Regulatory Relief and Simplification_, which allows a “smaller reporting company,” an issuer with public float of less than $75 million (or less than $50 million in revenue in the case of companies without publicly traded equity), to use the scaled (generally reduced) disclosure and reporting requirements previously set forth in Regulation S-B, which have been integrated into Regulation S-K.
S13.1.2 Small business issuers

The provisions of ASC 718 were effective for small business issuers in the first annual reporting period beginning after 15 December 2005. Calendar year-end companies were required to adopt ASC 718 in the first quarter of 2006. A small business issuer was defined based on the definition in Item 10(a) of Regulation S-B as follows:

A public entity that is an SEC registrant that files as a small business issuer under the Securities Act of 1933 or the Securities Exchange Act of 1934. At the date this Statement was issued, a small business issuer was defined as an entity that meets all of the following criteria:

a. It has revenues of less than $25 million.

b. It is a U.S. or Canadian issuer.

c. It is not an investment company.

d. If the entity is a majority-owned subsidiary, the parent company also is a small business issuer.

However, regardless of whether it satisfies those criteria, an entity is not a small business issuer if the aggregate market value of its outstanding securities held by nonaffiliates is $25 million or more.

The definition of a small business issuer is a matter of U.S. federal securities law and is subject to change. The effective date provisions for a small business issuer apply only to an entity that files as a small business issuer under the related definition at that date.

S13.1.3 Nonpublic entities

The provisions of ASC 718 were effective for nonpublic entities in fiscal years beginning after 15 December 2005. Calendar year-end nonpublic companies were required to adopt ASC 718 as of 1 January 2006. The definition of a nonpublic entity is discussed in Section S2.9.
S13.1.4 Transition dates

The following table indicates the required effective date of ASC 718 for public entities, nonpublic entities, and small business issuers with fiscal years that end on various dates. If an entity adopted ASC 718 early as described in the preceding sections, then the required effective date would be the beginning of the period of adoption.

<table>
<thead>
<tr>
<th>Fiscal year end</th>
<th>Public entities</th>
<th>Small business issuers &amp; nonpublic entities</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 January</td>
<td>1 February 2006</td>
<td>1 February 2006</td>
</tr>
<tr>
<td>28 February</td>
<td>1 March 2006</td>
<td>1 March 2006</td>
</tr>
<tr>
<td>31 March</td>
<td>1 April 2006</td>
<td>1 April 2006</td>
</tr>
<tr>
<td>30 April</td>
<td>1 May 2006</td>
<td>1 May 2006</td>
</tr>
<tr>
<td>31 May</td>
<td>1 June 2006</td>
<td>1 June 2006</td>
</tr>
<tr>
<td>30 June</td>
<td>1 July 2005</td>
<td>1 July 2006</td>
</tr>
<tr>
<td>31 July</td>
<td>1 August 2005</td>
<td>1 August 2006</td>
</tr>
<tr>
<td>31 August</td>
<td>1 September 2005</td>
<td>1 September 2006</td>
</tr>
<tr>
<td>30 September</td>
<td>1 October 2005</td>
<td>1 October 2006</td>
</tr>
<tr>
<td>31 October</td>
<td>1 November 2005</td>
<td>1 November 2006</td>
</tr>
<tr>
<td>30 November</td>
<td>1 December 2005</td>
<td>1 December 2006</td>
</tr>
<tr>
<td>31 December</td>
<td>1 January 2006</td>
<td>1 January 2006</td>
</tr>
</tbody>
</table>

S13.2 Transition alternatives

S13.2.1 Public entities and certain nonpublic entities

Public entities and nonpublic entities that used the fair-value-based method of accounting under the original provisions of Statement 123 (whether for recognition or pro forma disclosure purposes) were required to adopt the provisions of ASC 718 using either the modified-prospective-transition (MPT) or the modified-retrospective-transition (MRT) methods (discussed in Sections S13.3 and S13.4, respectively). Companies were not allowed to adopt ASC 718 retroactively (although, as discussed in Section S13.4, public entities and certain nonpublic entities were permitted to retroactively apply the provisions of Statement 123, as they existed prior to the issuance of ASC 718, to those previously issued financial statements). Further, public and nonpublic companies that use the fair-value-based method were not permitted to adopt ASC 718 on a prospective basis.
S13.2.2 Nonpublic entities
Nonpublic entities that used the minimum-value method\(^{52}\) to account for share-based payments under the original provisions of Statement 123 were required to use the prospective-transition method (discussed in the Section S13.5). Nonpublic entities that used the fair-value-based method of accounting under Statement 123 (whether for recognition or pro forma disclosure purposes) were not permitted to use the prospective-transition method when adopting ASC 718. Those nonpublic entities were required to use one of the two transition alternatives available to public entities (i.e., MPT or MRT, described in Sections S13.3 and S13.4).

S13.3 Modified-prospective transition
Under the modified-prospective-transition method, entities were required to recognize compensation cost in financial statements issued subsequent to the date of adoption for all share-based payments granted, modified, or settled after the date of adoption as well as for any awards that were granted prior to the adoption date for which the requisite service has not been provided as of the adoption date (i.e., nonvested\(^{53}\) awards).

S13.3.1 Awards granted, modified, or settled subsequent to adoption date
Under the MPT method, companies were required to apply all the measurement, recognition and attribution provisions of ASC 718 to new awards and to awards modified, repurchased, or cancelled after the required effective date. The compensation cost relating to those awards will be measured at fair value on the grant date and will be recognized in the financial statements over the requisite service period. This aspect of the MPT approach was the same as the prospective transition approach described in Section S13.5.

Chapter 8 discusses the accounting for modifications and settlements of share-based payments. Further, Section S8.10 discusses the accounting for modifications and settlements when the modification or settlement occurs after the adoption of ASC 718, but the modified or settled award was granted prior to the adoption of ASC 718.

---

\(^{52}\) The minimum-value method was permitted under Statement 123 only for nonpublic companies and effectively allowed those companies to value employee stock options using an assumed volatility of zero. The minimum-value method is not an acceptable valuation approach under ASC 718.

\(^{53}\) ASC 718-10-20 states, “A share-based payment award becomes vested at the date that the employee’s right to receive or retain shares, other instruments, or cash under the award is no longer contingent on satisfaction of either a service condition or a performance condition. Market conditions are not vesting conditions.” ASC 718 distinguishes between vesting and providing the requisite service. However, for convenience, throughout this chapter we use the term vested to mean “the requisite service has been rendered.”
S13.3.2 Awards granted prior to adoption date

Awards that were granted prior to the adoption date, which had not vested as of the adoption date, were accounted for using the same estimate of the grant-date fair value and the same attribution method used previously under Statement 123 (whether for financial statement recognition or pro forma disclosure purposes), with certain exceptions discussed in Sections S13.3.2.3 and S13.3.2.4. Companies that previously adopted only the pro forma disclosure provisions of Statement 123 were required to recognize compensation cost relating to the nonvested portion of those awards (i.e., the portion of the award for which the requisite service has not yet been rendered) in the financial statements, beginning with the date on which ASC 718 was adopted, until the requisite service has been provided.

To illustrate the application of the MPT method to a partially vested award, assume that on the date of adoption of ASC 718, 75% of the compensation cost relating to an award had been cumulatively recognized in the pro forma disclosures, 25% of the compensation cost (based on grant-date fair value) would be recognized in the financial statements over the remaining service period. The company would not record a cumulative effect of a change in accounting principle to adjust for the difference between the compensation cost recognized under Opinion 25 and the compensation cost that would have been recognized if the award had been accounted for under Statement 123 since the grant date. Further, as discussed in Section S13.3.2.3, no adjustments would be made to cumulative compensation cost for estimated forfeitures unless the compensation cost was recognized in the financial statements.

S13.3.2.1 Valuation of awards granted prior to the adoption of ASC 718

For awards granted prior to the adoption of ASC 718 for which the requisite service had not yet been provided on the adoption date, compensation cost would be measured based on the original grant-date fair value measurement used for purposes of recognition or disclosure under Statement 123. That valuation would not be revisited unless the grantor concludes that the original measurement was in error. In that event, the revision would represent the correction of an error under ASC 250. Further, even if in connection with the adoption of ASC 718, a company concludes that it would measure the value of all future employee stock options using a different option-pricing model (e.g., it will use a lattice model for new awards, whereas it previously estimated the fair value of employee stock options using a Black-Scholes-Merton formula), or utilizes a different approach to developing inputs into the option-pricing model, it would not change the estimated fair value of awards granted prior to the adoption of ASC 718.
S13.3.2.2 Recognition of compensation cost for awards with graded vesting

Under the MPT method, the compensation cost relating to the nonvested portion of awards granted prior to the adoption of ASC 718 would be recognized in the financial statements issued subsequent to adoption using the same attribution method used under Statement 123 (either for recognition or pro forma disclosure purposes). If the fair value of an award with a graded vesting schedule was estimated by treating each vesting tranche as a separate award, the compensation cost would have been recognized using the accelerated attribution method under Statement 123. Alternatively, if the fair value of an award with graded vesting was valued as a single award, Statement 123 permitted the compensation cost to be recognized either ratably over the service period or by using the aforementioned accelerated attribution approach. Any compensation cost relating to the nonvested portion of such awards outstanding at the date of adoption of ASC 718 was required to be recognized in the financial statements using the same attribution method applied under Statement 123, even if a different attribution method is selected for such awards under ASC 718.

Compensation cost relating to awards with a service-based graded vesting schedule granted subsequent to the adoption of ASC 718 may be recognized using a straight-line or accelerated attribution method, regardless of the method used to value the award. For example, compensation cost for an award that is valued as if each vesting tranche is a separate award may be recognized ratably over the requisite service period (provided that cumulative compensation cost recognized to date is at least equal to the measured cost of the vested tranches). ASC 718 does not indicate a preference for either attribution method available for awards with graded vesting. However, the choice between the two attribution methods for awards subject to graded vesting represents the selection of an accounting policy and must be applied consistently to all awards, subject to graded service vesting, granted after the date of adoption of ASC 718. Because this represents the selection of a new accounting policy under a new accounting standard, public companies did not need to file a preferability letter with respect to this election (regardless of the method used under Statement 123 to recognize compensation cost for awards subject to graded vesting). It should also be noted that the straight-line attribution method is not available for awards with market or performance conditions (see further discussion in Sections S4.4.1.4, S4.4.2.5, and S4.4.3.4).

S13.3.2.3 Recognition of forfeitures

ASC 718 requires an entity to estimate expected forfeitures at the grant date and recognize compensation cost only for those awards expected to vest. The estimate of expected forfeitures must be reevaluated at each balance sheet date.

For companies that recognized forfeitures as they occurred under Statement 123, or accounted for share-based payments to employees under Opinion 25 (which did not permit the estimate of forfeitures), an estimate of forfeitures was required to be made for the nonvested awards outstanding as of the adoption of ASC 718. Both the MPT and the MRT
methods required an adjustment to record the cumulative effect of a change in accounting principle, net of any tax effect, to reflect the compensation cost that would not have been recognized in prior periods had forfeitures been estimated during those periods. This adjustment applied only to compensation cost previously recognized in the financial statements for awards that are nonvested on the adoption date (e.g., compensation cost for variable awards or stock awards accounted for under Opinion 25, awards accounted for under the recognition provisions of Statement 123, or awards recognized in the financial statements as the result of applying the MRT approach). Because no adjustment was made for estimated forfeitures associated with compensation cost reflected only in the pro forma disclosures, the sum of compensation cost recognized for these awards in the pro forma disclosures plus that recognized in the financial statements after adoption of ASC 718 would not equal the grant date fair value of the awards (because the pro forma compensation cost is never adjusted for forfeitures).

Subsequent to the adoption of ASC 718, compensation cost for all awards, regardless of when they were granted, is recognized based on the number of awards expected to vest. All subsequent changes in estimates, including changes in estimates relating to share-based payments granted prior to the adoption of ASC 718, are recognized as adjustments to compensation cost (but only to the extent that the compensation cost was recognized in the financial statements). The adjustment is equal to the amount necessary to “catch-up” to the amount of compensation cost that would have been recognized to date had the most recent estimate been used since the grant date. It is important to note that the catch-up adjustment must be calculated separately for the portion of the compensation cost recognized before and after the adoption of ASC 718 as the compensation cost may have been recognized on a different basis (i.e., intrinsic value under Opinion 25 or fair value under Statement 123). An example of this calculation for an award that resulted in compensation cost prior to the adoption of ASC 718 is included in Section S13.3.3 below.

### S13.3.2.4 Recognition of dividends paid on instruments that are not expected to vest

ASC 718 requires that dividends paid to employees relating to share-based awards that vest (or are expected to vest) be charged to retained earnings, while dividends paid on awards that do not vest are recognized as compensation cost. Statement 123 permitted entities to account for dividends as if all awards were expected to vest and recognize compensation cost as actual forfeitures occurred (consistent with the alternative provided to account for forfeitures). Under the provisions of ASC 718, entities are required to estimate the number of instruments that are not expected to vest for which employees will retain dividends and recognize compensation cost for those retained dividends. However, because past dividends reduced retained earnings regardless of how the dividends were accounted for (i.e., they either reduced retained earnings indirectly through the recognition of compensation cost or directly through the recognition of dividends), no adjustment for the cumulative effect of the change on retained earnings is required.
S13.3.2.5 Deferred tax balances

When adopting ASC 718 using the MPT method, no adjustment was made to the deferred tax balances associated with share-based payments that continue to be classified as equity awards under ASC 718 (except for those adjustments resulting from the cumulative-effect adjustments for forfeitures and liabilities described in Sections S13.3.2.3 and S13.6.2.2). For awards for which the requisite service has not been provided on the adoption date, deferred taxes for nonqualified awards were recognized after the date of adoption based on the compensation cost recognized in the financial statements. As such, the deferred taxes relating to awards granted prior to the adoption of ASC 718, for which the requisite service had not been completed on the adoption date, would only reflect the compensation cost recognized in the financial statements (not the compensation cost recognized in the pro forma disclosures). The difference between this hybrid deferred tax asset and the actual tax deduction received, if any, was recognized either in equity or as income tax expense, based on ASC 718’s requirements (discussed in Section S10.3).

As a result of the accounting required under the MPT method, companies had to track the amount of compensation cost recognized in the financial statements for each option to determine the appropriate deferred tax asset accounting. That is, they could not assume that compensation cost recognized was simply equal to the grant date-fair value of the award and the deferred tax asset was equal to that compensation cost times the statutory income tax rate, because only a portion of the fair value was recognized as compensation cost and generated a deferred tax asset. As a result, accounting for the excess tax benefits was somewhat more complicated under the MPT method than the MRT method (under the MRT method, the company recognized the full grant-date fair value as compensation cost for all awards granted after the original effective date of Statement 123). However, the deferred tax assets related to nonvested awards generally was smaller if the MPT method was used rather than the MRT method (again, because less cumulative compensation cost was recognized in the financial statements). Accordingly, the amount of deferred tax asset that would have to be subsequently written off (potentially as income tax expense) if the deferred tax asset was not realized also was smaller. However, as discussed in Section S10.5.1, the amount of excess tax benefits recognized in additional paid-in capital that are available to absorb deferred tax asset write-offs, as well as excess tax benefits that must be reported as financing cash flows, in most cases must be calculated based on the “pro forma deferred tax asset,” which was based on compensation cost recognized both in the pro forma disclosures and in the financial statements.
S13.3.3 Example 13-1 – Modified-prospective transition

Company X, a public company, has a June 30 year-end and was required to adopt the provisions of ASC 718 on 1 July 2005. Company X previously did not adopt the recognition provisions of Statement 123 for share-based payments to employees and provided only pro forma disclosure of the compensation cost relating to those awards.

This example illustrates the transition for an award of 80,000 non-qualified employee stock options, granted on 1 January 2005 with an exercise price of $40 (the closing price of Company X common shares on that day). Using an appropriate option-pricing model, the Company determined that the fair value on the date of grant was $15 per option ($1.2 million in aggregate for the award). The options cliff-vest for each individual that provides continuous service for four years beginning with the grant date (a service condition). For purposes of the pro forma disclosures, the Company accounted for forfeitures as they occurred. On 30 June 2005, 2,000 options were forfeited when an employee was terminated. The Company’s statutory tax rate is 35%.

The following journal entries illustrate the amounts that were recognized for purposes of the pro forma disclosures in the first half of 2005:

Compensation expense $ 150,000
Additional paid-in capital $ 150,000
[To recognize compensation expense for the first six months of 2005, before accounting for the 30 June 2005 forfeitures – (6 months / 48 months) × (80,000 × $15)]

Deferred tax asset $ 52,500
Deferred tax expense $ 52,500
[To recognize the deferred tax asset for the deductible temporary difference related to the recognized compensation expense – $150,000 × 35%]

Additional paid-in capital $ 3,750
Compensation expense $ 3,750
[To reverse compensation expense relating to the 2,000 options forfeited on 30 June 2005 – (6 months / 48 months) × (2,000 × $15)]

Deferred tax expense $ 1,313
Deferred tax asset $ 1,313
[To reverse the deferred tax asset relating to the 2,000 options forfeited on 30 June 2005 – $3,750 × 35%]
On 1 July 2005, in conjunction with the transition to ASC 718, the Company estimates that only 60,000 options will ultimately vest. (i.e., 18,000 options will be forfeited in addition to the 2,000 options previously forfeited). As a result, Company X will recognize $225,000 of compensation cost each year, for each of the 3 ½ years remaining in the requisite service period, calculated as follows:

Estimated number of options that will ultimately vest 60,000
Times fair value per option $15.00
Total compensation cost to be recognized over the requisite service period 900,000
Divided by the number of years in the requisite service period 4
Estimated annual compensation cost $225,000

The following journal entries illustrate the amounts that will be recognized in the financial statements in the second half of 2005:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation expense</td>
<td>$112,500</td>
</tr>
<tr>
<td>Additional paid-in capital</td>
<td>$112,500</td>
</tr>
<tr>
<td>Deferred tax asset</td>
<td>$39,375</td>
</tr>
<tr>
<td>Deferred tax expense</td>
<td>$39,375</td>
</tr>
</tbody>
</table>

[To recognize compensation expense for the last six months of 2005, taking into account estimated forfeitures – $225,000 × 50% or (6 months / 48 months) × (60,000 × $15)]

The Company would not record a cumulative effect of a change in accounting principles relating to the estimated forfeitures as the compensation cost relating to those options was not previously recognized in the financial statements. However, if Company X had previously adopted the recognition provisions of Statement 123, and recognized compensation cost relating to this award in the financial statements prior to 1 July 2005, the following journal entries would be required to reverse compensation cost and the related deferred tax asset previously recognized relating to options that are not expected to vest:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional paid-in capital</td>
<td>$33,750</td>
</tr>
<tr>
<td>Cumulative effect of a change in accounting principle</td>
<td>$33,750</td>
</tr>
</tbody>
</table>

[To reverse compensation expense recognized in the financial statements relating to the 18,000 options that are not expected to vest. Note that 2,000 options were forfeited and that forfeiture was accounted for prior to the adoption of ASC 718 – (6 months / 48 months) × (18,000 × $15)]
Cumulative effect of a change in accounting principle $11,813
Deferred tax asset $11,813

[To reverse the deferred tax asset relating to the 18,000 options not expected to vest − $33,750 × 35%]

Assume the same facts as the previous example, except that the market value on 1 January 2005 was $30 (i.e., the options were granted with $10 of intrinsic value). Because the options were issued with $10 of intrinsic value, the fair value of the options for this example is assumed to be $24 (compared to $15 in the previous example). This example illustrates how the calculation to adjust the estimate of forfeitures must be performed separately for compensation cost recognized before and after adopting ASC 718.

The following journal entries illustrate the amounts that were recognized in the financial statements in the first half of 2005:

Compensation expense $100,000
Additional paid-in capital $100,000

[To recognize compensation expense for the first six months of 2005, before accounting for the 30 June 2005 forfeitures − (6 months / 48 months) × (80,000 × $10)]

Deferred tax asset $35,000
Deferred tax expense $35,000

[To recognize the deferred tax asset for the deductible temporary difference related to the recognized compensation expense − $100,000 × 35%]

Additional paid-in capital $2,500
Compensation expense $2,500

[To reverse compensation expense relating to the 2,000 options forfeited on 30 June 2005 − (6 months / 48 months) × (2,000 × $10)]

Deferred tax expense $875
Deferred tax asset $875

[To reverse the deferred tax asset relating to the 2,000 options forfeited on 30 June 2005 − $2,500 × 35%]

On adopting ASC 718, when the company estimates that a total of 20,000 options will be forfeited (or an additional 18,000 forfeitures), the company must record the following entry to reverse compensation cost that was recognized in the first half of 2005 relating to options that are not expected to vest:
Additional paid-in capital $22,500
Cumulative effect of a change in accounting principle $22,500

[To reverse compensation expense recognized in the financial statements relating to the 18,000 options that are not expected to vest. Note that 2,000 options were forfeited and accounted for prior to the adoption of ASC 718 – (6 months / 48 months) × (18,000 × $10)]

Cumulative effect of a change in accounting principle $7,875
Deferred tax asset $7,875

[To reverse the deferred tax asset relating to the 18,000 options not expected to vest – $22,500 × 35%]

The following journal entries illustrate the amounts that will be recognized in the financial statements in the second half of 2005:

Compensation expense $180,000
Additional paid-in capital $180,000

[To recognize compensation expense for the last six months of 2005, taking into account estimated forfeitures – (6 months / 48 months) × (60,000 × $24)]

Deferred tax asset $63,000
Deferred tax expense $63,000

[To recognize the deferred tax asset for the temporary difference related to the compensation cost – $180,000 × 35%]

After recording the previous entries to recognize compensation cost for the second half of 2005, the company revised its estimate of expected forfeitures. The company now expects that only 12,000 options will be forfeited over the term of the options. The following entries are recorded to adjust recognized compensation cost as if the current estimate of 12,000 forfeitures had been used since the grant date (i.e., recognize compensation cost for 8,000 more options that are now expected to vest). The following entries illustrate how the adjustment is calculated separately for the portion of compensation cost that was recognized before and after adopting ASC 718.

Compensation expense $10,000
Additional paid-in capital $10,000

[To adjust compensation cost recognized prior to adopting ASC 718 (and measured under Opinion 25) to reflect the current estimate of expected forfeitures – (6 months / 48 months) × (8,000 × $10)]
Deferred tax asset $3,500
Deferred tax expense $3,500

[To recognize the deferred tax asset for the temporary difference related to the compensation cost – $10,000 × 35%]

Compensation expense $24,000
Additional paid-in capital $24,000

[To adjust compensation expense recognized subsequent to adopting ASC 718 to reflect the current estimate of expected forfeitures – (6 months / 48 months) × (8,000 × $24)]

Deferred tax asset $8,400
Deferred tax expense $8,400

[To recognize the deferred tax asset for the temporary difference related to the compensation cost – $24,000 × 35%]

**S13.4 Modified-retrospective transition**

Under the MRT method, the recognition of compensation cost under ASC 718 for (a) awards granted, modified, or settled subsequent to adopting ASC 718 and (b) awards granted prior to the date of adoption for which the requisite service has not been completed generally is the same as the accounting under the MPT method described previously (although, as discussed further below and in Chapter 10, the accounting for deferred taxes differs between the two approaches). However, under the MRT method companies would restate financial statements for prior periods by recognizing in those financial statements the compensation cost previously reported in the pro forma footnote disclosures under the provisions of Statement 123.

**S13.4.1 Full restatement**

When the MRT method was applied for all periods presented, prior period financial statements were required to be restated as if the recognition provisions of Statement 123 had been applied to all share-based payments granted, modified, or settled subsequent to the original effective date of Statement 123 (which was required to be applied no later than fiscal years beginning after 15 December 1994). As a result, deferred tax balances were restated for each balance sheet presented to reflect the deferred taxes that would have been recognized had the fair-value method been applied (e.g., for fixed, at-the-money, non-qualified employee stock options, deferred taxes generally would not have been recognized under Opinion 25, while under Statement 123, deferred tax assets would have been recognized based on the compensation cost recognized to date).
When restating prior periods under the MRT method, the compensation cost recognized in prior periods would be the same as previously reported in the pro forma disclosures. If a company determined that the information included in the pro forma disclosures in prior years was not correct due to mathematical mistakes, mistakes in the application of accounting principles, or oversight or misuse of facts that existed at the time the financial statements were prepared, the company was required to apply the provisions relating to the correction of an error in ASC 250. Corrections of such errors were required to be disclosed appropriately and were not permitted to be presented as transition-related adjustments.

There is no specific transition guidance relating to compensation cost that may have qualified for capitalization. However, it was clear that when applying the MRT method, the compensation cost recognized in prior period financial statements must not differ from the compensation cost previously reported in the pro forma disclosures. If an entity determined that some portion of compensation cost that should have been capitalized for purposes of calculating pro forma net income was not capitalized, that entity had to consider the provisions relating to materiality in SEC Staff Accounting Bulletin No. 99 (Topic 1-M) and the correction of an error in ASC 250.

S13.4.1.1 Example 13-2 – Modified-retrospective transition

Assume the same facts as in Example 13-1 for awards granted in 2005. In addition, assume that Company X granted 100,000 non-qualified employee stock options on 1 January 2003, subject to 4-year cliff vesting. The options have a $30 exercise price. Using an appropriate option-pricing model, the Company determined that the fair value on the date of grant was $10 per option. Assume that, of the awards granted in 2003, 5,000 options were forfeited in 2004 and no options were forfeited in 2003, or during the first six months of 2005. The following table presents the amounts that were reported in the Company’s pro forma footnote disclosures:

<table>
<thead>
<tr>
<th></th>
<th>2003 award</th>
<th>2004 award</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross compensation cost</td>
<td>$118,750</td>
<td>$150,000</td>
<td>$268,750</td>
</tr>
<tr>
<td>Compensation cost reversed due to forfeitures</td>
<td>-</td>
<td>$(25,000)</td>
<td>-</td>
</tr>
<tr>
<td>Net compensation cost</td>
<td>$250,000</td>
<td>$225,000</td>
<td>$118,750</td>
</tr>
<tr>
<td>Deferred tax benefit</td>
<td>$(87,500)</td>
<td>$(87,500)</td>
<td>$(41,563)</td>
</tr>
<tr>
<td>Deferred tax benefit reversed due to forfeitures</td>
<td>$8,750</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>End of period deferred tax asset balance</td>
<td>$(87,500)</td>
<td>$(166,250)</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Assume that the Company elected to use the full modified retrospective method for transition. The following journal entries illustrate the amounts that would be recorded to restate the 2003 financial statements:
Compensation expense $250,000
Additional paid-in capital $250,000

[To recognize compensation expense in the restated 2003 financial statements – (12 months / 48 months) × (100,000 × $10)]

Deferred tax asset $87,500
Deferred tax expense $87,500

[To recognize the deferred tax asset for the deductible temporary difference related to the recognized compensation cost – $250,000 × 35%]

The following journal entries illustrate the amounts that would be recorded to restate the 2004 financial statements:

Compensation expense $250,000
Additional paid-in capital $250,000

[To recognize compensation expense in the restated 2004 financial statements, before accounting for the 5,000 options forfeited in 2004 – (12 months / 48 months) × (100,000 × $10)]

Deferred tax asset $87,500
Deferred tax expense $87,500

[To recognize the deferred tax asset for the deductible temporary difference related to the recognized compensation expense before accounting for the 5,000 options forfeited in 2004 – $250,000 × 35%]

Additional paid-in capital $25,000
Compensation expense $25,000

[To reverse compensation expense recorded in 2003 and 2004 relating to the 5,000 options forfeited in 2004 – (24 months / 48 months) × (5,000 × $10)]

Deferred tax expense $8,750
Deferred tax asset $8,750

[To reverse the deferred tax asset relating to the 5,000 options forfeited in 2004 – $25,000 × 35%]

Additionally, the Company would be required to estimate forfeitures relating to the January 2003 award and the January 2005 award. The Company estimates that of the 100,000 options granted in 2003, 88,000 will ultimately vest (keeping in mind that the compensation cost recognized already reflects 5,000 forfeitures). Because the Company restated the 2003...
and 2004 financial statements in accordance with the MRT method and recognized compensation expense in those periods, the Company will be required to record a cumulative adjustment to reverse compensation cost relating to the estimated forfeitures. The following journal entries illustrate the entries that would be recorded to reverse compensation expense recognized in the restated financial statements for options that are not expected to vest:

Additional paid-in capital $77,500
Cumulative effect of a change in accounting principle $77,500

[To reverse compensation expense recognized in the financial statements relating to the options that are not expected to vest for both the 2003 award and the 2005 award − (30 months / 48 months) × 7,000 × $10) + (6 months / 48 months) × (18,000 × $15)]

Cumulative effect of a change in accounting principle $27,125
Deferred tax asset $27,125

[To reverse the deferred tax asset relating to the options that are not expected to vest − $77,500 × 35%]

If you assume that 2004 is the first year presented in the 2005 financial statements, the Company would be required to record the following amounts to adjust the opening 2004 balances of the deferred tax asset, additional paid-in capital and retained earnings to reflect activity relating to the 2003 award:

Deferred tax asset $87,500 (a)
Retained earnings $162,500 (b)
Additional paid-in capital $250,000 (c)

[To adjust the opening balances of the deferred tax asset, additional paid-in capital and retained earnings to reflect activity relating to the 2003 award]

(a) ($250,000 × 35%)
(b) ($250,000 − $87,500)
(c) (12 months / 48 months) × (100,000 × $10)]

**S13.4.2 Partial restatement**

If a company elected to apply the MRT method only from the beginning of the year of adoption of ASC 718, the guidance discussed in Section S13.4.1 applied. However, because under this approach compensation cost was only recognized under Statement 123 from the beginning of the fiscal year of adoption of ASC 718 to the adoption date, deferred taxes were only recognized based on compensation cost recognized during the restated period. Because the income statement was not being restated for prior years, there would be no adjustment to the beginning balances of paid-in capital, deferred taxes, or retained earnings for the year
of initial adoption. Effectively, this approach was similar to adopting Statement 123 at the beginning of the year using the modified-prospective-transition method, and then adopting ASC 718 on the effective date using the modified-prospective-transition method.

S13.5 Prospective transition

Under the prospective method, nonpublic entities that previously applied Statement 123 using the minimum-value method (whether for financial statement recognition or pro forma disclosure purposes) would continue to account for nonvested equity awards outstanding at the date of adoption of ASC 718 in the same manner as they had been accounted for prior to adoption. That is, if a nonpublic entity was accounting for its equity awards using the intrinsic-value method under Opinion 25, it would continue to apply Opinion 25 in future periods to equity awards outstanding at the date it adopted ASC 718. Alternatively, if a nonpublic entity was accounting for its employee stock options using the minimum-value method under Statement 123, it would continue to apply the minimum-value method in future periods to employee stock options outstanding at the date they adopted ASC 718. All awards granted, modified, or settled after the date of adoption should be accounted for using the measurement, recognition, and attribution provisions of ASC 718. Guidance on the accounting for modifications made after the effective date of ASC 718 to awards granted prior to the effective date of ASC 718 is provided in Section S8.10.2.

Based on discussions with the FASB staff, we understand that the above guidance does not apply to awards classified as liabilities if the nonpublic company elects to account for liabilities at fair value or calculated value (rather than intrinsic value) under ASC 718. That is, if a nonpublic company elects to account for liability awards at fair value or calculated value, all liability awards existing on the date of adoption should be adjusted to fair value as a cumulative effect of a change in accounting principles. The liability then would continue to be remeasured at fair value or calculated value at each reporting date until settlement.

S13.6 Other transition considerations

S13.6.1 Nonpublic entities that become public entities

The measurement of equity-based awards and the transition alternatives can differ significantly under ASC 718 between public entities and nonpublic entities. These differences result in additional complexities when a nonpublic entity becomes a public entity. A newly public entity should apply whatever provisions are applicable to its new status as of the beginning of the first interim or annual period after it becomes a public entity, taking into account whether it used the fair-value-based method or the minimum-value method for recognition or pro forma disclosures under Statement 123.

S13.6.1.1 Effective date for nonpublic entities that become public entities

The effective date for a nonpublic company that becomes a public company was the first interim or annual reporting period beginning after the entity becomes a public entity. If the newly public entity files as a small business issuer, the effective date was the fiscal year beginning after 15 December 2005.
S13.6.1.2 Transition methods for nonpublic entities that become public entities

Nonpublic entities that used the fair-value-based method for either recognition or pro forma disclosures under Statement 123 were required to apply the MPT method no later than the required effective date. For periods before the date of adoption of ASC 718, these entities were permitted to apply the MRT transition method either (a) to all prior years for which Statement 123 was effective, or (b) only to prior interim periods in the year of initial adoption if the adoption date does not coincide with the beginning of the entity’s fiscal year.

Nonpublic entities that did not use the fair-value-based method of accounting were required to apply the prospective transition method no later than the required effective date (or on going public if the effective date for a public company is earlier than for a nonpublic company and the company has not yet adopted ASC 718). Those entities were required to continue to account for any equity awards outstanding at the required effective date using the accounting principles originally applied to those awards (e.g., the minimum-value method under Statement 123 or the intrinsic value method under Opinion 25 and its related interpretative guidance). Liability awards should be adjusted to fair value at the beginning of the period the entity adopted ASC 718 as a cumulative effect of a change in accounting principle (if the nonpublic entity chooses to account for liabilities under the fair value method, rather than the intrinsic value method, or if it is a public company on the date it adopted ASC 718).

The SEC staff also has provided the following guidance on transition to fair-value-based measurements for nonpublic companies that measured compensation cost for stock options using the calculated-value method or measured liabilities using the intrinsic-value method:

**Excerpt from SAB Topic 14.B**

Facts: Company A is a nonpublic entity that first files a registration statement with the SEC to register its equity securities for sale in a public market on January 2, 20X8. As a nonpublic entity, Company A had been assigning value to its share options under the calculated value method prescribed by Statement 123R and had elected to measure its liability awards based on intrinsic value. Company A is considered a public entity on January 2, 20X8 when it makes its initial filing with the SEC in preparation for the sale of its shares in a public market.

Question 1: How should Company A account for the share options that were granted to its employees prior to January 2, 20X8 for which the requisite service has not been rendered by January 2, 20X8?

Interpretive response: Prior to becoming a public entity, Company A had been assigning value to its share options under the calculated value method. The staff believes that Company A should continue to follow that approach for those share options that were granted prior to January 2, 20X8, unless those share options are subsequently modified, repurchased or cancelled. If the share options are subsequently modified, repurchased or cancelled, Company A would assess the event under the public company provisions of...
Statement 123R. For example, if Company A modified the share options on February 1, 20X8, any incremental compensation cost would be measured under Statement 123R, paragraph 51(a), as the fair value of the modified share options over the fair value of the original share options measured immediately before the terms were modified.¹³ [SAB Topic 14.B, Footnotes 8, 10 and 11 omitted]

The SEC staff’s guidance described above is consistent with the concept in ASC 718 that companies are not permitted to retrospectively estimate fair value for share-based payments that previously were measured on another basis (whether intrinsic value, minimum value or calculated value). Therefore, in the above example all options granted on or before 1 January 20X8 would be measured based on calculated value and all options granted on or after 2 January 20X8 would be measured at fair value.

This transition requirement for nonpublic companies that become public companies is reiterated in Question 3 below.

**Excerpt from SAB Topic 14.B**

Question 3: After becoming a public entity, may Company A retrospectively apply the fair-value-based method to its awards that were granted prior to the date Company A became a public entity?

Interpretive response: No. Before becoming a public entity, Company A did not use the fair-value-based method for either its share options or its liability awards granted to the Company’s employees. The staff does not believe it is appropriate for Company A to apply the fair-value-based method on a retrospective basis, because it would require the entity to make estimates of a prior period, which, due to hindsight, may vary significantly from estimates that would have been made contemporaneously in prior periods.¹⁷ [SAB Topic 14.B, Footnote 17 omitted]

The SEC staff also indicates in Question 1 above that if an award granted prior to an entity becoming public is modified after the employer becomes a public entity, the incremental value of the modification should be measured based on incremental *fair* value. While not explicitly stated in Question 1 above, we believe that in connection with the modification the remainder of the originally measured but unrecognized compensation cost (e.g., measured under calculated value) must continue to be recognized over the remaining vesting period (see further discussion in Section S8.10.2).
Excerpt from SAB Topic 14.B

Question 2: How should Company A account for its liability awards granted to its employees prior to January 2, 20X8 which are fully vested but have not been settled by January 2, 20X8?

Interpretive response: As a nonpublic entity, Company A had elected to measure its liability awards subject to Statement 123R at intrinsic value. When Company A becomes a public entity, it should measure the liability awards at their fair value determined in accordance with Statement 123R. In that reporting period there will be an incremental amount of measured cost for the difference between fair value as determined under Statement 123R and intrinsic value. For example, assume the intrinsic value in the period ended December 31, 20X7 was $10 per award. At the end of the first reporting period ending after January 2, 20X8 (when Company A becomes a public entity), assume the intrinsic value of the award is $12 and the fair value as determined in accordance with Statement 123R is $15. The measured cost in the first reporting period after December 31, 20X7 would be $5. [SAB Topic 14.B, Footnotes 14 and 15 omitted]

$15 fair value less $10 intrinsic value equals $5 of incremental cost.

Question 2 above does not explicitly address how the adjustment of the liability balance from intrinsic value to fair value should be presented in the financial statements. That is, should the effect on net income resulting from the change be recognized as compensation expense or as the cumulative effect of a change in accounting principles? Because the change results from the required adoption of a new measurement principle (fair value rather than intrinsic value), we believe the impact on net income of the change from intrinsic to fair value measured on the date the company becomes a public entity as defined in ASC 718 (2 January 20X8) should be recognized as the cumulative effect of a change in accounting principles. This adjustment is recognized as a reduction in net income consistent with other cumulative effect adjustments recognized on initial adoption of ASC 718.

Excerpt from SAB Topic 14.B

Question 4: Upon becoming a public entity, what disclosures should Company A consider in addition to those prescribed by Statement 123R?

Interpretive response: In the registration statement filed on January 2, 20X8, Company A should clearly describe in MD&A the change in accounting policy that will be required by Statement 123R in subsequent periods and the reasonably likely material future effects. In subsequent filings, Company A should provide financial statement disclosure of the effects of the changes in accounting policy. In addition, Company A should consider the applicability of SEC Release No. FR-60 and Section V, “Critical Accounting Estimates,” in SEC Release No. FR-72 regarding critical accounting policies and estimates in MD&A. [SAB Topic 14.B, Footnotes 18 through 21 omitted]
S13.6.1.3 Transition method for companies that went public before the adoption of ASC 718

Assume a calendar year end nonpublic company files a registration statement with the SEC on 1 September 2005, and becomes a public entity on that date (pursuant to the definition of a public entity in ASC 718 and the additional guidance in SAB Topic 14.B). Prior to becoming a public entity, the company measured its share-based payments using the minimum value method (for Statement 123 pro forma disclosure purposes). On 1 January 2006, when the company adopted ASC 718, the company would have nonvested options that were measured using the minimum value method (i.e., awards granted prior to becoming a public entity) and nonvested options that were measured using the fair value method (i.e., awards granted subsequent to becoming a public entity). ASC 718 required public entities to use either the modified prospective or modified retrospective transition method when adopting ASC 718. Additionally, ASC 718 required nonpublic entities that used the minimum value method to measure the compensation cost relating to employee stock options to use the prospective transition method. The issue that arose in this circumstance was which transition method the newly public company should use when it adopts ASC 718.

ASC 718 precluded nonpublic companies that measured the compensation cost of employee stock options at minimum value from using the modified prospective or modified retrospective transition methods because the FASB did not believe amounts measured at minimum value should be recognized under ASC 718. Accordingly, those nonpublic companies were required to adopt ASC 718 using the prospective method. On the other hand, public companies adopted ASC 718 using either the modified prospective or modified retrospective transition methods, apparently without any consideration of the fact that some nonvested awards on the date of adoption might have been measured under Statement 123 using the minimum value method, which is the case in the above example. Because of the use of two different measurement methods, none of the three transition methods provided in ASC 718 clearly applied.

We understand that the underlying principle of ASC 718’s transition requirements was that on the date of adoption, nonvested awards measured at minimum value for pro forma disclosure purposes would not be accounted for under ASC 718 (although, if the company previously adopted Statement 123 for recognition purposes, those minimum value amounts would have been recognized in the financial statements and would continue to be recognized after the adoption of ASC 718 using a prospective method to the extent those awards were not vested on the adoption date), while nonvested awards measured at fair value would. Accordingly, we believe that this newly public company should have applied the modified prospective method only to nonvested awards that were granted on or after the date the company became a public entity (on or after 1 September 2005, in this example) and, therefore, measured employee stock options at fair value under Statement 123. The unrecognized compensation cost relating to those awards would be recognized in the financial statements over the remaining requisite service period subsequent to adopting ASC 718.
The company should have applied the prospective transition method to awards granted prior to becoming a public company (1 September 2005 in this example) and therefore measured at minimum value. The unrecognized compensation cost relating to those awards would have been recognized in the financial statements subsequent to the adoption of ASC 718 using the same accounting principles (recognition and measurement) originally applied to those awards in the financial statements (either the minimum value method under Statement 123 if they had used that method for recognition in the financial statements or the intrinsic value method of Opinion 25 and its related interpretive guidance).

We believe that the modified retrospective transition method was not available to the company described in this question because it had measured employee stock options using the minimum value method, and that measurement was not recognized under ASC 718.

The implications of adopting ASC 718 using a combination of modified prospective transition and prospective transition on the pool of excess tax benefits is discussed in Section S10.5.1.5.

**S13.6.2 Opinion 25 variable awards**

Opinion 25 provided that a measurement date for an award of stock-based compensation to an employee did not occur until both the number of shares and exercise price were known (an exception was provided for changes in the number of shares resulting from termination of employment). When one or both of those items were unknown, the award was remeasured until both items were known. This is what was commonly characterized as “variable accounting” under Opinion 25. Variable accounting could have been required under Opinion 25 if performance or market conditions cause a change in the number of shares or exercise price. Variable accounting could have also resulted under Opinion 25 when an award provided for cash settlement (sometimes characterized as “liability awards”) or an option provided for net share settlement (because the number of shares to be delivered is not fixed).

**S13.6.2.1 Opinion 25 variable equity awards**

On adoption of ASC 718, using the MPT or MRT methods, an equity award that previously was accounted for as a variable award under Opinion 25 that was not a liability under ASC 718 would no longer be accounted for as a variable award (unless the award was granted prior to the original effective date of Statement 123 or the fair value of the award could not be estimated). The grant-date fair value, determined for purposes of the Statement 123 pro forma disclosures, would have been used to recognize compensation cost for those awards under ASC 718 as described earlier in this document.

Under the prospective-transition method, equity awards previously accounted for as variable awards under Opinion 25 would have continued to be accounted for as variable awards (measured at intrinsic value) under ASC 718 unless those awards were substantively modified after the date of adoption of ASC 718 (see discussion of modifications in Section S8.10.2).
S13.6.2.2 Awards classified as liabilities under Statement 123

Share-based awards classified as liability instruments were accounted for using the intrinsic-value method under both Opinion 25 and Statement 123 and would have been accounted for by public companies using the fair-value-based method under ASC 718 (under all three standards, liability awards must be remeasured until settlement). Under both the MPT and the MRT methods, companies were required to recognize a cumulative effect of the change in accounting principle, net of any tax effect, to reflect the difference between the intrinsic value and the fair value of the liability award on the date of adoption (and, if forfeitures previously were recognized when they occurred, an estimate of forfeitures). When restating prior periods in accordance with the MRT method, the compensation cost recognized in prior periods would have been based on the intrinsic value previously reported in the pro forma disclosures. As discussed in Section S5.5, nonpublic companies can elect to measure liabilities using the fair-value (or in some cases calculated-value) or intrinsic-value method. For those nonpublic companies that adopted ASC 718 using the MPT or MRT methods and elect to account for liabilities at intrinsic value, no adjustment need be made to liabilities granted prior to the adoption date. However, if those companies elected to account for liabilities using the fair-value method, they should have adjusted previously granted liabilities to fair value on the adoption date.

For nonpublic companies that adopted ASC 718 using the prospective method, liability awards granted before the adoption of ASC 718 would have been accounted for based on the company’s election under ASC 718. That is, if the company elected to account for liability awards at fair value or calculated value, the liability awards that existed on the date of adoption must have been adjusted to fair value or calculated value, respectively, by recognizing a cumulative effect of a change in accounting principle. If the company elected to measure liability awards at intrinsic value, it would have continued to account for liabilities existing on the adoption date at intrinsic value.

S13.6.2.3 Awards classified as equity under Statement 123 but as liabilities under ASC 718

In some circumstances an award may have qualified as an equity award under Statement 123, but was classified as a liability under ASC 718. This circumstance could have arisen for a share-settled award that would have been classified as a liability under ASC 480, were it not for the specific scope exclusion in ASC 480 for stock-based compensation. That scope exclusion was removed in ASC 718.

Under both the MPT and MRT methods, transition for a share-based award that was classified as equity under Statement 123, but will be classified as a liability under ASC 718, is achieved by recognizing a liability at its fair value (or portion thereof, if the requisite service has not been rendered). If (1) the fair value (or portion thereof) of the liability is greater or less than (2) previously recognized compensation cost for the instrument, the liability should be recognized first, by reducing equity (generally, paid-in capital) to the extent of such
previously recognized cost and second, by recognizing the difference (that is, the difference between items (1) and (2)) in the income statement, net of any related tax effect, as the cumulative effect of a change in accounting principle.

If a nonpublic company elected to account for liabilities using the intrinsic value method, the guidance in the preceding paragraph should be followed, except that the “intrinsic value” should be substituted for fair value.

S13.6.2.4 Adjustments to capitalized compensation cost
If share-based compensation cost was previously capitalized as part of another asset, an entity should have considered whether the carrying amount of that asset needed to be adjusted to reflect amounts calculated as described in the preceding section.

An adjustment to the cost basis of an asset was not required at transition. While we normally would expect a consistent capitalization policy to be applied, given that any time value recognized on transition ultimately will be reversed, we generally did not believe it was necessary to capitalize this amount into the cost of an asset on transition.

S13.6.3 Awards granted prior to adoption for which fair value could not be determined
As discussed in Section S3.2.3, Statement 123 provided that if the fair value of an award could not be estimated at the grant date, the award would be measured using intrinsic value at each reporting date until such time that the fair value could be reasonably estimated. At that time, the equity instruments would be measured at fair value (i.e., a final measurement of compensation cost was made when the fair value became estimable). However, ASC 718 requires that such awards continue to be remeasured based on intrinsic value at each reporting date until the equity instrument is settled. Awards granted prior to the adoption of ASC 718 that were remeasured at intrinsic value until settlement would continue to be measured at intrinsic value until they were settled.

S13.6.4 Credits in additional paid-in capital that are available for future deferred tax asset write-offs
The accounting for the income tax effects of share-based payments is discussed in detail in Chapter 10. ASC 718 provides that tax benefits resulting from income tax deductions in excess of recognized compensation expense are recognized in additional paid-in capital. If the tax deductions are less than the cumulative compensation expense, the write-off of the related excess deferred tax asset is recognized in the income statement, except to the extent that credits previously have been recognized in additional paid-in capital for deductions related to past awards accounted for under Statement 123 or ASC 718, whether recognized in the financial statements or included in pro forma disclosures. The determination on transition to ASC 718 of the amount of excess tax benefits available for future deferred tax asset write-offs is discussed in detail in Section S10.5.1.
S13.6.5 Capitalization of compensation cost on transition to ASC 718

ASC 718 does not explicitly address the accounting in transition for costs that were capitalized for purposes of preparing the pro forma disclosures after adoption of ASC 718. For example, assume a company that previously applied Opinion 25 to share-based payments to employees was adopting ASC 718 using the modified-prospective transition method. In calculating pro forma net income and EPS the company capitalized a portion of pro forma compensation cost into inventory, as they historically have done with cash compensation paid to those employees. As a result, on the effective date of ASC 718, there would be an amount of compensation cost effectively capitalized in “pro forma inventory.” An issue arises as to whether that pro forma inventory would be recognized in the financial statements subsequent to the adoption of ASC 718.

On adoption of ASC 718, a company that previously capitalized compensation cost for purposes of its pro forma disclosures may have followed any one of the following approaches when it adopted ASC 718 using the modified prospective approach:

► Recognize as a cumulative effect of the adoption of ASC 718 an adjustment to recognize an asset (e.g., inventory) equal to compensation cost previously “capitalized” for purposes of preparing the pro forma disclosures that had not yet been amortized for purposes of calculating pro forma earnings (capitalized compensation cost, as well as any related deferred taxes, would be recognized on the transition date with an offsetting adjustment to additional paid-in capital presented as a cumulative effect of a change in accounting principle).

► Similar to the approach described in the preceding bullet, but do not recognize the “pro forma” capitalized compensation cost on the balance sheet on transition. Rather, the company would track the asset to which the pro forma capitalized cost relates and as that asset affects the income statement (e.g., as inventory is sold or as a fixed asset is depreciated), any additional amounts that would have been recognized if the pro forma compensation cost had been capitalized would be recognized by recording a credit to additional paid-in capital and a debit to the appropriate income statement account (cost of sales for inventory or depreciation expense for fixed assets, as well as related tax effects). Essentially, the income statement impact is the same as in the preceding bullet, but the balance sheet is never adjusted to capitalize the pro forma compensation cost.

► Make no transition adjustment for compensation cost previously capitalized for purposes of preparing the pro forma disclosures. In this circumstance, comparability of the post-transition financial statements will be affected by the failure to recognize the pro forma capitalized compensation cost.

Under all of the above approaches, compensation cost recognized after the effective date of ASC 718 would be capitalized as appropriate, including compensation cost recognized on awards granted prior to the adoption of ASC 718 for which the requisite service had not been
provided on the adoption date. That is, for all compensation cost recognized after the adoption of ASC 718 (regardless of the method of adoption or which of the alternatives described above is selected), the company must evaluate whether that compensation cost should be capitalized.

It should be noted that the above alternatives only applied if the company previously capitalized compensation cost for purposes of preparing its pro forma disclosures. If a company previously did not capitalize share-based payment compensation cost for purposes of preparing its pro forma disclosures (e.g., if the company concluded that such costs were not material), it was not permitted to adjust amounts previously reported on adoption to reflect the impact of applying a policy to capitalize such costs retroactively (unless the previous disclosures were materially misstated, in which case it would restate those disclosures to correct the error and then be subject to the three alternatives discussed above).

We recommended that companies reevaluate their past capitalization policies carefully, in light of the SEC staff’s guidance on materiality (SAB Topic 1.M), in establishing new policies on adoption of ASC 718. As discussed in Section S4.1.3, compensation cost may be capitalized in a number of circumstances, including in connection with:

- inventory
- internally constructed property, plant, and equipment
- loan origination costs
- deferred acquisition costs in the insurance industry
- direct response advertising costs
- capitalized software costs
- capitalized exploration costs in the oil and gas industry
- mine development costs
- costs associated with construction-type and certain production-type contracts
- assets, including goodwill, acquired in a business combination

**S13.6.6 Statement of cash flows**

ASC 718 requires that cash savings resulting from excess tax benefits (i.e., the benefit of tax deduction for a share-based payment that exceeds the recognized compensation cost for that award) be presented as a financing cash flow (and a corresponding deduction from operating cash flows). The calculation of excess tax benefits that must be presented as a financing cash flow must be performed on an option-by-option basis. That is, while the credits recognized in
additional paid-in capital during a reporting period (see Section S10.3.1) may be reduced by write-offs of deferred tax assets to additional paid-in capital (i.e., presented net), the amount presented in the statement of cash flows as a financing activity is based on a gross calculation without offset from any deferred tax asset write-offs to additional paid-in capital.

Under Opinion 25 and Statement 123, companies recognized the cash flow effects of these excess tax benefits in operating cash flows.

Companies that adopted the provisions of ASC 718 using the MPT or prospective method presented the cash flow statement in accordance with ASC 718 prospectively; that is, for all periods subsequent to the date of adoption. The cash flow statement for periods prior to the date of adoption would not be restated.

Companies that adopted the provisions of ASC 718 using the MRT method presented the cash flow statement in accordance with ASC 718 for all periods that were restated.

Additional complexities arose in the calculation of cash flows from excess tax benefits resulting from awards granted prior to the adoption of ASC 718 for companies that adopted ASC 718 using the partial modified-retrospective transition method or the modified prospective transition method. Similar to the measurement of the excess tax benefit available to absorb deferred tax asset write-offs described in Section S10.5.1, the excess tax benefit to be presented as a financing cash flow generally included consideration of the “pro forma deferred tax asset,” (except for awards that were fully vested on the date of adoption of ASC 718 if the company elected to use the alternative method to calculate the initial pool of excess tax benefits described in Section S10.5.1.4). This calculation is described in Section S10.3.1.1.

For an entity that elects the alternative method for calculating the initial pool of excess tax benefits, excess tax benefits were presented in the statement of cash flows as follows:

- For awards that were fully vested at the date of adoption of ASC 718, the entire benefit of a tax deduction that was realized in accordance with ASC 718-740-25-10 and recognized in equity after the effective date of ASC 718 should be presented as a cash flow from financing activities and an operating cash outflow.

- For awards that were partially vested at or granted subsequent to the date of adoption of ASC 718, the existing provisions of ASC 718 should be applied. That is, any excess tax benefit should be determined as if the entity had always followed a fair-value-based method of recognizing compensation cost in its financial statements (i.e., considering both the pro forma compensation cost recognized in the pro forma disclosures and compensation cost recognized in the financial statements) and should be included as a cash inflow from financing activities and a cash outflow from operating activities within the statement of cash flows.
Complexities also arose for companies that adopted the provisions of ASC 718 using the prospective method (i.e., nonpublic entities that previously measured share-based payments for purposes of Statement 123 using the minimum value method). Specifically, how should those companies have calculated the excess tax benefits of awards that were granted prior to the effective date of ASC 718 for purposes of presentation as a financing activity in the statement of cash flows? We believed that such companies would be required to present all excess tax benefits recognized after the effective date of ASC 718 as financing activities. Further, we believed those excess tax benefits would be calculated based on the compensation cost actually recognized in the financial statements (i.e., unlike modified prospective adopters, they should not include in the calculation compensation cost that has only been reflected in the pro forma disclosures).
S14 Presentation and disclosure

S14.1 Presentation
ASC 718’s requirement that the compensation cost associated with share-based payments be recognized in the financial statements (eliminating the pro forma disclosure alternative) was a significant change in accounting for many companies. However, ASC 718 provides little guidance on how compensation cost arising from share-based payments should be presented in the financial statements. That guidance is limited to the balance sheet classification of awards (i.e., liability versus equity, as discussed in Chapter 5) and guidance indicating that compensation cost should be expensed or capitalized as appropriate (for a more detailed discussion of capitalizing compensation cost see Section S4.1.3).

S14.1.1 Income statement presentation
The SEC staff provided its views on the income statement classification of compensation expense relating to share-based payments in SAB Topic 14.F:

Excerpt from SAB Topic 14.F
The staff believes Company G should present the expense related to share-based payment arrangements in the same line or lines as cash compensation paid to the same employees. The staff believes a company could consider disclosing the amount of expense related to share-based payment arrangements included in specific line items in the financial statements. Disclosure of this information might be appropriate in a parenthetical note to the appropriate income statement line items, on the cash flow statement, in the footnotes to the financial statements, or within MD&A. [SAB Topic 14.F, Footnote 87 omitted]

A variety of practices have developed over the years in which companies highlighted share-based compensation cost in the statement of operations, including presenting such costs as a single line item, with a footnote on the face of the statement of operations that indicates to which individual line item the share-based compensation cost relates. As a result of the guidance in SAB Topic 14.F, we believe that presentation no longer is appropriate.

S14.1.2 Presentation in the statement of cash flows
The grant of equity instruments in exchange for services is a non-cash transaction and, therefore, not presented in the statement of cash flows (however, non-cash compensation cost should be reflected as an item reconciling net income to cash flow from operations when using the indirect method for presenting the statement of cash flows). However, the tax benefits associated with share-based payments and any cash paid by the employees for those instruments are reflected in the statement of cash flows.

Prior to ASC 718, the cash retained as a result of tax benefits relating to share-based payments was presented in operating cash flows, along with other tax cash flows. ASC 230 requires that excess tax benefits relating to share-based payments be presented in the statement of cash flows as financing cash inflows, with a corresponding operating cash outflow. As indicated in ASC 718-20-55-24, this presentation is required whether the
employer uses the direct or indirect method of presenting cash flows. Further, ASC 230-10-45-25 requires that the excess tax benefits classified as a reduction of operating cash flows be reported separately from taxes paid (gross presentation versus net) when presenting cash flows using the direct method.

For companies using the direct method of presenting the statement of cash flows, cash income taxes paid is disclosed as a separate line item. Because the amount of cash taxes paid reflects the benefit of excess tax benefits, those excess tax benefits also be must shown as a separate operating cash outflow so that operating cash flows excludes the effect of excess tax benefits.

For companies using the indirect method of presenting the statement of cash flows, the change in income taxes payable during the reporting period normally would be included in the reconciliation of net income to operating cash flows. Because the change in income taxes payable includes the effect of excess tax benefits, those excess tax benefits also must be shown as a separate operating cash outflow so that operating cash flows exclude the effect of excess tax benefits.

It should also be noted that the calculation of excess tax benefits that must be presented as a financing cash flow must be performed on an option-by-option basis. That is, while the credits recognized in additional paid-in capital during a reporting period (see Section S10.3) may be reduced by write-offs of deferred tax assets to additional paid-in capital (i.e., presented net), the amount presented in the statement of cash flows as a financing activity is based on a gross calculation without offset from any deferred tax asset write-offs to additional paid-in capital. Additional guidance regarding the calculation of these financing cash flows is provided in Section S10.3.1.1.

See Section S13.6.6 for a discussion of the transition to the presentation of excess tax benefits as financing activities in the statement of cash flows.

**S14.2 Disclosure requirements**

ASC 718-10-50-1 requires entities to provide disclosures with respect to share-based payments to employees and nonemployees that satisfy the following objectives:

<table>
<thead>
<tr>
<th>Excerpt from Accounting Standards Codification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation — Stock Compensation — Overall</td>
</tr>
<tr>
<td>Disclosure</td>
</tr>
<tr>
<td>718-10-50-1</td>
</tr>
<tr>
<td>An entity with one or more share-based payment arrangements shall disclose information that enables users of the financial statements to understand all of the following:</td>
</tr>
<tr>
<td>a. The nature and terms of such arrangements that existed during the period and the potential effects of those arrangements on shareholders</td>
</tr>
</tbody>
</table>
b. The effect of compensation cost arising from share-based payment arrangements on the income statement

c. The method of estimating the fair value of the goods or services received, or the fair value of the equity instruments granted (or offered to grant), during the period

d. The cash flow effects resulting from share-based payment arrangements.

This disclosure is not required for interim reporting. For interim reporting see Topic 270. See Example 9 (paragraph 718-10-55-134 through 55-137) for an illustration of this guidance.

_Equity – Equity-Based Payments to Non-Employees_

_Disclosure_

_505-50-50-1_

An entity that acquires goods or services other than employee services in share-based payment transactions shall provide disclosures similar to those required by paragraphs 718-10-50-1 through 50-2 to the extent that those disclosures are important to an understanding of the effects of those transactions on the financial statements.

Although ASC 718 appears to take a principles-based approach to disclosure requirements, the implementation guidance in ASC 718-10-50-2 expands on these requirements and provides several pages of detailed disclosure requirements described as the “minimum information” required to achieve the disclosure objectives described above.

_Excerpt from Accounting Standards Codification_

_718-10-50-2_

The following list indicates the minimum information needed to achieve the objectives in the preceding paragraph and illustrates how the disclosure requirements might be satisfied. In some circumstances, an entity may need to disclose information beyond the following to achieve the disclosure objectives:

a. A description of the share-based payment arrangement(s), including the general terms of awards under the arrangement(s), such as:

   1. The requisite service period(s) and any other substantive conditions (including those related to vesting)
   2. The maximum contractual term of equity (or liability) share options or similar instruments
   3. The number of shares authorized for awards of equity share options or other equity instruments.

b. The method it uses for measuring compensation cost from share-based payment arrangements with employees.
c. For the most recent year for which an income statement is provided, both of the following:

1. The number and weighted-average exercise prices (or conversion ratios) for each of the following groups of share options (or share units):
   i. Those outstanding at the beginning of the year
   ii. Those outstanding at the end of the year
   iii. Those exercisable or convertible at the end of the year
   iv. Those that during the year were:
      01. Granted
      02. Exercised or converted
      03. Forfeited
      04. Expired.

2. The number and weighted-average grant-date fair value (or calculated value for a nonpublic entity that uses that method or intrinsic value for awards measured pursuant to paragraph 718-10-30-21) of equity instruments not specified in (c)(1), for all of the following groups of equity instruments:
   i. Those nonvested at the beginning of the year
   ii. Those nonvested at the end of the year
   iii. Those that during the year were:
      01. Granted
      02. Vested
      03. Forfeited.

d. For each year for which an income statement is provided, both of the following:

1. The weighted-average grant-date fair value (or calculated value for a nonpublic entity that uses that method or intrinsic value for awards measured at that value pursuant to paragraphs 718-10-30-21 through 30-22) of equity options or other equity instruments granted during the year.

2. The total intrinsic value of options exercised (or share units converted), share-based liabilities paid, and the total fair value of shares vested during the year.

e. For fully vested share options (or share units) and share options expected to vest at the date of the latest statement of financial position, both of the following:
1. The number, weighted-average exercise price (or conversion ratio), aggregate intrinsic value (except for nonpublic entities), and weighted-average remaining contractual term of options (or share units) outstanding.

2. The number, weighted-average exercise price (or conversion ratio), aggregate intrinsic value (except for nonpublic entities), and weighted-average remaining contractual term of options (or share units) currently exercisable (or convertible).

f. For each year for which an income statement is presented, both of the following (An entity that uses the intrinsic value method pursuant to paragraphs 718-10-30-21 through 30-22 is not required to disclose the following information for awards accounted for under that method):

1. A description of the method used during the year to estimate the fair value (or calculated value) of awards under share-based payment arrangements.

2. A description of the significant assumptions used during the year to estimate the fair value (or calculated value) of share-based compensation awards, including (if applicable):
   i. Expected term of share options and similar instruments, including a discussion of the method used to incorporate the contractual term of the instruments and employees’ expected exercise and postvesting employment termination behavior into the fair value (or calculated value) of the instrument.
   ii. Expected volatility of the entity's shares and the method used to estimate it. An entity that uses a method that employs different volatilities during the contractual term shall disclose the range of expected volatilities used and the weighted-average expected volatility. A nonpublic entity that uses the calculated value method shall disclose the reasons why it is not practicable for it to estimate the expected volatility of its share price, the appropriate industry sector index that it has selected, the reasons for selecting that particular index, and how it has calculated historical volatility using that index.
   iii. Expected dividends. An entity that uses a method that employs different dividend rates during the contractual term shall disclose the range of expected dividends used and the weighted-average expected dividends.
   iv. Risk-free rate(s). An entity that uses a method that employs different risk-free rates shall disclose the range of risk-free rates used.
   v. Discount for post-vesting restrictions and the method for estimating it.

g. An entity that grants equity or liability instruments under multiple share-based payment arrangements with employees shall provide the information specified in paragraph (a) through (f) separately for different types of awards to the extent that the differences in the characteristics of the awards make separate disclosure important to an understanding of the entity's use of share-based compensation. For example, separate
disclosure of weighted-average exercise prices (or conversion ratios) at the end of the year for options (or share units) with a fixed exercise price (or conversion ratio) and those with an indexed exercise price (or conversion ratio) could be important. It also could be important to segregate the number of options (or share units) not yet exercisable into those that will become exercisable (or convertible) based solely on fulfilling a service condition and those for which a performance condition must be met for the options (share units) to become exercisable (convertible). It could be equally important to provide separate disclosures for awards that are classified as equity and those classified as liabilities. In addition, an entity that has multiple share-based payment arrangements with employees shall disclose information separately for different types of awards under those arrangements to the extent that differences in the characteristics of the awards make separate disclosure important to an understanding of the entity’s use of share-based compensation.

h. For each year for which an income statement is presented, both of the following:
   1. Total compensation cost for share-based payment arrangements
      i. Recognized in income as well as the total recognized tax benefit related thereto
      ii. Capitalized as part of the cost of an asset.
   2. A description of significant modifications, including:
      i. The terms of the modifications
      ii. The number of employees affected
      iii. The total incremental compensation cost resulting from the modifications.

i. As of the latest balance sheet date presented, the total compensation cost related to nonvested awards not yet recognized and the weighted-average period over which it is expected to be recognized

j. If not separately disclosed elsewhere, the amount of cash received from exercise of share options and similar instruments granted under share-based payment arrangements and the tax benefit realized from stock options exercised during the annual period

k. If not separately disclosed elsewhere, the amount of cash used to settle equity instruments granted under share-based payment arrangements

l. A description of the entity’s policy, if any, for issuing shares upon share option exercise (or share unit conversion), including the source of those shares (that is, new shares or treasury shares). If as a result of its policy, an entity expects to repurchase shares in the following annual period, the entity shall disclose an estimate of the amount (or a range, if more appropriate) of shares to be repurchased during that period.

Appendix D includes an example note to financial statements.
**S14.3 Interim disclosure requirements**

The disclosure requirements described in the preceding section apply only to disclosures in annual financial statements. ASC 718 does not explicitly require any disclosures relating to share-based payments in financial statements for interim periods. Rather, when the FASB originally deliberated they deferred to the disclosure requirements of ASC 270. In particular the FASB discussed that “some respondents said that certain of the minimum disclosures, such as the total amount of compensation cost, also should be required on a quarterly basis. The Board notes that paragraph 30 of Opinion 28 specifies information to be included in quarterly financial reports, including information about changes in accounting principles or estimates and significant changes in financial position. The Board concluded that this Statement should not specify information about share-based compensation arrangements to be provided quarterly. Rather, entities should look to the general requirements of Opinion 28. The Board also notes that entities for which share-based compensation cost is significant may wish to provide additional information, including the total amount of that cost, on a quarterly basis to help users better understand their quarterly financial reports.” (paragraph B239 of Statement 123(R))

Many companies grant a substantial portion of their share-based payments at a single time each year. In addition to the disclosures described above, we generally believe it would be appropriate for entities for which those annual grants have a significant effect on the financial statements to provide additional disclosures contemplated by ASC 718 in the interim period that those annual grants are made.

**S14.4 Disclosures required for accounting changes**

ASC 718-10-55-27 provides that “assumptions used to estimate the fair value of equity and liability instruments granted to employees shall be determined in a consistent manner from period to period...A change in either the valuation technique or the method of determining appropriate assumptions used in a valuation technique is a change in accounting estimate for purposes of applying Topic 250, and shall be applied prospectively to new awards."

The guidance in 718-10-55-27 should not be read to preclude changing assumptions from period to period when circumstances have changed or a refinement of the methodology used to develop assumptions is warranted, provided that the changes are believed to provide a better estimate of fair value. Further, it would not preclude a change in option-pricing model if the new model is expected to provide a better estimate of fair value (as would normally be the case if a change were made from using a Black-Scholes-Merton formula to a lattice model).

As previously indicated, a change in either the valuation technique or the method of determining appropriate assumptions for a valuation technique is a change in accounting estimate for purposes of applying ASC 250, and should be applied prospectively to new awards (unless, of course, the previous valuations were materially in error, in which case, the requirements relating to the correction of an error in ASC 250 must be applied). Accordingly, the disclosures required by ASC 250 must be provided for these changes in estimate. In that
regard, we believe companies should disclose the nature of the change and, if practicable, the effect of the change on income before extraordinary items, net income, and related per share amounts of the current period, as discussed in ASC 250-10-50-4 (e.g., by disclosing what the estimates of fair value would have been had the company used the prior methodology, and the amounts by which current year expense would have differed if the prior methodology had been used).

We believe judgment must be used to determine whether a change represents a refinement to the methodology that might not require disclosure as a change in accounting estimate (e.g., if the company begins to add the implied volatilities of longer-term options that recently began to trade to the implied volatilities of shorter-term options used previously to estimate expected volatility). However, in all cases, we believe that a change in methodology is appropriate only when the company believes the change will produce a better estimate of fair value.

In addition to the disclosures required by ASC 250 for changes in estimates, public companies should consider whether additional disclosure is required in MD&A to the extent that the change in estimate had a material impact on the company’s results of operations.

**S14.5 Disclosure in management’s discussion and analysis**

In SAB Topic 14.M, the SEC staff provided the following guidance regarding matters related to share-based payments that registrants should consider disclosing in MD&A:

<table>
<thead>
<tr>
<th>Excerpt from SAB Topic 14.M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question: What disclosures should companies consider including in MD&amp;A to highlight the effects of 1) differences between the accounting for share-based payment arrangements before and after the adoption of Statement 123R and 2) changes to share-based payment arrangements?</td>
</tr>
<tr>
<td>Interpretive Response: As stated in SEC Release FR-72, the principal objectives of MD&amp;A are to give readers a view of a company through the eyes of management, to provide the context within which financial information should be analyzed and to provide information about the quality of, and potential variability of, a company’s earnings and cash flow, so that investors can ascertain the likelihood that past performance is indicative of future performance. The adoption of Statement 123R may result in significant differences between the financial statements of periods before and after the adoption, especially for companies with significant share-based compensation programs that have followed the recognition provisions of Opinion 25 or that adopted the fair-value based method for financial statement recognition in accordance with Statement 123 using the prospective method permitted by Statement 148. Furthermore, the staff understands that companies may refine their estimates of assumptions as a result of implementing Statement 123R and the interpretive guidance provided in this SAB. In addition, the staff understands that many companies are evaluating their share-based payment arrangements and making changes to those arrangements.</td>
</tr>
</tbody>
</table>
Each of these situations may affect the comparability of financial statements. Accordingly, to assist investors and other users of financial statements in understanding the financial results of a company that has adopted Statement 123R, the staff believes that companies should consider including in MD&A material qualitative and quantitative information about any of the following, as well as other information that could affect comparability of financial statements from period to period:

- Transition method selected (e.g., modified prospective application or modified retrospective application) and the resulting financial statement impact in current and future reporting periods;
- Method utilized by the company to account for share-based payment arrangements in periods prior to the adoption of Statement 123R and the impact, or lack thereof, on the prior period financial statements;
- Modifications made to outstanding share options prior to the adoption of Statement 123R and the reason(s) for the modification;
- Differences in valuation methodologies or assumptions compared to those that were used in estimating the fair value of share options under Statement 123;
- Changes in the quantity or type of instruments used in share-based payment programs, such as a shift from share options to restricted shares;
- Changes in the terms of share-based payment arrangements, such as the addition of performance conditions;
- A discussion of the one-time effect, if any, of the adoption of Statement 123R, such as any cumulative adjustments recorded in the financial statements; and
- Total compensation cost related to nonvested awards not yet recognized and the weighted average period over which it is expected to be recognized. [SAB Topic 14.M]

Additionally, as described below, companies should consider disclosure of the method used to estimate expected volatility within their discussion of critical accounting policies in MD&A. Companies should also consider providing a sensitivity analysis in their critical accounting policies that describes the impact of changes in option-pricing model inputs (e.g., expected volatility and expected term) on the measurement of compensation cost.

**Excerpt from SAB Topic 14.D.1**

Question 5: What disclosures would the staff expect Company B to include in its financial statements and MD&A regarding its assumption of expected volatility?

Interpretive Response: Statement 123R, paragraph A240, prescribes the minimum information needed to achieve the Statement’s disclosure objectives. Under that guidance, Company B is required to disclose the expected volatility and the method used to estimate it. Accordingly, the staff expects that at a minimum Company B would disclose in a footnote to its financial statements how it determined the expected volatility assumption for purposes
of determining the fair value of its share options in accordance with Statement 123R. For example, at a minimum, the staff would expect Company B to disclose whether it used only implied volatility, historical volatility, or a combination of both.

In addition, Company B should consider the applicability of SEC Release No. FR 60 and Section V, “Critical Accounting Estimates,” in SEC Release No. FR-72 regarding critical accounting policies and estimates in MD&A. The staff would expect such disclosures to include an explanation of the method used to estimate the expected volatility of its share price. This explanation generally should include a discussion of the basis for the company’s conclusions regarding the extent to which it used historical volatility, implied volatility or a combination of both. A company could consider summarizing its evaluation of the factors listed in Questions 2 and 3 of this section as part of these disclosures in MD&A. [SAB Topic 14.D.1, Footnotes 57 and 58 omitted]

Nonpublic companies that previously adopted ASC 718 and measured employee stock options using the calculated-value method or liabilities using the intrinsic value method will be required to measure such awards based on their fair values after becoming a public company (the change would apply prospectively to equity awards, and immediately to liability awards). The SEC staff’s recommendations for disclosure in MD&A in those circumstances are described in Section S13.6.1.2.

**S14.6 Non-GAAP financial measures**

In SAB Topic 14.G the SEC staff provided specific guidance on how the SEC’s rules dealing with disclosure of non-GAAP financial information apply to presentations of operating results that exclude compensation cost resulting from share-based payments. The SEC staff clarified that such a measure would be considered a non-GAAP financial measure under Regulation G:

**Excerpt from SAB Topic 14.G**

Facts: Company H, a calendar year company, adopts Statement 123R as of July 1, 2005. Company H has issued share options to its employees each year since issuing publicly traded stock twenty years ago. In the MD&A section of its 2005 Form 10-K, Company H believes it would be useful to investors to disclose what net income would be before considering the effect of accounting for share-based payment transactions in accordance with Statement 123R.

Question 1: Does the resulting measure, “Net Income Before Share-Based Payment Charge,” or an equivalent measure, meet the definition of a non-GAAP measure in Regulation G and Item 10(e) of Regulation S-K?88

Interpretive response: Yes. Because the financial measure Company H is considering excludes an amount (share-based payment expense) that is included in the most directly comparable measure calculated and presented in accordance with GAAP (net income), it would be considered a non-GAAP financial measure pursuant to the provisions of Regulation G and Item 10(e) of Regulation S-K. [SAB Topic 14.G, Footnote 88 omitted]
Question 102.03 of the Division of Corporation Finance’s Compliance and Disclosure Interpretations provides further information regarding the disclosure of non-GAAP financial measures (non-GAAP C&DIs) that exclude recurring items.

**Non-GAAP C&DI 102.03**

**Question:** Item 10(e) of Regulation S-K prohibits adjusting a non-GAAP financial performance measure to eliminate or smooth items identified as non-recurring, infrequent or unusual, when the nature of the charge or gain is such that it is reasonably likely to recur within two years or there was a similar charge or gain within the prior two years. Is this prohibition based on the description of the charge or gain, or is it based on the nature of the charge or gain?

**Answer:** The prohibition is based on the description of the charge or gain that is being adjusted. It would not be appropriate to state that a charge or gain is non-recurring, infrequent or unusual unless it meets the specified criteria. The fact that a registrant cannot describe a charge or gain as non-recurring, infrequent or unusual, however, does not mean that the registrant cannot adjust for that charge or gain. Registrants can make adjustments they believe are appropriate, subject to Regulation G and the other requirements of Item 10(e) of Regulation S-K. [Jan. 11, 2010]

Our experience is that the SEC staff is highly skeptical of disclosure of an operating measure that excludes compensation cost resulting from share-based payments and, generally, has objected to its presentation because the SEC staff did not believe that all of the requirements of Regulation G were met. However, assuming a registrant is able to demonstrate the usefulness of such information as well as its compliance with Regulation G, the SEC staff provided the following guidance regarding how the non-GAAP measure should be presented. In no circumstances would a measure of operating results that excludes compensation cost for share-based payments be permitted to be presented on the face of the income statement or in the accompanying notes to the financial statements or in a pro forma financial statement.

**Excerpt from SAB Topic 14.G**

Question 3: How could Company H demonstrate the effect of accounting for share-based payment transactions in accordance with Statement 123R and Regulation G and Item 10(e) of Regulation S-K in its Form 10-K?

Interpretive response: The staff believes that including a discussion in MD&A addressing significant trends and variability of a company’s earnings and changes in the significant components of certain line items is important to assist an investor in understanding the company’s performance. The staff also understands that expenses from share-based payments might vary in different ways and for different reasons than would other expenses. In particular, the staff believes Company H’s investors would be well served by disclosure in MD&A that explains the components of the company’s expenses, including, if material, identification of the amount of expense associated with share-based payment transactions and discussion of the reasons why such amounts have fluctuated from period to period. [SAB Topic 14.G]
Question 4: Would the staff object to Company H including a pro-forma income statement in its SEC filings that removes from net income the effects of accounting for share-based payment arrangements in accordance with Statement 123R?

Interpretive response: Yes. Removal of the effects of accounting for share-based payment arrangements in accordance with Statement 123R would not meet any of the conditions in Rule 11-01(a) of Regulation S-X for presentation of pro forma financial information. Further, the removal of the effects of accounting for share-based payment arrangements in accordance with Statement 123R would not meet any of the conditions in Rule 11-02(b)(6) of Regulation S-X to be reflected as a pro forma adjustment in circumstances where pro forma financial information is required under Rule 11-01(a) of Regulation S-X for other transactions such as recent or probable business combinations.

In addition, Item 10(e) of Regulation S-X prohibits presenting non-GAAP financial measures on the face of any pro forma financial information required to be disclosed by Article 11 of Regulation S-X. Further, a company may not present non-GAAP financial measures on the face of the company’s financial statements prepared in accordance with GAAP or in the accompanying notes. [SAB Topic 14.G]
## Appendix A: Abbreviations used in this publication

### Abbreviation

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASC 230</td>
<td>FASB ASC Topic 230, Statement of Cash Flows</td>
</tr>
<tr>
<td>ASC 250</td>
<td>FASB ASC Topic 250, Accounting Changes and Error Corrections</td>
</tr>
<tr>
<td>ASC 260</td>
<td>FASB ASC Topic 260, Earnings Per Share</td>
</tr>
<tr>
<td>ASC 270</td>
<td>FASB ASC Topic 270, Interim Reporting</td>
</tr>
<tr>
<td>ASC 275</td>
<td>FASB ASC Topic 275, Risks and Uncertainties</td>
</tr>
<tr>
<td>ASC 320</td>
<td>FASB ASC Topic 320, Investments – Debt and Equity Securities</td>
</tr>
<tr>
<td>ASC 323</td>
<td>FASB ASC Topic 323, Investments – Equity Method and Joint Ventures</td>
</tr>
<tr>
<td>ASC 410</td>
<td>FASB ASC Topic 410, Asset Retirement and Environmental Obligations</td>
</tr>
<tr>
<td>ASC 480</td>
<td>FASB ASC Topic 480, Debt</td>
</tr>
<tr>
<td>ASC 505</td>
<td>FASB ASC Topic 505, Equity</td>
</tr>
<tr>
<td>ASC 710</td>
<td>FASB ASC Topic 710, Compensation – General</td>
</tr>
<tr>
<td>ASC 718</td>
<td>FASB ASC Topic 718, Compensation – Stock Compensation</td>
</tr>
<tr>
<td>ASC 740</td>
<td>FASB ASC Topic 740, Income Taxes</td>
</tr>
<tr>
<td>ASC 805</td>
<td>FASB ASC Topic 805, Business Combinations</td>
</tr>
<tr>
<td>ASC 810</td>
<td>FASB ASC Topic 810, Consolidation</td>
</tr>
<tr>
<td>ASC 815</td>
<td>FASB ASC Topic 815, Derivatives and Hedging</td>
</tr>
<tr>
<td>ASC 820</td>
<td>FASB ASC Topic 820, Fair Value Measurements and Disclosures</td>
</tr>
<tr>
<td>ASC 852</td>
<td>FASB ASC Topic 852, Reorganizations</td>
</tr>
<tr>
<td>ASC 860</td>
<td>FASB ASC Topic 860, Transfers and Servicing</td>
</tr>
<tr>
<td>ASC 946</td>
<td>FASB ASC Topic 946, Financial Services – Investment Companies</td>
</tr>
</tbody>
</table>

### Abbreviation

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAB Topic 14</td>
<td>SEC Staff Accounting Bulletin Topic 14, Share-Based Payment</td>
</tr>
<tr>
<td>ASR 268</td>
<td>SEC Accounting Series Release No. 268, Presentation in Financial Statements of “Re redeemable Preferred Stocks”</td>
</tr>
</tbody>
</table>

### Abbreviation

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTB 97-1</td>
<td>FASB Technical Bulletin No. 97-1, Accounting under Statement 123 for Certain Employee Stock Purchase Plans with a Look-Back Option</td>
</tr>
<tr>
<td>Interpretation 44</td>
<td>FASB Interpretation No. 44, Accounting for Certain Transactions Involving Stock Compensation</td>
</tr>
<tr>
<td>Issue 00-23</td>
<td>EITF Issue No. 00-23, “Issues Related to the Accounting for Stock Compensation under APB Opinion No. 25 and FASB Interpretation No. 44”</td>
</tr>
<tr>
<td>Opinion 25</td>
<td>APB Opinion No. 25, Accounting for Stock Issued to Employees</td>
</tr>
<tr>
<td>Opinion 28</td>
<td>APB Opinion No. 28, Interim Financial Reporting</td>
</tr>
<tr>
<td>Practice Aid</td>
<td>2004 AICPA Practice Aid, “Valuation of Privately-Held-Company Equity Securities Issued as Compensation”</td>
</tr>
<tr>
<td>Statement 123</td>
<td>FASB Statement No. 123, Accounting for Stock-Based Compensation</td>
</tr>
<tr>
<td>Statement 123(R)</td>
<td>FASB Statement No. 123 (revised 2004), Share-Based Payment</td>
</tr>
</tbody>
</table>
Appendix B: Index of ASC References in this publication

<table>
<thead>
<tr>
<th>ASC Paragraph</th>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>230-10-45-25</td>
<td>S14.1.2</td>
<td>Presentation in the statement of cash flows</td>
</tr>
<tr>
<td>250-10-50-4</td>
<td>S7.2.3.2</td>
<td>Changing option-pricing models or input assumptions</td>
</tr>
<tr>
<td>250-10-50-4</td>
<td>S14.5</td>
<td>Disclosures required for accounting changes</td>
</tr>
<tr>
<td>260-10-45-25</td>
<td>S11.2.2.2</td>
<td>Out-of-the-money options for which adjustments to assumed proceeds results in an “in-the-money option”</td>
</tr>
<tr>
<td>260-10-45-28</td>
<td>S11.1</td>
<td>Overview</td>
</tr>
<tr>
<td>260-10-45-28A</td>
<td>S11.2</td>
<td>Employee stock options – the treasury method</td>
</tr>
<tr>
<td>260-10-45-28B</td>
<td>S11.2</td>
<td>Employee stock options – the treasury method</td>
</tr>
<tr>
<td>260-10-45-29</td>
<td>S11.2</td>
<td>Employee stock options – the treasury method</td>
</tr>
<tr>
<td>260-10-45-29A</td>
<td>S11.2.3</td>
<td>Effect of forfeitures on diluted EPS</td>
</tr>
<tr>
<td>260-10-45-30</td>
<td>S11.5</td>
<td>Awards that may be settled in stock or cash</td>
</tr>
<tr>
<td>260-10-45-31</td>
<td>S11.4</td>
<td>Awards that vest or become exercisable based on the achievement of performance or market conditions</td>
</tr>
<tr>
<td>260-10-45-32</td>
<td>S11.4</td>
<td>Awards that vest or become exercisable based on the achievement of performance or market conditions</td>
</tr>
<tr>
<td>260-10-45-45</td>
<td>S11.5</td>
<td>Awards that may be settled in stock or cash</td>
</tr>
<tr>
<td>260-10-45-46</td>
<td>S11.5</td>
<td>Awards that may be settled in stock or cash</td>
</tr>
<tr>
<td>260-10-45-59A</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-45-60</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-45-60A</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-45-60B</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-45-61</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-45-61A</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-45-62</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-45-62A</td>
<td>S11.8.1</td>
<td>Determining whether a nonvested share-based payment award is a participating security</td>
</tr>
<tr>
<td>260-10-45-63</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-45-64</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-45-65</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>ASC Paragraph</td>
<td>Section</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>260-10-45-66</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-45-67</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-45-67</td>
<td>S11.8.2</td>
<td>Allocation of earnings and losses</td>
</tr>
<tr>
<td>260-10-45-68</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-45-68</td>
<td>S11.8.2</td>
<td>Allocation of earnings and losses</td>
</tr>
<tr>
<td>260-10-45-68B</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-45-68B</td>
<td>S11.8.2</td>
<td>Allocation of earnings and losses</td>
</tr>
<tr>
<td>260-10-45-69</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-45-70</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-55-12</td>
<td>S11.8.9</td>
<td>Equity restructurings</td>
</tr>
<tr>
<td>260-10-55-23A</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-55-24</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-55-25</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-55-26</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-55-27</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-55-28</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-55-29</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-55-30</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-55-31</td>
<td>S11.8</td>
<td>Participating share-based payment awards and the two-class method</td>
</tr>
<tr>
<td>260-10-55-33</td>
<td>S11.5</td>
<td>Awards that may be settled in stock or cash</td>
</tr>
<tr>
<td>260-10-55-36</td>
<td>S11.5</td>
<td>Awards that may be settled in stock or cash</td>
</tr>
<tr>
<td>260-10-55-68</td>
<td>S11.2.4</td>
<td>Example calculation of the dilutive effect of employee stock options</td>
</tr>
<tr>
<td>260-10-55-69</td>
<td>S11.2.4</td>
<td>Example calculation of the dilutive effect of employee stock options</td>
</tr>
<tr>
<td>ASC Paragraph</td>
<td>Section</td>
<td>Reference</td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
<td>-----------</td>
</tr>
<tr>
<td>260-10-55-70</td>
<td>S11.2.4</td>
<td>Example calculation of the dilutive effect of employee stock options</td>
</tr>
<tr>
<td>260-10-55-76A</td>
<td>S11.8.4</td>
<td>Changes in forfeiture rates</td>
</tr>
<tr>
<td>260-10-65-1</td>
<td>S3.6.1</td>
<td>Dividend equivalents paid on equity instruments prior to vesting</td>
</tr>
<tr>
<td>260-10-S99-2</td>
<td>S5.3.3</td>
<td>Accounting for modifications of share-based payments that become subject to other literature</td>
</tr>
<tr>
<td>323-10-55-20</td>
<td>S2.4.3</td>
<td>Accounting by the other investors</td>
</tr>
<tr>
<td>323-10-55-21</td>
<td>S2.4.3</td>
<td>Accounting by the other investors</td>
</tr>
<tr>
<td>323-10-55-22</td>
<td>S2.4.3</td>
<td>Accounting by the other investors</td>
</tr>
<tr>
<td>323-10-55-23</td>
<td>S2.4.3</td>
<td>Accounting by the other investors</td>
</tr>
<tr>
<td>323-10-55-24</td>
<td>S2.4.3</td>
<td>Accounting by the other investors</td>
</tr>
<tr>
<td>323-10-55-25</td>
<td>S2.4.3</td>
<td>Accounting by the other investors</td>
</tr>
<tr>
<td>323-10-55-26</td>
<td>S2.4.3</td>
<td>Accounting by the other investors</td>
</tr>
<tr>
<td>480-10-65-1</td>
<td>S5.2.2</td>
<td>Applying the classification criteria in ASC 480</td>
</tr>
<tr>
<td>480-10-S99-1</td>
<td>S5.2.3.5</td>
<td>Application of ASR 268 (temporary equity) by SEC registrants</td>
</tr>
<tr>
<td>480-10-S99-3A</td>
<td>S5.2.3.5</td>
<td>Application of ASR 268 (temporary equity) by SEC registrants</td>
</tr>
<tr>
<td>480-10-S99-3A</td>
<td>S5.2.3.5.2</td>
<td>Application of ASR 268 (temporary equity) by SEC registrants</td>
</tr>
<tr>
<td>480-10-S99-3A</td>
<td>S5.2.3.5.3</td>
<td>Contingent redemption</td>
</tr>
<tr>
<td>480-10-S99-3A</td>
<td>S5.2.3.5.4</td>
<td>Accounting for changes in amounts classified as temporary equity</td>
</tr>
<tr>
<td>480-10-S99-3A(3)(d)</td>
<td>S5.2.3.5.7</td>
<td>Exceptions to the requirements of distinguishing liabilities from equity</td>
</tr>
<tr>
<td>480-10-S99-3A(3)(d)</td>
<td>S9.5.1.3</td>
<td>Application of ASR 268 to nonemployee awards</td>
</tr>
<tr>
<td>480-10-S99-3A(12)</td>
<td>S5.2.3.5.2</td>
<td>Application of ASR 268 (temporary equity) by SEC registrants</td>
</tr>
<tr>
<td>480-10-S99-3A(15)</td>
<td>S5.2.3.5.3</td>
<td>Contingent redemption</td>
</tr>
<tr>
<td>480-10-S99-3A(21)</td>
<td>S5.2.3.5.4</td>
<td>Accounting for changes in amounts classified as temporary equity</td>
</tr>
<tr>
<td>505-50-30-5</td>
<td>S9.4</td>
<td>Measurement approach</td>
</tr>
<tr>
<td>505-50-30-6</td>
<td>S9.4</td>
<td>Measurement approach</td>
</tr>
<tr>
<td>505-50-30-11</td>
<td>S3.9.1.2</td>
<td>An employee becomes a nonemployee</td>
</tr>
<tr>
<td>505-50-50-1</td>
<td>S14.2</td>
<td>Disclosure requirements</td>
</tr>
<tr>
<td>505-50-55-13</td>
<td>S9.6</td>
<td>Illustrative examples</td>
</tr>
<tr>
<td>505-50-55-14</td>
<td>S9.6</td>
<td>Illustrative examples</td>
</tr>
<tr>
<td>505-50-S99-1</td>
<td>S3.10</td>
<td>Balance sheet presentation of equity awards</td>
</tr>
<tr>
<td>ASC Paragraph</td>
<td>Section</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>505-50-S99-1</td>
<td>S9.5.1.1</td>
<td>Balance sheet presentation of nonvested equity instruments</td>
</tr>
<tr>
<td>718-10-10-1</td>
<td>S3.2.1</td>
<td>Employee services received versus equity instruments issued</td>
</tr>
<tr>
<td>718-10-15-3</td>
<td>S2.1</td>
<td>Transactions subject to ASC 718</td>
</tr>
<tr>
<td>718-10-15-4</td>
<td>S2.3</td>
<td>Certain transactions with related parties and other economic interest holders</td>
</tr>
<tr>
<td>718-10-15-5</td>
<td>S2.1</td>
<td>Transactions subject to ASC 718</td>
</tr>
<tr>
<td>718-10-15-7</td>
<td>S2.1</td>
<td>Transactions subject to ASC 718</td>
</tr>
<tr>
<td>718-10-25-3</td>
<td>S3.7</td>
<td>Nonrecourse notes</td>
</tr>
<tr>
<td>718-10-25-4</td>
<td>S3.7</td>
<td>Nonrecourse notes</td>
</tr>
<tr>
<td>718-10-25-5</td>
<td>S3.3.1.1.1</td>
<td>Practical accommodation regarding the concept of mutual understanding</td>
</tr>
<tr>
<td>718-10-25-7</td>
<td>S5.2.2</td>
<td>Applying the classification criteria in ASC 480</td>
</tr>
<tr>
<td>718-10-25-8</td>
<td>S5.2.2</td>
<td>Applying the classification criteria in ASC 480</td>
</tr>
<tr>
<td>718-10-25-9</td>
<td>S5.2.3</td>
<td>Classification of awards that include share repurchase features</td>
</tr>
<tr>
<td>718-10-25-9(a)</td>
<td>S5.2.3.1</td>
<td>Employee has the right to put shares</td>
</tr>
<tr>
<td>718-10-25-9(a)</td>
<td>S5.2.3.3</td>
<td>Repurchase right is contingent</td>
</tr>
<tr>
<td>718-10-25-9(b)</td>
<td>S5.2.3.2</td>
<td>Employer has the right to call shares</td>
</tr>
<tr>
<td>718-10-25-9(b)</td>
<td>S5.2.3.3</td>
<td>Repurchase right is contingent</td>
</tr>
<tr>
<td>718-10-25-10</td>
<td>S5.2.3</td>
<td>Classification of awards that include share repurchase features</td>
</tr>
<tr>
<td>718-10-25-11</td>
<td>S5.2.1.1</td>
<td>Accounting for contingently redeemable options and similar instruments</td>
</tr>
<tr>
<td>718-10-25-12</td>
<td>S5.2.1.1</td>
<td>Accounting for contingently redeemable options and similar instruments</td>
</tr>
<tr>
<td>718-10-25-13</td>
<td>S5.2.4</td>
<td>Awards with conditions other than market, performance, or service conditions</td>
</tr>
<tr>
<td>718-10-25-13</td>
<td>S5.2.4.1</td>
<td>Options that can be exercised in a foreign currency</td>
</tr>
<tr>
<td>718-10-25-14</td>
<td>S5.2.4.1</td>
<td>Options that can be exercised in a foreign currency</td>
</tr>
<tr>
<td>718-10-25-14A</td>
<td>S5.2.4.1</td>
<td>Options that can be exercised in a foreign currency</td>
</tr>
<tr>
<td>718-10-25-15</td>
<td>S5.2.5</td>
<td>Substantive terms may cause liability classification</td>
</tr>
<tr>
<td>718-10-25-15</td>
<td>S5.2.5.1</td>
<td>Awards for which the employer can choose cash or share settlement</td>
</tr>
<tr>
<td>718-10-25-16</td>
<td>S5.2.6.1</td>
<td>Net-share settlement and broker-assisted cashless exercises</td>
</tr>
<tr>
<td>718-10-25-17</td>
<td>S5.2.6.1</td>
<td>Net-share settlement and broker-assisted cashless exercises</td>
</tr>
<tr>
<td>ASC Paragraph</td>
<td>Section</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>----------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>718-10-25-18</td>
<td>S5.2.6.2</td>
<td>Tendering shares to satisfy minimum statutory withholding requirements</td>
</tr>
<tr>
<td>718-10-25-18</td>
<td>S5.2.6.2.1</td>
<td>Hypothetical minimum statutory withholding for expatriot employees</td>
</tr>
<tr>
<td>718-10-25-19</td>
<td>S5.2.6.2</td>
<td>Tendering shares to satisfy minimum statutory withholding requirements</td>
</tr>
<tr>
<td>718-10-25-19</td>
<td>S5.2.6.2.1</td>
<td>Hypothetical minimum statutory withholding for expatriot employees</td>
</tr>
<tr>
<td>718-10-25-20</td>
<td>S4.4.2</td>
<td>Performance conditions</td>
</tr>
<tr>
<td>718-10-25-21</td>
<td>S4.4</td>
<td>Effect of service, performance, and market conditions on recognition of compensation cost</td>
</tr>
<tr>
<td>718-10-25-22</td>
<td>S8.8.1.1</td>
<td>Recognition of payroll taxes on options exchanged in a business combination</td>
</tr>
<tr>
<td>718-10-25-22</td>
<td>S10.8</td>
<td>Accounting for a change in the tax status of an award (e.g., disqualifying disposition)</td>
</tr>
<tr>
<td>718-10-25-23</td>
<td>S10.8</td>
<td>Accounting for a change in the tax status of an award (e.g., disqualifying disposition)</td>
</tr>
<tr>
<td>718-10-30-2</td>
<td>S3.2.1</td>
<td>Employee services received versus equity instruments issued</td>
</tr>
<tr>
<td>718-10-30-3</td>
<td>S3.2.2</td>
<td>Fair-value-based measurement</td>
</tr>
<tr>
<td>718-10-30-4</td>
<td>S3.2.2</td>
<td>Fair-value-based measurement</td>
</tr>
<tr>
<td>718-10-30-5</td>
<td>S3.7</td>
<td>Nonrecourse notes</td>
</tr>
<tr>
<td>718-10-30-7</td>
<td>S6.5</td>
<td>Stock options and stock appreciation rights</td>
</tr>
<tr>
<td>718-10-30-8</td>
<td>S6.5</td>
<td>Stock options and stock appreciation rights</td>
</tr>
<tr>
<td>718-10-30-9</td>
<td>S6.5</td>
<td>Stock options and stock appreciation rights</td>
</tr>
<tr>
<td>718-10-30-10</td>
<td>S6.3</td>
<td>How various terms are incorporated into the valuation</td>
</tr>
<tr>
<td>718-10-30-10</td>
<td>S6.3.2.2</td>
<td>Impact of nontransferability or nonhedgeability of options</td>
</tr>
<tr>
<td>718-10-30-11</td>
<td>S6.3.1</td>
<td>Nontransferability and nonhedgeability during the vesting period</td>
</tr>
<tr>
<td>718-10-30-12</td>
<td>S3.4.1</td>
<td>Overview</td>
</tr>
<tr>
<td>718-10-30-14</td>
<td>S3.4.1</td>
<td>Overview</td>
</tr>
<tr>
<td>718-10-30-14</td>
<td>S6.3.3</td>
<td>Market conditions</td>
</tr>
<tr>
<td>718-10-30-15</td>
<td>S3.4.3.3</td>
<td>Performance (or service) conditions that affect factors other than vesting or exercisability</td>
</tr>
<tr>
<td>718-10-30-15</td>
<td>S4.4.4</td>
<td>Service, performance, and market conditions that affect factors other than vesting or exercisability</td>
</tr>
<tr>
<td>718-10-30-17</td>
<td>S6.4.2</td>
<td>Stock awards with vesting conditions</td>
</tr>
<tr>
<td>ASC Paragraph</td>
<td>Section</td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>718-10-30-19</td>
<td>S6.4.3</td>
<td></td>
</tr>
<tr>
<td>718-10-30-20</td>
<td>S3.2.4.1</td>
<td></td>
</tr>
<tr>
<td>718-10-30-20</td>
<td>S6.5.1.1</td>
<td></td>
</tr>
<tr>
<td>718-10-30-21</td>
<td>S3.2.3</td>
<td></td>
</tr>
<tr>
<td>718-10-30-21</td>
<td>S12.2</td>
<td></td>
</tr>
<tr>
<td>718-10-30-22</td>
<td>S12.2</td>
<td></td>
</tr>
<tr>
<td>718-10-30-23</td>
<td>S3.5.1</td>
<td></td>
</tr>
<tr>
<td>718-10-30-23</td>
<td>S6.3.4</td>
<td></td>
</tr>
<tr>
<td>718-10-30-23</td>
<td>S7.4.3</td>
<td></td>
</tr>
<tr>
<td>718-10-30-24</td>
<td>S3.5.2</td>
<td></td>
</tr>
<tr>
<td>718-10-30-24</td>
<td>S6.3.5</td>
<td></td>
</tr>
<tr>
<td>718-10-30-27</td>
<td>S3.4.1</td>
<td></td>
</tr>
<tr>
<td>718-10-30-27</td>
<td>S4.4.3.3</td>
<td></td>
</tr>
<tr>
<td>718-10-35-2</td>
<td>S4.1</td>
<td></td>
</tr>
<tr>
<td>718-10-35-3</td>
<td>S4.1.2.1</td>
<td></td>
</tr>
<tr>
<td>718-10-35-4</td>
<td>S3.4.1</td>
<td></td>
</tr>
<tr>
<td>718-10-35-4</td>
<td>S4.4.3.3</td>
<td></td>
</tr>
<tr>
<td>718-10-35-5</td>
<td>S4.2.1</td>
<td></td>
</tr>
<tr>
<td>718-10-35-6</td>
<td>S4.3.2</td>
<td></td>
</tr>
<tr>
<td>718-10-35-7</td>
<td>S4.5</td>
<td></td>
</tr>
<tr>
<td>718-10-35-8</td>
<td>S4.4.1.4</td>
<td></td>
</tr>
<tr>
<td>718-10-35-8</td>
<td>S4.4.1.5</td>
<td></td>
</tr>
<tr>
<td>718-10-35-9</td>
<td>S5.2.2</td>
<td></td>
</tr>
<tr>
<td>718-10-35-9</td>
<td>S5.3.1</td>
<td></td>
</tr>
<tr>
<td>718-10-35-10</td>
<td>S5.2.2</td>
<td></td>
</tr>
<tr>
<td>718-10-35-10</td>
<td>S5.3.1</td>
<td></td>
</tr>
<tr>
<td>718-10-35-11</td>
<td>S5.2.2</td>
<td></td>
</tr>
<tr>
<td>718-10-35-12</td>
<td>S5.2.2</td>
<td></td>
</tr>
<tr>
<td>718-10-35-13</td>
<td>S5.3.3</td>
<td></td>
</tr>
<tr>
<td>718-10-35-13</td>
<td>S9.1.2.2</td>
<td></td>
</tr>
</tbody>
</table>

Stock awards with post-vesting restrictions
Calculated value
Use of “calculated value”
If a company cannot reasonably estimate fair value
Valuation of ESPPs (including look-back options)
Valuation of ESPPs (including look-back options)
Reload options
Reload features
Valuation of awards that contain reload features
Contingent features
Certain contingent features (e.g., clawbacks)
Overview
Recognizing compensation cost for an award with a market condition
Must estimate the number of instruments for which the requisite service will be provided
Overview
Recognizing compensation cost for an award with a market condition
Definition of requisite service period and requisite service
Accounting for an award when the service inception date precedes the grant date
Accounting for changes in the requisite service period
Accounting for awards subject to graded vesting
Accounting for an award with graded vesting and all substantive terms are not known at the agreement date
Applying the classification criteria in ASC 480
Determining when an award becomes subject to other accounting literature
Applying the classification criteria in ASC 480
Determining when an award becomes subject to other accounting literature
Applying the classification criteria in ASC 480
Applying the classification criteria in ASC 480
Accounting for modifications of share-based payments that become subject to other literature
Classification of share-based payments to nonemployees
<table>
<thead>
<tr>
<th>ASC Paragraph</th>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>718-10-35-14</td>
<td>S5.2.2</td>
<td>Applying the classification criteria in ASC 480</td>
</tr>
<tr>
<td>718-10-35-14</td>
<td>S5.3.3</td>
<td>Accounting for modifications of share-based payments that become subject to other literature</td>
</tr>
<tr>
<td>718-10-35-15</td>
<td>S5.2.1.1</td>
<td>Accounting for contingently redeemable options and similar instruments</td>
</tr>
<tr>
<td>718-10-35-15</td>
<td>S5.2.5.1</td>
<td>Awards for which the employer can choose cash or share settlement</td>
</tr>
<tr>
<td>718-10-45-1</td>
<td>S11.2.3</td>
<td>Effects of forfeitures on diluted EPS</td>
</tr>
<tr>
<td>718-10-50-1</td>
<td>S14.2</td>
<td>Disclosure requirements</td>
</tr>
<tr>
<td>718-10-50-2</td>
<td>S14.2</td>
<td>Disclosure requirements</td>
</tr>
<tr>
<td>718-10-55-1</td>
<td>S3.2.4.1</td>
<td>Calculated value</td>
</tr>
<tr>
<td>718-10-55-4</td>
<td>S7.3</td>
<td>Selecting option-pricing model input assumptions</td>
</tr>
<tr>
<td>718-10-55-5</td>
<td>S6.3.2.1</td>
<td>Impact of nontransferability or nonhedgeability of shares</td>
</tr>
<tr>
<td>718-10-55-5</td>
<td>S7.4.4</td>
<td>Options on restricted stock</td>
</tr>
<tr>
<td>718-10-55-6</td>
<td>S7.4.4</td>
<td>Options on restricted stock</td>
</tr>
<tr>
<td>718-10-55-7</td>
<td>S7.4.4</td>
<td>Options on restricted stock</td>
</tr>
<tr>
<td>718-10-55-8</td>
<td>S6.3.5</td>
<td>Certain contingent features (e.g., clawbacks)</td>
</tr>
<tr>
<td>718-10-55-10</td>
<td>S6.2</td>
<td>Fair-value hierarchy</td>
</tr>
<tr>
<td>718-10-55-11</td>
<td>S7.1</td>
<td>Valuation of employee stock options</td>
</tr>
<tr>
<td>718-10-55-11</td>
<td>S6.2</td>
<td>Fair-value hierarchy</td>
</tr>
<tr>
<td>718-10-55-11</td>
<td>S6.3</td>
<td>How various terms are incorporated into the valuation</td>
</tr>
<tr>
<td>718-10-55-11</td>
<td>S7.2</td>
<td>Use of option-pricing models</td>
</tr>
<tr>
<td>718-10-55-13</td>
<td>S7.3</td>
<td>Selecting option-pricing model input assumptions</td>
</tr>
<tr>
<td>718-10-55-14</td>
<td>S7.2</td>
<td>Use of option-pricing models</td>
</tr>
<tr>
<td>718-10-55-14</td>
<td>S7.3</td>
<td>Selecting option-pricing model input assumptions</td>
</tr>
<tr>
<td>718-10-55-15</td>
<td>S7.2</td>
<td>Use of option-pricing models</td>
</tr>
<tr>
<td>718-10-55-16</td>
<td>S7.2</td>
<td>Use of option-pricing models</td>
</tr>
<tr>
<td>718-10-55-17</td>
<td>S7.2</td>
<td>Use of option-pricing models</td>
</tr>
<tr>
<td>718-10-55-17</td>
<td>S7.2.3</td>
<td>Selecting an option-pricing model</td>
</tr>
<tr>
<td>718-10-55-18</td>
<td>S7.2</td>
<td>Use of option-pricing models</td>
</tr>
<tr>
<td>718-10-55-18</td>
<td>S7.2.3</td>
<td>Selecting an option-pricing model</td>
</tr>
<tr>
<td>718-10-55-19</td>
<td>S7.2</td>
<td>Use of option-pricing models</td>
</tr>
<tr>
<td>718-10-55-19</td>
<td>S7.2.3</td>
<td>Selecting an option-pricing model</td>
</tr>
<tr>
<td>718-10-55-20</td>
<td>S7.2</td>
<td>Use of option-pricing models</td>
</tr>
<tr>
<td>718-10-55-20</td>
<td>S7.2.3.2</td>
<td>Changing option-pricing models or input assumptions</td>
</tr>
<tr>
<td>718-10-55-21</td>
<td>S7.2</td>
<td>Use of option-pricing models</td>
</tr>
<tr>
<td>718-10-55-22</td>
<td>S7.2</td>
<td>Use of option-pricing models</td>
</tr>
<tr>
<td>718-10-55-23</td>
<td>S7.3</td>
<td>Selecting option-pricing model input assumptions</td>
</tr>
<tr>
<td>ASC Paragraph</td>
<td>Section</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>718-10-55-24</td>
<td>S7.3</td>
<td>Selecting option-pricing model input assumptions</td>
</tr>
<tr>
<td>718-10-55-25</td>
<td>S7.3</td>
<td>Selecting option-pricing model input assumptions</td>
</tr>
<tr>
<td>718-10-55-27</td>
<td>S3.2.4.2</td>
<td>Change from calculated value to fair value</td>
</tr>
<tr>
<td>718-10-55-27</td>
<td>S6.6</td>
<td>Change in valuation methodology</td>
</tr>
<tr>
<td>718-10-55-27</td>
<td>S7.2.3.2</td>
<td>Changing option-pricing models or input assumptions</td>
</tr>
<tr>
<td>718-10-55-27</td>
<td>S7.3</td>
<td>Selecting option-pricing model input assumptions</td>
</tr>
<tr>
<td>718-10-55-28</td>
<td>S14.5</td>
<td>Disclosures required for accounting changes</td>
</tr>
<tr>
<td>718-10-55-28</td>
<td>S7.3.4</td>
<td>Risk-free interest rate</td>
</tr>
<tr>
<td>718-10-55-29</td>
<td>S7.3.1</td>
<td>Expected term of the option</td>
</tr>
<tr>
<td>718-10-55-30</td>
<td>S7.3.1</td>
<td>Expected term of the option</td>
</tr>
<tr>
<td>718-10-55-31</td>
<td>S3.8</td>
<td>Early exercise of employee stock options and similar share purchases</td>
</tr>
<tr>
<td>718-10-55-31</td>
<td>S7.3.1</td>
<td>Expected term of the option</td>
</tr>
<tr>
<td>718-10-55-32</td>
<td>S7.3.1</td>
<td>Expected term of the option</td>
</tr>
<tr>
<td>718-10-55-34</td>
<td>S7.3.1</td>
<td>Expected term of the option</td>
</tr>
<tr>
<td>718-10-55-37</td>
<td>S7.3.2</td>
<td>Expected stock volatility</td>
</tr>
<tr>
<td>718-10-55-37(a)</td>
<td>S7.3.2.1</td>
<td>Historical realized volatility</td>
</tr>
<tr>
<td>718-10-55-37(a)</td>
<td>S7.3.2.1.2</td>
<td>Excluding periods from measurement of historical realized volatility</td>
</tr>
<tr>
<td>718-10-55-37(b)</td>
<td>S7.3.2.2</td>
<td>Implied volatilities</td>
</tr>
<tr>
<td>718-10-55-37(c)</td>
<td>S7.3.2.4</td>
<td>Limitations on availability of historical data</td>
</tr>
<tr>
<td>718-10-55-37(c)</td>
<td>S7.3.2.5</td>
<td>Guideline companies</td>
</tr>
<tr>
<td>718-10-55-37(d)</td>
<td>S7.3.2.6</td>
<td>Historical data intervals</td>
</tr>
<tr>
<td>718-10-55-37(e)</td>
<td>S7.3.2.3</td>
<td>Changes in corporate structure and capital structure</td>
</tr>
<tr>
<td>718-10-55-42</td>
<td>S7.3.3</td>
<td>Expected dividends</td>
</tr>
<tr>
<td>718-10-55-44</td>
<td>S7.4.8</td>
<td>Dividend-protected awards</td>
</tr>
<tr>
<td>718-10-55-45</td>
<td>S3.6.1</td>
<td>Dividend equivalents paid on equity instruments prior to vesting</td>
</tr>
<tr>
<td>718-10-55-45</td>
<td>S10.6.3</td>
<td>Accounting for income tax benefits of dividends on share-based payments</td>
</tr>
<tr>
<td>718-10-55-46</td>
<td>S7.3.7</td>
<td>Credit risk</td>
</tr>
<tr>
<td>718-10-55-47</td>
<td>S3.5.2</td>
<td>Contingent features</td>
</tr>
<tr>
<td>718-10-55-48</td>
<td>S7.3.6</td>
<td>Dilution</td>
</tr>
<tr>
<td>718-10-55-49</td>
<td>S7.3.6</td>
<td>Dilution</td>
</tr>
<tr>
<td>718-10-55-50</td>
<td>S7.3.6</td>
<td>Dilution</td>
</tr>
<tr>
<td>718-10-55-51</td>
<td>S7.4.2.1</td>
<td>When calculated value should be used</td>
</tr>
<tr>
<td>718-10-55-52</td>
<td>S7.4.2.1</td>
<td>When calculated value should be used</td>
</tr>
<tr>
<td>718-10-55-55</td>
<td>S7.4.2.1</td>
<td>When calculated value should be used</td>
</tr>
<tr>
<td>718-10-55-56</td>
<td>S7.4.2.2</td>
<td>How to determine an appropriate industry sector index</td>
</tr>
<tr>
<td>ASC Paragraph</td>
<td>Section</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>718-10-55-57</td>
<td>S7.4.2.3</td>
<td>Changing the industry sector index</td>
</tr>
<tr>
<td>718-10-55-58</td>
<td>S7.4.2.4</td>
<td>How to calculate volatility used in the calculated value</td>
</tr>
<tr>
<td>718-10-55-61</td>
<td>S4.4</td>
<td>Effect of service, performance, and market conditions on recognition of compensation cost</td>
</tr>
<tr>
<td>718-10-55-62</td>
<td>S4.4.5</td>
<td>Multiple conditions</td>
</tr>
<tr>
<td>718-10-55-63</td>
<td>S4.4.5</td>
<td>Multiple conditions</td>
</tr>
<tr>
<td>718-10-55-65</td>
<td>S5.2.4</td>
<td>Awards with conditions other than market, performance, or service conditions</td>
</tr>
<tr>
<td>718-10-55-67</td>
<td>S4.4.3.2</td>
<td>Deeply out-of-the-money options</td>
</tr>
<tr>
<td>718-10-55-77</td>
<td>S4.5.1</td>
<td>Adjusting the requisite service period based on a service or performance condition</td>
</tr>
<tr>
<td>718-10-55-77</td>
<td>S4.5.3</td>
<td>Adjusting the requisite service period for awards with a market condition and a performance or service condition</td>
</tr>
<tr>
<td>718-10-55-78</td>
<td>S4.5.1</td>
<td>Adjusting the requisite service period based on a service or performance condition</td>
</tr>
<tr>
<td>718-10-55-79</td>
<td>S4.5.5</td>
<td>Changes in the requisite service period that are recorded prospectively</td>
</tr>
<tr>
<td>718-10-55-81</td>
<td>S3.3.1.1.2</td>
<td>Substantive terms of the plan</td>
</tr>
<tr>
<td>718-10-55-82</td>
<td>S3.3.1.4</td>
<td>Must meet the definition of an employee</td>
</tr>
<tr>
<td>718-10-55-83</td>
<td>S3.3.1.2</td>
<td>Employee begins to benefit from or be adversely affected by a change in the stock price</td>
</tr>
<tr>
<td>718-10-55-85</td>
<td>S5.2.3</td>
<td>Classification of awards that include share repurchase features</td>
</tr>
<tr>
<td>718-10-55-85</td>
<td>S5.2.3.1</td>
<td>Employee has the right to put shares</td>
</tr>
<tr>
<td>718-10-55-87</td>
<td>S4.4.1.2.1</td>
<td>Nonsubstantive service periods due to retirement provisions</td>
</tr>
<tr>
<td>718-10-55-88</td>
<td>S3.9.1.3</td>
<td>An individual ceases to provide substantive service and continues to vest in an award</td>
</tr>
<tr>
<td>718-10-55-88</td>
<td>S4.4.1.2.1</td>
<td>Nonsubstantive service periods due to retirement provisions</td>
</tr>
<tr>
<td>718-10-55-90</td>
<td>S2.2.3.3</td>
<td>Example – awards granted to members of advisory board</td>
</tr>
<tr>
<td>718-10-55-91</td>
<td>S2.2.3.1</td>
<td>Directors of subsidiaries</td>
</tr>
<tr>
<td>718-10-55-93</td>
<td>S4.4.2.4.3</td>
<td>Multiple independent performance conditions established at the inception of the arrangement</td>
</tr>
<tr>
<td>718-10-55-94</td>
<td>S4.4.2.4.3</td>
<td>Multiple independent performance conditions established at the inception of the arrangement</td>
</tr>
<tr>
<td>718-10-55-95</td>
<td>S4.4.2.4.4</td>
<td>Multiple performance conditions established subsequent to the inception of the arrangement</td>
</tr>
<tr>
<td>ASC Paragraph</td>
<td>Section</td>
<td>Reference</td>
</tr>
<tr>
<td>---------------</td>
<td>----------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>718-10-55-96</td>
<td>S4.4.2.4.5</td>
<td>Performance conditions dependent on satisfaction of previous performance conditions</td>
</tr>
<tr>
<td>718-10-55-98</td>
<td>S4.4.1.5</td>
<td>Accounting for an award with graded vesting and all substantive terms are not known at the agreement date</td>
</tr>
<tr>
<td>718-10-55-99</td>
<td>S4.4.1.5</td>
<td>Accounting for an award with graded vesting and all substantive terms are not known at the agreement date</td>
</tr>
<tr>
<td>718-10-55-102</td>
<td>S3.4.6</td>
<td>Multiple conditions</td>
</tr>
<tr>
<td>718-10-55-103</td>
<td>S4.4.5.2</td>
<td>Example – Share-based payment award with market and service conditions (TARSAP)</td>
</tr>
<tr>
<td>718-10-55-103</td>
<td>S4.4.5.2</td>
<td>Example – Share-based payment award with market and service conditions (TARSAP)</td>
</tr>
<tr>
<td>718-10-55-104</td>
<td>S4.4.5.2</td>
<td>Example – Share-based payment award with market and service conditions (TARSAP)</td>
</tr>
<tr>
<td>718-10-55-105</td>
<td>S4.4.5.2</td>
<td>Example – Share-based payment award with market and service conditions (TARSAP)</td>
</tr>
<tr>
<td>718-10-55-106</td>
<td>S4.4.5.2</td>
<td>Example – Share-based payment award with market and service conditions (TARSAP)</td>
</tr>
<tr>
<td>718-10-55-108</td>
<td>S3.3.1.3</td>
<td>All necessary approvals must be obtained</td>
</tr>
<tr>
<td>718-10-55-108</td>
<td>S4.3.1</td>
<td>Service inception date may precede the grant date</td>
</tr>
<tr>
<td>718-10-55-108</td>
<td>S4.3.1.3</td>
<td>Bonuses settled partly or entirely in shares</td>
</tr>
<tr>
<td>718-10-55-108(a)</td>
<td>S4.3.1.3</td>
<td>Bonuses settled partly or entirely in shares</td>
</tr>
<tr>
<td>718-10-55-108(b)</td>
<td>S4.3.1.3</td>
<td>Bonuses settled partly or entirely in shares</td>
</tr>
<tr>
<td>718-10-55-108(c)</td>
<td>S4.3.1.3</td>
<td>Bonuses settled partly or entirely in shares</td>
</tr>
<tr>
<td>718-10-55-108(c)(1)</td>
<td>S4.3.1.3</td>
<td>Bonuses settled partly or entirely in shares</td>
</tr>
<tr>
<td>718-10-55-108(c)(2)</td>
<td>S4.3.1.3</td>
<td>Bonuses settled partly or entirely in shares</td>
</tr>
<tr>
<td>718-10-55-111</td>
<td>S4.3.3</td>
<td>Service inception date cannot occur prior to obtaining all necessary approvals</td>
</tr>
<tr>
<td>718-10-55-113</td>
<td>S4.3.1.1</td>
<td>No substantive service requirement subsequent to the grant date</td>
</tr>
<tr>
<td>718-10-55-114</td>
<td>S4.3.1.2</td>
<td>Performance or market condition must be satisfied prior to the grant date</td>
</tr>
<tr>
<td>718-10-55-115</td>
<td>S4.3.1.2</td>
<td>Performance or market condition must be satisfied prior to the grant date</td>
</tr>
<tr>
<td>718-10-55-116</td>
<td>S7.4.6</td>
<td>Tandem plans</td>
</tr>
<tr>
<td>718-10-55-117</td>
<td>S7.4.6</td>
<td>Tandem plans</td>
</tr>
<tr>
<td>718-10-55-118</td>
<td>S7.4.6</td>
<td>Tandem plans</td>
</tr>
<tr>
<td>718-10-55-119</td>
<td>S7.4.6</td>
<td>Tandem plans</td>
</tr>
<tr>
<td>ASC Paragraph</td>
<td>Section</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>718-10-55-120</td>
<td>S5.2.3.1</td>
<td>Employee has the right to put shares</td>
</tr>
<tr>
<td>718-10-55-120</td>
<td>S7.4.6</td>
<td>Tandem plans</td>
</tr>
<tr>
<td>718-10-55-121</td>
<td>S5.2.3.1</td>
<td>Employee has the right to put shares</td>
</tr>
<tr>
<td>718-10-55-121</td>
<td>S7.4.6</td>
<td>Tandem plans</td>
</tr>
<tr>
<td>718-10-55-122</td>
<td>S5.2.3.1</td>
<td>Employee has the right to put shares</td>
</tr>
<tr>
<td>718-10-55-122</td>
<td>S7.4.6</td>
<td>Tandem plans</td>
</tr>
<tr>
<td>718-10-55-123</td>
<td>S5.2.3.1</td>
<td>Employee has the right to put shares</td>
</tr>
<tr>
<td>718-10-55-123</td>
<td>S7.4.6</td>
<td>Tandem plans</td>
</tr>
<tr>
<td>718-10-55-124</td>
<td>S5.2.3.1</td>
<td>Employee has the right to put shares</td>
</tr>
<tr>
<td>718-10-55-124</td>
<td>S7.4.6</td>
<td>Tandem plans</td>
</tr>
<tr>
<td>718-10-55-125</td>
<td>S5.2.3.1</td>
<td>Employee has the right to put shares</td>
</tr>
<tr>
<td>718-10-55-125</td>
<td>S7.4.6</td>
<td>Tandem plans</td>
</tr>
<tr>
<td>718-10-55-126</td>
<td>S5.2.3.1</td>
<td>Employee has the right to put shares</td>
</tr>
<tr>
<td>718-10-55-126</td>
<td>S7.4.6</td>
<td>Tandem plans</td>
</tr>
<tr>
<td>718-10-55-127</td>
<td>S5.2.3.1</td>
<td>Employee has the right to put shares</td>
</tr>
<tr>
<td>718-10-55-127</td>
<td>S7.4.6</td>
<td>Tandem plans</td>
</tr>
<tr>
<td>718-10-55-128</td>
<td>S5.2.3.1</td>
<td>Employee has the right to put shares</td>
</tr>
<tr>
<td>718-10-55-128</td>
<td>S7.4.6</td>
<td>Tandem plans</td>
</tr>
<tr>
<td>718-10-55-129</td>
<td>S5.2.3.1</td>
<td>Employee has the right to put shares</td>
</tr>
<tr>
<td>718-10-55-129</td>
<td>S7.4.6</td>
<td>Tandem plans</td>
</tr>
<tr>
<td>718-10-55-130</td>
<td>S5.2.3.1</td>
<td>Employee has the right to put shares</td>
</tr>
<tr>
<td>718-10-55-130</td>
<td>S7.4.6</td>
<td>Tandem plans</td>
</tr>
<tr>
<td>718-10-55-131</td>
<td>S5.2.2.1</td>
<td>Example — Application of classification guidance to book (formula) value</td>
</tr>
<tr>
<td></td>
<td></td>
<td>stock purchase plan</td>
</tr>
<tr>
<td>718-10-55-131</td>
<td>S5.2.3.1</td>
<td>Employee has the right to put shares</td>
</tr>
<tr>
<td>718-10-55-132</td>
<td>S5.2.2.1</td>
<td>Example — Application of classification guidance to book (formula) value</td>
</tr>
<tr>
<td></td>
<td></td>
<td>stock purchase plan</td>
</tr>
<tr>
<td>718-10-55-133</td>
<td>S5.2.2.1</td>
<td>Example — Application of classification guidance to book (formula) value</td>
</tr>
<tr>
<td></td>
<td></td>
<td>stock purchase plan</td>
</tr>
<tr>
<td>718-10-S99-2</td>
<td>S2.7</td>
<td>Escrowed share arrangements (or placing vesting requirements on previously</td>
</tr>
<tr>
<td></td>
<td></td>
<td>issued shares)</td>
</tr>
<tr>
<td>718-20-35-1</td>
<td>S3.2.3</td>
<td>If a company cannot reasonably estimate fair value</td>
</tr>
<tr>
<td>718-20-35-2</td>
<td>S6.3.5</td>
<td>Certain contingent features (e.g., clawbacks)</td>
</tr>
<tr>
<td>718-20-35-3</td>
<td>S8.1</td>
<td>Accounting for modifications</td>
</tr>
<tr>
<td>718-20-35-3</td>
<td>S8.2</td>
<td>Modifications of vesting conditions</td>
</tr>
<tr>
<td>718-20-35-3</td>
<td>S8.3</td>
<td>Modifications of market conditions</td>
</tr>
<tr>
<td>718-20-35-3</td>
<td>S8.4</td>
<td>Modifications that change an award's classification</td>
</tr>
<tr>
<td>718-20-35-3</td>
<td>S8.4.1</td>
<td>Modification that changes classification from equity to a liability</td>
</tr>
<tr>
<td>ASC Paragraph</td>
<td>Section</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>718-20-35-3</td>
<td>S8.6.1</td>
<td>Modification to add an antidilution protection to an award</td>
</tr>
<tr>
<td>718-20-35-5</td>
<td>S8.5</td>
<td>Inducements</td>
</tr>
<tr>
<td>718-20-35-6</td>
<td>S8.6</td>
<td>Equity restructurings</td>
</tr>
<tr>
<td>718-20-35-7</td>
<td>S8.4.3.2</td>
<td>Example – Options were nonvested before modification; cash consideration is vested</td>
</tr>
<tr>
<td>718-20-35-7</td>
<td>S8.7</td>
<td>Repurchases or cancellations of awards of equity instruments</td>
</tr>
<tr>
<td>718-20-35-7</td>
<td>S8.8</td>
<td>Cancellation and replacement of awards of equity instruments</td>
</tr>
<tr>
<td>718-20-35-8</td>
<td>S8.8</td>
<td>Cancellation and replacement of awards of equity instruments</td>
</tr>
<tr>
<td>718-20-35-9</td>
<td>S8.8</td>
<td>Cancellation and replacement of awards of equity instruments</td>
</tr>
<tr>
<td>718-20-55-2</td>
<td>S8.6.1</td>
<td>Modification to add an antidilution protection to an award</td>
</tr>
<tr>
<td>718-20-55-6</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-7</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-8</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-9</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-10</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-11</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-12</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-13</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-14</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-15</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-16</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-17</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>ASC Paragraph</td>
<td>Section</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>718-20-55-18</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-19</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-20</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-21</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-22</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-23</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-24</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-24</td>
<td>S14.1.2</td>
<td>Presentation in the statement of cash flows</td>
</tr>
<tr>
<td>718-20-55-25</td>
<td>S4.4.1.4</td>
<td>Accounting for awards subject to graded vesting</td>
</tr>
<tr>
<td>718-20-55-25</td>
<td>S7.3.1.3</td>
<td>Expected term of awards with graded vesting</td>
</tr>
<tr>
<td>718-20-55-26</td>
<td>S4.4.2.5</td>
<td>Impact of performance conditions on cost attribution (accelerated attribution)</td>
</tr>
<tr>
<td>718-20-55-26</td>
<td>S4.4.3.4</td>
<td>Impact of market conditions on cost attribution (accelerated attribution)</td>
</tr>
<tr>
<td>718-20-55-26</td>
<td>S7.3.1.3</td>
<td>Expected term of awards with graded vesting</td>
</tr>
<tr>
<td>718-20-55-27</td>
<td>S7.3.1.3</td>
<td>Expected term of awards with graded vesting</td>
</tr>
<tr>
<td>718-20-55-28</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-28</td>
<td>S7.3.1.3</td>
<td>Expected term of awards with graded vesting</td>
</tr>
<tr>
<td>718-20-55-29</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-29</td>
<td>S7.3.1.3</td>
<td>Expected term of awards with graded vesting</td>
</tr>
<tr>
<td>718-20-55-30</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-30</td>
<td>S7.3.1.3</td>
<td>Expected term of awards with graded vesting</td>
</tr>
<tr>
<td>718-20-55-31</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-31</td>
<td>S7.3.1.3</td>
<td>Expected term of awards with graded vesting</td>
</tr>
<tr>
<td>718-20-55-32</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-32</td>
<td>S7.3.1.3</td>
<td>Expected term of awards with graded vesting</td>
</tr>
<tr>
<td>718-20-55-33</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>ASC Paragraph</td>
<td>Section</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>718-20-55-33</td>
<td>S7.3.1.3</td>
<td>Expected term of awards with graded vesting</td>
</tr>
<tr>
<td>718-20-55-34</td>
<td>S4.4.1.6</td>
<td>Comprehensive examples of the accounting for awards subject to service vesting</td>
</tr>
<tr>
<td>718-20-55-34</td>
<td>S7.3.1.3</td>
<td>Expected term of awards with graded vesting</td>
</tr>
<tr>
<td>718-20-55-34</td>
<td>S10.3.3.3</td>
<td>Realization of tax benefits on awards subject to graded vesting</td>
</tr>
<tr>
<td>718-20-55-34</td>
<td>S10.7.1</td>
<td>Accounting for a change in the tax status of an award (e.g., disqualifying disposition)</td>
</tr>
<tr>
<td>718-20-55-36</td>
<td>S3.4.3.2</td>
<td>Performance conditions that affect vesting (or exercisibility) of an award</td>
</tr>
<tr>
<td>718-20-55-36</td>
<td>S4.4.2.4.1</td>
<td>Multiple performance conditions that affect the number of instruments that will vest</td>
</tr>
<tr>
<td>718-20-55-37</td>
<td>S3.4.3.2</td>
<td>Performance conditions that affect vesting (or exercisibility) of an award</td>
</tr>
<tr>
<td>718-20-55-37</td>
<td>S4.4.2.4.1</td>
<td>Multiple performance conditions that affect the number of instruments that will vest</td>
</tr>
<tr>
<td>718-20-55-38</td>
<td>S4.4.2.4.1</td>
<td>Multiple performance conditions that affect the number of instruments that will vest</td>
</tr>
<tr>
<td>718-20-55-39</td>
<td>S4.4.2.4.1</td>
<td>Multiple performance conditions that affect the number of instruments that will vest</td>
</tr>
<tr>
<td>718-20-55-40</td>
<td>S4.4.2.2</td>
<td>Compensation cost is recognized if it is probable that the performance condition will be achieved</td>
</tr>
<tr>
<td>718-20-55-40</td>
<td>S4.4.2.4.1</td>
<td>Multiple performance conditions that affect the number of instruments that will vest</td>
</tr>
<tr>
<td>718-20-55-42</td>
<td>S3.4.3.3</td>
<td>Performance (or service) conditions that affect factors other than vesting or exercisibility</td>
</tr>
<tr>
<td>718-20-55-42</td>
<td>S4.4.2.4.2</td>
<td>Performance conditions that affect the fair value of instruments that vest</td>
</tr>
<tr>
<td>718-20-55-42</td>
<td>S4.4.5.3</td>
<td>Example – Award that “vests” based on the achievement of a performance condition or a market condition</td>
</tr>
<tr>
<td>718-20-55-43</td>
<td>S3.4.3.3</td>
<td>Performance (or service) conditions that affect factors other than vesting or exercisibility</td>
</tr>
<tr>
<td>718-20-55-43</td>
<td>S4.4.2.4.2</td>
<td>Performance conditions that affect the fair value of instruments that vest</td>
</tr>
<tr>
<td>718-20-55-43</td>
<td>S4.4.5.3</td>
<td>Example – Award that “vests” based on the achievement of a performance condition or a market condition</td>
</tr>
<tr>
<td>718-20-55-44</td>
<td>S3.4.3.3</td>
<td>Performance (or service) conditions that affect factors other than vesting or exercisibility</td>
</tr>
<tr>
<td>718-20-55-44</td>
<td>S4.4.2.4.2</td>
<td>Performance conditions that affect the fair value of instruments that vest</td>
</tr>
<tr>
<td>ASC Paragraph</td>
<td>Section</td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>718-20-55-44</td>
<td>S4.4.5.3</td>
<td>Example – Award that “vests” based on the achievement of a performance condition or a market condition</td>
</tr>
<tr>
<td>718-20-55-45</td>
<td>S3.4.3.3</td>
<td>Performance (or service) conditions that affect factors other than vesting or exercisability</td>
</tr>
<tr>
<td>718-20-55-45</td>
<td>S4.4.2.4.2</td>
<td>Performance conditions that affect the fair value of instruments that vest</td>
</tr>
<tr>
<td>718-20-55-45</td>
<td>S4.4.5.3</td>
<td>Example – Award that “vests” based on the achievement of a performance condition or a market condition</td>
</tr>
<tr>
<td>718-20-55-46</td>
<td>S3.4.3.3</td>
<td>Performance (or service) conditions that affect factors other than vesting or exercisability</td>
</tr>
<tr>
<td>718-20-55-46</td>
<td>S4.4.2.4.2</td>
<td>Performance conditions that affect the fair value of instruments that vest</td>
</tr>
<tr>
<td>718-20-55-46</td>
<td>S4.4.5.3</td>
<td>Example – Award that “vests” based on the achievement of a performance condition or a market condition</td>
</tr>
<tr>
<td>718-20-55-48</td>
<td>S4.4.2.4</td>
<td>Performance conditions that affect factors other than vesting or exercisability</td>
</tr>
<tr>
<td>718-20-55-50</td>
<td>S8.1.1</td>
<td>Modifications to provide for transferability of employee stock options</td>
</tr>
<tr>
<td>718-20-55-52</td>
<td>S7.4.5</td>
<td>Stock options with indexed exercise prices</td>
</tr>
<tr>
<td>718-20-55-53</td>
<td>S7.4.5</td>
<td>Stock options with indexed exercise prices</td>
</tr>
<tr>
<td>718-20-55-54</td>
<td>S7.4.5</td>
<td>Stock options with indexed exercise prices</td>
</tr>
<tr>
<td>718-20-55-55</td>
<td>S7.4.5</td>
<td>Stock options with indexed exercise prices</td>
</tr>
<tr>
<td>718-20-55-56</td>
<td>S7.4.5</td>
<td>Stock options with indexed exercise prices</td>
</tr>
<tr>
<td>718-20-55-57</td>
<td>S7.4.5</td>
<td>Stock options with indexed exercise prices</td>
</tr>
<tr>
<td>718-20-55-58</td>
<td>S7.4.5</td>
<td>Stock options with indexed exercise prices</td>
</tr>
<tr>
<td>718-20-55-59</td>
<td>S7.4.5</td>
<td>Stock options with indexed exercise prices</td>
</tr>
<tr>
<td>718-20-55-60</td>
<td>S7.4.5</td>
<td>Stock options with indexed exercise prices</td>
</tr>
<tr>
<td>718-20-55-70</td>
<td>S7.4.5</td>
<td>Stock options with indexed exercise prices</td>
</tr>
<tr>
<td>718-20-55-77</td>
<td>S7.4.2.5</td>
<td>Example of use of calculated value</td>
</tr>
<tr>
<td>718-20-55-78</td>
<td>S7.4.2.5</td>
<td>Example of use of calculated value</td>
</tr>
<tr>
<td>718-20-55-79</td>
<td>S7.4.2.5</td>
<td>Example of use of calculated value</td>
</tr>
<tr>
<td>718-20-55-80</td>
<td>S7.4.2.5</td>
<td>Example of use of calculated value</td>
</tr>
<tr>
<td>718-20-55-81</td>
<td>S7.4.2.5</td>
<td>Example of use of calculated value</td>
</tr>
<tr>
<td>718-20-55-82</td>
<td>S7.4.2.5</td>
<td>Example of use of calculated value</td>
</tr>
<tr>
<td>718-20-55-83</td>
<td>S7.4.2.5</td>
<td>Example of use of calculated value</td>
</tr>
<tr>
<td>718-20-55-85</td>
<td>S3.5.2</td>
<td>Contingent features</td>
</tr>
<tr>
<td>718-20-55-85</td>
<td>S4.4.1.2.2</td>
<td>Noncompete arrangement as an in-substance service condition</td>
</tr>
<tr>
<td>718-20-55-88</td>
<td>S4.4.1.2.2</td>
<td>Noncompete arrangement as an in-substance service condition</td>
</tr>
<tr>
<td>ASC Paragraph</td>
<td>Section</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>718-20-55-89</td>
<td>S4.4.1.2.2</td>
<td>Noncompete arrangement as an in-substance service condition</td>
</tr>
<tr>
<td>718-20-55-90</td>
<td>S4.4.1.2.2</td>
<td>Noncompete arrangement as an in-substance service condition</td>
</tr>
<tr>
<td>718-20-55-91</td>
<td>S4.4.1.2.2</td>
<td>Noncompete arrangement as an in-substance service condition</td>
</tr>
<tr>
<td>718-20-55-92</td>
<td>S4.4.1.2.2</td>
<td>Noncompete arrangement as an in-substance service condition</td>
</tr>
<tr>
<td>718-20-55-93</td>
<td>S8.1.2.1</td>
<td>Modification of vested stock options</td>
</tr>
<tr>
<td>718-20-55-94</td>
<td>S8.1.2.1</td>
<td>Modification of vested stock options</td>
</tr>
<tr>
<td>718-20-55-95</td>
<td>S8.1.2.1</td>
<td>Modification of vested stock options</td>
</tr>
<tr>
<td>718-20-55-96</td>
<td>S8.1.2.1</td>
<td>Modification of vested stock options</td>
</tr>
<tr>
<td>718-20-55-97</td>
<td>S8.1.2.1</td>
<td>Modification of vested stock options</td>
</tr>
<tr>
<td>718-20-55-98</td>
<td>S8.1.2.2</td>
<td>Modification of nonvested stock options</td>
</tr>
<tr>
<td>718-20-55-99</td>
<td>S8.1.2.2</td>
<td>Modification of nonvested stock options</td>
</tr>
<tr>
<td>718-20-55-100</td>
<td>S8.1.2.2</td>
<td>Modification of nonvested stock options</td>
</tr>
<tr>
<td>718-20-55-101</td>
<td>S8.1.2.2</td>
<td>Modification of nonvested stock options</td>
</tr>
<tr>
<td>718-20-55-102</td>
<td>S8.1.2.2</td>
<td>Modification of nonvested stock options</td>
</tr>
<tr>
<td>718-20-55-104</td>
<td>S8.6.3</td>
<td>Original award contains antidilution provisions</td>
</tr>
<tr>
<td>718-20-55-104</td>
<td>S8.6.3.1</td>
<td>Adjustments in connection with a spinoff</td>
</tr>
<tr>
<td>718-20-55-105</td>
<td>S8.6.2</td>
<td>Awards are adjusted and original award does not contain antidilution provisions or award provides for discretionary adjustment</td>
</tr>
<tr>
<td>718-20-55-106</td>
<td>S8.6.2</td>
<td>Awards are adjusted and original award does not contain antidilution provisions or award provides for discretionary adjustment</td>
</tr>
<tr>
<td>718-20-55-107</td>
<td>S8.2</td>
<td>Modifications of vesting conditions</td>
</tr>
<tr>
<td>718-20-55-107</td>
<td>S8.3</td>
<td>Modifications of market conditions</td>
</tr>
<tr>
<td>718-20-55-108</td>
<td>S8.3</td>
<td>Modifications of market conditions</td>
</tr>
<tr>
<td>718-20-55-108</td>
<td>S8.7</td>
<td>Repurchases or cancellations of awards of equity instruments</td>
</tr>
<tr>
<td>718-20-55-109</td>
<td>S8.2.1</td>
<td>Type I (probable-to-probable) modification</td>
</tr>
<tr>
<td>718-20-55-109</td>
<td>S8.2.2</td>
<td>Type II (probable-to-improbable) modification</td>
</tr>
<tr>
<td>718-20-55-109</td>
<td>S8.2.3</td>
<td>Type III (improbable-to-probable) modification</td>
</tr>
<tr>
<td>718-20-55-109</td>
<td>S8.2.4</td>
<td>Type IV (improbable-to-improbable) modification</td>
</tr>
<tr>
<td>718-20-55-109</td>
<td>S8.3</td>
<td>Modifications of market conditions</td>
</tr>
<tr>
<td>718-20-55-110</td>
<td>S8.2.1</td>
<td>Type I (probable-to-probable) modification</td>
</tr>
<tr>
<td>718-20-55-110</td>
<td>S8.3</td>
<td>Modifications of market conditions</td>
</tr>
<tr>
<td>718-20-55-111</td>
<td>S8.2.1</td>
<td>Type I (probable-to-probable) modification</td>
</tr>
<tr>
<td>ASC Paragraph</td>
<td>Section</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>----------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>718-20-55-111</td>
<td>S8.3</td>
<td>Modifications of market conditions</td>
</tr>
<tr>
<td>718-20-55-112</td>
<td>S8.2.1</td>
<td>Type I (probable-to-probable) modification</td>
</tr>
<tr>
<td>718-20-55-112</td>
<td>S8.3</td>
<td>Modifications of market conditions</td>
</tr>
<tr>
<td>718-20-55-113</td>
<td>S8.2.2</td>
<td>Type II (probable-to-improbable) modification</td>
</tr>
<tr>
<td>718-20-55-113</td>
<td>S8.3</td>
<td>Modifications of market conditions</td>
</tr>
<tr>
<td>718-20-55-114</td>
<td>S8.2.2</td>
<td>Type II (probable-to-improbable) modification</td>
</tr>
<tr>
<td>718-20-55-114</td>
<td>S8.3</td>
<td>Modifications of market conditions</td>
</tr>
<tr>
<td>718-20-55-115</td>
<td>S8.2.2</td>
<td>Type II (probable-to-improbable) modification</td>
</tr>
<tr>
<td>718-20-55-115</td>
<td>S8.3</td>
<td>Modifications of market conditions</td>
</tr>
<tr>
<td>718-20-55-116</td>
<td>S8.2.3</td>
<td>Type III (improbable-to-probable) modification</td>
</tr>
<tr>
<td>718-20-55-116</td>
<td>S8.3</td>
<td>Modifications of market conditions</td>
</tr>
<tr>
<td>718-20-55-117</td>
<td>S8.2.3</td>
<td>Type III (improbable-to-probable) modification</td>
</tr>
<tr>
<td>718-20-55-117</td>
<td>S8.3</td>
<td>Modifications of market conditions</td>
</tr>
<tr>
<td>718-20-55-118</td>
<td>S8.2.5</td>
<td>Type IV (improbable-to-improbable) modification</td>
</tr>
<tr>
<td>718-20-55-118</td>
<td>S8.3</td>
<td>Modifications of market conditions</td>
</tr>
<tr>
<td>718-20-55-119</td>
<td>S8.2.6</td>
<td>Type IV (improbable-to-improbable) modification</td>
</tr>
<tr>
<td>718-20-55-119</td>
<td>S8.3</td>
<td>Modifications of market conditions</td>
</tr>
<tr>
<td>718-20-55-123</td>
<td>S8.4.1.1</td>
<td>Example – modification that changes classification from equity to a liability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>that continues to be indexed to employer’s shares</td>
</tr>
<tr>
<td>718-20-55-124</td>
<td>S8.4.1.1</td>
<td>Example – modification that changes classification from equity to a liability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>that continues to be indexed to employer’s shares</td>
</tr>
<tr>
<td>718-20-55-124</td>
<td>S8.4.3.3</td>
<td>Options were nonvested before modification, cash consideration is subject to</td>
</tr>
<tr>
<td></td>
<td></td>
<td>vesting</td>
</tr>
<tr>
<td>718-20-55-125</td>
<td>S8.4.1.1</td>
<td>Example – modification that changes classification from equity to a liability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>that continues to be indexed to employer’s shares</td>
</tr>
<tr>
<td>718-20-55-126</td>
<td>S8.4.1.1</td>
<td>Example – modification that changes classification from equity to a liability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>that continues to be indexed to employer’s shares</td>
</tr>
<tr>
<td>718-20-55-127</td>
<td>S8.4.1.1</td>
<td>Example – modification that changes classification from equity to a liability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>that continues to be indexed to employer’s shares</td>
</tr>
<tr>
<td>718-20-55-128</td>
<td>S8.4.1.1</td>
<td>Example – modification that changes classification from equity to a liability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>that continues to be indexed to employer’s shares</td>
</tr>
<tr>
<td>718-20-55-129</td>
<td>S8.4.1.1</td>
<td>Example – modification that changes classification from equity to a liability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>that continues to be indexed to employer’s shares</td>
</tr>
<tr>
<td>ASC Paragraph</td>
<td>Section</td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>718-20-55-130</td>
<td>S8.4.1.1 Example – modification that changes classification from equity to a liability that continues to be indexed to employer’s shares</td>
<td></td>
</tr>
<tr>
<td>718-20-55-131</td>
<td>S8.4.1.1 Example – modification that changes classification from equity to a liability that continues to be indexed to employer’s shares</td>
<td></td>
</tr>
<tr>
<td>718-20-55-132</td>
<td>S8.4.1.1 Example – modification that changes classification from equity to a liability that continues to be indexed to employer’s shares</td>
<td></td>
</tr>
<tr>
<td>718-20-55-133</td>
<td>S8.4.1.1 Example – modification that changes classification from equity to a liability that continues to be indexed to employer’s shares</td>
<td></td>
</tr>
<tr>
<td>718-20-55-135</td>
<td>S8.4.2.1 Example – modification that changes classification from a liability to equity</td>
<td></td>
</tr>
<tr>
<td>718-20-55-136</td>
<td>S8.4.2.1 Example – modification that changes classification from a liability to equity</td>
<td></td>
</tr>
<tr>
<td>718-20-55-137</td>
<td>S8.4.2.1 Example – modification that changes classification from a liability to equity</td>
<td></td>
</tr>
<tr>
<td>718-20-55-138</td>
<td>S8.4.2.1 Example – modification that changes classification from a liability to equity</td>
<td></td>
</tr>
<tr>
<td>718-20-55-144</td>
<td>S8.4.1.2 Example – Modification that changes classification from equity to a liability not indexed to the company’s shares</td>
<td></td>
</tr>
<tr>
<td>718-20-55-144</td>
<td>S8.4.3.3 Options were nonvested before modification, cash consideration is subject to vesting</td>
<td></td>
</tr>
<tr>
<td>718-30-30-1</td>
<td>S5.1 Measurement objective and measurement date for liabilities</td>
<td></td>
</tr>
<tr>
<td>718-30-30-2</td>
<td>S5.5 Nonpublic entities – Measurement and recognition of liability awards</td>
<td></td>
</tr>
<tr>
<td>718-30-35-1</td>
<td>S3.2.2 Fair-value-based measurement</td>
<td></td>
</tr>
<tr>
<td>718-30-35-2</td>
<td>S4.1.4 Recognizing the change in fair value or intrinsic value for certain awards</td>
<td></td>
</tr>
<tr>
<td>718-30-35-2</td>
<td>S5.4 Public entities – Measurement and recognition of liability awards</td>
<td></td>
</tr>
<tr>
<td>718-30-35-3</td>
<td>S5.4 Public entities – Measurement and recognition of liability awards</td>
<td></td>
</tr>
<tr>
<td>718-30-35-3</td>
<td>S9.6 Illustrative examples</td>
<td></td>
</tr>
<tr>
<td>718-30-35-4</td>
<td>S5.5 Nonpublic entities – Measurement and recognition of liability awards</td>
<td></td>
</tr>
<tr>
<td>718-30-55-2</td>
<td>S5.4.1 Comprehensive example of accounting for a share-based liability</td>
<td></td>
</tr>
<tr>
<td>ASC Paragraph</td>
<td>Section</td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>718-30-55-3</td>
<td>S5.4.1</td>
<td></td>
</tr>
<tr>
<td>718-30-55-4</td>
<td>S5.4.1</td>
<td></td>
</tr>
<tr>
<td>718-30-55-5</td>
<td>S5.4.1</td>
<td></td>
</tr>
<tr>
<td>718-30-55-6</td>
<td>S5.4.1</td>
<td></td>
</tr>
<tr>
<td>718-30-55-7</td>
<td>S5.4.1</td>
<td></td>
</tr>
<tr>
<td>718-30-55-8</td>
<td>S5.4.1</td>
<td></td>
</tr>
<tr>
<td>718-30-55-9</td>
<td>S5.4.1</td>
<td></td>
</tr>
<tr>
<td>718-30-55-10</td>
<td>S5.4.1</td>
<td></td>
</tr>
<tr>
<td>718-30-55-11</td>
<td>S5.4.1</td>
<td></td>
</tr>
<tr>
<td>718-50-05-1</td>
<td>S12</td>
<td></td>
</tr>
<tr>
<td>718-50-15-1</td>
<td>S12</td>
<td></td>
</tr>
<tr>
<td>718-50-15-2</td>
<td>S12</td>
<td></td>
</tr>
<tr>
<td>718-50-25-1</td>
<td>S12.1</td>
<td></td>
</tr>
<tr>
<td>718-50-25-1(a)(1)</td>
<td>S12.1.1</td>
<td></td>
</tr>
<tr>
<td>718-50-25-1(a)(2)</td>
<td>S12.1.1</td>
<td></td>
</tr>
<tr>
<td>718-50-25-2</td>
<td>S12.1.2</td>
<td></td>
</tr>
<tr>
<td>718-50-25-3</td>
<td>S12.3</td>
<td></td>
</tr>
<tr>
<td>718-50-30-1</td>
<td>S12.2</td>
<td></td>
</tr>
<tr>
<td>718-50-30-2</td>
<td>S12.2</td>
<td></td>
</tr>
<tr>
<td>718-50-30-3</td>
<td>S12.2</td>
<td></td>
</tr>
<tr>
<td>718-50-35-1</td>
<td>S12.4.1</td>
<td></td>
</tr>
<tr>
<td>718-50-35-2</td>
<td>S12.4.2</td>
<td></td>
</tr>
<tr>
<td>718-50-55-1</td>
<td>S12.2</td>
<td></td>
</tr>
<tr>
<td>718-50-55-2</td>
<td>S12.2</td>
<td></td>
</tr>
<tr>
<td>718-50-55-3</td>
<td>S12.2</td>
<td></td>
</tr>
<tr>
<td>718-50-55-4</td>
<td>S12.2</td>
<td></td>
</tr>
<tr>
<td>718-50-55-5</td>
<td>S12.2</td>
<td></td>
</tr>
<tr>
<td>718-50-55-10</td>
<td>S12.2</td>
<td></td>
</tr>
</tbody>
</table>

- Comprehensive example of accounting for a share-based liability
- Employee stock purchase plans
- Noncompensatory plans
- Terms of the plan are available to all stockholders
- Discount does not exceed the estimated issuance costs for a public offering
- The plan incorporates no option features
- Requisite service period for ESPPs
- Valuation of ESPPs (including look-back options)
- Increase in withholdings
- Decrease in withholdings
- Valuation of ESPPs (including look-back options)
<table>
<thead>
<tr>
<th>ASC Paragraph</th>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>718-50-55-11</td>
<td>S12.2</td>
<td>Valuation of ESPPs (including look-back options)</td>
</tr>
<tr>
<td>718-50-55-12</td>
<td>S12.2</td>
<td>Valuation of ESPPs (including look-back options)</td>
</tr>
<tr>
<td>718-50-55-13</td>
<td>S12.2</td>
<td>Valuation of ESPPs (including look-back options)</td>
</tr>
<tr>
<td>718-50-55-14</td>
<td>S12.2</td>
<td>Valuation of ESPPs (including look-back options)</td>
</tr>
<tr>
<td>718-50-55-15</td>
<td>S12.2</td>
<td>Valuation of ESPPs (including look-back options)</td>
</tr>
<tr>
<td>718-50-55-16</td>
<td>S12.2</td>
<td>Valuation of ESPPs (including look-back options)</td>
</tr>
<tr>
<td>718-50-55-17</td>
<td>S12.2</td>
<td>Valuation of ESPPs (including look-back options)</td>
</tr>
<tr>
<td>718-50-55-18</td>
<td>S12.2</td>
<td>Valuation of ESPPs (including look-back options)</td>
</tr>
<tr>
<td>718-50-55-19</td>
<td>S12.2</td>
<td>Valuation of ESPPs (including look-back options)</td>
</tr>
<tr>
<td>718-50-55-20</td>
<td>S12.2</td>
<td>Valuation of ESPPs (including look-back options)</td>
</tr>
<tr>
<td>718-50-55-21</td>
<td>S12.2</td>
<td>Valuation of ESPPs (including look-back options)</td>
</tr>
<tr>
<td>718-50-55-22</td>
<td>S12.2</td>
<td>Valuation of ESPPs (including look-back options)</td>
</tr>
<tr>
<td>718-50-55-23</td>
<td>S12.2</td>
<td>Valuation of ESPPs (including look-back options)</td>
</tr>
<tr>
<td>718-50-55-24</td>
<td>S12.2</td>
<td>Valuation of ESPPs (including look-back options)</td>
</tr>
<tr>
<td>718-50-55-25</td>
<td>S12.2</td>
<td>Valuation of ESPPs (including look-back options)</td>
</tr>
<tr>
<td>718-50-55-26</td>
<td>S12.2</td>
<td>Valuation of ESPPs (including look-back options)</td>
</tr>
<tr>
<td>718-50-55-27</td>
<td>S12.2</td>
<td>Valuation of ESPPs (including look-back options)</td>
</tr>
<tr>
<td>718-50-55-28</td>
<td>S12.4.3</td>
<td>Rollover of plan withholdings</td>
</tr>
<tr>
<td>718-50-55-29</td>
<td>S12.4.1</td>
<td>Increase in withholdings</td>
</tr>
<tr>
<td>718-50-55-30</td>
<td>S12.4.1</td>
<td>Increase in withholdings</td>
</tr>
<tr>
<td>718-50-55-31</td>
<td>S12.4.1</td>
<td>Increase in withholdings</td>
</tr>
<tr>
<td>718-50-55-32</td>
<td>S12.4.1</td>
<td>Increase in withholdings</td>
</tr>
<tr>
<td>718-50-55-33</td>
<td>S12.4.1</td>
<td>Increase in withholdings</td>
</tr>
<tr>
<td>718-50-55-34</td>
<td>S12.1.3</td>
<td>Substantially all employees may participate on an equitable basis</td>
</tr>
<tr>
<td>718-50-55-35</td>
<td>S12.1.1</td>
<td>Terms of the plan are available to all stockholders</td>
</tr>
<tr>
<td>718-740-05-4</td>
<td>S10.1</td>
<td>Tax effects of awards that normally result in a tax deduction</td>
</tr>
<tr>
<td>718-740-25-2</td>
<td>S10.1.1</td>
<td>Calculating deferred taxes for deductible awards</td>
</tr>
<tr>
<td>718-740-25-2</td>
<td>S10.3.3.3</td>
<td>Realization of tax benefits on awards subject to graded vesting</td>
</tr>
<tr>
<td>718-740-25-2</td>
<td>S10.7</td>
<td>Tax effects of awards that normally do not result in a tax deduction</td>
</tr>
<tr>
<td>718-740-25-2</td>
<td>S12.6</td>
<td>Accounting for disqualifying dispositions</td>
</tr>
<tr>
<td>718-740-25-3</td>
<td>S10.1.1</td>
<td>Calculating deferred taxes for deductible awards</td>
</tr>
<tr>
<td>718-740-25-3</td>
<td>S10.5.1.4.1</td>
<td>Initial pool calculation</td>
</tr>
<tr>
<td>718-740-25-3</td>
<td>S10.7</td>
<td>Tax effects of awards that normally do not result in a tax deduction</td>
</tr>
<tr>
<td>ASC Paragraph</td>
<td>Section</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>718-740-25-3</td>
<td>S10.7.1</td>
<td>Accounting for a change in the tax status of an award (e.g., disqualifying disposition)</td>
</tr>
<tr>
<td>718-740-25-3</td>
<td>S12.6</td>
<td>Accounting for disqualifying dispositions</td>
</tr>
<tr>
<td>718-740-25-4</td>
<td>S10.1.1</td>
<td>Calculating deferred taxes for deductible awards</td>
</tr>
<tr>
<td>718-740-25-10</td>
<td>S10.3.2.3</td>
<td>Net unrealized excess tax benefits acquired in a purchase business combination</td>
</tr>
<tr>
<td>718-740-25-10</td>
<td>S10.3.3</td>
<td>Determining when an excess tax benefit is realized and measuring the excess tax benefit (footnote 82)</td>
</tr>
<tr>
<td>718-740-25-10</td>
<td>S10.5.1.4.1</td>
<td>Initial pool calculation</td>
</tr>
<tr>
<td>718-740-25-10</td>
<td>S10.5.1.4.2</td>
<td>Subsequent recognition of tax benefits</td>
</tr>
<tr>
<td>718-740-25-10</td>
<td>S10.5.2</td>
<td>Deferred taxes in transition – prospective transition</td>
</tr>
<tr>
<td>718-740-25-10</td>
<td>S10.6.3</td>
<td>Accounting for income tax benefits of dividends on share-based payments</td>
</tr>
<tr>
<td>718-740-25-10</td>
<td>S13.6.6</td>
<td>Statement of cash flows</td>
</tr>
<tr>
<td>718-740-30-1</td>
<td>S10.1.1</td>
<td>Calculating deferred taxes for deductible awards</td>
</tr>
<tr>
<td>718-740-30-1</td>
<td>S10.7</td>
<td>Tax effects of awards that normally do not result in a tax deduction</td>
</tr>
<tr>
<td>718-740-30-2</td>
<td>S10.2</td>
<td>Valuation allowances on deferred tax assets</td>
</tr>
<tr>
<td>718-740-35-3</td>
<td>S10.3.1</td>
<td>Tax deduction exceeds recognized compensation cost</td>
</tr>
<tr>
<td>718-740-35-5</td>
<td>S10.3.1</td>
<td>Tax deduction is less than recognized compensation cost</td>
</tr>
<tr>
<td>718-740-35-7</td>
<td>S10.3.1</td>
<td>Tax deduction is less than recognized compensation cost</td>
</tr>
<tr>
<td>718-740-45-2</td>
<td>S10.3.1</td>
<td>Tax deduction exceeds recognized compensation cost</td>
</tr>
<tr>
<td>718-740-45-4</td>
<td>S10.3.1</td>
<td>Tax deduction is less than recognized compensation cost</td>
</tr>
<tr>
<td>718-740-45-8</td>
<td>S10.6.3</td>
<td>Accounting for income tax benefits of dividends on share-based payments</td>
</tr>
<tr>
<td>718-740-45-9</td>
<td>S10.6.3</td>
<td>Accounting for income tax benefits of dividends on share-based payments</td>
</tr>
<tr>
<td>718-740-45-10</td>
<td>S10.6.3</td>
<td>Accounting for income tax benefits of dividends on share-based payments</td>
</tr>
<tr>
<td>718-740-45-11</td>
<td>S10.6.3</td>
<td>Accounting for income tax benefits of dividends on share-based payments</td>
</tr>
<tr>
<td>740-10-30-5(e)</td>
<td>S10.2</td>
<td>Valuation allowances on deferred tax assets</td>
</tr>
<tr>
<td>740-10-45-4</td>
<td>S10.1.2</td>
<td>Balance sheet classification of deferred tax assets arising from share-based payments</td>
</tr>
<tr>
<td>805-10-55-25(a)</td>
<td>S2.7</td>
<td>Escrowed share arrangements (or placing vesting requirements on previously issued shares)</td>
</tr>
<tr>
<td>805-20-55-50</td>
<td>S4.4.2.2.1</td>
<td>Performance conditions based on IPOs, change in control and other liquidity events</td>
</tr>
<tr>
<td>805-20-55-50</td>
<td>S4.4.5.4</td>
<td>Example – Options that become exercisable on a liquidity event resulting in a specified return to shareholders</td>
</tr>
<tr>
<td>ASC Paragraph</td>
<td>Section</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>805-20-55-51</td>
<td>S4.4.2.2.1</td>
<td>Performance conditions based on IPOs, change in control and other liquidity events</td>
</tr>
<tr>
<td>805-20-55-51</td>
<td>S4.4.5.4</td>
<td>Example – Options that become exercisable on a liquidity event resulting in a specified return to shareholders</td>
</tr>
<tr>
<td>805-20-55-51</td>
<td>S5.2.3.5.5</td>
<td>Examples</td>
</tr>
<tr>
<td>815-10-45-10</td>
<td>S2.5</td>
<td>Awards by an employer based on another company's stock</td>
</tr>
<tr>
<td>815-40-15-5A</td>
<td>S7.1.1</td>
<td>Market price for employee stock options</td>
</tr>
<tr>
<td>815-40-15-7</td>
<td>S7.1.1</td>
<td>Market price for employee stock options</td>
</tr>
<tr>
<td>815-40-35-9</td>
<td>S9.1.2.2</td>
<td>Classification of share-based payments to nonemployees</td>
</tr>
<tr>
<td>815-40-55-48</td>
<td>S7.1.1</td>
<td>Market price for employee stock options</td>
</tr>
<tr>
<td>820-10-15-2</td>
<td>S6.1</td>
<td>Definition of fair value</td>
</tr>
</tbody>
</table>
As discussed in Section S2.2, IRS Revenue Ruling 87-41 provides twenty factors, designed as guidelines, for determining whether an individual is an employee under the common law rules. Those factors should be used in determining whether individuals subject to U.S. law meet the definition of an employee for purposes of ASC 718. Those factors are listed below:

1. **Instructions** – A worker who is required to comply with other persons’ instructions about when, where, and how he or she is to work is ordinarily an employee. This control factor is present if the person or persons for whom the services are performed have the right to require compliance with instructions.

2. **Training** – Training a worker by requiring an experienced employee to work with the worker, by corresponding with the worker, by requiring the worker to attend meetings, or by using other methods, indicates that the person or persons for whom the services are performed want the services performed in a particular method or manner.

3. **Integration** – Integration of the worker’s services into the business operations generally shows that the worker is subject to direction and control. When the success or continuation of a business depends to an appreciable degree upon the performance of certain services, the workers who perform those services must necessarily be subject to a certain amount of control by the owner of the business.

4. **Services rendered personally** – If the services must be rendered personally, presumably the person or persons for whom the services are performed are interested in the methods used to accomplish the work as well as in the results.

5. **Hiring, supervising, and paying assistants** – If the person or persons for whom the services are performed hire, supervise, and pay assistants, that factor generally shows control over the workers on the job. However, if one worker hires, supervises, and pays the other assistants pursuant to a contract under which the worker agrees to provide materials and labor and under which the worker is responsible only for the attainment of a result, this factor indicates an independent contractor status.

6. **Continuing relationship** – A continuing relationship between the worker and the person or persons for whom the services are performed indicates that an employer-employee relationship exists. A continuing relationship may exist where work is performed at frequently recurring although irregular intervals.

7. **Set hours of work** – The establishment of set hours of work by the person or persons for whom the services are performed is a factor indicating control.

---

54 IRS Revenue Ruling should not be used to determine if individuals subject to the laws of other jurisdictions are common law employees for purposes of applying the provisions of ASC 718. A reporting entity based in a foreign jurisdiction would determine whether an employee-employer relationship exists based on the pertinent laws of that jurisdiction.
8. **Full time required** – If the worker must devote substantially full time to the business of the person or persons for whom the services are performed, such person or persons have control over the amount of time the worker spends working and impliedly restrict the worker from doing other gainful work. An independent contractor, on the other hand, is free to work when and for whom he or she chooses.

9. **Doing work on employer’s premises** – If the work is performed on the premises of the person or persons for whom the services are performed, that factor suggests control over the worker, especially if the work could be done elsewhere. Work done off the premises of the person or persons receiving the services, such as at the office of the worker, indicates some freedom from control. However, this fact by itself does not mean that the worker is not an employee. The importance of this factor depends on the nature of the service involved and the extent to which an employer generally would require that employees perform such services on the employer’s premises. Control over the place of work is indicated when the person or persons for whom the services are performed have the right to compel the worker to travel a designated route, to canvass a territory within a certain time, or to work at specific places as required.

10. **Order or sequence set** – If a worker must perform services in the order or sequence set by the person or persons for whom the services are performed, that factor shows that the worker is not free to follow the worker’s own pattern of work but must follow the established routines and schedules of the person or persons for whom the services are performed. Often, because of the nature of an occupation, the person or persons for whom the services are performed do not set the order of the services or set the order infrequently. It is sufficient to show control, however, if such person or persons retain the right to do so.

11. **Oral or written reports** – A requirement that the worker submit regular or written reports to the person or persons for whom the services are performed indicates a degree of control.

12. **Payment by hour, week, month** – Payment by the hour, week, or month generally points to an employer-employee relationship, provided that this method of payment is not just a convenient way of paying a lump sum agreed upon as the cost of a job. Payment made by the job or on a straight commission basis generally indicates that the worker is an independent contractor.

13. **Payment of business and/or traveling expenses** – If the person or persons for whom the services are performed ordinarily pay the worker’s business and/or traveling expenses, the worker is ordinarily an employee. An employer, to be able to control expenses, generally retains the right to regulate and direct the worker's business activities.
14. **Furnishing of tools and materials** – The fact that the person or persons for whom the services are performed furnish significant tools, materials, and other equipment tends to show the existence of an employer-employee relationship.

15. **Significant investment** – If the worker invests in facilities that are used by the worker in performing services and are not typically maintained by employees (such as the maintenance of an office rented at fair value from an unrelated party), that factor tends to indicate that the worker is an independent contractor. On the other hand, lack of investment in facilities indicates dependence on the person or persons for whom the services are performed for such facilities and, accordingly, the existence of an employer-employee relationship. Special scrutiny is required with respect to certain types of facilities, such as home offices.

16. **Realization of profit or loss** – A worker who can realize a profit or suffer a loss as a result of the worker’s services (in addition to the profit or loss ordinarily realized by employees) is generally an independent contractor, but the worker who cannot is an employee. For example, if the worker is subject to a real risk of economic loss due to significant investments or a bona fide liability for expenses, such as salary payments to unrelated employees, that factor indicates that the worker is an independent contractor. The risk that a worker will not receive payment for his or her services, however, is common to both independent contractors and employees and thus does not constitute a sufficient economic risk to support treatment as an independent contractor.

17. **Working for more than one firm at a time** – If a worker performs more than de minimis services for a multiple of unrelated persons or firms at the same time, that factor generally indicates that the worker is an independent contractor. However, a worker who performs services for more than one person may be an employee of each of the persons, especially where such persons are part of the same service arrangement.

18. **Making service available to general public** – The fact that a worker makes his or her services available to the general public on a regular and consistent basis indicates an independent contractor relationship.

19. **Right to discharge** – The right to discharge a worker is a factor indicating that the worker is an employee and the person possessing the right is an employer. An employer exercises control through the threat of dismissal, which causes the worker to obey the employer’s instructions. An independent contractor, on the other hand, cannot be fired so long as the independent contractor produces a result that meets the contract specifications.

20. **Right to terminate** – If the worker has the right to end his or her relationship with the person for whom the services are performed at any time he or she wishes without incurring a liability, that factor indicates an employer-employee relationship.
Appendix D: Required disclosures

Example note to financial statements (required annual disclosures — public company)

The implementation guidance in ASC 718 includes the following example Note to Financial Statements, illustrating how ASC 718’s required disclosures may be presented.

It is important to note that the following example note does not illustrate every possible disclosure that may be required for share-based payment plans. Based on the specific fact pattern in this example, the following disclosures were not required. However, companies must consider whether these disclosure requirements are relevant to their share-based payment plans:

► Separately present all required disclosures for awards to employees and nonemployees
► Separately present all required disclosures for awards classified as equity and awards classified as liabilities
► Any discount for post-vesting restrictions and the method for estimating that discount
► Changes in valuation methodologies or assumptions
► The amount of cash used to settle equity instruments granted under share-based payments
► The accounting policy for the method of recognizing compensation cost for awards with graded vesting
► Nonpublic companies must disclose the method for valuing equity awards and liability awards

Excerpt from Accounting Standards Codification

*Compensation – Stock Compensation – Overall*

Implementation Guidance and Illustrations

718-10-55-135

On December 31, 20Y1, the Entity has two share-based compensation plans: The compensation cost that has been charged against income for those plans was $29.4 million, $28.7 million, and $23.3 million for 20Y1, 20Y0, and 20X9, respectively. The total income tax benefit recognized in the income statement for share-based compensation arrangements was $10.3 million, $10.1 million, and $8.2 million for 20Y1, 20Y0, and 20X9, respectively. Compensation cost capitalized as part of inventory and fixed assets for 20Y1, 20Y0, and 20X9 was $0.5 million, $0.2 million, and $0.4 million, respectively.
Case A: Share Option Plan

The Entity’s 20X4 employee share option plan, which is shareholder-approved, permits the grant of share options and shares to its employees for up to 8 million shares of common stock. Entity A believes that such awards better align the interests of its employees with those of its shareholders. Option awards are generally granted with an exercise price equal to the market price of Entity A’s stock at the date of grant; those option awards generally vest based on 5 years of continuous service and have 10-year contractual terms. Share awards generally vest over five years. [We would normally expect companies to disclose whether dividends are paid on unexercised options and whether the dividends are subject to vesting]. Certain option and share awards provide for accelerated vesting if there is a change in control (as defined in the employee share option plan).

The fair value of each option award is estimated on the date of grant using a lattice-based option valuation model that uses the assumptions noted in the following table. Because lattice-based option valuation models incorporate ranges of assumptions for inputs, those ranges are disclosed. Expected volatilities are based on implied volatilities from traded options on Entity A’s stock, historical volatility of Entity A’s stock, and other factors. Entity A uses historical data to estimate option exercise and employee termination within the valuation model; separate groups of employees that have similar historical exercise behavior are considered separately for valuation purposes. The expected term of options granted is derived from the output of the option valuation model and represents the period of time that options granted are expected to be outstanding; the range given below results from certain groups of employees exhibiting different behavior. The risk-free rate for periods within the contractual life of the option is based on the U.S. Treasury yield curve in effect at the time of grant.

<table>
<thead>
<tr>
<th></th>
<th>20Y1</th>
<th>20Y0</th>
<th>20X9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected volatility</td>
<td>25%-40%</td>
<td>24%-38%</td>
<td>20%-30%</td>
</tr>
<tr>
<td>Weighted-average volatility</td>
<td>33%</td>
<td>30%</td>
<td>27%</td>
</tr>
<tr>
<td>Expected dividends</td>
<td>1.5%</td>
<td>1.5%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Expected term (in years)</td>
<td>5.3-7.8</td>
<td>5.5-8.0</td>
<td>5.6-8.2</td>
</tr>
<tr>
<td>Risk-free rate</td>
<td>6.3%-11.2%</td>
<td>6.0%-10%</td>
<td>5.5%-9.0%</td>
</tr>
</tbody>
</table>

A summary of option activity under the employee share option plan as of December 31, 20Y1, and changes during the year then ended is presented below:
Appendix D: Required disclosures

### Financial reporting developments

#### Share-based payment

<table>
<thead>
<tr>
<th>Options</th>
<th>Shares (000)</th>
<th>Weighted-Average Exercise Price</th>
<th>Weighted-Average Remaining Contractual Term</th>
<th>Aggregate Intrinsic Value ($000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outstanding at January 1, 20Y1</td>
<td>4,660</td>
<td>$42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Granted</td>
<td>950</td>
<td>60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exercised</td>
<td>(800)</td>
<td>36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forfeited or expired</td>
<td>(80)</td>
<td>59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outstanding at December 31, 20Y1</td>
<td>4,730</td>
<td>$47</td>
<td>6.5</td>
<td>$85,140</td>
</tr>
<tr>
<td>[Vested or expected to vest at December 31, 20Y1]</td>
<td>4,320</td>
<td>$46</td>
<td>6.4</td>
<td>$81,255</td>
</tr>
<tr>
<td>Exercisable at December 31, 20Y1</td>
<td>3,159</td>
<td>$41</td>
<td>4.0</td>
<td>$75,816</td>
</tr>
</tbody>
</table>

The weighted-average grant-date fair value of options granted during the years 20Y1, 20Y0, and 20X9 was $19.57, $17.46, and $15.90, respectively. The total intrinsic value of options exercised during the years ended December 31, 20Y1, 20Y0, and 20X9, was $25.2 million, $20.9 million, and $18.1 million, respectively. [The fair value of nonvested shares is determined based on the opening trading price of the company’s shares on the grant date. The weighted-average grant-date fair value of shares granted during the years 20Y1, 20Y0, and 20X9 was $63.50, 56.00, and $51.25, respectively]

A summary of the status of Entity A’s nonvested shares as of December 31, 20Y1, and changes during the year ended December 31, 20Y1, is presented below:

<table>
<thead>
<tr>
<th>Nonvested Shares</th>
<th>Shares (000)</th>
<th>Weighted-Average Grant-Date Fair Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonvested at January 1, 20Y1</td>
<td>980</td>
<td>$40.00</td>
</tr>
<tr>
<td>Granted</td>
<td>150</td>
<td>63.50</td>
</tr>
<tr>
<td>Vested</td>
<td>(100)</td>
<td>35.75</td>
</tr>
<tr>
<td>Forfeited</td>
<td>(40)</td>
<td>55.25</td>
</tr>
<tr>
<td>Nonvested at December 31, 20Y1</td>
<td>990</td>
<td>43.35</td>
</tr>
</tbody>
</table>

As of December 31, 20Y1, there was $25.9 million of total unrecognized compensation cost related to nonvested share-based compensation arrangements granted under the employee share option plan. That cost is expected to be recognized over a weighted-average period of 4.9 years. The total fair value of shares vested during the years ended December 31, 20Y1, 20Y0, and 20X9, was $22.8 million, $21 million, and $20.7 million, respectively. [Note that this disclosure is provided in the aggregate for all awards that vest based on service conditions. Disclosure is provided separately for awards subject to performance vesting.]
During 20Y1, the Entity extended the contractual life of 200,000 fully vested share options held by 10 employees. As a result of that modification, the Entity recognized additional compensation expense of $1.0 million for the year ended December 31, 20Y1.

Case B: Performance Share Option Plan

Under its 20X7 performance share option plan, which is shareholder-approved, each January 1 Entity A grants selected executives and other key employees share option awards whose vesting is contingent upon meeting various departmental and company-wide performance goals, including decreasing time to market for new products, revenue growth in excess of an index of competitors’ revenue growth, and sales targets for Segment X. Share options under the performance share option plan are generally granted at-the-money, contingently vest over a period of 1 to 5 years, depending on the nature of the performance goal, and have contractual lives of 7 to 10 years. The number of shares subject to options available for issuance under this plan cannot exceed five million.

The fair value of each option grant under the performance share option plan was estimated on the date of grant using the same option valuation model used for options granted under the employee share option plan and assumes that performance goals will be achieved. If such goals are not met, no compensation cost is recognized and any recognized compensation cost is reversed. The inputs for expected volatility, expected dividends, and risk-free rate used in estimating those options’ fair value are the same as those noted in the table related to options issued under the employee share option plan. The expected term for options granted under the performance share option plan in 20Y1, 20Y0, and 20X9 is 3.3 to 5.4 years, 2.4 to 6.5 years, and 2.5 to 5.3 years, respectively.

A summary of the activity under the performance share option plan as of December 31, 20Y1, and changes during the year then ended is presented below:

<table>
<thead>
<tr>
<th>Performance Options</th>
<th>Shares (000)</th>
<th>Weighted-Average Exercise Price</th>
<th>Weighted-Average Remaining Contractual Term</th>
<th>Aggregate Intrinsic Value ($000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outstanding at January 1, 20Y1</td>
<td>2,533</td>
<td>$44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Granted</td>
<td>995</td>
<td>60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exercised</td>
<td>(100)</td>
<td>36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forfeited</td>
<td>(604)</td>
<td>59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outstanding at December 31, 20Y1</td>
<td>2,824</td>
<td>$47</td>
<td>7.1</td>
<td>$50,832</td>
</tr>
<tr>
<td>[Vested or expected to vest at December 31, 20Y1</td>
<td>2,051</td>
<td>$46</td>
<td>7</td>
<td>$39,500</td>
</tr>
<tr>
<td>Exercisable at December 31, 20Y1</td>
<td>936</td>
<td>$40</td>
<td>5.3</td>
<td>$23,400</td>
</tr>
</tbody>
</table>
The weighted-average grant-date fair value of options granted during the years 20Y1, 20Y0, and 20X9 was $17.32, $16.05, and $14.25, respectively. The total intrinsic value of options exercised during the years ended December 31, 20Y1, 20Y0, and 20X9, was $5 million, $8 million, and $3 million, respectively. As of December 31, 20Y1, there was $16.9 million of total unrecognized compensation cost related to nonvested share-based compensation arrangements granted under the performance share option plan; that cost is expected to be recognized over a period of 4.0 years.

Cash received from option exercise under all share-based payment arrangements for the years ended December 31, 20Y1, 20Y0, and 20X9, was $32.4 million, $28.9 million, and $18.9 million, respectively. The actual tax benefit realized for the tax deductions from option exercise of the share-based payment arrangements totaled $11.3 million, $10.1 million, and $6.6 million, respectively, for the years ended December 31, 20Y1, 20Y0, and 20X9.

Entity A has a policy of repurchasing shares on the open market to satisfy share option exercises and expects to repurchase approximately 1 million shares during 20Y2, based on estimates of option exercises for that period.

Example note to financial statements (required annual disclosures — nonpublic company)

The previous example illustrated how ASC 718's required annual disclosures might be presented for a public company. A nonpublic company that uses the calculated value method to measure compensation cost must provide additional details regarding how it values its share-based payments and the volatility assumptions used to estimate calculated value. The following is an example of the disclosures a nonpublic company might provide regarding its use of the calculated value method to value stock options. The disclosure is based on the fact pattern in ASC 718-20-55-77 through 55-83.

The company estimates the value of its stock options using the calculated value on the grant date. The company measures compensation cost of employee stock options based on the calculated value instead of fair value because it is not practical to estimate the volatility of its share price. The company does not maintain an internal market for its shares and its shares are rarely traded privately. The company has not issued any new equity or convertible debt instruments in several years and has not been able to identify any similar public entities. The calculated value method requires that the volatility assumption used in an option-pricing model be based on the historical volatility of an appropriate industry sector index.

The company uses the Black-Scholes-Merton formula to estimate the calculated value of its share-based payments. The volatility assumption used in the Black-Scholes-Merton formula is based on the volatility of the Dow Jones Small Cap Medical Equipment Index. The company calculated the historical volatility of that index using the daily closing total returns for that index for the five years immediately prior to January 1, 20X5.
[Note that the disclosures regarding all other assumptions used in the option-pricing model would be similar to the information disclosed in the preceding public company example.]

As noted in Section S3.2.4.1 we believe that it will be uncommon that a company will be able to identify an appropriate industry sector index (as above) and not be able to identify similar entities within that index on which to base an estimate of its own share price volatility (and therefore be required to use fair value).
Appendix E: Building a lattice model

A lattice model is not an equation or a formula, but is instead a framework for calculating the fair value of an option using discounted cash flows. A lattice model is a flexible, iterative approach to valuation that can better capture the valuation impact of the unique aspects of employee stock options than the Black-Scholes-Merton formula. To create a lattice model, a tree whose branches represent alternative future stock-price movements is created. Those stock-price paths are then used to calculate the value of the option. To illustrate how a lattice model is used, we will first develop a simple lattice model with just a few nodes that does not differ in essence from a Black-Scholes-Merton valuation. We will then illustrate how the lattice model can be augmented to incorporate a more robust set of assumptions as discussed in Chapter 7.

Assume that a stock option is issued with an exercise price of $10 and that the stock price on the grant date is $10. For purposes of this example, we will assume a constant volatility (30%) and risk-free rate (5%) although, as we will discuss later, those static assumptions may be less appropriate assumptions when valuing a longer-term stock option. We will also assume that the grantor pays no dividends on its stock. Finally, we will assume that the term of the option is five years and will set the period between nodes at six months.

At t = 0 (the grant date), the lattice is started at the grant-date stock price ($10 in our example). At each node, two possible price changes (one increase and one decrease) are computed based on the stock’s volatility. The two new stock prices are computed as follows:

- **Upward movements** are calculated as $u = e^{\sigma \sqrt{t}}$ where
  - $\sigma$ = annualized volatility
  - $t$ = time between nodes
    (based on a fraction of a year)

- **Downward movements** are calculated as $d = 1/u$

Therefore, we calculate the upward movement as:

$u = e^{0.30 \times \sqrt{0.5}} = 1.236$

So the price at $S_{1,1} = \$10 \times 1.236 = \$12.36$

We calculate the downward movement as:

$d = 1/1.236 = 0.809$

So the price at $S_{1,0} = \$10 \times 0.809 = \$8.09$

55 The relevant difference between the two is the specification of a very small number of nodes in the lattice model. This specification is for illustration purposes only.
Accordingly, the stock price moves from $S_{0,0}$ to $S_{1,0}$ and $S_{1,1}$ as follows:

- $12.36 (S_{1,1})$
- $10.00 (S_{0,0})$
- $8.09 (S_{1,0})$

This process of expanding the tree continues in the same fashion at each node, until the end of the contractual term is reached. The tree of stock-price movements is illustrated in Exhibit E.1.

**Exhibit E.1 – Stock-price tree**

One of the advantages of a lattice model is its ability to depict a large number of possible future paths of stock prices over the life of the option. In our example above (used for illustration purposes only) the specification of a six-month interval between nodes provides an inappropriately narrow description of future price paths. As the length of the period between nodes decreases, the description of future stock-price movements becomes richer and the estimate of value more accurate.56

In addition to specifying the time between nodes, the lattice model specifies the probabilities that the price will increase or decrease at any given node. As discussed above, if a large number of short periods between nodes is specified, then the lattice model already accurately describes the evolution of stock prices. Therefore, no additional accuracy is achieved by setting the probabilities of an up or a down movement in stock price at anything other than $\frac{1}{2}$ and $\frac{1}{2}$ at every node.

Note that in the tree in Exhibit E.1, an upward price movement followed by a downward movement results in the same end price as a downward movement followed by an upward movement. This recombining characteristic of the stock-price tree results from the constant volatility assumption and greatly simplifies the valuation task at hand. In the example above there are 66 (1+2+3+...+9+10+11) individual nodes. Were a more complex tree specified in which the branches do not recombine, there would be 2047 ($2^{11} - 1$) nodes. If a tree were specified for a 10-year option with two periods per month, then in the case of a recombining tree there would be 29,161 nodes and in the case of a non-recombining tree there would be ($2^{241} - 1$) nodes! Alternative assumptions that lead to the construction of a tree that does not recombine are discussed further below.

The computing power required to analyze a non-recombining tree of the magnitude described above (i.e., with ($2^{241} - 1$) nodes) does not exist. However, a lattice model can be simulated (e.g., using Monte Carlo simulation software) in a way that randomly samples a very large

---

56 Exact equivalence between a Black-Scholes calculation and a lattice model calculation (under identical static assumptions) is achieved when the time between nodes approaches zero.
number of individual stock-price paths (i.e., branches of the tree). The values calculated for each of these paths are then used to calculate the value of the stock option.

After the stock-price tree is developed, the option must be valued at each node in the tree in a process characterized as “backward induction.” In this process, we start at the end of the tree (at \( t = 10 \) in our example) and calculate the value at each node. The calculation of value at those end nodes is simple because the option is expiring and, therefore, the fair value of the option is equal to its intrinsic value if the intrinsic value is positive (e.g. nodes \( S_{10,10} \) through \( S_{10,6} \)) and zero if it is negative (e.g. nodes \( S_{10,5} \) through \( S_{10,0} \)). For example, the stock prices at nodes \( S_{10,10} \) and \( S_{10,4} \) are $83.42 and $6.54, respectively. Because the option’s exercise price is $10, the option’s intrinsic values at nodes \( S_{10,10} \) and \( S_{10,4} \) are $73.42 and $0, respectively (see Exhibit E.2 below).

The next step is to calculate the value of the option at node \( S_{9,9} \). To do this, we must calculate the present value at \( t = 9 \) of the two possible outcomes at \( t = 10 \), \( S_{10,10} \) and \( S_{10,9} \), based on their relative probabilities of occurring and a discount rate equal to the risk-free rate.

In our example price tree, we have not incorporated an upward drift in stock price resulting from the upward pressure of interest rates. One way to incorporate the impact of interest rates is to adjust the probabilities associated with possible up or down movements from any node away from \( \frac{1}{2}, \frac{1}{2} \) so that the probability of an increase (decrease) in stock price is greater (less than) \( \frac{1}{2} \). This change in the probabilities serves to increase the overall valuation in accordance with the positive upward drift of stock prices. The new probability values are calculated as follows:

- **Upward price movement probability** = \( p_u = \frac{a-d}{u-d} \)
  
  where \( a = e^{rt} \)

- **Downward price movement** = \( p_d = 1 - p_u \)

If the risk-free rate were 5%, we would calculate the probability of an upward price movement as (note that the calculations of \( u \) and \( d \) were illustrated earlier in this section):

\[
p_u = \frac{e^{(0.05)(0.5)} - 0.809}{1.236 - 0.809} = 0.506
\]

and the probability of a downward price movement as:

\[
p_d = 1 - 0.506 = 0.494
\]

The discount factor is given by:

\[
e^{(0.05)(0.5)} = 1.025
\]
The option's discounted present value at node $S_{9,9}$ is therefore the greater of zero and:

$$[(p_u \times S_{10,10}) + (p_d \times S_{10,9})] / e^{rt} = [(0.506 \times 73.42) + (0.494 \times 44.58)] / 1.025 = 57.72$$

Assuming that no early exercise takes place, the expected value computation process (backward induction) continues until the value at $S_{0,0}$, as illustrated in Exhibit E.2, has been determined. Throughout the following discussion we will refer to the example illustrated in Exhibit E.2 as the “basic example.”

**Exhibit E.2 – Stock-Price and Value Tree**
Additional complexities of using a lattice model to value employee stock options

The lattices reproduced in Exhibits E.1 and E.2 are very simple. In this section we discuss refinements of the lattice model that illustrate the model’s ability to incorporate a rich set of assumptions that can enhance the accuracy of the valuation of employee stock options. Below, we discuss alternative assumptions regarding volatility, dividends, and the turnover and exercise behavior of option holders.

Modeling volatility in a lattice

There are a number of assumptions with respect to volatility that would result in a more complex, non-recombining tree. For instance, assuming a term structure of volatility or a path dependence of volatility will cause the tree to fail to recombine.

There is evidence that the implied volatility of an option depends on its term to expiration and, in particular, that short term options often exhibit higher volatility than similar options with longer terms. Therefore, the volatility used to define price movements at the earlier nodes of the tree (corresponding to longer terms to expiration) may be specified to be different than the volatilities used in the later portions of the tree. Returning to our simple example above, suppose that at the second time period, the volatility was 31% instead of 30%. Then the nodes of the tree corresponding to the first two periods would differ from the basic example as follows:

Exhibit E.3 – Constant volatility

Volatility: 30% 30%

<table>
<thead>
<tr>
<th></th>
<th>S2,2</th>
<th>S1,1</th>
<th>S0,0</th>
<th>S1,0</th>
<th>S2,0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15.28</td>
<td>12.36</td>
<td>10.00</td>
<td>8.09</td>
<td>6.54</td>
</tr>
</tbody>
</table>
Exhibit E.4 – Term structure of volatility

Modeling dividends in a lattice

For holders of options on dividend-paying stocks, the options generally must be exercised to entitle the holder to the dividends. Therefore, there is a cost to option holders of holding the option that corresponds to the dividend payments foregone. To reflect this cost in the value tree, the probabilities associated with upward and downward movements in the stock price are adjusted in a manner similar to the adjustment made to reflect the general upward drift of stock prices resulting from interest rates. Unlike interest rates, however, dividends lower the option’s value through the dividend foregone relative to the increase associated with the interest rate drift as follows:

- Upward price movement probability =
  \[ p_u = \frac{a}{v-d} \]
  where
  \[ v = e^{qt} \text{ and } q \text{ is the annual dividend yield} \]

- Downward price movement = \( p_d = 1 - p_u \)

Therefore, if the risk-free rate were 5% and the dividend yield were 1%, we calculate the probability of an upward price movement as:

\[ p_u = \frac{e^{0.05 \times 0.5}/e^{0.01 \times 0.5} - 0.809}{1.236 - 0.809} = 0.494 \]

and the probability of a downward price movement as:

\[ p_d = 1 - 0.494 = 0.506 \]

The discount factor is again given by:

\[ e^{0.05 \times 0.5} = 1.025 \]

The option’s discounted present value at node \( S_{9,9} \) is therefore the maximum of zero and:

\[ \frac{(0.494 \times 73.42) + (0.506 \times 44.58)}{1.025} = 57.39 \]

Assuming as before that no early exercise takes place, the expected value computation process continues until the value at \( S_{0,0} \), as illustrated in Exhibit E.5, has been determined.
Exhibit E.5 – Stock-price and value tree assuming a dividend yield of 1%

The above valuation represents a 10.5% decrease from the $3.54 value calculated in the basic example in which the dividend yield is assumed to be zero.
Modeling post-vesting termination behavior in a lattice

A rate of turnover of option holders can be specified in the lattice model. Post-vesting terminations\(^{57}\) will lower the value of the option since they represent early exercise if the option is in the money at the time of termination and expiration (i.e. zero value) if the option is out of the money at the time of termination. To incorporate post-vesting terminations into the valuation model, we incorporate the probability that an option holder terminates at any given node into the option’s discounted present value at that node as follows (building on the basic example):

Let \(g\) denote the termination rate per period. Then the option’s discounted present value at node \(S_{9,9}\) is the maximum of zero and:

\[
(1-g) \times \left[ (p_u \times S_{10,10}) + (p_d \times S_{10,9}) \right] e^{rt} + g \times (\text{max(intrinsic value, 0)}).
\]

The first term in the above equation denotes the option’s discounted present value at node \(S_{9,9}\) (as before) multiplied by the proportion of option holders who remain at \(t = 9\). Note that if \(g = 0\) then there would be no change from the previous calculation. The second term represents the value of the option at node \(S_{9,9}\) multiplied by the proportion of employees who terminate at \(t = 9\). Note that the value at \(t = 9\) for those who terminate is the greater of the option’s intrinsic value and zero (because the departing employee either exercises an in-the-money option or forfeits an out-of-the-money option).

If the termination rate = 7% per year, then this calculation gives:

\[
(1-0.035) \times \left[ (0.506 \times $73.42) + (0.494 \times $44.58) \right] / 1.025 + 0.035 \times (\text{max($67.48 -$10.00, 0)) = $57.71}
\]

Assuming as before that no other early exercise takes place except early exercise associated with an option holder’s termination, the expected value computation process continues until the value at \(S_{0,0}\), as illustrated in Exhibit E.6, has been determined:

---

\(^{57}\) Exhibit E.5 assumes that the option is fully vested on the grant date. Pre-vesting terminations are addressed in Exhibit E.6. These terminations are not considered in the valuation of employee stock options, but instead determine the number of options for which compensation cost is recognized. See further discussion in Section S3.4.
Exhibit E.6 – Stock-price and value tree assuming an annual departure rate of 7% 

The above valuation represents a 13% decrease from the $3.54 value calculated in the basic example in which turnover is assumed to be zero.

The option valuation may be further refined by incorporating vesting requirements associated with the option. ASC 718 does not permit the incorporation of pre-vesting forfeitures into the estimate of the value (i.e., the “price”) of employee stock options. Therefore, the valuation must assume no such forfeitures. However, exercise or expiration due to termination would be incorporated into the estimate of value for options that have vested as described above. Accordingly, at any node, we would first determine whether the option has vested and then value it appropriately as follows:
If the option has vested then there is no change from Exhibit E.6 above and the value at the node is:

\[(1-g) \times [(p_u \times S_{10,10}) + (p_d \times S_{10,9})] / e^{rt} + g \times (\text{max(intrinsic value, 0)})\]

If the option has not vested, then the value at the node is simply

\[[(p_u \times S_{10,10}) + (p_d \times S_{10,9})] / e^{rt}\]

Adding a 1-year cliff-vesting feature to the option valuation with a 7% departure rate increases the valuation by 8.1%.

**Exhibit E.7 – Stock-price and value tree assuming an annual departure rate of 7% and one-year cliff vesting**
In comparing Exhibits E.6 and E.7, the only changes in value are at the nodes in times 1 and 2 which represent the pre-vesting period. Note that the 7% turnover estimate would be incorporated into the recognition of compensation cost because only 93% of the measured fair value of the awards would be recognized as compensation cost. However, unlike the assumptions used in the valuation of the options, the estimated forfeiture rate is ultimately adjusted to actual so that compensation cost is only recognized for those awards for which the employees have provided the requisite service. Said another way, compensation cost is measured as the price of the award (“P”) multiplied by the quantity (“Q”). P is not subsequently adjusted, but Q is. For example, assume 1,000 options were granted with a fair value per option of $3.33. We originally expect that 7% of the options will be forfeited and, accordingly, begin to recognize $3,096.90 ($3.33 × 1,000 × (1 − .07)) in compensation cost. Ultimately, only 900 options vest. Accordingly, compensation cost of $2,997 ($3.33 × 900) would be recognized.

**Modeling exercise behavior in a lattice**

Employee-exercise behavior can be specified in many ways in a lattice model. For instance, blackout periods during which certain option holders may not trade shares (and therefore may be less likely to exercise options) can be incorporated into a lattice model by simply specifying in the value tree that no exercise takes place at the nodes corresponding to those periods. Rules can be specified that relate exercise behavior to the option’s moneyness (i.e., the amount of intrinsic value in the option), to changes in moneyness over a prior period, to the option’s vesting, or the option’s coming into the money after a period of being out-of-the-money, and so on.

For illustrative purposes, consider a simple exercise rule whereby all option holders exercise their options if the stock price achieves a 1.5x multiple of the exercise price. Building on the example illustrated in Exhibit E.7, our valuation rules become:

If the option has vested and $S_{i,j} > $15, then the value at the node is the option’s intrinsic value and that branch of the tree is terminated at that point.

If the option has vested and $S_{i,j} < $15, then the value at the node is (as before):

\[(1-g) \times \left[ (p_u \times S_{10,10}) + (p_d \times S_{10,9}) \right] / e^{rt} + g \times (\text{max(intrinsic value, 0)})\]

If the option has not vested, then the value at the node is:

\[\left[ (p_u \times S_{10,10}) + (p_d \times S_{10,9}) \right] / e^{rt}\]

Adding the exercise trigger multiple to the option valuation with a 7% departure rate and one-year cliff vesting decreases the valuation by 16.2%.
Exhibit E.8 – stock-price and value tree assuming an annual departure rate of 7%, one-year cliff vesting and exercise trigger

Assumptions
- Strike price: 10.00
- Exercise price: 10.00
- Term: 5 years
- Volatility: 30%
- Interest rate: 5%
- Dividend yield: 0%
- Termination rate: 7%
- Vesting: 1 year cliff
- Exercise trigger: 1.5

<table>
<thead>
<tr>
<th>Years</th>
<th>0.0</th>
<th>0.5</th>
<th>1.0</th>
<th>1.5</th>
<th>2.0</th>
<th>2.5</th>
<th>3.0</th>
<th>3.5</th>
<th>4.0</th>
<th>4.5</th>
<th>5.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock Price</td>
<td>S0,0</td>
<td>S1,0</td>
<td>S2,0</td>
<td>S3,0</td>
<td>S4,0</td>
<td>S5,0</td>
<td>S6,0</td>
<td>S7,0</td>
<td>S8,0</td>
<td>S9,0</td>
<td>S10,0</td>
</tr>
<tr>
<td>Option FV</td>
<td>10.00</td>
<td>2.79</td>
<td>12.36</td>
<td>6.11</td>
<td>12.36</td>
<td>5.28</td>
<td>12.36</td>
<td>5.28</td>
<td>12.36</td>
<td>5.28</td>
<td>12.36</td>
</tr>
<tr>
<td>1.5%</td>
<td>6.54</td>
<td>0.75</td>
<td>6.54</td>
<td>0.75</td>
<td>6.54</td>
<td>0.75</td>
<td>6.54</td>
<td>0.75</td>
<td>6.54</td>
<td>0.75</td>
<td>6.54</td>
</tr>
<tr>
<td>0.06</td>
<td>3.09</td>
<td>0.15</td>
<td>3.09</td>
<td>0.15</td>
<td>3.09</td>
<td>0.15</td>
<td>3.09</td>
<td>0.15</td>
<td>3.09</td>
<td>0.15</td>
<td>3.09</td>
</tr>
<tr>
<td>-2.80</td>
<td>-2.80</td>
<td>-2.80</td>
<td>-2.80</td>
<td>-2.80</td>
<td>-2.80</td>
<td>-2.80</td>
<td>-2.80</td>
<td>-2.80</td>
<td>-2.80</td>
<td>-2.80</td>
<td>-2.80</td>
</tr>
</tbody>
</table>

Financial reporting developments Share-based payment
About Ernst & Young

Ernst & Young is a global leader in assurance, tax, transaction and advisory services. Worldwide, our 144,000 people are united by our shared values and an unwavering commitment to quality. We make a difference by helping our people, our clients and our wider communities achieve their potential.

Ernst & Young refers to the global organization of member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. For more information about our organizations, please visit www.ey.com.

Ernst & Young LLP is a client-serving member firm of Ernst & Young Global and of Ernst & Young Americas operating in the US.

© 2010 Ernst & Young LLP.
All Rights Reserved.
SCORE no. BB1172
(Revised August 2010)

This and many of the publications produced by our US Professional Practice Group, are available free on AccountingLink at ey.com/us/accountinglink

This publication has been carefully prepared but it necessarily contains information in summary form and is therefore intended for general guidance only; it is not intended to be a substitute for detailed research or the exercise of professional judgment. The information presented in this publication should not be construed as legal, tax, accounting, or any other professional advice or service. Ernst & Young LLP can accept no responsibility for loss occasioned to any person acting or refraining from action as a result of any material in this publication. You should consult with Ernst & Young LLP or other professional advisors familiar with your particular factual situation for advice concerning specific audit, tax or other matters before making any decision.