U.S. GAAP, From Basic Application to Current Topics Seminar
August 31 – September 1, 2009

5B: Purchase Accounting Under GAAP & IFRS – Part I (Advanced)

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Purchase Accounting under GAAP and IFRS

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Agenda

• Purchase Accounting under GAAP (PGAAP)
  – Overview of FAS 141R
  – Purchase Price Allocation
  – Goodwill and Bargain Purchase Gain
  – PGAAP Liabilities
  – Value of Business Acquired (VOBA)
  – Impairment

• Purchase Accounting under IFRS
  – Overview of Purchase Accounting under IFRS
  – Useful Life and Amortization
  – Impairment Testing
  – Disclosures under IFRS
Purchase Accounting Overview

- Insurance business combinations
  - Acquisition of a life insurance company or a life insurance holding company
  - Acquisition of net assets through coinsurance or assumption reinsurance
  - Merger of two life insurance companies
- When an entity is acquired:
  - Assets and Liabilities are recorded at fair value
  - Goodwill (or bargain purchase gain, under FAS 141R) is equal to the excess of the consideration transferred (and noncontrolling interest, if any) over the recognized amounts of assets acquired and liabilities assumed
- Relevant accounting literature
  - FAS 141: Business Combinations (until end 2008)
  - FAS 141R: Business Combinations (from beginning 2009)
  - FAS 142: Goodwill and Other Intangible Assets
  - FAS 157: Fair Value Measurements
  - FAS 160: Non-controlling Interests in Consolidated Financial Statements

Scope of FAS 141R

FAS 141R applies to a transaction or other event in which an acquirer obtains control of one or more businesses

**FAS 141R applies to:**
- Combinations of mutual entities
- Combinations achieved without transfer of consideration
- Initial consolidation of a VIE that is a business
- Leveraged buyout transactions where control is obtained by a party to the transaction

**FAS 141R does NOT apply to:**
- Formations of joint ventures
- Transactions under common control
- Acquisitions by not-for-profit entities, and combinations of not-for-profit entities
- Net assets acquired that are not a business
The Acquisition Method

1. Identify the acquirer
2. Determine the acquisition date
3. Recognize and measure consideration transferred
4. Recognize and measure identifiable assets acquired, liabilities assumed, and noncontrolling interests
5. Recognize and measure goodwill or bargain purchase gain

Purchase Price Allocation

- Measure all assets and liabilities at fair value
  - Marketable securities at current market prices
  - Appraised value for illiquid investments
  - Real estate at appraised value
  - Evaluate intangible assets
- Insurance contract liabilities
  - Determine fair value of insurance liabilities
  - Establish value of the business acquired (VOBA) as intangible asset
- Provide deferred taxes on all book/tax differences
Recognize and Measure
Goodwill or Bargain Purchase Gain

A. The sum of the fair values of:
   1. Consideration transferred
   2. Noncontrolling interests
   3. Equity interests previously held by the acquirer

B. Recognized amounts of identifiable assets acquired and liabilities assumed

Goodwill (bargain purchase) = (A) – (B)

FAS 141R.34

Measurement of Goodwill in a Partial Acquisition

• Goodwill is the residual of:
  – The fair values of consideration transferred and noncontrolling interests, less
  – The full fair value of the recognized amounts of net identifiable assets acquired

• Recognize NCI portion of goodwill
Allocation of Goodwill in a Partial Acquisition

- **Acquirer’s goodwill:**

  $$\text{Total consideration transferred by the acquirer} - \text{Acquirer’s portion of fair value of identifiable net assets acquired}$$

- **Noncontrolling interests’ goodwill:**
  - Total goodwill, less acquirer’s goodwill
  - See example on the following slides...

Example – Apportion Goodwill

- **Example:**
  - Acquirer acquires 80% of Acquiree for $160
  - Through valuation techniques, the fair value of noncontrolling interests (NCI) is determined to be $35
  - As of the acquisition date, the fair value of the identifiable assets acquired is $210 and the fair value of the liabilities assumed is $60

Total goodwill is calculated as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fair value of Acquiree [controlling interests + NCI]</td>
<td>195</td>
</tr>
<tr>
<td>Less: FV of identifiable net assets acquired [$210 – $60]</td>
<td>(150)</td>
</tr>
<tr>
<td>Total goodwill</td>
<td>45</td>
</tr>
</tbody>
</table>
Example – Apportion Goodwill (continued)

Goodwill is allocated between Acquirer and the NCI as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consideration paid by Acquirer</td>
<td>$160</td>
</tr>
<tr>
<td>Less: Acquirer’s share of the fair value of the identifiable net assets</td>
<td>(120)</td>
</tr>
<tr>
<td>acquired (80% × [$210 – $60])</td>
<td></td>
</tr>
<tr>
<td>Goodwill allocated to Acquirer</td>
<td>40</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total goodwill (from previous page)</td>
<td>$45</td>
</tr>
<tr>
<td>Less: Amount allocated to the acquirer</td>
<td>40</td>
</tr>
<tr>
<td>Goodwill allocated to the noncontrolling interests ($45 – $40)</td>
<td>5</td>
</tr>
</tbody>
</table>

Bargain Purchase

- Bargain purchases are expected to be rare in practice
- FAS 141R requires acquirers to reassess all steps in acquisition method before booking gain
  - The bargain purchase can only be recognized as a gain after the reassessments have been made
- The gain may or may not be an extraordinary item (evaluate under APB 30)
- Bargain purchase gain, if any, is always attributed to the acquirer
PGAAP Liabilities

• Valuation of PGAAP Liabilities
  – The recognized amounts of identifiable assets acquired and liabilities assumed are measured at fair value.
  – For insurance contract liabilities, this requires a determination of the fair value of liabilities using FAS 157 concepts.
  – VOBA is the recorded value of insurance liabilities minus the fair value of insurance liabilities.

• Considerations in setting the recorded value of insurance liabilities
  – Traditional Contracts
  – Universal Life-type Contracts
  – Investment Contracts
  – Participating Contracts

PGAAP Liabilities: Traditional Contracts

• Method requires a starting point, setting either:
  – Net-to-gross ratio ("defined valuation premium method," DVPM)
  – Beginning reserve ("defined initial reserve method," or DIRM)

• Originally described in AAA Interpretation 1-D; updated in recent SOA textbook on "Mergers and Acquisitions"

• Other simplified methods may be acceptable
PGAAP Liabilities: Traditional Contracts (continued)

**Defined Valuation Premium Method**
- Select a net-to-gross premium ratio (n/g%)
  - Consistent with the ratio for new business
- PGAAP reserves equal:
  - PV(benefits & expense) – PV(valn. net prem)
  - Valuation net premium equals n/g% * gross prem

**Defined Initial Reserve Method**
- Select an initial reserve amount
  - e.g. HGAAP reserve
- PGAAP reserves equal:
  - PV(benefits & expense) – PV(valn. net prem)
  - Valuation net premium equals n/g% * gross prem
  - Solve for n/g% = [PV(benefits & exp) – initial reserve] / PV(gross premium)

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PGAAP Reserves: Assumptions

- Recalculate reserves with current assumptions, postacquisition
  - Interest: reflect asset revaluation at fair value
  - Decrements: reflect current and expected experience, including actions to be taken
  - Expenses: reflect administration charges, if any
- Include PADs for FAS 60, not 97 and 120
- Assumptions are from the acquirer’s perspective
- Only one set of Best Estimate assumptions
Initial VOBA

Practice Under FAS 141 and prior
• Follows determination of reserves
• No specific guidance exists for the initial VOBA
• Does not include value of new business
• Block purchase – “ceding commission” = VOBA
  – Fair value changes to assets and liabilities flow to ceding commission and deferred tax
• Company purchase – Initial VOBA must be calculated, then solve for goodwill

Practice under FAS 141R
• Determine value of policyholder liabilities in PGAAP balance sheet
• Determine fair value of policyholder liabilities (using FAS 157 concepts)
• VOBA is difference between recorded and fair value of liabilities

PGAAP Balance Sheet

• Fair value of assets transferred = $11,000
• Determine recorded value of liabilities = $10,000
• Purchase price or consideration to be paid = $1,778
• Calculate VOBA under FAS 141R as $274
• Determine Deferred Tax = 35% of $274 or $96
• Goodwill is balancing item

<table>
<thead>
<tr>
<th>PGAAP Balance Sheet</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Invested Assets</td>
<td>11,000</td>
<td>Reserves</td>
<td>10,000</td>
</tr>
<tr>
<td>VOBA</td>
<td>274</td>
<td>Deferred Tax</td>
<td>96</td>
</tr>
<tr>
<td>Goodwill</td>
<td>600</td>
<td>Equity (consideration paid)</td>
<td>1,778</td>
</tr>
<tr>
<td>Total Assets</td>
<td>11,874</td>
<td>Total Liabs</td>
<td>11,874</td>
</tr>
</tbody>
</table>
VOBA Amortization

• Not a function of how initial VOBA is set
• Defined by EITF 92-9, same method used to amortize DAC

• **FAS 60:**
  - Amortize over premium
  - Interest rate = earned rate
  - VOBA pattern locked-in

• **FAS 97 (and 120):**
  - Amortize over EGPs
  - Interest rate = credited rate
  - EGPs unlocked

Recoverability must be established in similar manner as DAC

Testing Goodwill for Impairment

A. Identify reporting units (RU)
B. Allocate and perform annual impairment test
   - Test: assets, liabilities, and goodwill to reporting units
C. Purchase price allocation two-step approach
   - Perform interim impairment test if there is an indication that the reporting unit’s fair value may be below its carrying amount
   - If goodwill is impaired, record impairment charge in income from operations
Testing Goodwill for Impairment (continued)

Step 1

- Compare fair value of reporting unit with carrying value amount (including goodwill)
  - If the fair value is less, proceed to Step 2
  - If greater, goodwill is not impaired and no further testing is required

Step 2

- Compare implied fair value of goodwill to its carrying amount
- “Implied fair value” is calculated as if the RU has just been acquired, with the fair value of the RU considered the “purchase price;” any excess of this purchase price over the fair value of amounts assigned to assets and liabilities of the RU is the implied fair value of goodwill for the RU
  - Taken as a hypothetical acquisition at the valuation date
  - Assets and liabilities are stated at fair value
  - Implied fair value of goodwill is equal to fair value of RU less net assets “acquired”
  - This process allows unrecognized intangibles to be considered

Goodwill Impairment Tests (Example 1)

<table>
<thead>
<tr>
<th>GAAP Balance Sheet for RU (Carrying Values)</th>
<th>Components of Fair Value Balance Sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangible assets 600</td>
<td>FV of tangible assets 610</td>
</tr>
<tr>
<td>VOBA 70</td>
<td>FV of liabilities 585</td>
</tr>
<tr>
<td>Other intangibles 10</td>
<td>VOBA 70</td>
</tr>
<tr>
<td>Goodwill 30</td>
<td>Other intangibles 10</td>
</tr>
<tr>
<td></td>
<td>Value of business written since acq. 16</td>
</tr>
<tr>
<td>Total Assets 710</td>
<td>Total Assets at FV 706</td>
</tr>
<tr>
<td>Liabilities 570</td>
<td>Total Liabilities at FV 585</td>
</tr>
<tr>
<td>Surplus 140</td>
<td>Net Assets 121</td>
</tr>
</tbody>
</table>

Determine FV of RU to be 155, using appraisal value techniques

Unrecognized and FV-adjusted intangibles

- Value of business written since acquisition 16
- Adjusted GW representing FV of ability to write future new business 34
- Total 50

Step 1

- Fair value at RU* 155
- Carrying value of RU 140
- Excess of FV over carrying value 15
- Potential Impairment? No

* = (121 Net Assets + 34 AGW for future business)
Goodwill Impairment Tests (Example 2)

<table>
<thead>
<tr>
<th>GAAP Balance Sheet for RU (Carrying Values)</th>
<th>Components of Fair Value Balance Sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangible assets 600</td>
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<tr>
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</tr>
<tr>
<td></td>
<td>Total Assets at FV 706</td>
</tr>
<tr>
<td></td>
<td>Total Liabilities at FV 585</td>
</tr>
<tr>
<td>Total Assets 710</td>
<td>Net Assets 121</td>
</tr>
<tr>
<td></td>
<td>Adjusted GW representing FV of ability to write future new business 14</td>
</tr>
</tbody>
</table>

Step 1

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fair value at RU*</td>
<td>135</td>
</tr>
<tr>
<td>Carrying value of RU</td>
<td>140</td>
</tr>
<tr>
<td>Excess of FV over carrying value</td>
<td>(5)</td>
</tr>
<tr>
<td>Potential Impairment?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* (=121 Net Assets + 14 AGW for future business)

** (=135 FV RU - 121 Net Assets)

Testing Goodwill for Impairment

Interim Impairment Test:
- May be required between annual tests if changes occur that more likely than not would reduce FV of RU
- Examples cited include:
  - Adverse changes in legal factors, regulation, competition, business climate, personnel
  - A “more-likely-than-not” expectation exists that a reporting unit (or significant portion) will be sold or otherwise disposed of
  - A subsidiary recognizes an impairment loss in its stand-alone GAAP financial statements
  - Decline in market capitalization
Purchase Accounting under IFRS

- Purchase accounting prescribed by IFRS 3 Amended, which is analogous to FAS 141R
- Determination as to whether a contract qualifies as insurance (under IFRS 4) is made as of policy issue
  - Classification is therefore not revisited at date of purchase
- Goodwill acquired in a business combination is accounted for as an intangible asset
  - Allocated to CGUs (Cash Generating Units) under IFRS (as opposed to reporting units under GAAP)
  - Impairment testing also differs under IFRS

Useful Life and Amortization (IFRS)

- Factors to consider in determining useful life
  - Expected usage, life cycles, obsolescence, industry stability, competitor activity
  - Period of control and legal limits, such as expiry dates
  - Contractual terms and renewal periods
- Finite or indefinite?
  - Indefinite when no foreseeable limit on period of cash inflows
  - Indefinite does not mean infinite
  - Do not consider planned future expenditure in excess of that required to maintain standard of performance

Finite useful life – Amortize over useful life
Indefinite useful life – Test annually for impairment
Impairment of Goodwill and Intangible Assets (IFRS)

- Intangible assets with finite useful lives
  - Test only if there is an indication of impairment ("trigger")
  - Compare carrying value with "recoverable amount"
    - "Recoverable amount" is defined as the higher of:
      - Fair value less costs to sell
      - Value in use
- Indefinite-lived intangibles and goodwill
  - At least annual test, comparing carrying value to recoverable amount
  - Consistent date each period

Testing Goodwill for Impairment (IFRS)

- Allocate goodwill postacquisition to:
  - CGUs or groups of CGUs expected to benefit:
    - Representing the lowest level within the entity at which goodwill is monitored
    - Not larger than a segment (IFRS 8)
- Allocation of impairment loss for CGU or groups of CGUs
  - First, reduce carrying amount of goodwill
  - Allocate pro rata to other assets of the unit on the basis of the carrying amount of each asset in the unit; do not reduce the carrying amount of an asset below the highest of:
    - Its fair value less cost to sell (if determinable)
    - Its value in use (if determinable)
    - $0

Methodology of allocating the impairment loss to goodwill under IFRS is different from the methodology used by U.S. GAAP!
Disclosure for Intangible Assets and Goodwill (IFRS)

Examples of the types of disclosures for intangible assets and goodwill:
- Measurement bases
- Line item of the income statement in which amortization is included
- Opening and closing carrying amounts, by class
- Support for assessing an intangible asset as having an indefinite useful life
- Description, carrying amount and remaining amortization period of any individually material intangible asset
- Existence and carrying amounts of intangible assets with restricted title, and the carrying amounts of intangible assets pledged as security
- Contractual commitments for the acquisition of intangible assets
- Research and development expenditure expensed during the period

Disclosures for Impairment (IFRS)

Examples of the types of disclosures for impairment:
- Disclose impairments by class of asset and by segment.
- For material impairment losses/reversals, disclose:
  - The underlying events and circumstances
  - The amount of the loss/reversal
  - The related asset/CGU
  - Any change in the makeup of the CGU
  - Whether recoverable amount was based on fair value less costs to sell, in which case disclose the basis, or value in use, in which case disclose the discount rate
- Disclose the amount of goodwill related to a business combination during the period not yet allocated to CGUs and the reasons therefore