Module 4: Revenue and expense recognition

Overview

In this module, you learn about the concepts and processes of revenue and expense recognition, and become familiar with the three criteria for revenue recognition: performance, measurability, and collectibility. You also learn how to evaluate the factors that affect the timing and amount of revenue recognized: warranties, returned goods, and the type of sale.

As you work through each topic, you acquire an understanding of the timing and methods of expense recognition. Finally, you apply your knowledge of the ethical concerns that affect revenue and expense recognition to a case involving a company reporting on its income results.

Test your knowledge

Begin your work on this module with a set of test-your-knowledge questions designed to help you gauge the depth of study required.

Topic outline and learning objectives

4.1 Revenue recognition concepts
Explain the theory underlying current recognition practices for various sources of revenue. (Level 1)

4.2 Revenue recognition at delivery
Describe the criteria for recognizing revenue at time of delivery. (Level 1)

4.3 Revenue recognition before and after delivery
Describe the criteria for recognizing revenue before and after delivery. (Level 2)

4.4 Revenue recognition by effort expended
Apply the percentage-of-completion method of accounting for revenue from long-term contracts. (Level 1)

4.5 Expense recognition
Apply the definitional approach to expense recognition to determine when costs should be capitalized and apply the expense recognition principle to determine when costs should be expensed. (Level 1)

4.6 Predictive ability of the income statement: revenues and expenses
Provide examples that illustrate how reported earnings can be impacted by revenue and expense accounting and the impact this has on interpreting the reported earnings information. (Level 1)

4.7 Ethical considerations
Decide whether the choice of a particular accounting policy or procedure is ethical under the circumstances. (Level 1)

Module summary

Print this module

CICA Handbook – Accounting, Part II — Accounting Standards for Private Enterprise, Section 3400 Revenue governs the recognition of income. The recognition of income under ASPE differs from IFRS in the following key
- The completed contract method may be used to account for long term construction projects under ASPE.
Test your knowledge Module 4

These questions from the FA2 textbook address some of the core issues for this module. You may find it useful to go through them before you attempt the module to help you assess the areas that you need to focus on.

Question 1

Q6-1, Q6-3, Q6-8, Q6-10, and Q6-11 on page 309 of the text.

Solution
Test your knowledge 4

Question 1 solutions

Q6-1 Revenue is defined with reference to the definitions of assets and liabilities, and is therefore a derivative definition. That is, revenues are gross inflows of economic benefits (that is, increases to assets and/or decreases to liabilities) derived from the entity’s business activities.

Q6-3 To be recognized in the financial statements, an item must meet the definition of a financial statement element, be measurable, and be probable. Revenue must also be earned (the vendor has to transfer the risks and rewards of ownership) and it must be realized or realizable (cash collection must be assured).

Q6-8 In order to recognize revenue when the right of return exists, the proportion of returns must be predictable. In this case, revenue is recognized and a provision for returns is used. When the returns cannot be predicted, recognition of revenue should be deferred until the return privilege expires.

If any one of these conditions is not met, no revenue is recognized. All profits are deferred, and the seller’s interest in the product is recorded at cost. The actual accounting procedures are similar to those used under the instalment sales method.

Q6-10 Ending inventory of construction in process under the percentage-of-completion method includes recognized gross profit. Therefore, the ending inventory consists of cost incurred to date plus the gross profit (or loss) recognized to date.

Q6-11 When a loss is projected on a long-term construction contract, it must be recognized in full in the period it is first projected. If income has been recognized in prior periods under the percentage-of-completion method, that income must be reversed in the period of the loss and included in the total loss recognized in the period.
4.1 Revenue recognition concepts

Learning objective

- Explain the theory underlying current recognition practices for various sources of revenue.
  (Level 1)

Required reading

- Chapter 6, pages 259-269 up to "Revenue Recognition — The Critical Event" (Level 1)

LEVEL 1

Revenue recognition underpins the whole process of accrual accounting; it is the critical event from which most everything else flows, including the recognition of expenses. For this reason, it is essential that you develop a solid understanding of what constitutes revenue, such as when revenue is deemed to be earned and the alternatives that exist to accommodate special circumstances.

As a cautionary note, students do not typically do well on revenue recognition related questions on the final exam. With this in mind, you may wish to pay close attention to this area, and ensure that you work through all the activities in this module as well as the self-test questions.

Consider carefully IAS 18, which reads in part as follows:

Definitions

7 The following terms are used in this Standard with the meanings specified:

Revenue is the gross inflow of economic benefits during the period arising in the course of the ordinary activities of an entity when those inflows result in increases in equity, other than increases relating to contributions from equity participants.

Fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.

8 Revenue includes only the gross inflows of economic benefits received and receivable by the entity on its own account. Amounts collected on behalf of third parties such as sales taxes, goods and services taxes and value added taxes are not economic benefits which flow to the entity and do not result in increases in equity. Therefore, they are excluded from revenue. Similarly, in an agency relationship, the gross inflows of economic benefits include amounts collected on behalf of the principal and which do not result in increases in equity for the entity. The amounts collected on behalf of the principal are not revenue. Instead, revenue is the amount of commission.

Sale of goods

14 Revenue from the sale of goods shall be recognised when all the following conditions have been satisfied:

(a) the entity has transferred to the buyer the significant risks and rewards of ownership of the goods;

(b) the entity retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold;
(c) the amount of revenue can be measured reliably;
(d) it is probable that the economic benefits associated with the transaction will flow to the entity; and
(e) the costs incurred or to be incurred in respect of the transaction can be measured reliably.

**Rendering of services**

20 When the outcome of a transaction involving the rendering of services can be estimated reliably, revenue associated with the transaction shall be recognised by reference to the stage of completion of the transaction at the end of the reporting period. The outcome of a transaction can be estimated reliably when all the following conditions are satisfied:

(a) the amount of revenue can be measured reliably;
(b) it is probable that the economic benefits associated with the transaction will flow to the entity;
(c) the stage of completion of the transaction at the end of the reporting period can be measured reliably; and
(d) the costs incurred for the transaction and the costs to complete the transaction can be measured reliably.

**Interest, royalties and dividends**

29 Revenue arising from the use by others of entity assets yielding interest, royalties and dividends shall be recognised on the bases set out in paragraph 30 when:

(a) it is probable that the economic benefits associated with the transaction will flow to the entity; and
(b) the amount of the revenue can be measured reliably.

30 Revenue shall be recognised on the following bases:

(a) interest shall be recognised using the effective interest method as set out in IAS 39, paragraphs 9 and AG5–AG8;
(b) royalties shall be recognised on an accrual basis in accordance with the substance of the relevant agreement; and
(c) dividends shall be recognised when the shareholder’s right to receive payment is established.

Briefly, revenue should normally be recognized under the following conditions:

1. **The seller has completed their part of the agreement.** For example, the seller delivers the item to the purchaser.

2. **The amount can be measured.** This is usually straightforward — the agreed upon sales price. Complications can arise in certain circumstances, such as when the right of return exists, or when payments are received over an extended period of time.

3. **Collection is reasonably assured.** This is usually not problematic; if you do not think a person will pay you, you are not likely to sell to them on credit terms! Not everyone does pay, though, and for this reason, the accountant must establish an allowance for bad and doubtful accounts.

While not explicitly stated, in order for revenue to be recognized, the firm must be able to reasonably estimate related downstream costs, such as repairing or replacing defective items under the terms of a warranty.
Otherwise, the firm cannot accurately determine the gross profit on the transaction.
4.2 Revenue recognition at delivery

Updated Oct. 4/11

Learning objective

- Describe the criteria for recognizing revenue at time of delivery. (Level 1)

Required reading

- Chapter 6, page 269 up to “Revenue Recognition after Delivery” and Exhibit 6-3 (column (a)) on page 270 (Level 1)

LEVEL 1

Recognizing revenue at the time of delivery is by far the most widely used method. The main reasons for this are that the risks and rewards of ownership are usually transferred, revenue can normally be determined, collectibility is established or can be reasonably assessed, and downstream costs, if any, can be reasonably estimated.

All costs associated with the sale must be recognized along with the revenue. This requirement is to ensure that the expense recognition principle is adhered to. Recall that this principle requires accountants to expense all costs — past, present, and future — at the time revenue is recognized.

One example of future costs is warranty expense. A warranty is a promise by the seller to repair or replace defective goods within a specified period after the sale. Example 4.2-1 illustrates how warranty costs are expensed.

Example 4.2-1

Assume that a company provides a two-year warranty. The company estimates that the associated costs will equal 3% of sales revenue. Sales for 20X6 totalled $736,000. The 20X6 year-end accrual entry would be:

\[
\begin{align*}
\text{Warranty expense} & \quad 22,080 \\
\text{Provision for warranties (B/S)} & \quad 22,080 \\
\end{align*}
\]

* 3% of $736,000

Note that the journal entry provides for the entire expense in the same period that the revenue is recognized. A common error is to split the expense over the period of the warranty. This is incorrect and violates the expense recognition principle; the only reason that the company will incur warranty costs in 20X7 and 20X8 is that it sold the goods (and recognized the revenue) in 20X6!

In 20X7 and 20X8, as the items under warranty are repaired, the company would make the following journal entry as necessary:

\[
\begin{align*}
\text{Provision for warranties} & \quad XXX \\
\text{Cash and/or labour expense and/or parts inventory} & \quad XXX
\end{align*}
\]

Activity 4.2-1 — Revenue recognition

The question below, which appeared on the June 2008 final exam, deals with revenue recognition criteria. When you have finished working through it, check your answer with the solution provided and read the
**Question**

Gold Health and Racquet Club (GHRC) operates eight health clubs in Vancouver. Members may join GHRC at any time throughout the year. They may use any of the eight clubs, but must reserve racquetball court time and pay a separate fee when making the reservation. Membership fees are normally due at the beginning of the membership period. However, customers are given the option of paying the membership fee in quarterly instalments (that is, 1/4 of the annual fee is paid every three months at the end of the quarter), but they are charged interest at the annual rate of 15% on any outstanding balance. As an incentive to new customers, GHRC advertised that any customers who have paid their annual membership and who are not satisfied for any reason can receive a refund of the remaining portion of unused membership fees.

**Required**

a. Identify the criteria for revenue recognition.

b. Using the criteria identified in part (a), explain when revenue should be recognized for each of the following:

   i. Membership fees paid at the beginning of the membership period.

   ii. Membership fees paid through quarterly instalments.

**Solution**

a. Revenue should be recognized when it is earned. The criteria for revenue recognition are as follows:

   - Performance
   - Measurability
   - Collectibility

   The conditions per part (a) are evaluated below for the two types of revenue for GHRC:

b. i. Membership fees paid at the beginning of the membership period 1/12 of the annual membership fee should be recognized each month because

   - GHRC performs its service each month by operating the club
   - The fee is stated on the invoice and is measurable
   - Cash is received upfront and therefore collectibility is met

   ii. Membership fees paid through quarterly instalments: 1/3 of the quarterly fee should be recognized each month or 1/12 of the annual membership fee should be recognized each month if the GHRC can estimate the uncollectible amounts because

   - GHRC performs its service each month by operating the club
   - The fee is stated on the invoice and is measurable

   If GHRC cannot estimate the uncollectible amounts, then revenue should be recognized only when cash is received each quarter.

**Examiner’s comments on students’ performance on this question:**

The results on this question were poor. Specific learning objectives tested included describing the criteria for recognizing revenue.

Most students adequately explained that revenue should be recognized when membership fees are paid at the beginning of the membership period, and when fees are paid via quarterly instalments. However, many
students did not correctly identify all three criteria in part (a) — skipping performance, measurability, or collectibility.

Other common errors were as follows:

- Not discussing the three criteria for revenue recognition in the context of when membership fees are paid at the beginning of the membership period, as required in part (b)(i).

- Only discussing the criteria of collectibility when fees are paid via quarterly instalments in part (b)(ii) (not discussing the other two criteria for revenue recognition).

Students need to better understand the theory and practice of revenue recognition, and how revenue recognition would affect financial statement presentation.

**Author's comments on the solution**

**General comments:**

A big part of your success on an exam is how good you are at focusing in on the key facts and eliminating unnecessary information, known as "distractors." You need to be aware that examiners routinely include information you do not need in the question so that you must apply your knowledge by determining what information to focus on. For this reason, many students read the "required" first so as to know what they have to look for.

Note that the required asks about revenue recognition of the membership fee revenue, not the interest revenue. As such, when you are reading through the question, you can ignore the information about the interest charges because it is irrelevant.

**The solution to the exam:**

Part (a) is little more than a memory dump; you simply need to repeat points 1–3 in the "briefly, revenue should be recognized..." section in Topic 4.1.

Part (b) involves the application of these points. As mentioned in Topic 4.4 below, IFRS provides that “for practical purposes, when services are performed by an indeterminate number of acts over a specified period of time, revenue is recognised on a straight-line basis over the specified period unless there is evidence that some other method better represents the stage of completion. When a specific act is much more significant than any other acts, the recognition of revenue is postponed until the significant act is executed.” So, providing that the amount is measurable, (it is because the amount is given to you) and collectible (more about this later), then you recognize revenue on a pro-rata basis as set out in the solution.

As to the collectability, the facts in this question do not address this matter, so the solution allows for the possibility that the instalments may not be collectible. If any of the three criteria are not clearly established in the body of the question, you should ensure that your solution identifies the aspect(s) that were not met and explains how to account for this possibility.

**Summary:**

Your "take-away" from this example should be that it is extremely important to carefully read the question and determine what you need to focus on.
4.3 Revenue recognition before and after delivery

Learning objective

- Describe the criteria for recognizing revenue before and after delivery. (Level 2)

Required reading

- Chapter 6, pages 269-280 up to "Long-term Contracts" (Level 2)

LEVEL 2

While revenue recognition at the time of delivery is by far the most common method, there are times when this approach is not appropriate. The text provides a full description of some of the more common exceptions to recognizing revenue when ownership transfers, including the instalment sales method, the cost recovery method, the completion of production method (see minerals and mineral products), and to reflect changes in net realizable value (see agricultural produce and biological assets).

Accounting standards pertaining to accounting for agricultural produce and biological assets are set out in IAS 41. The balance of the alternative methods set out above are not directly described in IFRS. Rather, they reflect the underlying criteria set out in IAS 18. The names of the specific methods and the accompanying journal entries have come into widespread use over time.

A cautionary note about the instalment sales method

Given the similar terminology, it is easy to confuse instalment sales with the instalment sales method. Instalment sales are sales that require periodic payments (instalments) over an extended period of time. The instalment sales method is an accounting practice that recognizes income when the cash is received, rather than when the risks and rewards of ownership are transferred. The instalment sales method is not specifically described in the Part V of the CICA Handbook — Accounting, but was a widely accepted method with which to recognize revenue for instalment contracts when there was a great deal of uncertainty regarding the ultimate collectibility of the sales price.
4.4 Revenue recognition by effort expended

Learning objective

- Apply the percentage-of-completion method of accounting for revenue from long-term contracts. (Level 1)

Required reading

- Chapter 6, pages 280-297 up to “Expense recognition” (Level 1)

LEVEL 1

Companies often enter into long-term contracts, such as constructing an office building (the provision of goods) or maintaining equipment such as a photocopier (the provision of services). Depending on their nature, long-term contracts are accounted for either in accordance with IAS 11 or IAS 18.

For long-term contracts covering either goods or services, revenue must be recognized using the percentage-of-completion method. The text provides detailed coverage of this method. Note that the examples demonstrate accounting for contracts that pertain to the provision of goods.

Pay close attention to accounting for losses on long-term contracts. Consistent with prudence, losses are realized when recognized.

Accounting for long-term contracts for service companies is fairly straightforward when compared to using the percentage-of-completion method to record the sale of goods. In most circumstances, IAS 18 p25 applies:

For practical purposes, when services are performed by an indeterminate number of acts over a specified period of time, revenue is recognised on a straight-line basis over the specified period unless there is evidence that some other method better represents the stage of completion. When a specific act is much more significant than any other acts, the recognition of revenue is postponed until the significant act is executed.

Activity 4.4-1 — Revenue recognition by effort expended

Now work through Review Problem 2 on pages 306-307 of the text to apply what you have learned about revenue recognition by effort expended. When complete, compare your answer with the solution provided on pages 307–308.

Activity 4.4-2 — Revenue recognition by effort expended

Working your way through the March 2008 exam question¹ that follows will give you an opportunity to confirm your mastery of this important topic. Before you start on the question, you may wish to consider the examiner’s comments so as to help you avoid some of the more common pitfalls.

Examiner’s comments

The results on this question were unsatisfactory. Specific learning objectives tested included the application of the percentage-of-completion method for recognizing revenue from long-term contracts.

¹ The question is not provided in the text.
Most students correctly calculated the gross profit to be recognized in the first year under the percentage-of-completion method and correctly indicated the costs of construction on the company’s income statement. However, many students did not correctly calculate the revenue from the long-term contract in 20X6.

**Question**

Winter Company constructs office towers in Vancouver, British Columbia. It began a $50,000,000, three-year contract on January 1, 20X5. The following information is available regarding this contract.

<table>
<thead>
<tr>
<th></th>
<th>20X5</th>
<th>20X6</th>
<th>20X7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costs incurred</td>
<td>$12,000,000</td>
<td>$20,000,000</td>
<td>$13,000,000</td>
</tr>
<tr>
<td>during current year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimated costs</td>
<td>28,000,000</td>
<td>10,000,000</td>
<td></td>
</tr>
<tr>
<td>to complete at</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>year end</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Progress billings</td>
<td>10,000,000</td>
<td>18,000,000</td>
<td>22,000,000</td>
</tr>
<tr>
<td>during year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collections on</td>
<td>8,000,000</td>
<td>17,000,000</td>
<td>25,000,000</td>
</tr>
<tr>
<td>billings during</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>year</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 References to the completed-contract method have been deleted from the original question, solution, and examiner’s comments.

**Required**

a. Assuming that Winter uses the percentage-of-completion method, calculate the gross profit to be recognized in 20X5 and 20X6.

b. Assuming that Winter uses the percentage-of-completion method, indicate how the contract would be presented on Winter’s income statement for the year ended December 31, 20X6.

**Solution**

a. 2005 gross profit = $15,000,000 - $12,000,000 = $3,000,000 (where 2005 revenue = 30%\(^1\) × $50,000,000 = $15,000,000)

2006 gross profit = $23,100,000 - $20,000,000 = $3,100,000 (where 2006 revenue = (76.2%\(^2\) × $50,000,000) - $15,000,000 = $23,100,000)

Notes:

1 Percentage complete = $12,000,000 / ($12,000,000 + $28,000,000) = 30%

2 Percentage complete = ($12,000,000 + $20,000,000) / ($12,000,000 + $20,000,000 + $10,000,000) = 76.2%

b. **Income Statement**

Revenue from long-term contracts $23,100,000

Costs of construction $20,000,000

Gross profit $3,100,000
4.5 Expense recognition

Learning objective

- Apply the definitional approach to expense recognition to determine when costs should be capitalized and apply the expense recognition principle to determine when costs should be expensed. (Level 1)

Required reading

- Chapter 6, pages 297-309 up to "Questions" (Level 1)

LEVEL 1

The terms "cost," "expenditure," and "expense" are sometimes used interchangeably. As the text points out, however, they have very different meanings.

Generally, when a cost is incurred, it must be either capitalized, that is, recorded on the statement of financial position as an asset, or expensed, that is, recorded on the income statement as an expense. The text implicitly suggests that the definition of an asset can be used to determine whether the cost should be capitalized. If the cost provides future benefits, then it is capitalized; if not, it is expensed. Note that capitalization only defers the expensing process, as the expense recognition principle requires that these costs be expensed in the same period(s) that they contribute to revenues. Land and intangible assets that have indefinite lives are limited exceptions to this because these assets are not depreciated or amortized (expensed) unless they are found to be impaired.

Activity 4.5-1 — Expense recognition

Now work through Review Problem 1 on pages 305-306 of the text to apply what you have learned about expense recognition. When complete, check your answer with the solution provided on page 306.
4.6 Predictive ability of the income statement: revenues and expenses

**Learning objective**

- Provide examples that illustrate how reported earnings can be impacted by revenue and expense accounting and the impact this has on interpreting the reported earnings information. (Level 1)

**LEVEL 1**

In the previous topics in this module, you learned about the requirements of IFRS in the presentation of financial information in the income statement. There are two major areas that influence the quality of earnings as reflected in the income statement reported under IFRS.

The first is that IFRS permits the use of alternative revenue recognition methods that recognize income at different points in time. For example, under the percentage-of-completion method of recognizing revenues (Topic 4.4), revenues are set up as a percentage of the total contract revenue based on the total costs so far expended. The timing of the receipt of cash against that contract is not necessarily related to the percentage of completion and would most likely be set up as a receivable. In the case of a long-term contract, what is the likelihood of not receiving payment against that contract? Is it possible that the buyer will have financial difficulties in the future and the revenues will not materialize? Each of the alternative acceptable methods of recognizing revenues may reflect different levels of risk as to the ultimate revenue received. When the risk is perceived as high, a method that recognizes revenues only when cash is received should be used. The alternatives for recognizing revenues and expenses at different points in time give management the ability to report different incomes. This makes it difficult to evaluate the resulting income as to its "quality." How valid is the reported revenue? Is the accrued expense likely to change before it becomes a liability? There are various areas where the numbers used may be of questionable value. How will that impact on the measurement of "earnings quality"?

The second is the use of accruals. Revenues are accrued at a point in the transaction that represents a "completion" of the transaction with an offsetting receivable or accrued revenue. Similarly with expenses — once the legal obligation has materialized, the expense is reported and a liability recorded. In many situations, expenses are estimated. Accruals at best are estimates by management. That is why there is a preference toward cash flow (as discussed in Module 3) as a truer measurement of earnings quality.

![Extend your knowledge](background_image)

In the article [“Revenue Recognition: From the Many, One?”](#) Marie Leone of CFO.com comments on the FASB's attempts to create a single standard for revenue recognition.

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1 At the time of writing, this joint project with the IASB referred to was still in progress. The IASB's website reported that "the Boards will review the comments received on this discussion paper and modify or confirm their preliminary views. They will then use their (modified) views to develop for public comment an exposure draft of a comprehensive standard on revenue recognition." The comment period for the June 2010 exposure draft ended on October 22, 2010. The goal is to issue a new IFRS by June 2011 with a yet to be determined implementation date.
4.7 Ethical considerations

Learning objective

- Decide whether the choice of a particular accounting policy or procedure is ethical under the circumstances. (Level 1)

Required reading

- ERH, Unit B2: “The social responsibility of business is to increase its profits” (Level 1)

LEVEL 1

An entity’s choice of accounting policies for revenue and expense recognition can have a major impact on its reported income. In turn, the reported net income can materially affect the bonuses paid to managers. The accountant has a responsibility to prepare reliable information, but is sometimes faced with pressures to alter the information to achieve certain results. Consider the situation in Example 4.7-1.

Example 4.7-1

Porandum Company offers a bonus plan that pays each divisional manager a bonus of 15% of their base salary if the company’s operating income exceeds that budgeted by more than 20%. The annual budgets are based on the actual results of the previous year and would not usually vary from the prior year results by more than 10%.

Set out below is the controller’s preliminary income statement for 20X5 compared to budget (in 000s):

<table>
<thead>
<tr>
<th></th>
<th>20X5 budget</th>
<th>20X5 preliminary income statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales revenue</td>
<td>$1,200</td>
<td>$1,400</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>600</td>
<td>700</td>
</tr>
<tr>
<td>Gross margin</td>
<td>600</td>
<td>700</td>
</tr>
<tr>
<td>Other operating expenses</td>
<td>450</td>
<td>500</td>
</tr>
<tr>
<td>Operating income</td>
<td><strong>150</strong></td>
<td><strong>200</strong></td>
</tr>
</tbody>
</table>

It was obvious to the controller that the company had easily exceeded the $180,000 of operating income needed for the divisional managers to earn their bonuses. The controller, who is a personal friend of a number of the divisional managers, wondered if it would not be prudent to reduce operating income for 20X5 and report some of this income in 20X6. By deferring $40,000 of sales for December and recording them in January, the income for 20X5 would decrease by $20,000. This would give the company a head start on income for 20X6 and increase the likelihood of the divisional managers getting a bonus next year.

Required

Comment on the ethical implications of recording the $40,000 of December sales in January.

Solution
Solution

Ethics is about treating people fairly. To understand the ethical implications of this case, start by identifying some of the people involved and describe how they are affected, and whether they win or lose by the controller's action.

<table>
<thead>
<tr>
<th>Person involved</th>
<th>How affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers</td>
<td>Win — they are likely to get a bonus in 20X6, even though they may not really earn it.</td>
</tr>
<tr>
<td>Existing shareholders</td>
<td>Lose — They may not get a dividend, may sell shares at less than fair value, and may pay a bonus for 20X6 when it was not really earned.</td>
</tr>
<tr>
<td>Prospective shareholders</td>
<td>Win — If they buy shares in 20X6 at less than fair value. Lose — They may pay a bonus for 20X6 when it was not really earned.</td>
</tr>
<tr>
<td>Canada Revenue Agency (CRA)</td>
<td>Lose — The agency will not collect taxes for 20X5 on profits deferred until 20X6.</td>
</tr>
<tr>
<td>Employees</td>
<td>Lose — They may have a lower salary increase due to reduced profit.</td>
</tr>
</tbody>
</table>

You may argue that CRA is not a person, but CRA is an agent for the taxpayer. In the end, the taxpayer pays part of the bill for the controller's action. The taxpayer could be you and me. Is it fair that you and I pay for the controller's action? Is it fair that employees pay part of the bill for the controller's action? Not at all. When you broaden your analysis to identify the real winners and losers, it is easier to draw the line between what is acceptable and what is not.
Module 4 summary

Revenue and expense recognition

This module introduces the concepts and processes of revenue and expense recognition. The revenue recognition principle is explained in terms of three criteria: performance, measurability, and collectibility. The module evaluates factors affecting the timing and amount of revenue recognized: warranties, returned goods, and the type of sale. Methods of revenue recognition under long-term contracts and service sales are described. The timing and methods of expense recognition are compared.

4.1 Explain the theory underlying current recognition practices for various sources of revenue.

- There are three criteria for revenue recognition: performance, measurability, and collectibility.
- If all criteria are met, an entity has fulfilled its commitments to the buyer and has already been or is likely to be paid.
- If there is considerable uncertainty related to one or more of the criteria, revenue recognition is delayed until the uncertainty is resolved.

4.2 Describe the criteria for recognizing revenue at time of delivery.

- The risks and rewards of ownership are transferred.
- The revenue is known.
- Collectibility is established or can be reasonably assessed.
- Downstream costs, if any, can be reasonably estimated.

4.3 Describe the criteria for recognizing revenue before and after delivery.

- Revenue is recognized after delivery when there are considerable uncertainties with respect to collectibility, future costs, or measurement of revenue.

4.4 Apply the percentage-of-completion method of accounting for revenue from long-term contracts.

- The POC method should be used for a long-term contract when the progress can be determined, the selling price is fixed by contract, and the costs involved can be reasonably estimated.
- The percentage complete is usually determined by comparing the costs incurred to date to the total estimated costs. Other methods can be used, however.
- Revenues to be recognized for the period = (percentage complete × contract price) – revenues previously recognized.
4.5 Apply the definitional approach to expense recognition to determine when costs should be capitalized and apply the expense recognition principle to determine when costs should be expensed.

- The cost of an item is the amount required to be paid for the item together with outlays to prepare the item for its intended use.
- If the item provides future benefits, the cost of the item should be capitalized as an asset.
- If the item does not provide future benefits, the cost is expensed.
- The expense recognition principle states that costs should be expensed in the same period as the revenue (to which the costs relate) is recognized.

4.6 Provide examples that illustrate how reported earnings can be impacted by revenue and expense accounting and the impact this has on interpreting the reported earnings information.

- Many alternative methods of reporting revenues are allowed depending on the type of business operation.
- Timing of reporting revenues does not necessarily reflect the economic benefit obtained in that activity.
- Accruals can be manipulated to reflect desired outcomes, both as to timing and amount.

4.7 Decide whether the choice of a particular accounting policy or procedure is ethical under the circumstances.

- The selection of an accounting policy is ethical if
  - It faithfully represents what has actually transpired
  - It treats all stakeholders fairly and equitably

- To determine whether the accounting policy choice is ethical, you must analyze the impact of the policy on the interests of the various stakeholders.
Module 4 self-test

Question 1

Computer question

This computer question continues from Module 2, Self-test Question 1. In this question, you need to record and post two more transactions that occurred during the month of November (period 2) for the company Mutianyu & Badaling Eng Assoc. Ltd. You have received subsequent information that requires that you correct these entries. Remember that you should first analyze the transactions and create the necessary general ledger accounts before entering the journal entries.

Part 1

Problem description

You are asked to enter the following transactions in Accpac:

<table>
<thead>
<tr>
<th>Date</th>
<th>Transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 28</td>
<td>Sold office equipment for $5,000. Record as a debit to Bank and a credit to Consulting fees.</td>
</tr>
<tr>
<td>November 28</td>
<td>Received $2,500 cash from a customer. Record as a debit to Bank and a credit to Consulting fees.</td>
</tr>
</tbody>
</table>

Procedure

1. You should have already loaded the data for Mutianyu & Badaling Eng Assoc. Ltd. when you completed the Module 2 self-test; there is no need to load it again. Start Sage Accpac ERP.

2. In the Open Company dialog box, select Mutianyu & Badaling Eng Assoc. Ltd.

3. Analyze the transactions.

4. Record the transactions as journal entries in a batch in Accpac using the following source document codes: CD (cash disbursements), CR (cash receipts), and JE (GL journal entry).

5. Print the journal entries, verify what you have entered, and post the batch.

6. Print the trial balance.

Required

a. Prepare and print the trial balance.

Part 2

Problem description

You have received information indicating that the November 28 entries were recorded incorrectly. Correct the entries using the following information:

<table>
<thead>
<tr>
<th>Date</th>
<th>Transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
November 28  The sale of office equipment for $5,000 was a peripheral transaction. Cost of the equipment was $8,000 and the accumulated depreciation of the equipment sold was $4,000.

November 28  The receipt of $2,500 cash from a customer was a deposit for work to be done in a later fiscal period.

Procedure

1. Start Sage Accpac ERP.

2. In the Open Company dialog box, select Mutianyu & Badaling Eng Assoc. Ltd.

3. Analyze the transactions and determine what entries need to be made.

4. Add the necessary general ledger accounts.

5. Record the transactions as journal entries in a batch in Accpac using the following source document codes: CD (cash disbursements), CR (cash receipts), and JE (GL journal entry).

6. Print the batch, verify what you have entered, and post the batch.

7. Print the trial balance.

Required

a. List the new accounts you added, including account number, description, account type, normal balance, and account group, in a revised summary trial balance.

b. Print the GL Batch Listing for this batch.

c. Print a revised trial balance.

Solution

Question 2
A6-22, page 324

Solution

Question 3
A6-3, page 316

For Case C, change "sold a tonne of its product for $500" to "sold a tonne of its product for $600."

Solution

Question 4
A6-10, pages 319-320

Solution
Question 7

Ethics questions

a. **The Right Stuff — The Plantano Case**

   Read Unit A9 of the *ERH*, and then work through Application 2. (*ERH* readings are provided electronically through a link in the Study Resources area.)

b. **Recent assignment question**

   A requirement of *FA2* is to ensure that students are able to make judgment calls, apply research skills, and effectively communicate their recommendations to others. For this reason, certain modules contain previously used assignment questions to provide you with practice in these competencies. Be aware that these skills will be assessed on the examination along with more quantitative skills. Please note that the solutions to these questions are based on Part V of the *CICA Handbook — Accounting*, which was in effect at the time the questions were written.

   Please answer the questions that follow.

   On a day-to-day basis, businesses must decide whether to expense or capitalize costs. For many items, the choice is simple; the purchase of an inexpensive item like a stapler, for example, is typically expensed (flows through the income statement), while a large expenditure item like a building is capitalized (put on the balance sheet).

   a. From an accounting perspective, what is the fundamental issue in the capitalization-versus-expensing decision? What are some other considerations? Be specific. (**7 marks**)

   b. How does the capitalization-versus-expensing decision affect each of the following? (**3 marks**)

      i. Year 2 income statement
      ii. Year 1 cash flow statement
      iii. Year 1 debt-to-equity ratio (total debt/shareholders’ equity)

   c. In normal circumstances, which approach do you believe management of publicly reportable enterprises (PREs) prefer? Why? (**5 marks**)
Question 8
A6-21, pages 323-324

Solution

Question 9
A6-23, page 324

Solution
Self-test 4

Question 1 solution

Part 1

Trial Balance

Part 2

a. 2400 Unearned revenue  Statement of financial position  Credit  Current liabilities
7000 Gain on sale of equipment  Income statement  Credit  Other income and expenses

b. GL Batch Listing

c. Revised Trial Balance
<table>
<thead>
<tr>
<th>Account Number</th>
<th>Description</th>
<th>Debits</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000</td>
<td>Bank</td>
<td>26,510.00</td>
<td></td>
</tr>
<tr>
<td>1100</td>
<td>Accounts receivable</td>
<td>26,421.00</td>
<td></td>
</tr>
<tr>
<td>2200</td>
<td>Accounts payable</td>
<td></td>
<td>22,349.00</td>
</tr>
<tr>
<td>2300</td>
<td>Prepaid expenses</td>
<td></td>
<td>6,250.00</td>
</tr>
<tr>
<td>1500</td>
<td>Office equipment</td>
<td>56,771.00</td>
<td></td>
</tr>
<tr>
<td>1501</td>
<td>Accumulated amortization, office equipment</td>
<td>11,500.00</td>
<td></td>
</tr>
<tr>
<td>2200</td>
<td>Accounts payable</td>
<td></td>
<td>22,349.00</td>
</tr>
<tr>
<td>2300</td>
<td>Prepaid expenses</td>
<td></td>
<td>6,250.00</td>
</tr>
<tr>
<td>2350</td>
<td>GST paid</td>
<td>741.00</td>
<td></td>
</tr>
<tr>
<td>2500</td>
<td>Shareholders' loans</td>
<td></td>
<td>22,000.00</td>
</tr>
<tr>
<td>3000</td>
<td>Common shares</td>
<td></td>
<td>23,000.00</td>
</tr>
<tr>
<td>3500</td>
<td>Retained earnings</td>
<td></td>
<td>24,246.00</td>
</tr>
<tr>
<td>4000</td>
<td>Consulting fees</td>
<td></td>
<td>39,550.00</td>
</tr>
<tr>
<td>6100</td>
<td>Accounting and legal</td>
<td>905.00</td>
<td></td>
</tr>
<tr>
<td>6200</td>
<td>Amortization</td>
<td>1,500.00</td>
<td></td>
</tr>
<tr>
<td>6300</td>
<td>Computer supplies</td>
<td>1,330.00</td>
<td></td>
</tr>
<tr>
<td>6400</td>
<td>Insurance</td>
<td>1,000.00</td>
<td></td>
</tr>
<tr>
<td>6500</td>
<td>Office</td>
<td>1,452.00</td>
<td></td>
</tr>
<tr>
<td>6600</td>
<td>Rent</td>
<td>6,403.00</td>
<td></td>
</tr>
<tr>
<td>6700</td>
<td>Salaries</td>
<td>11,943.00</td>
<td></td>
</tr>
<tr>
<td>6800</td>
<td>Utilities</td>
<td>1,500.00</td>
<td></td>
</tr>
<tr>
<td>8100</td>
<td>Income tax</td>
<td>1,550.00</td>
<td></td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td><strong>146,180.00</strong></td>
<td><strong>146,180.00</strong></td>
</tr>
</tbody>
</table>

Net Income (Loss) for Accounts Listed: 12,863.40
### Trial Balance as of 30/11/2008

**In Functional Currency**

**Report (GLTRLR1)**

<table>
<thead>
<tr>
<th>Account Number</th>
<th>Description</th>
<th>Debits</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000</td>
<td>Bank</td>
<td>28,510.00</td>
<td></td>
</tr>
<tr>
<td>1100</td>
<td>Accounts receivable</td>
<td>26,421.00</td>
<td></td>
</tr>
<tr>
<td>1200</td>
<td>Prepaid expenses</td>
<td>6,250.00</td>
<td></td>
</tr>
<tr>
<td>1500</td>
<td>Office equipment</td>
<td>48,771.00</td>
<td></td>
</tr>
<tr>
<td>1501</td>
<td>Accumulated amortization, office equipment</td>
<td></td>
<td>7,500.00</td>
</tr>
<tr>
<td>2200</td>
<td>Accounts payable</td>
<td></td>
<td>22,349.00</td>
</tr>
<tr>
<td>2300</td>
<td>GST collected</td>
<td></td>
<td>3,535.00</td>
</tr>
<tr>
<td>2350</td>
<td>GST paid</td>
<td></td>
<td>741.00</td>
</tr>
<tr>
<td>2400</td>
<td>Unearned revenue</td>
<td></td>
<td>2,500.00</td>
</tr>
<tr>
<td>2500</td>
<td>Shareholders’ loans</td>
<td></td>
<td>22,000.00</td>
</tr>
<tr>
<td>3000</td>
<td>Common shares</td>
<td></td>
<td>23,000.00</td>
</tr>
<tr>
<td>3500</td>
<td>Retained earnings</td>
<td></td>
<td>24,246.00</td>
</tr>
<tr>
<td>4000</td>
<td>Consulting fees</td>
<td></td>
<td>32,050.00</td>
</tr>
<tr>
<td>6100</td>
<td>Accounting and legal</td>
<td></td>
<td>905.00</td>
</tr>
<tr>
<td>6200</td>
<td>Amortization</td>
<td></td>
<td>1,500.00</td>
</tr>
<tr>
<td>6300</td>
<td>Computer supplies</td>
<td></td>
<td>1,330.00</td>
</tr>
<tr>
<td>6400</td>
<td>Insurance</td>
<td></td>
<td>1,000.00</td>
</tr>
<tr>
<td>6500</td>
<td>Office</td>
<td></td>
<td>1,452.00</td>
</tr>
<tr>
<td>6600</td>
<td>Rent</td>
<td></td>
<td>6,400.00</td>
</tr>
<tr>
<td>6700</td>
<td>Salaries</td>
<td></td>
<td>11,850.00</td>
</tr>
<tr>
<td>6800</td>
<td>Utilities</td>
<td></td>
<td>1,500.00</td>
</tr>
<tr>
<td>8100</td>
<td>Income tax</td>
<td></td>
<td>1,550.00</td>
</tr>
<tr>
<td>9000</td>
<td>Gain on sale of equipment</td>
<td></td>
<td>1,000.00</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td>138,180.00</td>
<td>138,180.00</td>
</tr>
<tr>
<td><strong>Net Income (Loss) for Accounts Listed:</strong></td>
<td></td>
<td></td>
<td>5,563.00</td>
</tr>
</tbody>
</table>

23 accounts printed
<table>
<thead>
<tr>
<th>Srce. Date</th>
<th>Reference</th>
<th>Description</th>
<th>Account Number</th>
<th>Debits</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>30/11/2008</td>
<td>GL-JE</td>
<td>reverse incorrect entry</td>
<td>4000</td>
<td>5,000.00</td>
<td></td>
</tr>
<tr>
<td>30/11/2008</td>
<td>GL-JE</td>
<td>reverse incorrect entry</td>
<td>1000</td>
<td>5,000.00</td>
<td></td>
</tr>
<tr>
<td>30/11/2008</td>
<td>GL-JE</td>
<td>reverse incorrect entry</td>
<td>4000</td>
<td>2,500.00</td>
<td></td>
</tr>
<tr>
<td>30/11/2008</td>
<td>GL-JE</td>
<td>reverse incorrect entry</td>
<td>1000</td>
<td>2,500.00</td>
<td></td>
</tr>
<tr>
<td>30/11/2008</td>
<td>GL-JE</td>
<td>correct sale of eqpt entry</td>
<td>1000</td>
<td>9,000.00</td>
<td></td>
</tr>
<tr>
<td>30/11/2008</td>
<td>GL-JE</td>
<td>correct sale of eqpt entry</td>
<td>1501</td>
<td>4,000.00</td>
<td></td>
</tr>
<tr>
<td>30/11/2008</td>
<td>GL-JE</td>
<td>correct sale of eqpt entry</td>
<td>1500</td>
<td>8,000.00</td>
<td></td>
</tr>
<tr>
<td>30/11/2008</td>
<td>GL-JE</td>
<td>correct sale of eqpt entry</td>
<td>9000</td>
<td>1,000.00</td>
<td></td>
</tr>
<tr>
<td>30/11/2008</td>
<td>GL-JE</td>
<td>correct entry for cash received unearned revenue</td>
<td>1000</td>
<td>2,500.00</td>
<td></td>
</tr>
<tr>
<td>30/11/2008</td>
<td>GL-JE</td>
<td>correct entry for cash received unearned revenue</td>
<td>2400</td>
<td>2,500.00</td>
<td></td>
</tr>
</tbody>
</table>

Entry Total: 2,500.00 2,500.00

Batch Total: 19,000.00 19,000.00
4 entries printed
1 batch printed
Self-test 4

Question 2 solution (A6-22)

Requirement 1

Percentage-of-completion method:

<table>
<thead>
<tr>
<th></th>
<th>20X5</th>
<th>20X6</th>
<th>20X7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Costs of construction:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction-in-progress inventory</td>
<td>180,000</td>
<td>450,000</td>
<td>195,000</td>
</tr>
<tr>
<td>Cash, payables, etc.</td>
<td>180,000</td>
<td>450,000</td>
<td>195,000</td>
</tr>
<tr>
<td><strong>2. Progress billings:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>153,000</td>
<td>382,500</td>
<td>439,500</td>
</tr>
<tr>
<td>Billings on contracts</td>
<td>153,000</td>
<td>382,500</td>
<td>439,500</td>
</tr>
<tr>
<td><strong>3. Collections on billings:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>140,000</td>
<td>380,000</td>
<td>455,000</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>140,000</td>
<td>380,000</td>
<td>455,000</td>
</tr>
<tr>
<td><strong>4. Recognition of income:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of construction</td>
<td>180,000</td>
<td>450,000</td>
<td>195,000</td>
</tr>
<tr>
<td>Construction-in-progress inventory</td>
<td>36,667</td>
<td>82,418</td>
<td>30,915</td>
</tr>
<tr>
<td>Construction revenue</td>
<td>216,667</td>
<td>532,418</td>
<td>225,915</td>
</tr>
<tr>
<td>Billings on contracts</td>
<td></td>
<td></td>
<td>975,000</td>
</tr>
<tr>
<td>Construction-in-progress inventory</td>
<td></td>
<td></td>
<td>975,000</td>
</tr>
</tbody>
</table>

Computations:

- **20X5**: $(180,000 \div 810,000) \times 975,000 = 216,667$
- **20X6**: $[(363,000 + 820,000) \times 975,000] - 216,667 = 532,418$
- **20X7**: $975,000 - 216,667 - 532,418 = 225,915$

Apportionment:

- **20X5**: $180,000 \div 810,000 \times 975,000 = 216,667$
- **20X6**: $[(363,000 + 820,000) \times 975,000] - 216,667 = 532,418$
- **20X7**: $975,000 - 216,667 - 532,418 = 225,915$

Requirement 2

Percentage-of-completion method:

<table>
<thead>
<tr>
<th></th>
<th>20X5</th>
<th>20X6</th>
<th>20X7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Statement of financial position</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current assets:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>$13,000</td>
<td>$15,500</td>
<td>$0</td>
</tr>
<tr>
<td>Inventory:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Construction-in-progress inventory</td>
<td>216,667</td>
<td>749,085</td>
<td>0</td>
</tr>
<tr>
<td>Less: Billings on contract</td>
<td>153,000</td>
<td>535,500</td>
<td>0</td>
</tr>
<tr>
<td>Costs in excess of billings</td>
<td>63,667</td>
<td>213,585</td>
<td>0</td>
</tr>
</tbody>
</table>

Income statement:

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Income on construction (net)</td>
<td>$36,667</td>
<td>$82,418</td>
<td>$30,915</td>
</tr>
</tbody>
</table>
Self-test 4

Question 3 solution (A6-3)

Case A

1. Revenue recognition method — on delivery.

2. 31 December 20X5:

<table>
<thead>
<tr>
<th>Cash</th>
<th>30,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unearned revenue</td>
<td>30,000</td>
</tr>
</tbody>
</table>

3. Some might also accrue the $70,000 account receivable and further increase unearned revenue but the transaction is partially unexecuted at year end so this not required.

4. It is tempting to record the sale on the transaction date of 31 December but delivery has not yet taken place and the risks and rewards of ownership have not yet transferred. Companies often go out of their way to make sure goods are delivered before key reporting dates for this reason.

Case B

1. Recognize revenue as time elapses (that is, month by month).

2. 17 April 20X5:

<table>
<thead>
<tr>
<th>Cash</th>
<th>30,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unearned revenue</td>
<td>30,000</td>
</tr>
</tbody>
</table>

3. The critical event is the passage of time, because the "retainer" is not tied to specific services but instead represents a readiness to serve whenever called upon to do so.

Case C

1. Revenue recognition method — on delivery.

2. 15 November 20X5:

<table>
<thead>
<tr>
<th>Goods receivable</th>
<th>600</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales revenue</td>
<td>600</td>
</tr>
</tbody>
</table>

3. A promise to pay "goods" is just as valid as a promise to pay cash; the company has a claim to economic resources that can be recognized. They have delivered their own goods (risks and rewards of ownership have passed) and, as long as the goods will be delivered on schedule from the customer, revenue recognition is appropriate. The amount of $600 is presumed measurable.

Is this the culmination of the earnings process? If the goods were similar, they would be recorded at book value, and revenue recognition deferred until the second goods were sold.
Case D

1. Revenue recognition method — Production (delivery) method.

2. 2 August 20X5 — To recognize collection of the subscription price:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>720</td>
</tr>
<tr>
<td>Deferred subscription revenue</td>
<td>720</td>
</tr>
</tbody>
</table>

3. 31 December 20X5 — To record subscription revenue earned during 20X5:

   The cash was collected in advance of delivery. Revenue is recognized as earned (by delivery), not when cash is collected. One issue was delivered in 20X5:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deferred subscription revenue</td>
<td>20</td>
</tr>
<tr>
<td>Subscription revenue</td>
<td>20</td>
</tr>
</tbody>
</table>

   \[720 \times \frac{1}{36} = \$20\]
Self-test 4

Question 4 solution (A6-10)

Requirement 1

Cash
Deferred gross margin 532,000
Inventory (48,000 × $6) 244,000

Requirement 2

Inventory (4,500 × $6) 27,000
Deferred gross margin* 20,000
Cash 47,000

*(3,500 × $4) + (1,000 × $6)

Requirement 3

<table>
<thead>
<tr>
<th>Month of Sale</th>
<th>Units Sold</th>
<th>Sales Price</th>
<th>Monthly Sales</th>
<th>Gross Units ROR Expired*</th>
<th>Total Units Returned</th>
<th>Net Units ROR Expired#</th>
<th>ROR Sales Expired Amount+</th>
</tr>
</thead>
<tbody>
<tr>
<td>September</td>
<td>10,000</td>
<td>$10</td>
<td>$100,000</td>
<td>4,000</td>
<td>2,500</td>
<td>1,500</td>
<td>$15,000</td>
</tr>
<tr>
<td>October</td>
<td>12,000</td>
<td>10</td>
<td>120,000</td>
<td>3,600</td>
<td>1,000</td>
<td>2,600</td>
<td>26,000</td>
</tr>
<tr>
<td>November</td>
<td>15,000</td>
<td>12</td>
<td>180,000</td>
<td>3,000</td>
<td>1,000</td>
<td>2,000</td>
<td>24,000</td>
</tr>
<tr>
<td>December</td>
<td>11,000</td>
<td>12</td>
<td>132,000</td>
<td>1,100</td>
<td>0</td>
<td>1,100</td>
<td>13,200</td>
</tr>
<tr>
<td>Totals</td>
<td><strong>48,000</strong></td>
<td></td>
<td><strong>$532,000</strong></td>
<td><strong>11,700</strong></td>
<td><strong>4,500</strong></td>
<td><strong>7,200</strong></td>
<td><strong>$78,200</strong></td>
</tr>
</tbody>
</table>

*Gross number of units sold this month, times 10% times number of months since sale. For example, at 31 December, 20X5, four months have passed since the September sales, thus 4 × 10%, or 40% of the right of return (ROR) has expired; (40% × 10,000 units = 4,000 units).

# Equal to gross units for which ROR expired, less units returned.

+ Equal to net units for which ROR has expired times sale price per unit for this month's sales.

Realized gross margin in 20X5 = $78,200 – (7,200 units × $6) = $78,200 – $43,200 = $35,000

To record realized gross margin on expired and unused right of return units shipped:

- Cost of Goods Sold (7,200 × $6) 43,200
- Deferred gross margin 35,000
- Sales 78,200

Requirement 4

<table>
<thead>
<tr>
<th>Month of Sale</th>
<th>Units Available for Return or Sale</th>
<th>Units Sold in</th>
<th>Unit Sale</th>
<th>Sales</th>
</tr>
</thead>
</table>

FA2 -Module 4
<table>
<thead>
<tr>
<th>Sale</th>
<th>Sale*</th>
<th>Returned</th>
<th>20X6#</th>
<th>Price</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>September</td>
<td>6,000</td>
<td>1,000</td>
<td>5,000</td>
<td>$10</td>
<td>$50,000</td>
</tr>
<tr>
<td>October</td>
<td>8,400</td>
<td>2,000</td>
<td>6,400</td>
<td>10</td>
<td>64,000</td>
</tr>
<tr>
<td>November</td>
<td>12,000</td>
<td>2,500</td>
<td>9,500</td>
<td>12</td>
<td>114,000</td>
</tr>
<tr>
<td>December</td>
<td>9,900</td>
<td>4,000</td>
<td>5,900</td>
<td>12</td>
<td>70,800</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9,500</td>
<td>26,800</td>
<td></td>
<td>$298,800</td>
</tr>
</tbody>
</table>

× $6  × $6

Cost of returns **$57,000**

Costs of units sold **$160,800**

* Equal to total sold for this month, less those returned or recorded as sold in 20X5 (see Requirement 3).

# Equal to units available (column 2) less units returned.

Entry to record returns in 20X6:

- Inventory (9,500 units × $6) 57,000
- Deferred gross margin 51,000
- Cash 108,000*

* Refund amount on returned units:
  (1,000 units × $10) + (2,000 units × $10) + ($2,500 units × $12) + (4,000 units × $12) = $108,000

b) Entry to record realized gross margin in 20X6 related to 20X5 sales:

<table>
<thead>
<tr>
<th></th>
<th>20X5</th>
<th>20X6</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of goods sold</td>
<td>160,800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deferred gross margin</td>
<td>138,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales</td>
<td></td>
<td>298,800</td>
<td></td>
</tr>
</tbody>
</table>

Reconciliation:

- Total units sold in period September–December **48,000**
- Total dollar sales amount for period September–December **$532,000**
- Cost of units sold in period September–December **288,000**
- Total gross margin **$244,000**

Units:

<table>
<thead>
<tr>
<th>Returned</th>
<th>20X5</th>
<th>20X6</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Returned</td>
<td>4,500</td>
<td>9,500</td>
<td>14,000</td>
</tr>
<tr>
<td>Not returned (sold)</td>
<td>7,200</td>
<td>26,800</td>
<td>34,000</td>
</tr>
<tr>
<td>Totals</td>
<td>11,700</td>
<td>36,300</td>
<td>48,000</td>
</tr>
</tbody>
</table>

Gross Sales:

<table>
<thead>
<tr>
<th>Returned</th>
<th>20X5</th>
<th>20X6</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Returned</td>
<td>$47,000</td>
<td>$108,000</td>
<td>$155,000</td>
</tr>
<tr>
<td>Not returned</td>
<td>78,200</td>
<td>298,800</td>
<td>377,000</td>
</tr>
<tr>
<td></td>
<td>January</td>
<td>February</td>
<td>March</td>
</tr>
<tr>
<td>------------------------</td>
<td>---------</td>
<td>----------</td>
<td>--------</td>
</tr>
<tr>
<td>Totals</td>
<td>$125,200</td>
<td>$406,800</td>
<td>$532,000</td>
</tr>
<tr>
<td><strong>Cost of sales:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Returned</td>
<td>$27,000</td>
<td>$57,000</td>
<td>$84,000</td>
</tr>
<tr>
<td>Not returned (sold)</td>
<td>43,200</td>
<td>160,800</td>
<td>204,000</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>$70,200</td>
<td>$217,800</td>
<td>$288,000</td>
</tr>
<tr>
<td><strong>Gross margin:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Returned (not realized)</td>
<td>$20,000</td>
<td>$51,000</td>
<td>$71,000</td>
</tr>
<tr>
<td>Not returned (sold)</td>
<td>35,000</td>
<td>138,000</td>
<td>173,000</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>$55,000</td>
<td>$189,000</td>
<td>$244,000</td>
</tr>
</tbody>
</table>
a. **Critical event:** the end of the return period.

Carnegie is offering a generous return policy. Non-profit organizations (NPOs) can over-order and then return half of the books within six months. Although Carnegie may have a good historical record of average returns, there can be substantial variation, which makes it difficult to predict a sales return allowance. Gross profit recognition should be deferred until the return period ends.

Alternatively, students could argue that since 50% of the books cannot be returned, 50% of the revenue could be recognized at the time of sale, with recognition of the remaining portion of the sales delayed until expiration of the return period.

b. **Critical event:** production and packaging of the beans in burlap bags.

Maxwell is an intermediate processor of an agricultural commodity. The raw beans are biological assets and should be carried at fair value. On each reporting date, the carrying value should be adjusted to the fair value at that date with any gain/loss recognized in income. Once the beans have been roasted, they become an item of inventory that is reported at “deemed cost,” which is the fair value at the time of processing. Thereafter, the beans should be reported at lower of deemed cost and NRV. When the roasted beans are sold, the proceeds of the sale are recognized as revenue and the inventory carrying value (at lower of cost and NRV) is recorded as cost of sales.

c. **Critical event:** receipt of cash.

Heckinger will not be able to estimate the value of its shipment until the creditor-protection process has ended. At the point of shipment, Heckinger will send an invoice to the retail chain for the full price of the product, but the gross margin must be deferred until the ultimate payment is determined.

d. **Critical event:** production — meeting the “milestones.”

Nevo delivers a service over an extended period of time, not unlike a construction project. Although Nevo has never failed to deliver the contracted software, there still is risk of delay and cost over-runs. Meeting each milestone is necessary before revenue can be recognized for that segment of the work.

Students may equate this with percentage of completion, which is not exactly the same, but is an acceptable answer.
The 20X0 subscription campaign yielded a total of $706,300 in new subscriptions. The revenue from these
subscriptions should be recognized over the term of the subscriptions, as the "product" is delivered to the
subscribers. None should be recognized in 20X0, when the subscription campaign occurred. The entire
$706,300 should be credited to unearned subscription revenue. There is a slight risk of non-payment, and
therefore an allowance for doubtful accounts should be established as a valuation account for accounts receivable.

The costs fall into four categories:

1. $110,000 for the subscription list.
2. $89,000 in direct costs for the subscription campaign — telephone and direct salary expense.
3. $21,000 in estimated indirect cost of the subscription campaign.
4. The costs of actually producing the newsletter.

If the newsletter production costs are not high, the new subscription revenue clearly will exceed the cost of the
subscription campaign; the campaign costs will result in a net benefit to the company. The accounting issue is as follows:

*Which (if any) of these costs can be deferred and amortized, or should they all be expensed in 20X0?*

The *subscription list* is a purchased intangible asset. It has resulted in increased revenue, and if a reasonable proportion of subscriptions are renewed, then it will have future benefits as well. A strong argument can be made for capitalizing the purchased list as an intangible capital asset. Subscription lists often are not amortized, but are subject to impairment tests. In this case, an impairment test can be based on the actual renewal rate when it is known in future years.

The *direct costs* of the subscription campaign have resulted in a future benefit. Two approaches might be argued:

1. Defer and allocate to expense on the basis of the revenue generated over the five years as the result of this campaign.
2. View the costs as sunk costs and charge to expense in 20X0.

Start-up and promotion costs are not normally viewed as deferrable costs because their future benefits clearly are in doubt. Such costs are viewed as being costs of maintaining or enhancing the entity's internal goodwill and should be expensed when incurred. The company will continually be incurring costs to develop its subscription base, and this campaign was just one of a potential series of such initiatives. Therefore, these costs should not be deferred and amortized.

The *indirect costs* clearly are estimates. Indirect costs such as this should not be included as an asset or as part of an asset's cost. They should be expensed in 20X0.

The bulk of the production costs will be incurred when the newsletter is produced, and should be expensed. Some costs (for example, editorial salaries, information-gathering costs) are incurred in advance of the publication date. Many costs will have been incurred in 20X0 for 20X1 issues, but these are continuing
operating costs. They should be expensed when incurred.
Self-test 4

Question 7 solution (part b)

Marking Guidelines

a. (7 marks)

The primary criterion for capitalizing rather than expensing expenditures is whether they are expected to provide future benefits. CICA 1000.29–.31A provides that

.29 Assets are economic resources controlled by an entity as a result of past transactions or events and from which future economic benefits may be obtained.

.30 Assets have three essential characteristics:

(a) they embody a future benefit that involves a capacity, singly or in combination with other assets, in the case of profit-oriented enterprises, to contribute directly or indirectly to future net cash flows, and, in the case of not-for-profit organizations, to provide services;

(b) the entity can control access to the benefit; and

(c) the transaction or event giving rise to the entity’s right to, or control of, the benefit has already occurred.

.31 It is not essential for control of access to the benefit to be legally enforceable for a resource to be an asset, provided the entity can control its use by other means.

.31A There is a close association between incurring expenditures and generating assets but the two do not necessarily coincide. Hence, when an entity incurs an expenditure, this may provide evidence that future economic benefits were sought but is not conclusive proof that an item satisfying the definition of an asset has been obtained. Similarly, the absence of a related expenditure does not preclude an item from satisfying the definition of an asset and thus becoming a candidate for recognition in the balance sheet. For example, items that have been donated to the entity may satisfy the definition of an asset.

Other issues include cost benefit, materiality, and income tax considerations. The *CICA Handbook* addresses the first two issues in CICA 1000.16–.17. Specifically,

.16 The benefits expected to arise from providing information in financial statements should exceed the cost of doing so. In developing accounting standards, the Board weighs the anticipated costs and benefits of its proposals in general terms to assess whether they are justified on cost / benefit grounds. The benefits and costs of applying accounting standards may differ between entities depending in part on the nature, number and information needs of the users of their financial statements. Therefore, in developing an accounting standard, the Board considers whether the requirements of that standard should apply to all entities or whether different requirements should apply to different types of entities for which the cost / benefit trade-off differs significantly. The cost / benefit trade-off is also a consideration for individual entities in the preparation of financial statements in accordance with applicable standards, for example, in considering disclosure of information beyond that required by the standards. The Board recognizes that the evaluation of the nature and amount of benefits and costs is substantially a judgmental process.

.17 Users are interested in information that may affect their decision making. Materiality is the term used to describe the significance of financial statement information to decision makers. An item of information, or an aggregate of items, is material if it is probable that its omission or misstatement would influence or change a decision. Materiality is a matter of professional judgment in the particular circumstances.
These two paragraphs explain why staplers are routinely expensed when they provide ongoing benefits to the firm; the impact on the financial statement is immaterial and the costs associated with capitalizing — estimating useful life, maintaining amortization records — far exceed the limited benefit that this information would provide.

While Canada Revenue Agency does have rules in this respect, on a very simplistic level, if you expense something, you will receive an immediate tax deduction reducing the income tax that you pay in the year of acquisition. This “tax savings” is offset in later years, though, as you will not be able to claim capital cost allowance.

**Note 1**: Students do not need to reference the specific sections of the Handbook or quote same to gain full marks. Rather, they need to logically explain the issues; for example, does the expenditure provide future benefits, cost benefit, and materiality.

**Note 2**: Students’ answers will be varied; award marks based on the reasonableness of the answers. I suspect that many will bring up matching as well. While they should not be penalized for this, the ability to match or otherwise flows from the decision to capitalize, or expense drives the choice to do so.

b. **(3 marks)**

i. Capitalization will result in lower reported net income in Year 2 than will expensing the item in year one due to increased amortization expense.

ii. *Assuming that the company claims the expenditure as an expense on its income tax return*, expensing the item will probably result in higher cash flow being reported in Year 1. The timing and amount of the cash outflow is the same irrespective of whether the item is expensed or capitalized. However, if the item is expensed (see the discussion in part a above), income tax expense and by extension cash paid for income taxes will decrease, thereby increasing the firm’s total cash flow.

**Note to markers**: An argument could be made that cash flow will not be affected in Year 1 as the income taxes are not paid until after the end of the year. This is possible notwithstanding the normal requirement of monthly or quarterly instalments. The students should be given full marks for a well-constructed argument to this effect.

Moreover, the choice to expense or capitalize the item will affect the nature of the cash flows reported. Specifically, if the item is expensed it will be recorded as a cash outflow from operating activities. If capitalized, it will be classified as a cash outflow from investing activities.

iii. Year 1’s debt-to-equity ratio will be lower under the capitalization scenario. When an item is capitalized, both assets and equity are higher than when expensed. Therefore, debt in relation to equity is lower.

c. **(5 marks)**

In normal circumstances, management of PREs prefer to capitalize expenditures. The primary reasons for this include the following:

- Income in Year 1 will be higher than if the item is expensed — many managers are evaluated in some way on their contribution to profitability.

- Capitalization results in a stronger balance sheet and ratios, which can impact favourably on the company’s ability to raise capital and run a lesser risk of violating debt covenants.

**Note**: Students’ answers will vary; award marks based on the reasonableness of the answers.
Self-test 4

Question 8 solution (A6-21)

Requirement 1

<table>
<thead>
<tr>
<th>Year</th>
<th>Costs incurred</th>
<th>Costs incurred to date</th>
<th>% Complete</th>
<th>Revenue to date</th>
<th>Revenue for current year</th>
<th>Gross profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>20X5</td>
<td>$2,700,000</td>
<td>$2,700,000</td>
<td>30.51%</td>
<td>$3,340,845</td>
<td>$3,340,845</td>
<td>$640,845</td>
</tr>
<tr>
<td>20X6</td>
<td>4,500,000</td>
<td>7,200,000</td>
<td>81.36%</td>
<td>8,908,920</td>
<td>5,568,075</td>
<td>1,068,075</td>
</tr>
<tr>
<td>20X7</td>
<td>1,800,000</td>
<td>9,000,000</td>
<td>100.00%</td>
<td>10,950,000</td>
<td>2,041,080</td>
<td>241,080</td>
</tr>
</tbody>
</table>

1. Costs incurred to date ÷ total estimated cost of $8,850,000
2. Contract revenue of $10,950,000 × percentage of completion
3. Total revenue to date – previous years revenue to date
4. Revenue for current year – costs incurred during current year

Requirement 2

20X5:

- Construction in progress inventory 640,845
- Costs of construction 2,700,000
- Revenue, long-term construction contract 3,340,845

20X6:

- Construction in progress inventory 1,068,075
- Costs of construction 4,500,000
- Revenue, long-term construction contract 5,568,075

20X7:

- Construction in progress inventory 241,080
- Costs of construction 1,800,000
- Revenue, long-term construction contract 2,041,080
- Billings on contracts 10,950,000
- Construction in progress inventory 10,950,000
## Self-test 4

**Question 9 solution (A6-23)**

Calculations (thousands):

<table>
<thead>
<tr>
<th></th>
<th>20X4</th>
<th>20X5</th>
<th>20X6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract price</td>
<td>$5,600</td>
<td>$6,400</td>
<td>$6,400</td>
</tr>
<tr>
<td>Actual costs to date</td>
<td>850</td>
<td>3,750</td>
<td>5,400</td>
</tr>
<tr>
<td>Estimated costs to complete</td>
<td>4,200</td>
<td>1,500</td>
<td>—</td>
</tr>
<tr>
<td>Total cost</td>
<td>5,050</td>
<td>5,250</td>
<td>5,400</td>
</tr>
<tr>
<td>Estimated total profit</td>
<td>$550</td>
<td>$1,150</td>
<td>$1,000</td>
</tr>
<tr>
<td>Actual costs to date</td>
<td>$850</td>
<td>$3,750</td>
<td>$5,400</td>
</tr>
<tr>
<td>Estimated total costs</td>
<td>5,050</td>
<td>5,250</td>
<td>5,400</td>
</tr>
<tr>
<td>Percentage complete</td>
<td>16.8%</td>
<td>71.4%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

### Revenue to be recognized:
- **20X4**: $5,600 × 16.8% = $941
- **20X5**: ($6,400 × 71.4%) – $941 = $3,629
- **20X6**: $6,400 – ($941 + $3,629) = $1,830

### Gross profit to be recognized:
Revenue for current period less costs incurred in current period
- **20X4**: $941 – $850 = $91
- **20X5**: $3,629 – $2,900 = $729
- **20X6**: $1,830 – $1,650 = $180

### Journal entries:

#### 20X4:
- Construction-in-progress inventory 850
  - Cash, accounts payable, etc 850
- Accounts receivable 700
  - Billings on contract 700
- Cash 650
  - Accounts receivable 650
- Cost of construction 850
- Construction in progress inventory 91
- Construction revenue 941

#### 20X5:
- Construction-in-progress inventory 2,900
  - Cash, accounts payable, etc 2,900
Accounts receivable 2,900
Billings on contract 2,900
Cash 2,600
Accounts receivable 2,600
Cost of construction 2,900
Construction in progress inventory 729
Construction revenue 3,629

20X6:
Construction-in-progress inventory 1,650
Cash, accounts payable, etc 1,650
Accounts receivable 2,800
Billings on contract 2,800
Cash [($6,400 \times 90\%) - (650 + 2,600)] 2,510
Accounts receivable 2,510
Cost of construction 180
Construction in progress inventory 1,650
Construction revenue 1,830
Billings on contract 6,400
Construction-in-progress inventory 6,400