

IFRS Bridging Manual



Certified
Management
Accountants

Copyright

All rights reserved. These materials are protected by copyright, and any reproduction, storage in a retrieval system, or transmission in any form or by any means, electronic, mechanical, photocopying recording or likewise, is expressly prohibited and contrary to the Professional Misconduct and Code of Professional Ethics.

Table of Contents

1.	Financial Statements and the Conceptual Framework	4
2.	The Statement of Cash Flow	20
3.	Revenue Recognition	21
4.	Notes Receivable/Payable	27
5.	Inventory	29
6.	Capital Assets	31
7.	Liabilities	63
8.	Stock option grants to employees	68
9.	Accounting for Pensions	71
10.	Accounting for Leases	75
11.	Investments	87
12.	Operating Segments	111
13.	Interim Financial Reporting	115
14.	Accounting for Income Taxes	119
15.	Accounting Policies, Changes in Accounting Estimates and Errors	121
16.	Foreign Currency Translation	123
17.	Financial Instruments	133

Introduction

The purpose of this document is to provide a bridge between what is current GAAP (the CICA Handbook) in Canada and what will be GAAP for publicly accountable companies whose year end begins on or after January 1, 2011 when GAAP will be defined by International Financial Reporting Standards (IFRS).

What is not known with certainty at this time (September 2009) is what GAAP will apply to non-publicly accountable companies. In June 2008, the Accounting Standards Board announced that GAAP for private companies will be a 'made in Canada' solution. A committee was set up to determine what this model will look like. An exposure draft was released in 2009 with a deadline for submission of July 31, 2009. The committee is currently deliberating the submissions to the exposure draft and is expected to announce the final standards in late 2009. Private companies will have the option to adopt IFRS as a whole or adopt the new private company GAAP.

The CMA Canada Entrance Exam will be IFRS compliant starting with the June 2010 exam.

The following topical areas that are normally covered in the Financial Accounting curriculum are not substantially affected by IFRS:

- Cash
- Accounts Receivable
- Earnings per Share
- Non-profit Organizations
- Financial Statement Analysis.

For some sections, the difference between current GAAP and IFRS is relatively insignificant (i.e. Statement of Cash Flow) and can be expressed in one or two pages. But for other sections (i.e. Capital Assets, Investments), the differences are quite significant.

1. Financial Statements and the Conceptual Framework

Components of Financial Statements

IAS 1 states that a complete set of financial statements comprises of the following:

- (a) a statement of financial position as at the end of the period,
- (b) a statement of comprehensive income for the period,
- (c) a statement of changes in equity for the period,
- (d) a statement of cash flows for the period
- (e) a set of notes, which provide a summary of the entity's significant accounting policies along with other explanatory information

IAS 1 uses different terminology from what was used previously under both IAS's and Canadian GAAP, for example a 'statement of financial position' is the equivalent of a 'balance sheet'. Nevertheless, an entity can continue to use financial statement titles other than those used in IAS 1, as long as the titles are not misleading.

IAS 1.36 requires that financial statements be presented at least annually.

IAS 1.51 states that each financial statement and notes be clearly identified and prominently displayed with the following information:

- the name of the reporting entity,
- whether the financial statements are for an individual entity or a group of entities,
- the date of the end of the reporting period or the period covered by the set of financial statements,
- the presentation currency, and
- the level of rounding used in presenting amount.

The Statement of Financial Position

The following is a schematic of a typical Statement of Financial Position:

Long-term Assets	Share Capital
	Retained Earnings
	Long-Term Liabilities
Current Assets	Current Liabilities

A Statement of Financial Position is essentially a listing of all assets of an accounting entity (the left side). The right side of the balance sheet shows how these assets are financed: through external creditor financing (liabilities) or through internal financing, either through direct shareholder financing (share capital) or through growth (retained earnings).

Note that the above 'inverted' statement of financial position is not required by IAS 1, so companies can continue to use the traditional balance sheet format, i.e. current assets followed by current liabilities. The inverted format however, is used by all European entities that have adopted IFRS and is used in all examples in IAS 1.

Assets are segregated into current and long-term assets.

A current asset is defined as follows (IAS 1.66)

- it is expected to be realized in, or is intended for sale or consumption in, the entity's normal operating cycle
- it is held primarily for the purpose of being traded
- it is expected to be realized within 12 months, or
- it is cash or a cash equivalent.

The operating cycle of a business is defined as the amount of time it takes to convert raw materials into a final product and sold. For most businesses this is much less than one year. Some businesses' operating cycle last longer than one year: tree farms, nuclear submarine contractors, scotch whisky distillers, etc... For purposes of this course, however, we can generally assume that current assets will be converted into cash or used up in the business within one year.

The most common current assets are: cash, short-term investments, accounts receivable, inventory and prepaid expenses.

Non-current assets are defined by what they are not: they are not current assets. Essentially, they are assets that will convert into cash or be used up in the business over periods of longer than one year or the operating cycle of the business. The most common long-term assets are: long-term investments, land, building, equipment, and intangible assets (goodwill, patents and trademarks).

An entity should classify a liability as current when (IAS 1.69):

- it expects to settle the liability in the entity's normal operating cycle,
- it holds the liability primarily for the purpose of trading,
- the liability is due to be settled within twelve months after the reporting period, or
- the entity does not have an unconditional right to defer settlement of the liability for at least twelve months after the reporting period.

The most common current liabilities are: accounts payable, accrued liabilities and the current portion of long-term debt.

Non-current liabilities, like non-current assets, are defined by what they are not: they are not current liabilities. Generally non-current liabilities represent those liabilities that are due to be paid in periods exceeding one year or the operating cycle of the business. The most common long-term liabilities are: long-term debt and future income tax liabilities.

Shareholders' equity is typically made up of two components: share capital and retained earnings. Share capital represents the amount that shareholders have invested in the corporation directly. There are generally two types of share capital: common shares and preferred shares.

Retained earnings represent the sum total of past earnings that have not been distributed to shareholders by way of dividends.

IAS 1.54 requires that, as a minimum, the following be disclosed on the face of the statement of financial position:

- property, plant and equipment
- investment property
- intangible assets
- financial assets
- investments accounted for using the equity method
- biological assets (i.e. cattle)
- inventories
- trade and other receivables
- cash and cash equivalents
- the total of assets classified as held for sale and assets included in disposal groups classified as held for sale
- trade and other payables

- provisions
- financial liabilities
- liabilities and assets for current tax (i.e. income taxes payable/receivable)
- deferred tax liabilities and deferred tax assets
- liabilities included in disposal groups classified as held for sale
- noncontrolling interest, presented within equity
- issued capital and reserves attributable to the parent's equity holders

Current/noncurrent classification - IAS 1.60 requires that current / non-current assets and current / non-current liabilities be disclosed separately except when a presentation based on liquidity would provide information that is reliable and more relevant. If that exception applies, all assets and liabilities should be presented broadly in order of liquidity. Financial institutions, for example, would be more likely to present their statement of financial position on a liquidity basis. IAS 1 acknowledges that the current / non-current classification is useful when an entity supplies goods or services within a clearly identifiable operating cycle (IAS 1.62).

The following page provides a illustrative Statement of Financial Position (adapted from IAS 1 - Implementation Guidance).

XYZ Group

Statement of financial position

as at December 31, 20x7

(in thousands of currency units)

	Dec 31, 20x7	Dec 31, 20x6
ASSETS		
Non-current assets		
Property, plant and equipment	350,700	360,020
Goodwill	80,800	91,200
Other intangible assets	227,470	227,470
Investments in associates	100,150	110,770
Available-for-sale financial assets	142,500	156,000
	<u>901,620</u>	<u>945,460</u>
Current assets		
Inventories	135,230	132,500
Trade receivables	91,600	110,800
Other current assets	25,650	12,540
Cash and cash equivalents	312,400	322,900
	<u>564,880</u>	<u>578,740</u>
	<u>1,466,500</u>	<u>1,524,200</u>
EQUITY AND LIABILITIES		
Equity attributable to owners of the parent		
Share capital	650,000	600,000
Retained earnings	243,500	161,700
Other components of equity	10,200	21,200
	<u>903,700</u>	<u>782,900</u>
Non-controlling interests	70,050	48,600
	<u>973,750</u>	<u>831,500</u>
Non-current liabilities		
Long-term borrowings	120,000	160,000
Deferred tax	28,800	26,040
Long-term provisions	28,850	52,240
	<u>177,650</u>	<u>238,280</u>
Current liabilities		
Trade and other payables	115,100	187,620
Short-term borrowings	150,000	200,000
Current portion of long-term borrowings	10,000	20,000
Current tax payable	35,000	42,000
Short-term provisions	5,000	4,800
	<u>315,100</u>	<u>454,420</u>
Total liabilities	<u>492,750</u>	<u>692,700</u>
	<u>1,466,500</u>	<u>1,524,200</u>

The Statement of Comprehensive Income

IAS 1 requires firms to present all income and expenses recognized in a period in either (1) a single statement of comprehensive income or (2) in two statements: a statement of income ending with net income/loss and a statement beginning with the net income/loss and displaying components of other comprehensive income.

Components of other comprehensive income will be introduced in Module 2 of this course so you will not understand what these mean until we cover the next module. They are illustrated here for purposes of form only.

As a minimum, the statement of comprehensive income shall include the following line items (IAS 1.82, 83 and 84):

- (a) Revenue.
- (b) Finance costs (interest expense).
- (c) Share of profits and losses of associates and joint ventures accounted for using the equity method.
- (d) Tax expense.
- (e) A single amount comprising the total of:
 - (i) the post-tax profit or loss of discontinued operations; and
 - (ii) the post-tax gain or loss recognised on the measurement to fair value less costs to sell or on the disposal of the assets or disposal group(s) constituting the discontinued operation.
- (f) Profit or loss.
- (g) Each component of other comprehensive income classified by nature.
- (h) Share of other comprehensive income of associates and joint ventures accounted for using the equity method.
- (i) Total comprehensive income.
- (j) Allocations of profit or loss for the period:
 - (i) Profit or loss attributable to minority interest.
 - (ii) Profit or loss attributable to owners of the parent.
- (k) Allocations of total comprehensive income for the period:
 - (i) Total comprehensive income attributable to minority interest.
 - (ii) Total comprehensive income attributable to owners of the parent.

An entity may present items (a) to (f) and (j) above in a separate income statement.

The following is an illustration of a statement of comprehensive income in two parts (adapted from IAS 1 - Implementation Guidance):

XYZ group

*Income statement (classification of expenses by nature)
for the year ended December 31, 20x7
(in thousands of currency units)*

	20x7	20x6
Revenue	390,000	355,000
Other income	20,667	11,300
Changes in inventories of finished goods and work in progress	(115,100)	(107,900)
Work performed by the entity and capitalized	16,000	15,000
Raw material and consumables used	(96,000)	(92,000)
Employee benefits expense	(45,000)	(43,000)
Depreciation and amortization expense	(19,000)	(17,000)
Impairment of property, plant and equipment	(4,000)	-
Other expenses	(6,000)	(5,500)
Finance costs	(15,000)	(18,000)
Share of profit of associates	35,100	30,100
Profit before tax	161,667	128,000
Income tax expense	(40,417)	(32,000)
Profit for the year from continuing operations	121,250	96,000
Loss for the year from discontinued operations	-	(30,500)
Profit for the year	121,250	65,500
Profit attributable to:		
Owners of the parent	97,000	52,400
Minority interest	24,250	13,100
	121,250	65,500
Earnings per share (in currency units)		
Basic and diluted	0.46	0.30

XYZ group
Statement of comprehensive income
for the year ended December 31, 20x7
(in thousands of currency units)

	20x7	20x6
Profit for the year	121,250	65,500
Other comprehensive income:		
Exchange differences on translating foreign operations	5,334	10,667
Available-for-sale financial assets	(24,000)	26,667
Cash flow hedges	(667)	(4,000)
Gains on property revaluation	933	3,367
Actuarial gains(losses) in defined benefit pension plans	(667)	1,333
Share of other comprehensive income of associates	400	(700)
Income tax relating to components of other comprehensive income	4,667	(9,334)
Other comprehensive income for the year, net of tax	(14,000)	28,000
Total comprehensive income for the year	107,250	93,500
Total comprehensive income attributable to:		
Owners of the parent	85,800	74,800
Minority interest	21,450	18,700
	107,250	93,500

Note that an entity should not present any extraordinary items, either on the face of the income statement or in the notes.

IAS 1.99 requires that expenses be presented in one of two forms on the statement of income:

- by nature of expense, i.e. depreciation, cost of materials, transport costs, employee benefits, advertising.
- by function of expense: COGS, selling costs, distribution costs, administrative costs.

The choice ultimately depends on which method most fairly presents the elements of the entity's performance and would likely be based on historical and industry factors and the nature of the entity. The nature of expense method will require less analysis and be simpler to use.

The income statement presented on the previous page was by nature of expense. The same statement, but presented by function of expense is illustrated below.

*XYZ group**Income statement (classification of expenses by function)**for the year ended December 31, 20x7**(in thousands of currency units)*

	20x7	20x6
Revenue	390,000	355,000
Cost of sales	(245,000)	(230,000)
Gross profit	145,000	125,000
Other income	20,667	11,300
Distribution costs	(9,000)	(8,700)
Administrative expenses	(20,000)	(21,000)
Other expenses	(2,100)	(1,200)
Finance costs	(8,000)	(7,500)
Share of profit of associates	35,100	30,100
Profit before tax	161,667	128,000
Income tax expense	(40,417)	(32,000)
Profit for the year from continuing operations	121,250	96,000
Loss for the year from discontinued operations	-	(30,500)
Profit for the year	121,250	65,500
Profit attributable to:		
Owners of the parent	97,000	52,400
Minority interest	24,250	13,100
	121,250	65,500
Earnings per share (in currency units)		
Basic and diluted	0.46	0.30

The Statement of Changes in Equity

The statement of changes in equity shows how each component of equity has changed from the beginning of the year to the end of the year. A sample (simplified) statement is as follows:

*XYZ Company
Statement of Changes in Equity
For the year ended December 31, 20x6*

	<i>Preferred Shares</i>	<i>Common Shares</i>	<i>Contributed Surplus</i>	<i>Retained Earnings</i>	<i>Other Comprehensive Income</i>
Balance, Jan 1, 20x6	\$200,000	\$100,000	\$155,000	\$250,000	\$75,000
Net income				450,000	
Increase in OCI					5,000
Issue of preferred shares	105,000				
Purchase of common shares		(14,800)	(114,700)		
Stock Dividend		95,850		(95,850)	
Cash Dividends					
- Preferred				(24,000)	
- Common				(46,860)	
Balance, Dec 31, 20x6	<u>\$305,000</u>	<u>\$181,050</u>	<u>\$40,300</u>	<u>\$533,290</u>	<u>\$80,000</u>

The Conceptual Framework

A strong theoretical foundation is essential if accounting practice is to keep pace with a changing business environment. Accountants are continuously faced with new situations and business innovations that present accounting and reporting problems. These problems must be dealt with in an organized and consistent manner. The conceptual framework plays a vital role in the development of new standards and in the revision of previously issued standards.

The Objective of Financial Statements

The objectives of financial statements are as follows:

- to provide information about the financial position, performance and changes in financial position of an entity that is useful to a wide range of users in making economic decisions (although it acknowledged that this is limited by the fact that financial statements primarily portray the financial effects of past events and do not provide non-financial information). This includes:
 - the evaluation of the ability of the entity to generate cash and the timing and certainty of this generation,
 - information about the economic resources controlled by the entity,
 - information about the financial structure of the entity,
 - information about liquidity and solvency of the entity,
 - information about the performance and the variability of performance of the entity, particularly its profitability, and
 - information about changes in the financial position of the entity.
- to show the results of the stewardship of management, defined as the accountability of management for the resources entrusted to it.

Underlying Assumptions

The conceptual framework considers two underlying assumptions: the accrual basis and the going concern principle. Under the *accrual basis*, the effects of transactions and other events are recognized when they occur (and not when cash is received or paid) and they are recorded in the accounting records and reported in the financial statements of the periods to which they relate. The financial statements are prepared on the assumption that an entity is a going concern and will continue in operation for the foreseeable future.

Qualitative Characteristics of Financial Statements

There are four principal qualitative characteristics of financial statements:

Primary Characteristic

1. **Understandability** – financial statements must be readily understandable by users. Users are assumed to have a reasonable knowledge of business and economic activities and accounting and a willingness to study the information with reasonable diligence. Note that this does not preclude the inclusion of complex matters.
2. **Relevance** – information is relevant when it influences the economic decisions of users by helping them evaluate past, present or future events (predictive value) or confirming, or correcting, their past evaluations (feedback value or confirmatory role).
3. **Reliability** – information is reliable when it is free from material error and bias and can be depended upon by users to represent faithfully that which it either purports to represent or could reasonably be expected to represent. Information may be relevant but so unreliable in nature or representation that its recognition may be potentially misleading.

Secondary Characteristics

Materiality – information is material if its omission or misstatement could influence the economic decisions of users taken on the basis of the financial statements.

Faithful Representation – as defined in the reliability definition.

Substance over form - it is necessary that transactions are accounted for and presented in accordance with their substance and economic reality and not merely their legal form.

Primary Characteristic

Secondary Characteristics

3. Reliability (cont'd)

Neutrality - financial statements are not neutral if, by the selection or presentation of information, they influence the making of a decision or judgment in order to achieve a predetermined result or outcome.

Prudence – the inclusion of a degree of caution in the exercise of the judgments needed in making the estimates required under conditions of uncertainty, such that assets or income are not overstated and liabilities or expenses are not understated. Note that the exercise of prudence does not allow, for example, the creation of hidden reserves or excessive provisions, the deliberate understatement of assets or income, or the deliberate overstatement of liabilities or expenses, because the financial statements would not be neutral and, therefore, not have the quality of reliability.

Completeness - the information in financial statements must be complete within the bounds of materiality and cost. An omission can cause information to be false or misleading and thus unreliable and deficient in terms of its relevance.

4. **Comparability** - implies that accounting information is comparable with previous periods (interperiod comparability or consistency) and comparable to other firms operating in the same industry (interfirm comparability). Consistency implies that accounting principles are applied from period to period in the same manner. Users must be informed of the accounting policies used in the preparation of financial statements.

The conceptual framework identifies three constraints on relevant and reliable information:

1. **Timeliness** - Management may need to balance the relative merits of timely reporting and the provision of reliable information. In achieving a balance between relevance and reliability, the overriding consideration is how best to satisfy the economic decision-making needs of users.
2. **Balance between benefit and cost** - the benefits derived from information should exceed the cost of providing it.
3. **Balance between qualitative characteristics** - generally the aim is to achieve an appropriate balance among the characteristics in order to meet the objective of financial statements.

The Elements of Financial Statements

An **asset** is defined as a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity.

The future economic benefits embodied in an asset may flow to the entity in a number of ways. For example, an asset may be:

- (a) used singly or in combination with other assets in the production of goods or services to be sold by the entity;
- (b) exchanged for other assets;
- (c) used to settle a liability; or
- (d) distributed to the owners of the entity.

A **liability** is defined as a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits.

The settlement of a present obligation usually involves the entity giving up resources embodying economic benefits in order to satisfy the claim of the other party. Settlement of a present obligation may occur in a number of ways, for example, by:

- (a) payment of cash;
- (b) transfer of other assets;
- (c) provision of services;
- (d) replacement of that obligation with another obligation; or
- (e) conversion of the obligation to equity.

An obligation may also be extinguished by other means, such as a creditor waiving or forfeiting its rights.

Equity is defined as the residual interest in the assets of the entity after deducting all its liabilities.

Income is defined as increases in economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from equity participants.

The definition of income encompasses both revenues and gains. Revenue arises in the course of the ordinary activities of an entity and is referred to by a variety of different names including sales, fees, interest, dividends, royalties and rent. Gains represent other items that meet the definition of income and may, or may not, arise in the course of the ordinary activities of an entity. Gains represent increases in economic benefits and as such are no different in nature from revenue.

Expenses are defined as decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrence's of liabilities that result in decreases in equity, other than those relating to distributions to equity participants.

The definition of expenses encompasses losses as well as those expenses that arise in the course of the ordinary activities of the entity. Expenses that arise in the course of the ordinary activities of the entity include, for example, cost of sales, wages and depreciation. They usually take the form of an outflow or depletion of assets such as cash and cash equivalents, inventory, property, plant and equipment.

Capital maintenance adjustments - the revaluation or restatement of assets and liabilities gives rise to increases or decreases in equity. While these increases or decreases meet the definition of income and expenses, they are not included in the income statement. Instead these items are included in equity as capital maintenance adjustments or revaluation reserves.

Measurements of the Elements of Financial Statements

The current conceptual framework per section 1000 of the CICA handbook calls for one measurement approach: historical cost. Although the most common basis is still historical cost, there are four basis of measurement under IFRS:

- *Historical cost.* Assets are recorded at the amount of cash or cash equivalents paid or the fair value of the consideration given to acquire them at the time of their acquisition. Liabilities are recorded at the amount of proceeds received in exchange for the obligation, or in some circumstances (for example, income taxes), at the amounts of cash or cash equivalents expected to be paid to satisfy the liability in the normal course of business.
- *Current cost.* Assets are carried at the amount of cash or cash equivalents that would have to be paid if the same or an equivalent asset was acquired currently. Liabilities are carried at the undiscounted amount of cash or cash equivalents that would be required to settle the obligation currently.

- *Realizable (settlement) value.* Assets are carried at the amount of cash or cash equivalents that could currently be obtained by selling the asset in an orderly disposal. Liabilities are carried at their settlement values; that is, the undiscounted amounts of cash or cash equivalents expected to be paid to satisfy the liabilities in the normal course of business.
- *Present value.* Assets are carried at the present discounted value of the future net cash inflows that the item is expected to generate in the normal course of business. Liabilities are carried at the present discounted value of the future net cash outflows that are expected to be required to settle the liabilities in the normal course of business.

2. The Statement of Cash Flows

The presentation of the Statement of Cash flow is identical under IFRS with the following exception: cash flows from dividends received and paid can be classified as either operating, investing or financing cash flows as long as they are reported in a consistent manner.

Recall that under current Canadian GAAP:

- dividends paid are classified as financing.
- dividends received, and interest received/paid as operating.

3. Revenue Recognition

Revenue recognition under IFRS is governed by IAS 18 – Revenue and IAS 11 – Construction Contracts.

IAS 18 applies to the following types of revenues:

- sale of goods,
- rendering of services, and
- interest, royalties and dividends.

Revenue is measured as the fair value of the consideration received or receivable (IAS 18.9). If the consideration is to be received over time and provides favorable financing terms to the buyer, then the cash flows are discounted and the amount of revenue is calculated based on the discounted value (IAS 18.11). The accounting for these transactions will be discussed in section 6 of this Module.

Fair value is defined as the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction (IAS 39.9).

Sale of Goods

Revenue from the sale of goods shall be recognized 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 (note that this item is also referred to as the matching principle). (IAS 18.14)

Note that in most cases, i.e. retail sales, the transfer of risks and rewards of ownership will coincide with the transfer of the legal title or the passing of possession to the buyer. In some cases, the timing of transfer of title and transfer of risks and rewards of ownership may not coincide. For example, if the seller holds the legal title to the goods until payment has been made, then you would still recognize revenue on the day the buyer takes possession of the goods since the significant risk and rewards of ownership of the goods has transferred to the buyer.

If you retain significant risks of ownership, then the transaction is deemed to not be a sale and revenues cannot be recognized. The standard provides the following examples where this could be the case:

- when the entity retains an obligation for unsatisfactory performance not covered by normal warranty provisions;
- when the receipt of the revenue from a particular sale is contingent on the derivation of revenue by the buyer from its sale of the goods;
- when the goods are shipped subject to installation and the installation is a significant part of the contract which has not yet been completed by the entity; and
- when the buyer has the right to rescind the purchase for a reason specified in the sales contract and the entity is uncertain about the probability of return. (IAS 18.16)

However, if you retain only insignificant risks of ownership, then the transaction is deemed to be a sale and revenue is recognized.

In the appendix to IAS 18, some additional guidance is provided for some specific transactions such as:

- *Bill and Hold Sales.* These occur when the delivery of the goods is delayed at the customer's request but the customer accepts billing and takes title of the goods. Revenue can be recognized as long as the following criteria are met:
 - it is probable that delivery will be made,
 - the item is on hand, identified and ready for deliver to the buyer at the time the sale is recognized,
 - the buyer specifically acknowledges the deferred delivery instructions, and
 - the usual payment terms apply.
- *Goods subject to Installation and Inspection.* Generally, revenue can be recognized when the goods have been installed and inspected, however if the installation is simple in nature or if inspection is performed only for purposes of determining the final contract price, then revenue can be recognized upon the buyer's acceptance of delivery.
- *Consignment Sales.* A consignment is an arrangement whereby the owner of the product (the consignor) provides the goods to the seller (the consignee) who then sells the goods on behalf of the consignee. The consignee does not purchase the goods, therefore these goods are not inventory of the consignee. Upon the sale, the consignee typically keeps a certain percentage of the sale as a commission and returns the remainder of the proceeds to the consignor. The revenue is recorded by the consignee and consignor only when the goods are sold to the ultimate consumer.
- *Lay away sales.* These occur whenever delivery of the product takes place only when the buyer makes the final payment in a series of installments. Generally revenue is recorded when the last payment is made. However, if experience shows

that most lay away sales are taken to term, revenue may be recognized when a significant deposit is received so long as the goods are on hand, identified and ready for deliver to the buyer.

- *Orders when payment, or partial payment, is received in advance of delivery.* Recognize the cash received as deferred revenues and recognize revenues when the goods are delivered to the buyer.
- *Subscriptions to publications and similar items.* If the items involved are of similar value, revenue is recognized on a straight-line basis. If not, revenue is recognized on the basis of the sales value of the items dispatched in relation to the total estimated sales value of all items covered by the subscription.
- *Installment Sales.* Installment sales are sales whereby the customer pays the sales consideration in installments over time. The sales price is determined by discounting the cash flows. The mechanics of this process will be discussed in Section 6 of this module - Notes Receivable/Payable.

Rendering of Services

Service revenue is to be recognized on the percentage of completion basis if the following conditions are present:

- the amount of revenue can be measured reliably;
- it is probable that the economic benefits associated with the transaction will flow to the entity;
- the stage of completion of the transaction at the balance sheet date can be measured reliably; and
- the costs incurred for the transaction and the costs to complete the transaction can be measured reliably. (IAS 18.20)

The last two items relate to long-term service contracts. The method referred to is called the percentage of completion method and will be explained in more details later in this section under 'Construction Contracts'.

When the outcome of the transaction involving the rendering of services cannot be estimated reliably, revenue shall be recognized only to the extent of the expenses recognized that are recoverable. (IAS 18.26)

For example, say you sign a \$500,000 three year contract to provide a service to one of your clients. Because you cannot estimate the costs to complete the transaction at the end of the first year, then the outcome of the transaction cannot be estimated reliably. Assuming you incurred \$75,000 of costs on this contract, then the amount of revenue you could recognize in the first year is \$75,000. As the outcome of the transaction cannot be estimated reliably, no profit can be recognized. If you received \$100,000 from your client on this contract in the first year, you would then also record unearned revenues of \$25,000 on the Statement of Financial Position.

In the appendix to IAS 18, some additional guidance is provided for some specific transactions:

- *Service fees included in the price of the product.* If the selling price includes an identifiable amount that relates to servicing the product over a period of time, then that amount should be deferred and amortized over the time of the service contract.
- *Advertising Commissions.* Recognize only when the related advertisement appears before the public. Production commissions are recognized in relation to the stage of completion of the project.
- *Insurance Agency Commissions.* If no further work is required on behalf of the agent, the commission can be recognized as revenue on the commencement/renewal date of the policy. If further work is required, then the amount is deferred over the period which the work is performed.
- *Franchise Fees*
 - supplies of equipment and other tangible assets: recognize revenue when the items are delivered or title passes.
 - supplies of initial and subsequent services: the typical franchise agreement calls for a franchise fee, usually to be paid up front but sometimes paid over a number of years. Over the life of the franchise, the franchisee usually agrees to pay a certain percentage of revenues to the franchisor. For example, a restaurant franchise agreement may ask the franchisee to pay \$50,000 up front plus 6% of revenues - 4% royalty and 2% common advertising pool. In exchange for this, the franchisor agrees to support the franchisee on an ongoing basis. The issue is how to recognize the initial franchise fee of \$50,000 as revenue. The franchisor needs to determine the portion of the franchise fee that relates to continuing service and accrue this portion over the period of time the services are provided.
 - continuing franchise fees - these are recognized as revenues as the services are provided

Interest, royalties and dividends

The criteria for recognizing interest, royalties and dividends are:

- it is probable that the economic benefits associated with the transaction will flow to the entity; and
- the amount of the revenue can be measured reliably. (IAS 18.29)

The bases for recognizing revenues are:

- for interest – using the effective interest method,
- for royalties – accrual basis in accordance with the substance of the relevant agreement, and
- for dividends – when the right to receive payment is established (typically when the dividends have been declared). (IAS 18.30)

Disclosure

The accounting policies adopted for the recognition of revenue, including the methods adopted to determine the stage of completion of transactions involving the rendering of services have to be disclosed in the notes to the financial statements. (IAS 18.35a)

The following revenue items have to be separately disclosed:

- the sale of goods,
- the rendering of services,
- interest,
- royalties,
- dividends. (IAS 18.35b)

Construction Contracts (IAS 11)

Accounting for construction contracts requires the use of the percentage of completion method. The completed contract method is no longer acceptable.

There are two types of contracts: fixed price and cost plus. The measures of the outcome (i.e. revenue recognition criteria) vary depending whether we are dealing with a fixed price or a cost plus contract.

In the case of a fixed price contract, the outcome of a construction contract can be estimated reliably when all the following conditions are satisfied:

- (a) total contract revenue can be measured reliably;
- (b) it is probable that the economic benefits associated with the contract will flow to the entity;
- (c) both the contract costs to complete the contract and the stage of contract completion at the balance sheet date can be measured reliably; and
- (d) the contract costs attributable to the contract can be clearly identified and measured reliably so that actual contract costs incurred can be compared with prior estimates. (IAS 11.23)

In the case of a cost plus contract, the outcome of a construction contract can be estimated reliably when all the following conditions are satisfied:

- (a) it is probable that the economic benefits associated with the contract will flow to the entity; and
- (b) the contract costs attributable to the contract, whether or not specifically reimbursable, can be clearly identified and measured reliably. (IAS 11.24)

When the outcome of a construction contract cannot be estimated reliably:

- (a) revenue shall be recognized only to the extent of contract costs incurred that it is probable will be recoverable; and
- (b) contract costs shall be recognized as an expense in the period in which they are incurred. (IAS 11.32)

During the early stages of a contract it is often the case that the outcome of the contract cannot be estimated reliably. Nevertheless, it may be probable that the entity will recover the contract costs incurred. Therefore, contract revenue is recognized only to the extent of costs incurred that are expected to be recoverable. As the outcome of the contract cannot be estimated reliably, no profit is recognized.

4. Notes Receivable / Payable

The imputed rate of interest when discounting the cash flows of a note payable/receivable is the more clearly determinable of the following two rates:

- (a) the prevailing rate for a similar instrument of an issuer with a similar credit rating, or
- (b) a rate of interest that discounts the nominal amount of the instrument to the current cash sales price of the goods or services. (IAS 18.11)

Note that when establishing an imputed rate of interest for a note receivable, the imputed interest rate in part (a) above is based on the credit rating of your customer. For a note payable, it would be based on your own credit rating.

Example: On January 2, 20x0 you sell equipment to one of your customers. The value of the sale is \$10,000 and you agree to take back a note receivable for two years. Interest of 4% (equal to the imputed interest rate) is charged on the note and is payable on December 31 of each year. The note is repayable on December 31, 20x1. The best measure of the imputed interest rate is based on the cash price of the equipment sold of \$9,200.

The note would get recorded as follows:

Jan 1, 20x0	Note Receivable	\$9,200	
	Sales		\$9,200

In order to calculate the interest revenue, we need to determine the imputed interest rate:

	N	I/Y	PV	PMT	FV
Enter	2		-9,200	400	10000
Compute		I/Y =			
		8.518%			

On December 31, 20x0, the interest revenue on the note will be equal to the carrying value of the note times the market rate of interest: $\$9,200 \times 8.518\% = \784 . The difference between the interest revenue of \$784 and the interest of \$400 received increases the carrying value of the note:

Dec 31, 20x0	Cash	\$400	
	Note receivable	384	
	Interest Revenue		\$784

On December 31, 20x1, the interest revenue on the note will be equal to the carrying value of the note times the market rate of interest: $(\$9,200 + \$384) \times 8.518\% = \$816$. The difference between the interest revenue of \$816 and the interest of \$400 received increases the carrying value of the note:

Dec 31, 20x1	Cash	\$400	
	Note Receivable	416	
	Interest Revenue		\$816

Note that the carrying value of the note is now: $\$9,584 + \$416 = \$10,000$. The journal entry to record the receipt of the principal amount of the note is as follows:

Dec 31, 20x1	Cash	\$10,000	
	Note Receivable		\$10,000

5. Inventory

Inventory is defined as assets...

- (a) held for sale in the ordinary course of business;
- (b) in the process of production for such sale; or
- (c) in the form of materials or supplies to be consumed in the production process or in the rendering of services. (IAS 2.6)

Cost of Inventories

The cost of inventories is measured at the lower of cost and net realizable value (IAS 2.9).

Cost is defined as all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition (IAS 2.10).

Costs of purchase would include the purchase price, import duties, transport, handling and any other costs directly attributable to the purchase of inventory. Any trade discounts or rebates should be deducted against the cost of inventory.

Costs of conversion refer to a manufacturing environment. The following are the requirements for the financial reporting of any work-in-process or finished goods manufactured inventories:

- the allocation of fixed production overhead to inventory should be based on normal capacity,
- normal capacity is defined as the production expected to be achieved over a number of periods under normal circumstances;
- unallocated overhead is recognized as an expense in the period in which it is incurred; and
- variable overhead is allocated to inventory on the basis of the actual use of production facilities.

Note that LIFO is no longer considered an acceptable method.

Application of the Lower of Cost or Market Method

Market is defined as net realizable value. Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale. The lower of cost or market rule is applied to inventory on an item by item basis (IAS 2.29). Note that net realizable value is not the same as fair value.

The standard allows for the reversal of a write-down in a subsequent period if the net realizable value of the inventory increases, but not above the original cost (IAS 2.34).

Example: Assume that a company has 5 items of inventory whose cost and net realizable value at year-end are as follows:

<i>Item</i>	<i>Original Cost</i>	<i>Net Realizable Value</i>
A	\$30,000	\$36,000
B	56,000	55,000
C	12,000	14,000
D	32,000	45,000
E	4,000	2,500

Inventory items B and E need to be written down to net realizable value as follows:

Periodic Inventory System: the values assigned to the ending inventory for items B and E are \$55,000 and \$2,500.

Perpetual Inventory System: the following journal entry will be recorded:

Cost of goods sold (or an Inventory loss account)	\$3,500	
Inventory		\$3,500

Disclosure Requirements

The following information must be disclosed with regards to inventories (IAS 2.36):

- the accounting policies adopted in measuring inventories, including the cost formula used;
- the total carrying amount of inventories and the carrying amount in classifications appropriate to the entity;
- the carrying amount of inventories carried at fair value less costs to sell;
- the amount of inventories recognized as an expense during the period;
- the amount of any write-down of inventories recognized as an expense in the period;
- the amount of any reversal of any write-down that is recognized as a reduction in the amount of inventories recognized as expense in the period;
- the circumstances of events that led to the reversal of a write-down of inventories; and
- the carrying amount of inventories pledged as security for liabilities.

8. Capital Assets

Property, Plant and Equipment - General Recognition Principle

Property, plant and equipment are defined as tangible items that:

- (a) are held for use in the production or supply of goods and services, for rental to others, or for administrative purposes; and
- (b) are expected to be used during more than one period. (IAS16.6)

The general recognition principle applies to (i) the initial recognition of an asset, (ii) when parts of that asset are replaced, and (iii) when costs are incurred relative to that asset during its useful life. The standard does not distinguish between costs capitalized at acquisition and costs capitalized post-acquisition. It specifies that the cost of an item of property, plant and equipment shall be recognized as an asset if, and only if:

- (a) it is probable that future economic benefits associated with the item will flow to the entity, and
- (b) the cost of the item can be measured reliably. (IAS 16.7)

Assets acquired for safety or environmental reasons should be capitalized as property, plant and equipment even though these do not meet the strict general recognition principle. This is because these expenditures have to be incurred in order for the productive assets to generate future benefits. (IAS 16.11)

Capital assets should be recorded at cost. Cost should be interpreted fairly broadly and is meant to include all costs incurred in order to put the asset to productive use. For example, this would include, in addition to the cost of acquiring the asset, freight, installation costs, and testing of equipment.

There are three components of the initial cost of an asset:

- (1) the *purchase price* – the amount of cash or cash equivalents paid or the fair value of the other consideration given to acquire the asset. If the asset is acquired in exchange for a note payable, the asset is recorded at the present value of the note. Purchases of groups of assets are allocated to the assets based on their relative fair market values.

For example, say we purchase a building that comprises several pieces of equipment for \$1,000,000. If we obtain separate market values for the land, building and equipment, we would break down the cost as follows:

	<i>Separate Market Value</i>	<i>%</i>	<i>Allocation of Cost</i>
Land	\$200,000	14.3%	\$143,000
Building	900,000	64.3%	643,000
Equipment	300,000	21.4%	214,000
	\$1,400,000	100.0%	\$1,000,000

(2) *directly attributable costs* – these are defined as costs ‘necessary to bring the asset to the location and condition necessary for it to be capable of operating in the manner intended by management’ (IAS 16.20).

Examples of directly attributable costs (IAS 16.17):

- costs of employee benefits arising from the construction or acquisition of the item of property, plant and equipment
- costs of site preparation
- initial delivery and handling costs
- installation and assembly costs
- costs of testing whether the asset is functioning properly
- professional fees

Note the use of the words ‘necessary’ which implies that in order to be capitalized, that these costs could not have been avoided. An additional cost that can be capitalized are borrowing costs. This is discussed further in this section.

The following costs are specifically excluded (IAS 16.19 and 16.20):

- costs of opening a new facility, such as an open house. These costs are incurred after the asset is capable of being used.
- costs of introducing a new product or service, including costs of advertising and promotional activities.
- administrative and other general overhead costs.
- costs incurred while waiting for the asset to be used, but subsequent to the asset being capable of being used.
- operating losses incurred in the initial stages of operating the asset.

(3) the initial estimate of the *cost of dismantling, removal or restoration* – this refers to costs of dismantling, removing or restoring an asset, also known as decommissioning costs. These costs are typically at the end of the useful life of the asset. The present value of these costs are added to the cost of the asset and depreciated over the useful life of the asset. The resulting asset retirement obligation is shown as a long-term liability. Interest accrued on the asset retirement obligation over the life of the asset is expensed as a finance cost on the income statement.

Example: an oil refinery is purchased on December 31, 20x1 at a cost of \$50 million cash (allocated \$10 million to land and \$40 million to the refinery itself). The company has a legal/constructive obligation¹ to dismantle the site at the end of its 30 year useful life. The best estimate of this cost is \$10 million.

Assuming a discount rate of 5%, the present value of the asset retirement obligation is \$2,313,774:

	N	I/Y	PV	PMT	FV
Enter	30	5			10,000,000
Compute			X =		
			2,313,774		

The journal entry to record the purchase of the oil refinery would be as follows:

Dec 31, 20x1	Land	\$10,000,000	
	Refinery	42,313,774	
	Cash		\$50,000,000
	Asset Retirement Obligation		2,313,774

Assuming the refinery has no residual value and that the company uses the straight line method of depreciation, the journal entry to record depreciation expense at December 31, 20x2 would be as follows:

Dec 31, 20x2	Depreciation expense	\$1,410,459	
	Accumulated Depreciation		\$1,410,459
	\$42,313,774 / 30 years		

The interest accrued on the asset retirement obligation would be recorded as follows:

Dec 31, 20x2	Interest expense	\$115,689	
	Asset Retirement Obligation		\$115,689
	\$2,313,774 x 5%		

At December 31, 20x3, the following entries would be recorded:

Dec 31, 20x2	Depreciation expense	\$1,410,459	
	Accumulated Depreciation		\$1,410,459
	\$42,313,774 / 30 years		
	Interest expense	121,473	
	Asset Retirement Obligation		121,473
	(\$2,313,774 + 115,689) x 5%		

¹ The distinction between a legal and constructive obligation will be explained in the Liabilities section of this module.

Assume now that, in 20x14, the estimate of the asset retirement obligation at the end of the useful life of the refinery will be \$15 million.

We first calculate the present value of the new estimate as at January 1, 20x14:

	N	I/Y	PV	PMT	FV
Enter	18	5			15,000,000
Compute			X =		
			6,232,810		

The book value of the asset retirement obligation as at December 31, 20x13 is:

	N	I/Y	PV	PMT	FV
Enter	18	5			10,000,000
Compute			X =		
			4,155,207		

The following entry would be recorded in 20x14 to increase the asset retirement obligation:

20x14	Refinery	\$2,077,603	
	Asset retirement obligation		\$2,077,603
	\$6,232,810 - 4,155,207		

The net book value of the refinery at December 31, 20x13 is: $\$42,313,774 \times 18/30 = 25,388,264$. The journal entries to record depreciation expense on the refinery and interest expense on the asset retirement obligation at December 31, 20x14 are as follows:

Dec 31, 20x14	Depreciation expense	\$1,525,882	
	Accumulated Depreciation		\$1,525,882
	(\$25,388,264 + 2,077,603) / 18 years		
	Interest expense	311,641	
	Asset Retirement Obligation		311,641
	\$6,232,810 x 5%		

Note that the increase in the carrying value of the refinery is subject to the general recognition principle in that it is probable that future economic benefits associated with the item will flow to the entity (IFRIC 1.5).

Component Approach

The standard requires a ‘component’ approach to asset recognition – i.e. significant parts of an asset have to be recorded in separate accounts and depreciated separately. These are generally parts that have a significant cost in relation to the total cost of the asset. For example, an asset costing \$100,000 may be made up of two distinct parts – Part A which has a useful life of 10 years and Part B which has a useful life of 5 years. On the date of acquisition, the cost of the asset would have to be split between the two parts and the two parts would have to be depreciated separately. (IAS 16.9)

Note that the decision to breakdown an asset into components is based on managerial judgment and materiality.

Example - on December 31, 20x1 a truck is purchased at a cost of \$250,000. The components of the truck are as follows:

	<i>Cost</i>	<i>Useful Life</i>
Truck Body	\$150,000	20 years
Engine	90,000	10 years
Tires	10,000	5 years

Each of the three components would be recorded and depreciated separately.

Self-Constructed Assets and Borrowing Costs

A self-constructed asset is one where the company uses its own equipment and labour to produce the asset. The cost of the self-constructed asset should include all direct out-of-pocket costs and should also include appropriate cost allocations of joint costs consumed by the construction of the asset. For example, if a construction company decides to pave its company headquarters parking lot, it will put depreciable assets to use (trucks, paving equipment). It would make sense that a reasonable amount of depreciation on this equipment be capitalized to the cost of the parking lot. Note that the general recognition criteria applies to self-constructed assets, i.e., the costs can be capitalized if, and only if:

- (a) it is probable that future economic benefits associated with the item will flow to the entity, and
- (b) the cost of the item can be measured reliably.

The capitalization of borrowing costs is covered by IAS 23. The standard defines a *qualifying asset* as ‘an asset that necessarily takes a substantial amount of time to get ready for its intended use or sale’ (IAS 23.5). This includes intangible assets and inventory, but excludes inventories that are routinely manufactured or otherwise produced in large quantities or on a repetitive basis. Examples of these would include items that take some time to manufacture but that are sold as standard items such as residential housing, subway cars, aircraft, etc... (IAS 23.4).

Borrowing costs are defined as interest on short-term and long-term debt and includes any amortization of discounts and premiums and finance charges on leases. The *capitalization rate* is defined as the annual borrowing costs divided by the weighted average debt that generated borrowing costs. The capitalization rate is applied to the weighted average expenditures made on qualifying assets. The resulting amount is the amount of borrowing costs to be capitalized to the asset. Note that the borrowing costs capitalized can be on borrowings made for the direct purpose of financing the self-constructed asset and/or can be on the firm's general borrowings. If the proceeds of an asset-specific loan are invested to generate investment income, the proceeds of the investment income reduce the borrowing costs capitalized.

Commencement of capitalization occurs when the earliest of all of the following three conditions are met:

- (a) expenditures for the asset are being incurred;
- (b) borrowing costs are being incurred; and
- (c) activities that are necessary to prepare the asset for its intended use or sale are in progress. (IAS 23.17)

Cessation of capitalization occurs when substantially all the activities necessary to prepare the qualifying asset for its intended use or sale are complete. (IAS 23.22)

Note that the capitalization of borrowing costs is mandatory.

Example: On March 1, 20x3, a company begins the construction of an asset. Construction ended on October 31, 20x3. The company's year end coincides with the calendar year. The following costs were incurred in the construction of the asset:

Mar 1, 20x3	\$180,000
May 1, 20x3	120,000
June 1, 20x3	60,000
July 15, 20x3	150,000
Sep 1, 20x3	240,000
Oct 1, 20x3	150,000

The company's borrowings are as follows:

- a \$200,000, 7% one year note dated January 1, 20x3. This note relates specifically to the self-constructed asset.
- bonds payable in the amount of \$5,000,000. The annual interest on these bonds is 8.5%.
- other long-term debt in the amount of \$2,000,000 bearing interest at 6%.

First, we calculate the average investment in the project:

<i>Date</i>	<i>Costs Incurred</i>	<i>Proportion of time to October 31, 20x3</i>	<i>Average Investment</i>
Mar 1, 20x3	\$180,000	8/12	\$120,000
May 1, 20x3	120,000	6/12	60,000
June 1, 20x3	60,000	5/12	25,000
July 15, 20x3	150,000	3.5/12	43,750
Sep 1, 20x3	240,000	2/12	40,000
Oct 1, 20x3	150,000	1/12	<u>12,500</u>
			<u>\$301,250</u>

Borrowing costs on specific borrowings are charged first to the asset, then we will allocate general borrowings based on the weighted average borrowing rate of 7.8%:

$$8.5\% \times (\$5,000,000 / 7,000,000) + 6\% \times (2,000,000 / 7,000,000) = 7.8\%$$

Borrowing costs to be capitalized:

Asset specific note: \$200,000 x 7%	\$14,000
General borrowings: (\$301,250 - 200,000) x 7.8%	<u>7,898</u>
	<u>\$21,898</u>

Disclosure requirements - the entity must disclose (1) the amount of borrowing costs capitalized and (2) the capitalization rate used to determine the amount if borrowing costs eligible for capitalization.

The Revaluation Model

Companies can choose between two models for accounting for property, plant and equipment: the cost model and the revaluation model. The revaluation model measures the carrying amount of the assets at their fair value which is defined as 'the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction'. In most cases this would be equal to the market value of the asset. However, when there is no active market for the assets in question, the use of surrogate measures such as depreciated replacement cost or use of market indices can be used.

The standard is silent on the nature of the frequency of revaluations. The only guideline provided is that revaluations should be done in sufficient regularity such that the carrying amount of the asset does not materially differ from fair value. The frequency of revaluation should ultimately depend on the nature of the assets. If the assets are subject to rapid obsolescence, then revaluations should occur more frequently.

The revaluation model is not applied to individual asset items but to classes of assets, i.e. land, buildings, machinery, etc... For each asset class, management can choose between the cost and revaluation model as long as these are applied consistently for all components in the class. For example, it is possible to use the revaluation model for land and buildings and the cost model for all other classes of assets.

The best way to describe the application of the revaluation model is by way of example.

Assume that Company X is formed on January 1, 20x1. The following assets are purchased on this date:

Land	\$500,000	
Building	1,500,000	Useful life = 40 years
		Residual value = \$300,000

Company X chooses to apply the revaluation model. Because the market for real estate is relatively stable, the company chooses to revalue the assets every three years, i.e. the first revaluation will be made in January 20x4, the second in January 20x7...

For years 20x1 – 20x3, the building will be depreciated at the rate of \$30,000 per year. The net book value of the building on January 1, 20x4 will be:

$$\$1,500,000 - (30,000 \times 3 \text{ years}) = \$1,410,000$$

January 20x4 revaluation - The appraisals of the land and building in January 20x4 are \$600,000 for land and \$1,460,000 for the building.

The increase in the value of land will be as follows:

Land	\$100,000	
Revaluation Surplus (OCI)		\$100,000

The Revaluation Surplus account will be part of Other Comprehensive Income, which in turn, is part of Shareholders' Equity.

For the building, two approaches can be used:

1. restate proportionately with the change in the gross carrying amount of the asset so that the carrying amount of the asset after revaluation equals its revalued amount, or
2. eliminate the accumulated depreciation balance against the gross carrying amount of the asset and the net amount is then restated to the fair value of the asset. (IAS 16.35)

Using the first approach, which we will label the Proportional Method, we first recalculate the original cost and the accumulated depreciation on the building by multiplying each by the revalued amount divided by the current net book value of the assets, $1,460 / 1,410$:

	<i>Carrying amount before revaluation</i>		<i>Carrying amount after revaluation</i>
Building	\$1,500,000	1,460 / 1,410	\$1,553,191
Accumulated Depreciation	(90,000)	1,460 / 1,410	(93,191)
	<u>\$1,410,000</u>		<u>\$1,460,000</u>

The journal entry to record the revaluation of the building under the proportional method will be:

Building	\$53,191	
Accumulated Depreciation		\$3,191
Revaluation Surplus (OCI)		50,000

Under the second approach, which we will label the Gross Carrying Amount method, we first eliminate the accumulated depreciation of the building against the building account, and then increase the carrying amount of the building:

Accumulated Depreciation	\$90,000	
Building		\$90,000
Building	50,000	
Revaluation Surplus (OCI)		50,000

The depreciation expense for 20x4 through to 20x6 will be:

$$(\$1,460,000 - 300,000) / 37 = \$31,351$$

January 20x7 revaluation - The appraisals of the land and building in January 20x7 are \$540,000 for land and \$1,300,000 for the building.

The decrease in value of land will offset the previous revaluation surplus on land of \$100,000 reducing it to \$40,000:

Revaluation Surplus (OCI)	\$60,000	
Land		\$60,000

The net book value of the building is $\$1,460,000 - (\$31,351 \times 3) = \$1,365,947$. We need to decrease the carrying value of the building by \$65,947 which exceeds the revaluation surplus on the building of \$50,000. In this situation, we would first apply the decrease in

value to the balance in the revaluation surplus and any excess would be an expense that would flow to the income statement.

Using the proportional approach, the analysis would be as follows:

	<i>Carrying amount before revaluation</i>		<i>Carrying amount after revaluation</i>
Building	\$1,553,191	1,300,000 / 1,365,947	\$1,478,204
Accumulated Depreciation	(187,244)	1,300,000 / 1,365,947	(178,204)
	<u>\$1,365,947</u>		<u>\$1,300,000</u>

The journal entry would be as follows:

Accumulated Depreciation		
(\$187,244- 178,204)	\$9,040	
Revaluation Surplus (OCI)	50,000	
Loss on asset revaluation (I/S)	15,947	
Building (\$1,553,191 – 1,478,204)		\$74,987

Under the Gross Carrying Amount Method, the journal entries would be as follows:

Accumulated Depreciation (\$31,351 x 3)	\$94,053	
Building		\$94,053
Revaluation Surplus (OCI)	50,000	
Loss on asset revaluation (I/S)	15,947	
Building		65,947

Note that the new carrying value of the building under the Gross Carrying Amount Method would be:

Carrying amount, net – January 1, 20x4	\$1,460,000
Less accumulated depreciation from 20x4 to 20x6:	
\$31,351 x 3 years	(94,053)
Less revaluation reduction in January 20x6	(65,947)
Gross value of building on January 1, 20x6	<u>\$1,300,000</u>

The depreciation expense for the years 20x6 through 20x8 will be:

$$(\$1,300,000 - 300,000) / 34 \text{ years remaining} = \$29,412$$

To summarize the accounting treatment for revaluations:

- when the revaluation results in an increase in carrying values, we credit the Revaluation Surplus Account. This account is part of Other Comprehensive Income in Shareholders' Equity. This was the case for the 20x4 revaluation in our example. What was not illustrated was the situation where an increase in carrying value occurs, but this asset incurred a decrease in the past that was expensed to the income statement. In this case, the increase is first credited to income to the extent of previous accumulated losses and then to the revaluation surplus. The credit to income is reduced by the following:
 - Accumulated depreciation taken on the asset
 - Less the accumulated depreciation on the asset assuming the historical cost model was used.
- when the revaluation results in a decrease in carrying values, we debit the Revaluation Surplus to the extent that we have a balance relating to the asset. If the decrease in revaluation surplus is not enough to cover the decrease in value, any excess is charged as an expense to the income statement. This was the case for the 20x7 revaluation.

Disposition of the Revaluation Surplus Account

There are two ways to dispose of the Revaluation Surplus Account:

1. when an asset is derecognized, any Revaluation Surplus relative to that asset should also be disposed of through Retained Earnings, and
2. the standard also allows the option of transferring amounts from the Revaluation Surplus directly to Retained Earnings throughout the assets useful life as it is being depreciated. The amount of surplus transferred would be equal to the difference between depreciation based on the original cost, and the depreciation based on the revalued amount.

Derecognition of Assets

When an asset is disposed of, the proceeds on disposal are compared to the net book value of the asset. If the proceeds on disposal exceed the net book value of the asset, then we record a gain on disposal. If the proceeds on disposal are less than the net book value of the asset, we record a loss on disposal.

The carrying amount of an item of property, plant and equipment shall be derecognized:

- (a) on disposal; or
 - (b) when no future economic benefits are expected from its use or disposal.
- (IAS 16.67)

For example, an asset with an original cost of \$140,000 was purchased on January 2, 20x1 and is depreciated using the diminishing balance method at the rate of 30% per year. On December 31, 20x6, the asset is sold for proceeds of \$35,000.

The net book value of the asset on December 31, 20x6 is: $\$140,000 \times .7^6 = \$16,471$. The gain on sale of the depreciable asset is $\$35,000 - 16,471 = \$18,529$.

The journal entry to record the disposal of asset is:

Cash	\$35,000	
Accumulated depreciation (\$140,000 – 16,471)	123,529	
Asset		\$140,000
Gain on sale of asset		18,529

Note that when assets are traded in, the market value of the asset traded in becomes the proceeds on disposal and not the trade-in value. The reason for this is that the trade-in value often reflects a discount on the purchase price of the new asset purchased, which should be recorded as such.

Example 2 - recall the example used when discussing the component approach: on December 31, 20x1 a truck is purchased at a cost of \$250,000. The components of the truck are as follows:

	<i>Cost</i>	<i>Useful Life</i>
Truck Body	\$150,000	20 years
Engine	90,000	10 years
Tires	10,000	5 years

Assume that on July 1, 20x10 the engine is replaced at a cost of \$120,000. We would first have to derecognize the old engine:

Net book value of old engine:

$$\$90,000 \times 1.5 \text{ years remaining} / 10 \text{ years useful life} = \$13,500$$

The journal entry to record the derecognition of the old engine would be:

Accumulated depreciation (\$90,000 – 13,500)	\$76,500	
Loss on derecognition of engine	13,500	
Engine		\$90,000

We would then record the acquisition of the new engine:

Engine	\$120,000	
Cash		\$120,000

Exchanges of Assets

Nonmonetary asset exchanges are exchanges of one productive asset for another. The cost of the asset received is measured at fair market value unless:

- the exchange transaction lacks commercial substance, or
- the fair value of neither the asset received differs nor the asset given up is reliably measurable.

If the asset received is not measured at fair value, its cost is measured at the carrying amount of the asset given up (IAS 16.24).

The determination of commercial substance is based on the extent to which the entity's future cash flows are expected to change as a result of the transaction. An exchange transaction has commercial substance if:

- the configuration (risk, timing and amount) of the cash flows of the asset received differs from the configuration of the cash flows of the asset transferred; or
- the entity-specific value of the portion of the entity's operations affected by the transaction changes as a result of the exchange;

AND

- the difference in the above two items is significant relative to the fair value of the assets exchanged.

Example - a hotel chain exchanges Hotel A for Hotel B from another hotel chain - they receive \$100,000 cash as a result of the transaction. The carrying and fair values of both hotels is as follows:

	<i>Carrying Value</i>	<i>Fair Value</i>
Hotel A	\$1,200,000	\$1,500,000
Hotel B	900,000	1,400,000

Assuming no commercial substance, the journal entry to record this transaction is:

Property, plant and Equipment - Hotel B*	\$1,100,000	
Cash	100,000	
Property, plant and Equipment - Hotel A		\$1,200,000

* carrying value of \$1,200,000 less cash received of \$100,000

Assuming commercial substance, the journal entry to record this transaction is:

Property, plant and Equipment - Hotel B	\$1,400,000	
Cash	100,000	
Property, plant and Equipment - Hotel A		\$1,200,000
Gain on sale of property, plant and equipment		300,000

Impairment of Assets

Because IFRS is moving from a historical cost model to a fair value model of accounting, there must be a control mechanism to prevent overvaluations of assets. The impairment test performs this function. It applies to all assets², regardless of how these are classified, although in practice they apply mostly to property, plant and equipment and intangible assets.

The purpose of the test is to ensure that assets are not carried at an amount that is greater than their recoverable amount. The recoverable amount is defined as the greater of:

- (i) the fair market value of the assets less costs to sell (FV), or
- (ii) their value in use (VIU) – this is defined as the present value of cash flows expected from the future use and sale of the assets at the end of their useful lives.

Because the principle is the higher of the two, management may have to calculate both. However, if one exceeds the carrying amount, then the other does not have to be calculated.

One of the key concepts behind the impairment of asset test is that of the Cash Generating Unit (CGU). A CGU is defined as the smallest identifiable group of assets that together have cash inflows that are largely independent of the cash flows of another asset, i.e. the part of a business that generates income and which is largely dependent of other parts of a business. At a minimum, a company has as many CGU's as they have operating segments for the purposes of segment reporting. For example, Rogers Communications Inc's 2007 Annual Report³ shows that the company operates in three segments: wireless, cable and media. At a minimum, Rogers would have three CGU's.

² With the exception of inventories, assets arising from construction contracts, deferred tax assets, assets arising from employee benefits, financial assets, assets held for sale and investment properties carried at fair value.

³ http://downloads.rogers.com/RCI_2007_Annual_Report.pdf, p.88

However if one of the segments is made up of smaller identifiable businesses, then it could potentially be broken down into separate CGU's. Examples of typical CGU's are single retail stores and factories. Note that a CGU can be a single asset.

Value-in-use starts with an approved cash flow forecast for the CGU. This forecast has to be reasonable, supportable, reflect an expected outcome and should not exceed a period of 5 years. A terminal value is also calculated representing the value of the CGU at the end of the 5 years. These cash flows are then discounted at an appropriate risk-adjusted discount rate to obtain their value-in-use.

Fair value of an asset is defined as the value that an external market participant would place on the asset

Impairment tests do not have to be done on an annual basis, rather they only need to be done if there is some indication that impairment has occurred. However, some assets have to be tested for impairment annually (IAS 36.10):

- intangible assets with indefinite useful lives,
- intangible assets not yet available for use, and
- goodwill acquired in a business combination (the specific requirements for the impairment test for goodwill will be discussed in Module 2 of the Accelerated Program).

The reason for requiring annual impairment tests for the above is due to the fact that their values may be more uncertain than other assets. In addition, these assets are not amortized on a regular basis.

The standards provide indicators of impairment and are classified as external and internal sources (IAS 36.12):

External indicators:

- indicators that the market value of the assets has decreased
- significant changes in the external environment the firm operates in
- changes in market interest rates
- comparison of the market capitalization of the firm with the carrying value of its assets

Internal indicators:

- obsolescence or physical damage to the assets
- change in use of the assets
- changes in the economic performance of the assets

If an impairment loss is required, this loss must be allocated to the assets within the CGU on a pro-rata basis. The standard allows for a subsequent reversal of any impairment losses (with the exception of goodwill) (IAS 36.123).

Assets held for Sale

Noncurrent assets held for sale need to be disclosed as such on the statement of financial position, i.e. they need to be disclosed separately from other capital assets.

To qualify as held for sale, the following two criteria must be met:

- they must be available for immediate sale in their existing condition and the sale must be highly probable (meaning there is an active plan to sell and the price is reasonable); and
- the sale will occur within a year from the date the assets are classified as held for sale

A discontinued operations is defined as a subset of assets held for sale or disposed of during the year and:

- represents a separate major line of business or geographical area of operations,
- is part of a single co-ordinated plan to dispose of a separate major line of business or geographical area of operations, or
- is a subsidiary acquired exclusively with a view to resale

On the date an asset, disposal group or discontinued operation is classified as held for sale, they are measured at the lower of carrying costs and fair market less costs to sell. If the selling costs exceed one year, they must be discounted. Any losses on measurement are classified as an impairment loss. If, at a subsequent balance sheet date, the re-measurement of fair market value indicates a recovery, then such recovery can be recorded as a gain, but only to the extent of previous losses. Assets held for sale are not depreciated.

Discontinued operations are presented as a single amount comprising:

- the post-tax profit or loss from discontinued operations, and
- the post-tax gain or loss recognized on the measurement to fair value less costs to sell on the disposal of the assets or disposal group constituting the discontinued operations

This single amount needs to be broken down further in the notes into...

- the revenue, expenses and pre-tax profit of the discontinued operations;
- the gain or loss recognized on the measurement to fair value less costs to sell or on the disposal of the assets
- separately for each of the two items above, the related income tax expense.

Disclosure Requirements - Property, Plant and Equipment

For each class of property, plant and equipment, the following have to be disclosed:

- the measurement bases used for determining the gross carrying amount;
- the depreciation methods used;
- the useful lives or the depreciation rates used;
- the gross carrying amount and the accumulated depreciation at the beginning and end of the period; and
- a reconciliation of the carrying amount at the beginning and end of the period showing:
 - additions;
 - assets classified as held for sale or included as held for sale and other disposals;
 - acquisitions through business combinations;
 - increases or decreased resulting from revaluations and from impairment losses recognized or reversed in other comprehensive income;
 - impairment losses recognized or reversed on the income statement;
 - depreciation expense recognized during the period; and
 - any other changes. (IAS 16.73)

If items of property, plant and equipment are stated at revalued amounts, the following have to be disclosed:

- the effective date of the revaluation;
- whether an independent valuer was involved;
- the methods and significant assumptions applied in estimating fair values;
- the extent to which the fair values were determined directly by reference to observable prices in an active market or recent market transactions on arm's length terms or were estimated using other valuation techniques;
- for each class of property, plant and equipment, the carrying amount that would have been recognized had the assets been carried under the cost model; and
- the revaluation surplus, indicating the change for the period and any restrictions on the distribution of the balance to shareholders.

Intangible Assets

IAS 38 defines an intangible asset as an identifiable non-monetary asset without physical substance. Intangible assets can be distinguished between those that are identifiable and non-identifiable. Identifiable intangible assets are those whose existence can be clearly identified such as patents, copyrights and franchises. Non-identifiable intangible assets exist but cannot be associated with a particular asset. Goodwill is the best example of a non-identifiable intangible asset.

A distinction can also be made between purchased and internally developed intangible assets.

To be considered identifiable, an intangible asset must meet one of the following two criteria:

- the intangible asset is separable, i.e. is capable of being separated or divided from the entity and sold, transferred, licensed, rented or exchanged, either individually or together with a related contract, asset or liability; or
- arises from contractual or other legal rights, regardless of whether those rights are transferable or separable from the entity or from other rights and obligations (IAS 38.12)

The same recognition criteria applies for intangible assets as for any other asset; the cost of an intangible asset can be recognized as an asset if, and only if:

- (a) it is probable that future economic benefits associated with the item will flow to the entity, and
- (b) the cost of the item can be measured reliably. (IAS 38.9)

The accounting for intangible assets is based on whether or not the intangible asset has a useful life. Amortization of intangible assets:

- intangible assets with a finite useful life should be amortized over the lesser of their useful lives or legal life (IAS 38.97)
- intangible assets with an indefinite life are subject to an annual impairment test (IAS 38.109)

Examples of intangible assets:

1. Patents: a legal right to the exclusive use of a process, design, product or plan and the right to permit others to use it under license, generally for 17 years.
2. Trademark: a distinctive word or symbol. These have an unlimited life.
3. Copyright: right to publish materials such as books, CDs, tapes, and computer programs. Life: person's life plus 50 years for an individual or 75 years for a company.
4. Franchise: the right to operate under the name of the franchisor.
5. Goodwill.

Internally developed intangible assets

Internally developed intangible assets such as research and development are accounted for as follows: research expenditures are written off to the income statement whereas development costs are to be capitalized if they meet the following six criteria:

- (a) the technical feasibility of completing the intangible asset so that it will be available for use or sale.
- (b) its intention to complete the intangible asset and use or sell it.
- (c) its ability to use or sell the intangible asset.
- (d) how the intangible asset will generate probable future economic benefits. Among other things, the entity can demonstrate the existence of a market for the output of the intangible asset or the intangible asset itself or, if it is to be used internally, the usefulness of the intangible asset.
- (e) the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset.
- (f) its ability to measure reliably the expenditure attributable to the intangible asset during its development. (IAS 38.57)

Research is defined as 'original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge and understanding'. Development is the application of research findings or other knowledge to a plan or design for the production of new or substantially improved materials, devices, products, processes, systems or services before the start of commercial production or use. (IAS 38.8)

Revaluation Model

It is possible to use the revaluation model for intangibles whose value can be determined in an active market. The accounting for revaluation of intangible assets is the same as for property, plant and equipment.

Disclosure Requirements - Intangible Assets

The following must be disclosed for each class of intangible assets, distinguishing between internally generated intangible assets and other intangible assets:

- whether the useful lives are indefinite or finite, and if finite, the useful lives, the amortization rates and methods used;
- the gross carrying amount and any accumulated amortization at the beginning and end of period;
- the line item(s) of the statement of comprehensive income in which any amortization of intangible assets is included; and
- a reconciliation of the carrying amount at the beginning and end of the period showing:
 - additions, indicating separately those from internal development, those acquired separately and those acquired through business combinations;
 - assets classified as held for sale or included as held for sale and other disposals;

- increases or decreased resulting from revaluations and from impairment losses recognized or reversed in other comprehensive income;
- impairment losses recognized or reversed on the income statement;
- amortization expense recognized during the period; and
- any other changes. (IAS 16.73)

Depletion and Accounting for Natural Resources

When a mine has been developed, an oil well proved or a parcel of land purchased for clearing, the cost of the asset should be charged against accounting periods in a manner that matches the cost against the revenue reported. The usual procedure is as follows:

1. an estimate is made of the total amount of resources that can be economically recovered.
2. the capitalized cost is then written off as a function of the resources taken out. The amount of expense is called depletion.

Note that this method is essentially a variation of the units of production method.

Problems with Solutions

Problem 1

The Jurasni Company acquired a building on December 31, 20x1 at a total cost of \$1,500,000. The contractor provided the following breakdown of the major components of the building:

<i>Component</i>	<i>Cost</i>	<i>Useful Life</i>	<i>Residual Value</i>
Structure & frame	\$1,000,000	40 years	\$100,000
Heating & AC System	200,000	15 years	0
Elevators (2)	225,000	20 years	25,000
Roof	75,000	25 years	0

The company depreciates the structure & frame and roof using the straight line method. The heating & AC system and elevators are depreciated using the diminishing balance method at a rate of 15% and 10% respectively.

Required -

- a. Calculate the depreciation expense on the building's components for the year 20x2 and 20x3.
- b. On June 30, 20x15 one of the two elevators is replaced at a cost of \$150,000. The useful life of the new elevator is expected to be 20 years with a \$20,000 residual value. The parts of the old elevator are sold for \$10,000.
 - i. Prepare the journal entries to record these transactions.
 - ii. Calculate the depreciation expense on the elevators for the year 20x15.
- c. On January 2, 20x23, the roof is replaced at a cost of \$120,000. The useful life of the new roof is 25 years. Prepare the journal entries for these transactions.

Problem 2

On January 1, 20x4, the Britton Corporation started the construction of a self-constructed asset. Construction of the asset was completed on August 31, 20x4 and was put in productive use on that date.

The following is a schedule of direct costs incurred in the construction of the asset:

January 1, 20x4	\$30,000
February 1, 20x4	50,000
April 1, 20x4	75,000
May 15, 20x4	40,000
July 1, 20x4	60,000
Aug 1, 20x4	45,000

The company's borrowings are as follows:

- a \$100,000, 6.5% one year note dated January 1, 20x4. This note relates specifically to the self-constructed asset. The note was repaid on August 31, 20x4.
- bonds payable in the amount of \$10,000,000. The annual interest on these bonds is 7.5%.
- a bank loan payable in the amount of \$15,000,000 bearing interest at 5%.

Required -

Calculate the cost of the asset at August 31, 20x4.

Problem 3

The following is the income statement for the Jen-Ward Company for the year ended December 31, 20x7:

Sales	\$9,500,000
Cost of goods sold	<u>6,000,000</u>
Gross margin	3,500,000
Operating expenses	<u>2,000,000</u>
Net income before taxes	1,500,000
Income taxes (@ 40%)	<u>600,000</u>
Net income	<u><u>\$900,000</u></u>

During December 20x7, the company's board of directors passed a resolution to dispose of one of the company's three divisions. This division had revenues of \$2,500,000, cost of goods sold of \$1,500,000 and operating expenses of \$800,000. These amounts are included in the above income statement.

The carrying value of the net assets of the division (net of current liabilities) was \$6,900,000. The fair market value of the net assets is estimated to be \$6,200,000 and the costs to sell the division are expected to be equal to 5% of the fair value of the net assets. None of these have been taken into account in preparing the above income statement

Required –

Prepare an income statement for the Jen-Ward Company for the year ended December 31, 20x7.

Problem 4

On December 31, 20x5, Harwale Corporation had the following property, plant and equipment on its balance sheet:

	<i>Cost</i>	<i>Accumulated Depreciation</i>	<i>Net Carrying Value</i>
Buildings	\$900,000	\$300,000	\$600,000
Equipment	450,000	180,000	270,000

Harwale uses the revaluation model for its buildings and equipment and applies revaluations using the gross carrying amount method. The revaluation surplus account has a balance of \$60,000 for the buildings and \$0 for the equipment. The equipment revaluation resulted in a charge to income of \$20,000 in the year ended December 31, 20x2 – the last time the company revalued its assets.

An independent appraiser assessed the fair value of the buildings to be \$700,000 and the fair value of the equipment to be \$300,000.

Required –

Prepare the journal entries at December 31, 20x5 to reflect the revaluation of the buildings and equipment.

Problem 5

The JZ Company acquired a building on January 2, 20x1 at a cost of \$600,000. The expected useful life of the building is 30 years with a residual value of \$120,000. JZ uses the revaluation model and applies revaluations using the gross carrying amount method. The buildings' appraisals are as follows:

December 31, 20x1	\$596,000
December 31, 20x2	550,000
December 31, 20x3	565,000

The building was sold on January 2, 20x4 for \$560,000.

Required –

Prepare the journal entries for the years 20x1-20x4.

Problem 6

The Jerome Property Corporation's capital asset policy is to use the revaluation model for land and buildings and the historical cost model for equipment. The latest revaluation occurred on December 31, 20x2. Jerome uses the Gross Carrying Amount method when applying the revaluation model. Selected balance sheet data relating to the most current fiscal year ending December 31, 20x2 is as follows:

Long-Term Assets		
Land		\$1,200,000
Buildings		5,600,000
Equipment	900,000	
Less accumulated depreciation	(300,000)	600,000
		<u>\$7,400,000</u>
Shareholders' Equity		
Revaluation Surplus – Land		\$400,000
Revaluation Surplus – Buildings		300,000

The buildings have a remaining useful life of 25 years. The equipment has a total useful life of 10 years. The straight line method is used. Residual values are assumed to be zero. The assets are revalued every two years. The appraisal results for the years ended December 31, 20x4 and 20x6 are as follows:

	Dec 31, 20x4	Dec 31, 20x6
Land	\$1,000,000	\$1,500,000
Buildings	4,600,000	4,500,000

There were no additions or disposals to the land, building and equipment accounts for the years 20x3 to 20x6.

Required –

Prepare all journal entries for the years 20x3 to 20x6 for the Land, and Buildings accounts.

SOLUTIONS

Problem 1

a.	20x2 -		
	Structure & Frame - $(\$1,000,000 - 100,000) / 40$ years		\$22,500
	Heating & AC System - $\$200,000 \times 15\%$		30,000
	Elevators: $\$225,000 \times 10\%$		22,500
	Roof: $\$75,000 / 25$ years		3,000
			<u>\$78,000</u>
	20x3 -		
	Structure & Frame - $(\$1,000,000 - 100,000) / 40$ years		\$22,500
	Heating & AC System - $(\$200,000 - 30,000) \times 15\%$		25,500
	Elevators: $(\$225,000 - 22,500) \times 10\%$		20,250
	Roof: $\$75,000 / 25$ years		3,000
			<u>\$71,250</u>
b.	i.	Cost of elevator = $\$225,000 / 2 = \$112,500$	
		Net book value of elevator at December 31, 20x14:	
		$\$112,500 \times (1 - 0.10)^{13} = \$28,596$	
		Net book value of elevator at June 30, 20x15:	
		$\$28,596 - (28,596 \times 10\% \times \frac{1}{2}) = \$27,166$	
		Cash	\$10,000
		Accumulated depreciation ($\$112,500 - 27,166$)	85,334
		Loss on derecognition of asset	17,166
		Elevator	\$112,500
		Elevator	150,000
		Cash	150,000
	ii.	Depreciation expense to June 30, 20x15 on elevator derecognized:	
		$\$28,596 \times 10\% \times \frac{1}{2}$	\$1,430
		Depreciation expense from July 1 to Dec 31, 20x15:	
		$\$150,000 \times 10\% \times \frac{1}{2}$	7,500
		Depreciation expense on other elevator:	
		$\$112,500 \times (1 - 0.10)^{13} \times 10\%$	2,860
			<u>\$11,790</u>
c.	Net book value of original roof as at Dec 31, 20x22:		
	$\$75,000 / 25 \times 4$ years remaining = $\$12,000$		
	Loss on derecognition of asset		\$12,000

Accumulated depreciation (\$75,000 - 12,000)	63,000	
Roof		\$75,000
Roof	120,000	
Cash		120,000

Problem 2

The average investment in the project:

<i>Date</i>	<i>Costs Incurred</i>	<i>Proportion of time to Aug 31, 20x4</i>	<i>Average Investment</i>
January 1, 20x4	\$30,000	8/12	\$20,000
February 1, 20x4	50,000	7/12	29,167
April 1, 20x4	75,000	5/12	31,250
May 15, 20x4	40,000	3.5/12	11,667
July 1, 20x4	60,000	2/12	10,000
August 1, 20x4	45,000	1/12	<u>3,750</u>
			<u>\$105,084</u>

Borrowing costs on specific borrowings are charged first to the asset, then we will allocate general borrowings based on the weighted average borrowing rate of 7.8%:

$$7.5\% \times (\$10,000,000 / 25,000,000) + 5\% \times (15,000,000 / 25,000,000) = 6\%$$

Borrowing costs to be capitalized:

Asset specific note: \$100,000 x 8/12	
= 66,667 x 6.5%	\$4,333
General borrowings: (\$105,084 - 66,667) x 6%	<u>2,305</u>
	<u>\$6,638</u>

Problem 3

Jen-Ward Company
Statement of Income
For the year ended December 31, 20x7

Sales (\$9,500,000 - 2,500,000)	\$7,000,000
Cost of goods sold (\$6,000,000 – 1,500,000)	<u>4,500,000</u>
Gross margin	2,500,000
Operating expenses (\$2,000,000 – 800,000)	<u>1,200,000</u>
Net income before taxes	1,300,000
Income taxes (40%)	<u>520,000</u>
Net income before discontinued operations	780,000
Net loss from discontinued operations (note)	<u>486,000</u>
Net income	<u><u>\$294,000</u></u>

Discontinued operations -	
Income from operations: \$2,500,000 – 1,500,000 – 800,000	\$200,000
Writedown to market value: \$6,900,000 – (6,200,000 x 0.95)	<u>(1,010,000)</u>
	810,000
	x 0.6
	<u><u>(\$486,000)</u></u>

Problem 4

Accumulated Depreciation – Buildings	\$300,000	
Buildings		\$300,000
Building	100,000	
Revaluation Surplus (OCI)		100,000
Accumulated Depreciation – Equipment	180,000	
Equipment		180,000
Equipment	30,000	
Revaluation Gain (I/S)		20,000
Revaluation Surplus (OCI)		10,000

Problem 5

Jan 2, 20x1	Building	\$600,000	
	Cash		\$600,000
Dec 31, 20x1	Depreciation expense	16,000	
	Accumulated depreciation		16,000
	($\$600,000 - 120,000$) / 30		
	Accumulated depreciation	16,000	
	Building		16,000
	Building	12,000	
	Revaluation Surplus (OCI)		12,000
	Note: book value of building becomes \$596,000		
Dec 31, 20x2	Depreciation expense	16,414	
	Accumulated depreciation		16,414
	($\$596,000 - 120,000$) / 29		
	Accumulated depreciation	16,414	
	Building		16,414
	Book value of building becomes: $\$596,000 - 16,414 = \$579,586$		
	Revaluation surplus (OCI)	12,000	
	Revaluation loss (I/S)	17,586	
	Building		29,586
	This will bring the book value of the building to: $\$579,586 - 29,586 = \$550,000$ (its appraisal value)		

Dec 31, 20x3	Depreciation expense	15,357	
	Accumulated depreciation		15,357
	(\$550,000 – 120,000) / 28		
	Accumulated depreciation	15,357	
	Building		15,357
	Book value of building becomes: \$550,000 – 15,357 = \$534,643		
	Building	30,357	
	Revaluation Gain* (I/S)		17,357
	Revaluation Surplus (OCI)		13,000
Jan 2, 20x4	Cash	560,000	
	Revaluation Surplus (OCI)	13,000	
	Loss on disposal of building	5,000	
	Building		565,000
	Retained Earnings		13,000

* the credit to income is reduced by the amount of the deficit previously charged to income as a lower depreciation charge for 20x1, 20x2 and 20x3: the total depreciation expense for the years 20x1 - 20x3 was \$16,000 + 16,414 + 15,357 = \$47,771. This is compared to the total depreciation charge had the historical cost model been used of \$48,000. Because the actual cumulative depreciation charge of \$47,771 is lower than what it would had been using the historical cost model, the credit to the income statement is reduced by the difference: \$17,586 - (48,000 - 47,771) = \$17,357.

Problem 6**(a) Land**

Dec 31, 20x4	Revaluation Surplus - Land	\$200,000	
	Land		\$200,000
Dec 31, 20x5	Land	500,000	
	Revaluation Surplus – Land		500,000

Buildings

Dec 31, 20x3	Depreciation expense	224,000	
	Accumulated depreciation		224,000
	\$5,600,000 / 25		
Dec 31, 20x4	Depreciation expense	224,000	
	Accumulated depreciation		224,000
	Accumulated depreciation	448,000	
	Buildings		448,000
	Revaluation Surplus – Buildings	300,000	
	Revaluation Loss (I/S)	252,000	
	Buildings		552,000
Dec 31, 20x5	Depreciation expense	200,000	
	Accumulated depreciation		200,000
	\$4,600,000 / 23		
Dec 31, 20x6	Depreciation expense	200,000	
	Accumulated depreciation		200,000
	Accumulated depreciation	400,000	
	Buildings		400,000
	Buildings	300,000	
	Revaluation gain (I/S)		252,000
	Revaluation surplus – Buildings		48,000

7. Liabilities

A liability is defined as a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits (IAS 37.10).

Current Liabilities

An entity should classify a liability as current when (IAS 1.69):

- it expects to settle the liability in the entity's normal operating cycle,
- it holds the liability primarily for the purpose of trading,
- the liability is due to be settled within twelve months after the reporting period, or
- the entity does not have an unconditional right to defer settlement of the liability for at least twelve months after the reporting period.

Provisions

A provision is to be recognized as a liability when all of the following three criteria are met:

- the entity has a present obligation (legal or constructive) as a result of a past event;
- it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation; and
- a reliable estimate can be made of the amount of the obligation (IAS 37.14).

If all of the above criteria are not met, then no recognition can take place. Provisions differ from other liabilities such as accounts payables and accrued liabilities because there is uncertainty about the timing or amount of the future expenditure. Consequently, provisions should be reported separately from accounts payable and accrued liabilities (IAS 37.11).

A past event is deemed to give rise to a present obligation if, taking account of all available evidence, it is more likely than not that a present obligation exists at the end of the reporting period (IAS 37.15).

A legal obligation is an obligation that derives from:

- a contract,
- legislation, or
- other operation of law (IAS 37.10).

A constructive obligation is an obligation that derives from an entity's actions where:

- by an established pattern of past practice, published policies of a sufficiently specific current statement, the entity has indicated to other parties that it will accept certain responsibilities; and

- as a result, the entity has created a valid expectation on the part of those other parties that it will discharge those responsibilities (IAS 37.10).

Examples of constructive obligations:

- the entity announces that they will provide an additional one year warranty beyond the three year contractual warranty;
- the right to return merchandise, although not legally required, is published as a policy on the firm's website; and
- the entity publishes its environmental policy with goes beyond what is legally required of them.

A provision is measured as the best estimate of the expenditure required to settle the present obligation at the end of the reporting period (IAS 37.36). If the range of outcomes is discrete, i.e. if the provision involves several estimates, the obligation is estimated by calculating the expected value. If the range of outcomes is continuous, and each point in that range is as likely as any other, the mid-point of the range is used (IAS 37.39).

Example⁴: an entity in the oil industry causes contamination and operates in a country where there is no environmental legislation. However, the entity has a widely published environmental policy in which it undertakes to clean up all contamination that it causes and has a record of honouring this published policy. The estimates for the costs of cleaning up this contamination along with the associated probabilities are as follows:

<i>Cost</i>	<i>Probability</i>
\$400,000	0.10
500,000	0.30
600,000	0.45
700,000	0.09
800,000	0.06

This is a provision because:

- the entity has a constructive obligation to decontaminate the land; and
- the outflow of resources is probable

The provision would be recorded at its expected value of \$571,000.

$$\begin{aligned}
 &(\$400,000 \times 10\%) + (\$500,000 \times 30\%) + (\$600,000 \times 45\%) \\
 &\quad + (\$700,000 \times 9\%) + (\$800,000 \times 6\%) \\
 &= \$571,000
 \end{aligned}$$

If the range of possible outcomes ranges from \$400,000 to \$800,000 as a continuous range (i.e. no estimate is better than the other), then we would accrue the mid-point, or \$600,000.

⁴ this is an adaptation of Example 2B of Appendix C of IAS 37.

Of course, this assumes that the provision would need to be settled in the near future. If the expenditures resulting from this provision are expected to be incurred in several years from now and that the effect of time value of money is material, then the amount has to be discounted (IAS 37.45). The discount rate to be used is the pre-tax rate that reflects current market assessments of the time value of money and risks specific to the liability (IAS 37.47).

Example: assume the same facts as in the previous example and that it is expected that these expenditures will be incurred in 15 years. At a discount rate of 6%, the present value of the provision is

	N	I/Y	PV	PMT	FV
Enter	15	6			571,000
Compute			X =		
			\$238,258		

If the difference between the undiscounted amount of \$571,000 and the discounted amount of \$238,258 is material, then we have to accrue the discounted amount. The provision would then be treated as decommissioning cost.

A provision can only be used for expenditures for which the provision was originally recognized (IAS 37.61).

Specific examples of provisions are expense warranties and premiums.

Note that the premium expense is not shown as part of expenses on the Statement of Income, but as a reduction of sales (IFRIC 13).

Contingent Liabilities and Contingent Assets

A contingent liability is defined as:

- a possible obligation that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one of more uncertain future events not wholly within the control of the entity; or
- a present obligation that arises from past events but is not recognized because:
 - it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation; or
 - the amount of the obligation cannot be measured with sufficient reliability (IAS 37.10).

Contingent liabilities are not recognized (IAS 37.27). Unless the possibility of any outflow in settlement is remote, an entity shall disclose for each class of contingent liability a brief description of the nature of the contingent liability and, where practicable,

- an estimate of the financial effect;
- an indication of the uncertainties relating to the amount or timing of any outflow; and
- the possibility of any reimbursement.

Appendix A of the standard provides the following table which outlines the key differences between provisions and contingent liabilities:

<i>There is a present obligation that probably requires an outflow of resources.</i>	<i>There is a possible obligation or a present obligation that may, but probably will not, require an outflow of resources.</i>	<i>There is a possible obligation or a present obligation where the likelihood of an outflow of resources is remote.</i>
A provision is recognized.	No provision is recognized.	No provision is recognized.
Disclosures are required for the provision.	Disclosures are required for the contingent liability.	No disclosure is required.

Contingent Assets

A contingent asset arises from an unplanned or other unexpected event that gives rise to the possibility of an inflow of economic benefit to the entity. For example, a claim that an entity is pursuing through the legal system, where the outcome is uncertain.

Contingent assets cannot be recognized since this may result in the recognition of income that may never be realized (IAS 37.31 and 37.33). If an inflow of economic benefit is probable, contingent assets must be disclosed in the notes to the financial statements (IAS 37.34).

Events after the reporting period

Events after the reporting period are events arising between the end of the reporting period and the date the financial statements are authorized to be issued.

There are two types of subsequent events:

- adjusting events after the reporting period - those which provide further evidence of conditions which existed at the financial statement date - these will result in an adjustment to the financial statements, and
- non-adjusting events after the reporting period - those which are indicative of conditions which arose subsequent to the financial statement date that do not provide further evidence of conditions which existed at the financial statement

date - if material, these have to be disclosed in the notes to the financial statements (IAS 10.3)

Examples of adjusting events after the reporting period:

- institution of bankruptcy proceedings against a debtor - you may have to revise the allowance for doubtful accounts;
- a long-term investment in which you hold a significant influence announces its worst annual results since inception - you may have to determine whether a write-down is required;
- a court case confirms the existence of a previously recorded provision or a previously disclosed contingent liability.

Examples of non-adjusting events after the reporting period:

- an event such as a fire or flood which results in a loss;
- purchase of a business;
- commencement of litigation where the cause of action arose subsequent to the date of the financial statements;
- changes in foreign currency exchange rates;
- the issue of capital stock or long term debt.

Financial statements should be adjusted when events occurring between the date of the financial statements and the date the financial statements are authorized to be issued since these provide additional evidence relating to conditions that existed at the date of the financial statements (IAS 10.8).

8. Stock Option Grants to Employees (IFRS 2)

When a company provides stock options to executives and employees as part of their compensation package, we must measure and accrue the compensation expense arising out of the stock option grant. In order to do so, we need to know three things:

1. The market value of the stock options on the date of grant. This can be calculated by using an accepted stock option pricing model such as the Black-Scholes or the binomial option pricing models.
2. The vesting period for which it is expected the executives will provide services. This is usually the period in which the options cannot be exercised. For example, if stock options are issued on January 1, 20x3 and are exercisable anytime after January 1, 20x6, then the vesting period is the period Jan 1, 20x3 to Dec 31, 20x5.
3. An estimate as to what percentage of the stock options will vest.

The market value of the stock options are accrued over the vesting period as follows:

dr. Compensation Expense
 cr. Contributed Surplus - Unexpired Stock Options

If the vesting period exceeds the current year, then the total market value of the options on the date of grant is accrued over the vesting period. At the end of each of the year of the vesting period, the compensation expense is calculated as follows:

Total cumulative value of the stock options earned to the end of the period times
 the estimated percentage of stock options that will vest.
 Less the cumulative compensation expense recorded on this stock option plan to
 as of the end of the previous fiscal period.

For example, assuming the options are granted on January 1, 20x3, the vesting period is 20x3-20x5, the total market value of the options is \$300,000, and in 20x3 management estimates that 85% of the options will vest, then the compensation expense for 20x3 would be: $\$300,000 \times 1/3 \times 85\% = \$85,000$. At the end of 20x4, assume that management revises their estimate and believes that 90% of the options will vest, then the compensation expense for 20x4 would be:

Cumulative value of the stock options earned for the period	
20x3 - 20x4: $\$300,000 \times 2/3 \times 90\%$	\$180,000
Less cumulative compensation expense to the end of 20x3	85,000
Compensation expense - 20x4	\$ 95,000

If, by the end of 20x5, 92% of the stock options actually vested, then the compensation expense for 20x5 would be calculated as follows:

Cumulative value of the stock options earned for the period 20x3 - 20x5: \$300,000 x 100% x 92%	\$276,000
Less cumulative compensation expense to the end of 20x4: \$85,000 + 95,000	<u>180,000</u>
Compensation expense - 20x5	<u>\$ 96,000</u>

After the vesting period, but during the exercise period, one of two events will occur with regards to the options:

1. They will be exercised, in which case we record the issuance of the stock as follows:

dr.	Cash	
dr.	Contributed Surplus - Unexpired Stock Options	
	cr.	Common Stock

The credit to common stock is simply the sum of the cash received on the exercise of the options plus the prorata amount of contributed surplus created by these stock options. Note that the market value of the shares on the date of exercise has absolutely no impact on the above entry.

2. The options will expire due to the holders of the options letting the options expire. The journal entry to record expired stock options is as follows:

dr.	Contributed Surplus - Unexpired Stock Options	
	cr.	Contributed Surplus - Expired Stock Options

Example: on January 2, 20x2 the Solomons Company issued 140,000 stock options to their executive team and senior managers. The market price of the company's stock on January 2, 20x2 was \$16. The exercise or strike price of the options was also \$16. The employment contract stated that the executives had to provide services to Solomons Company for the period January 1, 20x2 to December 31, 20x4. The stock options were exercisable in the fiscal year ended December 31, 20x5. The Black-Scholes model puts the market value at \$2.25 per option. At the end of 20x2, management estimates that 95% of the stock options will vest. At the end of 20x3, this estimate was revised to 90%. At December 31, 20x4 the actual number of options that vested amounted to 120,000.

During 20x5, 90,000 of the options were exercised when the stock price was \$28 per share. The remaining 30,000 options expired at December 31, 20x5.

The total value of the options on the date of grant is: $140,000 \times \$2.25 = \$315,000$.

Dec 31, 20x2	Compensation expense ($\$315,000 \times 1/3 \times 95\%$)	\$99,750
	Contributed Surplus – Unexpired Stock Options	\$99,750

The compensation expense for the 20x3 is calculated as follows:

Cumulative value of the stock options earned for the period 20x2 - 20x3: $\$315,000 \times 2/3 \times 90\%$	\$189,000
Less cumulative compensation expense to the end of 20x2	<u>99,750</u>
Compensation expense - 20x3	<u>\$ 89,250</u>

Dec 31, 20x3	Compensation expense	89,250	
	Contributed Surplus		89,250
	– Unexpired Stock Options		

The compensation expense for the 20x4 is calculated as follows:

Cumulative value of the stock options earned for the period 20x2 - 20x4: 120,000 options vested x \$2.25	\$270,000
Less cumulative compensation expense to the end of 20x3: \$99,750 + 89,250	<u>189,000</u>
Compensation expense - 20x4	<u>\$ 81,000</u>

Dec 31, 20x4	Compensation expense	81,000	
	Contributed Surplus		81,000
	– Unexpired Stock Options		

In 20x5, we record the conversion of 90,000 options. Note that the stock market price at that date is not relevant to this transaction.

20x5	Cash (90,000 x \$16)	1,440,000	
	Contributed Surplus		
	– Unexpired Stock Options		
	(90,000 x \$2.25)	202,500	
	Common stock		1,642,500

Finally, on December 31, 20x5 we record the expiration of the remaining 30,000 stock options:

Dec 31, 20x5	Contributed Surplus		
	– Unexpired Stock Options	67,500	
	Contributed Surplus		67,500
	30,000 x \$2.25		

9. Accounting for Pensions

Accounting for Pension Plans is covered by IAS 19 - Employee Benefit. As its title would suggest, this standard covers the accounting issues broadly related to employee benefits. Employee benefits are defined as all forms of consideration given by an entity in exchange for service rendered by employees (IAS19.7). These include...

- short-term employee benefits such as social security contributions, short-term compensated absences, non-monetary benefits, and profit-sharing and bonus plans
- post-employment benefits (defined benefit and defined contribution pension plans).

The most significant difference is that past service costs resulting from plan amendments are recognized as an expense on a straight-line basis over the average period until the benefits become vested. To the extent that the benefits are already vested immediately following the introduction of or changes to a defined benefit plan, past service costs are expensed immediately. Current Canadian GAAP does not distinguish between vested and non-vested plan amendments.

One change in terminology...

Accrued benefit obligation becomes Defined Benefit Obligations

Example

The following information is given about a defined benefit plan. The present value of the obligation and the fair market value of the plan assets at January 1, 20x1 were both \$1,000. The net cumulative unrecognized actuarial gains at that date were \$140.

	<i>20x1</i>	<i>20x2</i>	<i>20x3</i>
Discount rate	10.0%	9.0%	8.0%
Expected rate of return on plan assets	12.0%	11.1%	10.3%
Current service cost	130	140	150
Benefits paid	150	180	190
Contributions paid	90	100	110
Present value of obligation at December 31	1,141	1,197	1,295
Fair value of plan assets at December 31	1,092	1,109	1,093
Expected average remaining service lives of employees (years)	10	10	10

In 20x2, the plan was amended to provide additional benefits. The present value at January 1, 20x2 of the additional benefits for employee service before January 1, 20x3 was \$50 for vested benefits and \$30 for non-vested benefits. As at January 1, 20x3, it was estimated that the average period until the non-vested benefits would become vested was three years.

Required –

Calculate pension expense for the years 20x1 - 20x3 and reconcile the funded status at the end of each of these years. (Adapted from IAS 19 Appendix A)

Solution

	20x1	20x2	20x3
Defined benefit obligation			
Balance, beginning of year	\$1,000	\$1,141	\$1,197
Plan amendment – vested		50	
– nonvested		30	
Accrued interest	100	110*	96
Current service cost	130	140	150
Benefits paid to retirees	(150)	(180)	(190)
Actuarial revaluation gain/loss	61	(94)	42
	<u>\$1,141</u>	<u>\$1,197</u>	<u>\$1,295</u>
Pension Plan Assets			
Balance, beginning of year	\$1,000	\$1,092	\$1,109
Expected return	120	121	114
Contributions	90	100	110
Benefits paid to retirees	(150)	(180)	(190)
Experience gain/loss	32	(24)	(50)
	<u>\$1,092</u>	<u>\$1,109</u>	<u>\$1,093</u>
Corridor test -			
10% of the greater of the opening plan assets or defined benefit obligation	\$100	\$114	\$120
Unrecognized amounts at beginning of year	140	107	170
Excess	40	-	50
Expected average remaining working lives of employees	10		10
Amortization required	\$4	-	\$5
Pension expense			
Current service cost	\$130	\$140	\$150
Accrued interest on pension obligation	100	110	96
Expected return on plan assets	(120)	(121)	(114)
Plan amendment – non-vested benefits		10	10
Plan amendment – vested benefits		50	
Net actuarial gain recognized in year	(4)		(5)
	<u>\$106</u>	<u>\$189</u>	<u>\$137</u>

* includes accrued interest on the plan amendment which was done at the beginning of the year.

Journal Entries –

20x1	Pension expense	\$106	
	Pension liability		16
	Cash		90
20x2	Pension expense	189	
	Pension liability		88
	Cash		100
20x3	Pension expense	137	
	Pension liability		27
	Cash		110

Pension Liability Account -

Balance, January 1, 20x1		\$140 cr.
December 31, 20x1	16 cr.	156 cr.
December 31, 20x2	89 cr.	245 cr.
December 31, 20x3	27 cr.	272 cr.

Reconciliation -

Funded status

Defined benefit obligation	\$1,141	\$1,197	\$1,295
Pension assets	1,092	1,109	1,093
	49	88	202
Less pension liability	156	245	272
Difference	\$107	\$157	\$70

Accounted for -

Unrecognized amounts

Balance, beginning of year	140	107	177
Actuarial revaluation	(61)	94	(42)
Experience gains/losses	32	(24)	(50)
Less amortization per corridor test	(4)		(5)
	107	177	80
Unamortized plan amendment		(20)	(10)
	\$107	\$157	\$70

10. Accounting for Leases

A lease is a contract between a lessor, the owner of the property involved, and the lessee, the person or entity wishing to use that property in exchange for a certain number of cash payments.

Prior to 1979, accounting for leases was based simply on the legal form of the transaction. The existence of a leasing agreement ensured that a leasing transaction would be regarded as a non-capital transaction (i.e. the asset and the lease liability were kept off the Statement of Financial Position), regardless of whether in substance, the arrangement amounted to an outright sale of the asset by the lessor and purchase of the asset by the lessee. This helped to make leasing a popular alternative to outright purchase. If a company chose to lease a piece of equipment, its debt-to-equity ratio would generally be lower than if the asset was purchased on credit.

Starting in 1979, the accounting for leases became a function of the economic substance of the transaction rather than the form. In essence, it stated that when a leasing arrangement results in a transfer to the lessee of virtually all of the risks and benefits associated with ownership of the asset then the arrangement should be treated as a capital transaction - the sale of an asset by the lessor and the purchase of an asset by the lessee.

A finance lease is defined as a lease that transfers substantially all the risks and rewards incidental to ownership of an asset. Title may or may not eventually be transferred. (IAS 17.4)

An operating lease is defined as a lease other than a finance lease (IAS 17.4).

Classification of leases

IAS 17.10 provides the following guidance when classifying a lease. The following situations, individually or in combination, would normally lead to a lease being classified as a finance lease:

- (a) the lease transfers ownership of the asset to the lessee by the end of the lease term;
- (b) the lessee has the option to purchase the asset at a price that is expected to be substantially lower than the fair value at the date the option becomes exercisable for it to be reasonably certain, at the inception of the lease, that the option will be exercised (often referred to as a bargain purchase option);
- (c) the lease term is for the major part of the economic life of the asset even if title is not transferred;
- (d) at the inception of the lease the present value of the minimum lease payments amounts to at least substantially all of the fair value of the leased asset; and
- (e) the leased assets are of such a specialized nature that only the lessee can use them without major modification.

Clearly, if situations (a) or (b) were to occur, the lease would be considered a finance lease since title to the asset is expected to pass.

Under previous Canadian GAAP, the numerical criteria for item (c) was that if the lease term was 75% or more of the economic life of the asset, then the lease was deemed to be a finance lease. The numerical criteria for item (d) was that if the present value of the minimum lease payments was 90% or more of the fair value of the asset, then the lease was deemed to be a finance lease. Although, these numerical criteria do not apply under IFRS, they will likely be used as guidelines for some time to come.

The minimum lease payments are equal to the payments over the lease term that the lessee is or can be required to make (excludes contingent rent, costs for services and taxes to be paid by and reimbursed to the lessor⁵) together with:

- any amounts guaranteed by the lessee such as a guaranteed residual value, or
- a bargain purchase option.

IAS 17.12 makes it clear that if there are other features that the lease does not transfer substantially all risks and rewards incidental to ownership, the lease can be classified as an operating lease. Ultimately, the classification of a lease as a finance lease is subject to managerial judgment.

At the commencement of the lease term, the lessee recognizes finance leases as assets and liabilities in the statement of financial position at amounts equal to the fair value of the leased property or, if lower, the present value of the minimum lease payments, each determined at the inception of the lease. The discount rate to be used is the interest rate implicit in the lease, if this is practicable to determine; if not, the lessee's incremental borrowing rate shall be used. (IAS 17.20).

Depreciation Expense on Leased Assets

If there will be a transfer of ownership either directly or through a bargain purchase option, then the asset is depreciated over its useful life. If the asset reverts back to the lessor, then the asset is depreciated over the lease term.

Accounting for bargain purchase options and residual values

With a bargain purchase option (BPO), the lessee obtains legal title to the leased asset at the end of the lease term and has use of the asset for its entire economic life. Both the lessee and the lessor include the BPO as part of the minimum lease payments (MLP).

Guaranteed and unguaranteed residual value can only exist when the leased property returns to the lessor at the end of the lease term. The lessee would completely disregard

⁵ These are referred to as executory costs.

the unguaranteed residual value (URV) in his/her MLP and depreciation computations. The lessor on the other hand, would treat the URV as part of the calculation of the lease payment. The lessor is in effect charging less than he would otherwise because he/she is expecting the leased property to be of some additional value after the lease term has expired.

Both the lessee and lessor would regard any guaranteed residual value (GRV) as part of the MLP because, at the end of the lease term the lessee would expect the leased property to have a value equal to the GRV, he/she would depreciate on that basis. An amount equal to the GRV should still be in his/her leased property and liability accounts at the end of the lease term. The lessor would have an outstanding receivable in the amount of the GRV until the lessee discharged his/her liability.

The following example will include coverage of bargain purchase options and guaranteed and unguaranteed residual values.

Example 1A: Sampson Ltd. leases equipment to Bowie Ltd. on January 1, 20x0, for five years. The following information pertains to the lease agreement:

- Sampson Ltd. paid \$43,438 to acquire the equipment on January 1, 20x0.
- Rental payments are \$10,000 annually for five years; the first payment is due in January 1, 20x0, subsequent payments are due on December 31 of each year (i.e. the second payment is due on December 31, 20x0).
- A purchase option to buy the asset for \$3,000 exists at the end of the fifth year.
- The fair value of the leased equipment is \$43,438.
- Estimated economic life of the equipment is eight years.
- Sampson Ltd. pays executory costs related to the leased property. A fair estimate of such costs included in the annual rental payments is \$400 annually.
- Bowie Ltd.'s incremental borrowing rate is 6%. The interest rate implicit in the lease, known to the lessee, is 8%.
- the residual value of the equipment at the end of five years is \$8,000; residual value at the end of eight years is \$1,000.
- Bowie Ltd. depreciates similar equipment on the straight-line basis.
- Bowie Ltd. has a calendar year-end.

Classification of lease contract by Bowie Ltd.:

<i>Criteria</i>	<i>Assessment</i>
1. The lease transfers ownership of the asset to the lessee by the end of the lease term.	No
2. The lessee has the option to purchase the asset at a price that is expected to be substantially lower than the fair value at the date the option becomes exercisable for it to be reasonably certain, at the inception of the lease, that the option will be exercised.	Yes. Bowie Ltd. can acquire the equipment for \$3,000 at the end of the lease term when its estimated fair market value is \$8,000.
3. The lease term is for the major part of the economic life of the asset even if title is not transferred.	No. The lease term of 5 years is about 63% of the equipment's economic life of 8 years.
4. At the inception of the lease the present value of the minimum lease payments amounts to at least substantially all of the fair value of the leased asset.	Yes - the present value of the minimum lease payments is equal to 100% of the fair value of the asset. See schedule below.
5. The leased assets are of such a specialized nature that only the lessee can use them without major modification.	Unknown.

The present value of annual lease payments and bargain purchase option – set your financial calculator to assume that the cash flows occur at the beginning of the year (BGN mode). Once you have completed the calculation, set it back to normal mode.

[BGN]	N	I/Y	PV	PMT	FV
Enter	5	8		9600	3000
Compute			X =		
			\$43,438		

Conclusion: due to the existence of the bargain purchase option, this is a finance lease.

The interest expense and liability reduction schedule is as follows:

<i>Date</i>	<i>Payment</i>	<i>Interest</i>	<i>Principal Reduction</i>	<i>Balance</i>
Jan 2, 20x0				\$43,438
Jan 2, 20x0	\$9,600	-	\$9,600	33,838
Dec 31, 20x0	9,600	2,707	6,893	26,945
Dec 31, 20x1	9,600	2,156	7,444	19,501
Dec 31, 20x2	9,600	1,560	8,040	11,461
Dec 31, 20x3	9,600	917	8,683	2,778
Dec 31, 20x4	3,000	222	2,778	0

Bowie Ltd.'s journal entries for 20x0 and 20x1 are as follows:

Jan 1, 20x0	Equipment under finance lease	\$43,438	
	Obligation under finance lease		\$43,438
	Executory costs	400	
	Obligation under finance lease	9,600	
	Cash		10,000
Dec 31, 20x0	Prepaid executory costs	400	
	Interest expense	2,707	
	Obligation under finance lease	6,893	
	Cash		10,000
	Depreciation expense	5,305	
	Accumulated depreciation		5,305
	(\$43,438 - 1,000) / 8		
Jan 1, 20x1	Executory Costs	400	
	Prepaid Executory Costs		400
Dec 31, 20x1	Prepaid executory costs	400	
	Interest expense	2,156	
	Obligation under finance lease	7,444	
	Cash		10,000
	Depreciation expense	5,305	
	Accumulated depreciation		5,305
	(\$43,438 - 1,000) / 8		

The December 31, 20x4, journal entries follow:

Interest expense	222	
Obligation under finance lease	2,778	
Cash		3,000
Equipment	43,438	
Equipment under finance lease		43,438

Example 1B - Assume the same facts as in Example 1A, with the following exception: there is no option to purchase the asset at the end of the 5th year. The equipment reverts back to the lessor at the end of the 5th year. The lessee guarantees the residual value of the asset (\$8,000). Annual lease payments are \$9,211 (including the \$400 executory costs).

Classification of lease contract by Bowie Ltd.:

<i>Criteria</i>	<i>Assessment</i>
1. The lease transfers ownership of the asset to the lessee by the end of the lease term.	No
2. The lessee has the option to purchase the asset at a price that is expected to be substantially lower than the fair value at the date the option becomes exercisable for it to be reasonably certain, at the inception of the lease, that the option will be exercised.	No.
3. The lease term is for the major part of the economic life of the asset even if title is not transferred.	No. The lease term of 5 years is about 63% of the equipment's economic life of 8 years.
4. At the inception of the lease the present value of the minimum lease payments amounts to at least substantially all of the fair value of the leased asset.	Yes - the present value of the minimum lease payments is equal to 100% of the fair value of the asset. See schedule below.
5. The leased assets are of such a specialized nature that only the lessee can use them without major modification.	Unknown.

The present value of annual lease payments and guaranteed residual value – set your financial calculator to assume that the cash flows occur at the beginning of the year (BGN mode). Once you have completed the calculation, set it back to normal mode.

[BGN]	N	I/Y	PV	PMT	FV
Enter	5	8		8,811	8,000
Compute			X =		
			\$43,438		

Conclusion: due to the existence of the guaranteed residual value, this is a finance lease.

The interest expense and liability reduction schedule is as follows:

<i>Date</i>	<i>Payment</i>	<i>Interest</i>	<i>Principal Reduction</i>	<i>Balance</i>
Jan 2, 20x0				\$43,438
Jan 2, 20x0	\$8,811	-	\$8,811	34,627
Dec 31, 20x0	8,811	2,770	6,041	28,586
Dec 31, 20x1	8,811	2,287	6,524	22,062
Dec 31, 20x2	8,811	1,765	7,046	15,016
Dec 31, 20x3	8,811	1,201	7,610	7,406
Dec 31, 20x4	-	594		8,000

Bowie Ltd.'s journal entries for 20x0 and 20x1 are as follows:

Jan 1, 20x0	Equipment under finance lease	\$43,438	
	Obligation under finance lease		\$43,438
	Executory costs	400	
	Obligation under finance lease	8,811	
	Cash		9,211
Dec 31, 20x0	Prepaid executory costs	400	
	Interest expense	2,770	
	Obligation under finance lease	6,041	
	Cash		9,241
	Depreciation expense	7,088	
	Accumulated depreciation		7,088
	(\$43,438 - 8,000) / 5		
Jan 1, 20x1	Executory Costs	400	
	Prepaid Executory Costs		400
Dec 31, 20x1	Prepaid executory costs	400	
	Interest expense	2,287	
	Obligation under finance lease	6,524	
	Cash		9,241
	Depreciation expense	7,088	
	Accumulated depreciation		7,088

The December 31, 20x4, journal entries follow:

Interest expense	594	
Obligation under finance lease		594
Accumulated depreciation	35,438	
Obligation under finance lease	8,000	
Equipment under finance lease		43,438

If the appraisal value of the equipment works out to less than \$8,000, then the lessee will have to make up the difference. This difference will simply be expensed at the time it is known.

The differences between example 1A (Bargain Purchase Option) and example 1B (guaranteed residual value) can be summarized as follows:

- in example 1B, the asset reverts back to the lessor at the end of the lease term,
- the guaranteed residual value is included as part of the minimum lease payments,
- the asset is depreciated over 5 years down to its residual value of \$8,000
- at the end of the lease term, just before the asset reverts to the lessor, the lessee has a net asset balance of \$8,000 and an obligation under capital lease of \$8,000. These net out against the other when the asset is removed from the books.

Example 1C - Assume the same facts as in Example 1A, with the following exception: there is no option to purchase the asset at the end of the 5th year. The equipment reverts back to the lessor at the end of the 5th year. The lessee does not guarantee the residual value of the asset (\$8,000). Annual lease payments are \$9,211 (including the \$400 executory costs).

Classification of lease contract by Bowie Ltd.:

<i>Criteria</i>	<i>Assessment</i>
1. The lease transfers ownership of the asset to the lessee by the end of the lease term.	No
2. The lessee has the option to purchase the asset at a price that is expected to be substantially lower than the fair value at the date the option becomes exercisable for it to be reasonably certain, at the inception of the lease, that the option will be exercised.	No.
3. The lease term is for the major part of the economic life of the asset even if title is not transferred.	No. The lease term of 5 years is about 63% of the equipment's economic life of 8 years.
4. At the inception of the lease the present value of the minimum lease payments amounts to at least substantially all of the fair value of the leased asset.	Yes - the present value of the minimum lease payments is equal to 87% of the fair value of the asset. See schedule below.
5. The leased assets are of such a specialized nature that only the lessee can use them without major modification.	Unknown.

The present value of annual lease payments – set your financial calculator to assume that the cash flows occur at the beginning of the year (BGN mode). Once you have completed the calculation, set it back to normal mode.

[BGN]	N	I/Y	PV	PMT	FV
Enter	5	8		8,811	
Compute			X =		
			\$37,994		

Conclusion: the most likely conclusion would be that this lease is an operating lease, given that the lease term is 63% of the economic life and that the present value of the minimum lease payments is equal to 87% of the fair value of the asset. The classification of this lease would be based on managerial judgment and may consider other factors.

Two solutions will be presented: the first assuming that the lease classification is a finance lease and the second on the assumption that it is an operating lease.

Finance Lease Assumption -

Per IAS 17.20, the lease would be recorded as an asset and liability of \$37,994.

The interest expense and liability reduction schedule is as follows:

<i>Date</i>	<i>Payment</i>	<i>Interest</i>	<i>Principal Reduction</i>	<i>Balance</i>
Jan 2, 20x0				\$37,994
Jan 2, 20x0	\$8,811	-	\$8,811	29,183
Dec 31, 20x0	8,811	2,335	6,476	22,707
Dec 31, 20x1	8,811	1,817	6,994	15,712
Dec 31, 20x2	8,811	1,257	7,554	8,158
Dec 31, 20x3	8,811	653	8,158	0

Bowie Ltd.'s journal entries for 20x0 and 20x1 are as follows:

Jan 1, 20x0	Equipment under finance lease	\$37,994	
	Obligation under finance lease		\$37,994
	Executory costs	400	
	Obligation under finance lease	8,811	
	Cash		9,211
Dec 31, 20x0	Prepaid executory costs	400	
	Interest expense	2,335	
	Obligation under finance lease	6,476	
	Cash		9,211
	Depreciation expense	7,599	
	Accumulated depreciation		7,599
	\$37,994 / 5		
Jan 1, 20x1	Executory Costs	400	
	Prepaid Executory Costs		400
Dec 31, 20x1	Prepaid executory costs	400	
	Interest expense	1,817	
	Obligation under finance lease	6,994	
	Cash		9,211

Depreciation expense	7,599	
Accumulated depreciation		7,599

The differences between example 1B (guaranteed residual value) and 1C (unguaranteed residual value) can be summarized as follows:

- the unguaranteed residual value is included as part of the minimum lease payments,
- the lessor will likely include the residual value as part of the calculation of the lease payment,
- the asset is depreciated over 5 years down to zero.

Operating Lease Assumption

Jan 1, 20x0	Prepaid lease payment	9,211	
	Cash		9,211
Dec 31, 20x0	Lease expense	9,211	
	Prepaid lease payment		9,211
Jan 1, 20x1	Prepaid lease payment	9,211	
	Cash		9,211
Dec 31, 20x0	Lease expense	9,211	
	Prepaid lease payment		9,211

Leases of Land and Buildings

A characteristic of land is that it normally has an indefinite economic life. If title is not expected to pass to the lessee by the end of the lease term, the lessee normally does not receive substantially all of the risks and rewards incidental to ownership, in which case the lease of land will be an operating lease (IAS 17.14). An exception to this is if the value of the land relative to the total value of the lease is immaterial, in which case the land can be combined with the value of the building (IAS 17.17).

This means that a lease for both land and building would have to be considered separately for purpose of lease classification. The minimum lease payments would be allocated to land and building elements based on the relative fair values of the leasehold interests in the land element and buildings element of the lease at the inception of the lease. If the lease payments cannot be allocated reliably between these two elements, the entire lease is classified as a finance lease. (IAS 17.16)

Lessor Accounting

The criteria for determining whether or not a lease is a finance lease are the same as those used by the lessee. Fundamentally, lessor accounting is a mirror image of lessee accounting, in that:

- the lessor recognizes a receivable at an amount equal to the net investment in the lease (IAS 17.36); and
- the lessor recognizes finance income based on a pattern reflecting a constant periodic rate of return on the lessor's net investment in the finance lease (IAS 17.39).

Note that, unlike previous Canadian GAAP, IAS 17 does not distinguish between a sales-type and direct financing lease for lessor accounting.

The lessor will calculate the lease payments as follows:

- they will want to recover the initial cost or fair value of the asset being leased, and
- they will consider the bargain purchase option, the guaranteed or unguaranteed residual values as a future cash inflow.

Example - the fair value of the asset leased is \$400,000. The lease term is 6 years and there is a bargain purchase option to purchase the asset at the end of the lease term of \$20,000. Assuming that the first payment is due at the signing of the lease agreement and that the lessor requires a 7% return, the lease payment will be \$75,815.33:

$$\begin{array}{l} \text{[BGN]} \quad N = 6 \quad I/Y = 7\% \quad PV = -400,000 \quad FV = 20,000 \\ \text{Compute PMT} = \$75,815.33 \end{array}$$

Sale and Leaseback transactions

A sale and leaseback transaction involves the sale of property with the seller concurrently leasing the same property back to the seller. The same criteria outlined above are used to determine whether the lease is classified as an operating or finance lease.

One feature of sale and leaseback transactions is that the lessee may show a gain or loss on sale of the property to the lessor. If the sale and leaseback transaction results in a finance lease, any gain or loss on the transaction shall be deferred and amortized over the lease term (IAS 17.59).

If the sale and leaseback transaction results in an operating lease, and it is clear that the transaction is established at fair value, any gain or loss shall be recognized immediately. If the sales price is below fair value, any gain or loss are recognized immediately except that, if the loss is compensated for by future lease payments at below market price, it shall be deferred and amortized in proportion to the lease payments over the period for which the asset is expected to be used. If the sales price is above fair value, the excess over fair value shall be deferred and amortized over the period for which the asset is expected to be used. (IAS 17.61)

11. Investments

Investments in the shares of another corporation can broadly be classified as non-strategic or strategic investments. Strategic investments occur when we take a significant equity position in another company and are in a position to either control the other company or significantly influence its operational or financial policies. By their very nature, strategic investments are classified as long-term investments.

Non-Strategic Investments

Non-strategic investments consist of passive investments. IAS 39 classifies these investments⁶ in four categories:

- (1) a financial asset at *fair value through profit and loss* (FVTPL) meets one of the following conditions:
 - it is classified as held for trading meaning that (i) it is acquired principally for the purpose of selling or repurchasing it in the near term, (ii) on initial recognition it is part of a portfolio of identified financial instruments that are managed together and for which there is evidence of recent actual pattern of short-term profit taking, or (iii) it is a derivative.
 - upon initial recognition, it is designated by the entity as a FVTPL investment (this can only be done when doing so results in more relevant information)

- (2) *Held-to-Maturity* (HTM) investments are non-derivative financial assets with fixed or determinable payments and fixed maturity that an entity has the positive intention and ability to hold to maturity.

- (3) *Loans and receivables* are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market.

- (4) *Available-for-sale* (AFS) financial assets are those non-derivative financial assets that are designated as available for sale or are not classified as (1) loans and receivables, (b) held to maturity investments or (c) financial assets at fair value through profit and loss. (IAS 39.9)

⁶ Note that IAS 39 deals with both financial assets and financial liabilities for each of these categories. This chapter will cover the accounting for financial assets only.

Accounting for investments classified as fair value through profit and loss

The investments are initially recorded at their initial acquisition costs. Any transaction costs on acquisition of FVTPL investments are expensed. Subsequent measurement is at fair value (IAS 39.46) unless there is no quoted market price, in which case they are measured at cost. Any gains and losses on the re-measurement of these investments flows through income (IAS 39.55a). Any income (interest, dividends) are recognized as income when earned.

If the investment is in the bonds of another entity, the bonds are recorded at amortized cost using the effective interest method and are adjusted to fair value at period end. The effective interest rate is defined as the rate that exactly discounts estimated future cash flows through the expected life of the financial instrument (IAS 39.9).

Example 1: on March 31, 20x4 an entity purchases 1,000 shares of the XYZ Corporation for \$35 per share. Transaction costs amount to \$1,000. This investment is classified as fair value through profit and loss. At December 31, 20x4 (the entity's year-end), the market price per share rises to \$42. At December 31, 20x5, the market price per share is \$31. The shares are sold on July 12, 20x6 for \$28 per share. Transaction costs on the sale was \$850.

The journal entries to record all of the above transactions are as follows:

Mar 31, 20x4	FVTPL Investments	\$35,000	
	Transaction cost expense	1,000	
	Cash		\$36,000
	(1,000 shares x \$35) + \$1,000 Transaction Costs		
Dec 31, 20x4	FVTPL Investments	7,000	
	Unrealized gain on FVTPL Investments		7,000
	Adjust to fair value: 1,000 x \$42 = \$42,000		
Dec 31, 20x5	Unrealized loss on FVTPL Investments	11,000	
	FVTPL Investments		11,000
	Adjust to fair value: 1,000 x \$31 = \$31,000		
	\$42,000 - 31,000 = \$11,000		
Jul 12, 20x6	Cash (1,000 x \$28) - \$850	27,150	
	Loss on disposal of FVTPL Investments	3,850	
	FVTPL Investments		31,000

Example 2: on December 31, 20x2, an entity purchases \$200,000 of semi-annual, 6%, 15 year bonds for \$212,230. The fair value of the bonds at December 31, 20x3 is \$210,000 and at December 31, 20x4 is \$216,000. The bond are sold on July 2, 20x5 for \$214,500. Interest payments are on June 30 and December 31.

We need to calculate the yield to maturity of the bonds on the date they were purchased:

$$N = 30 \quad PV = -212,230 \quad PMT = 6,000 \quad FV = 200,000$$

$$\text{Compute } I/Y = 2.7\% \times 2 = 5.4\% \text{ annually}$$

The journal entries to record these transactions are as follows:

Dec 31, 20x2	FVTPL Investments	\$212,230	
	Cash		\$212,230
Jun 30, 20x3	Cash	6,000	
	FVTPL Investments		270
	Interest income (\$212,230 x 2.7%)		5,730
Dec 31, 20x3	Cash	6,000	
	FVTPL Investments		277
	Interest income (\$212,230 - 270) x 2.7%		5,723
	Unrealized loss on FVTPL Investments	1,683	
	FVTPL Investments		1,683
	Adjust to fair value:		
	Carrying value = \$212,230 - 270 - 277		\$211,683
	Market value		<u>210,000</u>
			<u>\$ 1,683</u>
Jun 30, 20x4	Cash	6,000	
	FVTPL Investments		285
	Interest income (\$211,683 x 2.7%)		5,715
Dec 31, 20x4	Cash	6,000	
	FVTPL Investments		292
	Interest income (\$211,683 - 285) x 2.7%		5,708
	FVTPL Investments	6,577	
	Unrealized gain on FVTPL Investments		6,577
	Adjust to fair value		
	Carrying value = \$210,000 - 285 - 292		\$209,423
	Fair value		<u>216,000</u>
			<u>\$ 6,577</u>

Jun 30, 20x5	Cash	6,000	
	FVTPL Investments		300
	Interest income (\$211, 106 x 2.7%)		5,700
Jul 2, 20x5	Cash	214,500	
	Loss on disposal of FVTPL Investments	1,200	
	FVTPL Investments (\$216,000 - 300)		215,700

Accounting for Held-to-Maturity Investments

Interest is recognized in income using the effective interest method; gains and losses from the sale of these investments are recognized in the income statements. Any transaction costs on acquisition of HTM investments are capitalized.

The classification of investments as held-to-maturity is prohibited if the entity has, during the current financial year or during the two preceding financial years, sold or reclassified more than an insignificant (relative to the total amount of held-to-maturity investments) amount of held-to-maturity investments before maturity other than sales or reclassifications that:

- are so close to maturity or the asset's call date;
- occur after the entity has collected substantially all of the asset's original principal through scheduled payments or prepayments, or
- are attributable to an isolated event that is beyond the entity's control, is non-recurring and could not have been reasonably anticipated by the entity. IAS 39.9

Example: on December 31, 20x4, an entity purchases \$500,000 of semi-annual, 7%, 20 year bonds for \$465,906 plus transaction costs of \$3,500. The bond are sold on July 2 for \$214,500. Interest payments are on June 30 and December 31.

The effective interest rate is the rate that exactly discounts estimated future cash flows through the expected life of the financial instrument:

$$N = 40 \quad PV = -469,406 \quad PMT = 17,500 \quad FV = 500,000$$

$$\text{Compute } I/Y = 3.8\% \times 2 = 7.6\% \text{ annually}$$

The journal entries for the years 20x4 to 20x5 are as follows:

Dec 31, 20x4	HTM Investments	\$469,406	
	Cash		\$469,406
Jun 30, 20x5	Cash	17,500	
	HTM Investments	337	
	Interest income (\$469,406 x 3.8%)		17,837

Dec 31, 20x5	Cash	17,500	
	HTM Investments	350	
	Interest income		
	(\$469,406 + 337) x 3.8%		17,850

The accounting for loans and receivables is substantially the same as for held-to-maturity investments.

Accounting for Available for Sale Investments

An *available for sale* investment occurs whenever companies invests in equity securities that are not classified as held for trading and are not strategic investments. Available for sale investments also occur whenever debt securities are acquired with the intent of liquidating them before their maturity. The classification of available for sale investments as current or long-term assets depends on management intent. If management intends to hold these for a period of less than one year, they are classified as current assets, otherwise they are classified as long-term assets. Regardless of how they are classified, there is no difference in the accounting for these investments.

Accounting for AFS investments can be summarized as follows:

- interest accrued or dividends declared are recorded as investment income (IAS 39.55b)
- at the Statement of Financial Position date, the investments are carried at fair market value (IAS 39.46) - any unrealized gains or losses are charged to Other Comprehensive Income (IAS 39.55b);
- realized gains or losses are charged to income;
- transaction costs are capitalized (IAS 39.43).

Example 1 - on June 30, 20x5 you purchase the shares of another company for \$15,000. The investment is classified as an available for sale investment. On October 15, 20x5 we receive a dividend cheque for these shares in the amount of \$600. At December 31, 20x5 (the year-end date), the fair market value of the shares is \$16,500. On February 12, 20x6, the investment is sold for \$16,900.

The following journal entries will be recorded with regards to this investment:

Jun 30, 20x5	AFS Investments	\$15,000	
	Cash		\$15,000
Oct 15, 20x5	Cash	600	
	Investment income		600
Dec 31, 20x5	Available for Sale Investments	1,500	
	Other Comprehensive Income		1,500

Feb 12, 20x6	Cash	\$16,900	
	Other Comprehensive Income	1,500	
	Gain on sale of AFS investments		1,900
	Available for Sale Investments		\$16,500

Example 2 - At December 31, 20x2, immediately before the year-end adjustments, an entity has the following available for sale investments:

	<i>Original Cost</i>	<i>Carrying Value</i>
Investment 1	\$250,000	\$200,000
Investment 2	100,000	120,000
Investment 3	150,000	220,000
	<u>\$500,000</u>	<u>\$540,000</u>

The market values of these investments at December 31, 20x2 was as follows:

Investment 1	\$220,000
Investment 2	150,000
Investment 3	245,000
	<u>\$615,000</u>

At December 31, 20x2 the following journal entry will be made to reflect the change in market values of the AFS investments:

AFS Investments	\$75,000	
OCI - AFS Revaluation		\$75,000

The statement of comprehensive income would appear as follows (the net income is assumed to be \$300,000):

Net income	\$300,000
Other Comprehensive Income	
Net holding gain on AFS Investments	<u>75,000</u>
Comprehensive income	<u>\$375,000</u>

The balance on the OCI account relating to AFS investments at December 31, 20x2 will be a credit of \$115,000 (the aggregate market value of \$615,000 less the aggregate original cost of \$500,000).

During 20x3, Investment 1 was sold for \$270,000. First we record the increase in market value of the investment:

AFS Investments	\$50,000	
OCI - AFS Investments		\$50,000

Second, we record the sale of the investment:

Cash	\$270,000	
AFS Investments		\$270,000
OCI - AFS Investments	20,000	
Gain on sale of AFS Investments		20,000
Sales price of \$270,000 less original cost of \$250,000		

At year-end, the market values of the remaining investments are:

Investment 2	\$180,000
Investment 3	200,000
	<u>\$380,000</u>

The carrying values of Investment 2 and Investment 3 before the year-end adjustment is \$150,000 and \$245,000 respectively for a total of \$395,000. The investments need to be written down by \$15,000:

OCI - AFS Investments	\$15,000	
AFS Investments		\$15,000

The activity in the OCI account for the current year can be summarized as follows:

	Other Comprehensive Income		
Opening Balance		\$115,000	
Removal of accumulated OCI on sale of Investment 1	20,000	50,000	Adjustment to Investment 1 prior to sale
Year-end Adjustment to Market Value	15,000		
Ending Balance		\$130,000*	

* Check ending balance in OCI:

	<i>Original Cost</i>	<i>Market Value</i>
Investment 2	\$ 100,000	\$ 180,000
Investment 3	150,000	200,000
	<u>\$250,000</u>	<u>\$380,000</u>

Balance in OCI = \$380,000 – 250,000 = \$130,000

If we assume that the net income before taxes and gains/losses on sale of AFS investments was \$350,000 and that the tax rate is 40%, the bottom portion of the statement of comprehensive income would appear as follows:

Operating Income		\$350,000
Gain on disposal of AFS investments		<u>20,000</u>
Net income before taxes		370,000
Income taxes		<u>148,000</u>
Net income		222,000
Other Comprehensive Income		
Net holding gain on AFS Investments during the year		
(\$50,000 ^{Gain - Investment 1} - \$15,000 ^{Year end Adjustment})	\$35,000	
Reclassification adjustment for realized gain	<u>(20,000)</u>	<u>15,000</u>
Comprehensive income		<u><u>\$237,000</u></u>

Example 3: an entity purchased Corporate Bonds on January 2, 20x1. The bonds mature in 8 years, have a face value of \$800,000, pay coupons on June 30 and Dec 31 of each year. The coupon rate is 4.6% and the yield-to-maturity of the bonds at the time they were purchased was 5%. These bonds are classified as an available for sale investment.

The year-end of the company is December 31. The bonds trade at 95 and 99 on December 31, 20x1 and 20x1 respectively.

Purchase price of bonds:

$$N = 16, I = 2.5, PMT = 18,400, FV = 800,000$$

$$CPT PV = \$779,112$$

Jan 2, 20x1	AFS Investments	\$779,112	
	Cash		\$779,112
Jun 30, 20x1	Cash	18,400	
	AFS Investments	1,078	
	Investment Income		
	(\$779,112 x 2.5%)		19,478
Dec 31, 20x1	Cash	18,400	
	AFS Investments	1,105	
	Investment Income		
	(\$779,112 + 1,078)		
	= \$780,190 x 2.5%		19,505
	OCI – AFS Revaluation	21,295	
	AFS Investments		21,295

	To adjust to market value:		
	Carrying value: \$779,112 + 1,078 + 1,105		\$781,295
	Market value: \$800,000 x 0.95		<u>760,000</u>
	Holding loss		<u>\$ 21,295</u>
Jun 30, 20x2	Cash	18,400	
	AFS Investments	1,132	
	Investment Income		
	\$781,295 x 2.5%		19,532
Dec 31, 20x2	Cash	18,400	
	AFS Investments	1,161	
	Investment Income		
	(\$781,295 + 1,132)		
	= \$782,427 x 2.5%		19,561
	AFS Investments	29,707	
	OCI – AFS Revaluation		29,707
	Carrying value of bonds -		
	\$760,000 + 1,132 + 1,161		\$762,293
	Market value: \$800,000 x 0.99		<u>792,000</u>
	Holding gain		<u>\$ 29,707</u>

Impairment of Financial Assets

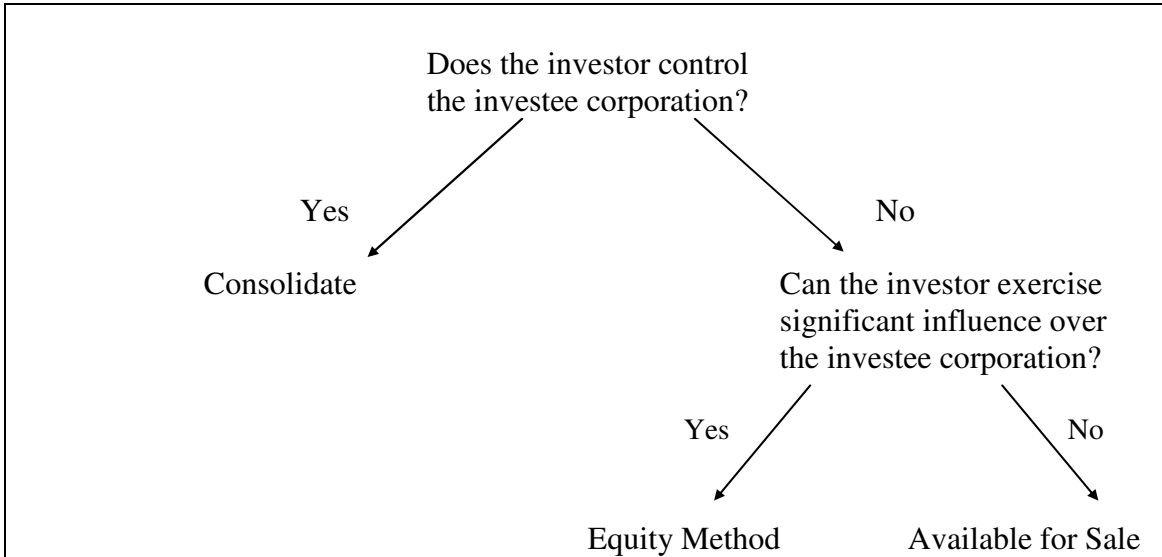
Loans and receivables, held-to-maturity investments and available for sale investments are subject to an annual impairment test. Impairment occurs if there is objective evidence of impairment, i.e. a loss event that has an impact on the future cash flows of the asset.

For loans and receivables and held-to-maturity investments, which are carried at amortized cost, the impairment loss would be equal to the difference between the asset's carrying value and the present value of the estimated future cash flows discounted at the financial asset's original effective interest rate. (IAS 39.63) Impairment losses can be reversed in the future if there is a recovery (IAS 39.65).

For available for sale assets, if there is objective evidence of impairment, any losses recognized in other comprehensive income are reclassified to income (IAS 39.67). The standard does not allow the reversal of impairment losses for available for sale equity investments (IAS 39.69). Reversal of impairment losses are allowed for available for sale debt instruments (IAS 39.70). Note that any reversals of impairment losses on debt securities are limited in that they cannot reduce the carrying value of the security below what the amortized carrying value of the security would have been based on the effective interest method.

Strategic Investments

The method of accounting for intercorporate equity investments⁷ can be determined by use of the following decision tree:



As outlined in the decision tree, there are three methods of accounting for long-term investments. Passive investments (defined as an investment that does not give the investor significant influence over the financial or operating policies of the investee company) are accounted for as available for sale investments. The equity method is used in situations where the investor is able to significantly influence the investee's operating and financial policies. When the investor controls the investee, ownership of greater than 50%, the financial statements of the two parties must be consolidated.

Investment in Associates

An associate is an entity, including an unincorporated entity such as a partnership, over which the investor has significant influence and that is neither a subsidiary nor an interest in a joint venture (IAS 28.2)

Significant influence is the power to participate in the financial and operational policy decisions of the investee but is not control or joint control over these policies (IAS 28.2)

The following points may be construed as indicators of significant influence:

- representation on the board of directors,
- participation in policy-making processes,
- material intercompany transactions,
- interchange of managerial personnel, and
- provision of technical information (IAS 28.7)

⁷ Excluding those classified as fair value through profit and loss.

The determination of significant influence is a matter of professional judgment. For example, if you own 35% of the stock of a corporation and a single other investor owns 65%, you may not be in a position to exercise significant influence. On the other hand, if you own the single largest block of shares with an ownership percentage of 35%, you are likely to have significant influence over the strategic operating, investing and financing policies of an investee, even though you do not control the investee. The standard states that 'if an investor holds, directly or indirectly (i.e. through subsidiaries), 20% or more of the voting power of the investee, it is presumed that the investor has significant influence, unless it can be clearly demonstrated that this is not the case (IAS 28.6).

The equity method is the method of accounting for investments in associates. The initial investment is recorded at its original cost. Any dividends declared by the investee corporation reduce the investment account (i.e. are treated as a return on equity). The investment income is calculated as our share of the net income of the investee corporation and is debited to the investment account. The investment account therefore behaves in a similar way to the retained earnings account: it increases by the investor's share of the income of the investee corporation and decreases by the investor corporation's share of dividends declared.

The following example demonstrates the use of the cost method and the equity method in accounting for intercorporate investments.

Example: Alpha Company purchases 18% of the stock of Beta Company (a public company) on January 1, 20x1, for \$500,000. Both companies have calendar year ends. On January 1, 20x2, it purchases a further 20% for \$600,000. With 38% total ownership, Alpha is now capable of exercising significant influence over the affairs of Beta Company. The following information is available with regards to Beta Company:

<i>Year</i>	<i>Income</i>	<i>Dividends</i>	<i>Market Value of Investment At December 31</i>
20x1	\$1,000,000	\$400,000	\$600,000
20x2	1,500,000	500,000	900,000
20x3	(300,000)	--	850,000
20x4	(500,000)	--	1,000,000

20x1

During the year 20x1, Alpha is presumed to not have significant influence over the affairs of Beta and, consequently, accounts for the investment as an available for sale investment. The accounting entry in 20x1 is relatively straightforward - the \$72,000 (\$400,000 x 18%) of dividends Alpha will receive from Beta constitute investment income:

Cash	\$72,000	
Investment income (or Dividend income)		\$72,000

The investment must be recorded at market value as follows:

Investment in Beta	100,000	
Other Comprehensive Income		100,000

20x2

On January 1, 20x2, the additional stock purchase increases Alpha's ownership of Beta so that Alpha now has significant influence over Beta. The equity method must be applied as of January 1, 20x2. The investment account - Investment in Beta now stands at \$1,200,000 (\$500,000^{January 1, 20x1 Purchase} + \$100,000^{Increase in Market Value} + \$600,000^{January 1, 20x2 Purchase}). The entries in 20x2 will be as follows:

Cash	\$190,000	
Investment in Beta		\$190,000
To record dividends received from Beta (\$500,000 x 38% = \$190,000)		
Investment in Beta	\$570,000	
Investment income		\$570,000
To record our share of Beta's income (1,500,000 x 38% = \$570,000)		

As of December 31, 20x2, the Investment in Beta account will be:

Balance - January 1, 20x2	\$1,200,000
Less dividends received	(190,000)
Add investment income	<u>570,000</u>
Balance - December 31, 20x2	<u>\$1,580,000</u>

20x3 - 20x4

Beta Corporation has incurred losses and has paid no dividends; therefore, the investment account must be written down to the extent of our share in these losses. The journal entries for both years are as follows:

20x3	Investment loss	\$114,000	
	Investment in Beta		\$114,000
	To record our share of Beta's loss (\$300,000 x 38% = \$114,000)		
20x4	Investment loss	\$190,000	
	Investment in Beta		\$190,000
	To record our share of Beta's loss (\$500,000 x 38% = \$190,000)		

The balance in the investment account at the end of 20x4 will be as follows:

Balance - January 1, 20x3	\$1,580,000
Share of loss - 20x3	(114,000)
Share of loss - 20x4	<u>(190,000)</u>
Balance - December 31, 20x4	<u>\$1,276,000</u>

The carrying value of the investment in Beta is subject to an impairment test as described in the Capital Assets section.

Business Combinations

The most significant differences in business combinations is (1) in rare cases, the goodwill generated by the purchase price allocation is negative. Any negative goodwill balances are written off to income (IFRS 3.34), and (2) accounting for nonwholly owned subsidiaries.

Nonwholly Owned Subsidiaries

The method used to allocate the purchase price is called the acquisition method (IFRS 3.32). We impute the purchase price as if a 100% acquisition has occurred and allocate based on 100% value.

Example 1 : Assume that on January 1, 20x5, P Ltd. purchases 800% of the shares of S Ltd. for cash consideration of \$2,000,000. Statement of Financial Positions, as at December 31, 20x4, for both companies, are as follows:

	<i>P Ltd.</i> <i>Book Value</i>	<i>S Ltd.</i> <i>Book Value</i>	<i>S Ltd.</i> <i>Fair Value</i>
Current assets	\$2,500,000	\$ 750,000	\$ 800,000
Capital assets - net	4,000,000	600,000	1,500,000
Patent - net	--	100,000	200,000
	<u>\$6,500,000</u>	<u>\$1,450,000</u>	
Current liabilities	\$1,000,000	\$ 400,000	\$ 400,000
Long-term debt	3,000,000	600,000	650,000
Common stock	1,000,000	200,000	--
Retained earnings	1,500,000	250,000	--
	<u>\$6,500,000</u>	<u>\$1,450,000</u>	

Other information:

- the fair value differential of \$50,000 on current assets relate solely to inventory; S Ltd. uses the first-in, first-out method of inventory valuation;
- the capital assets of S Ltd. represent equipment that has a remaining useful life of five years; these assets are being depreciated on the straight-line basis;
- S Ltd.'s patent has 10 years remaining; depreciation is taken on the straight-line basis;
- S Ltd.'s long-term debt is due on December 31, 20x9.

The purchase price allocation is as follows:

Purchase price imputed at 100% (\$2,000,000 / 0.80)	\$2,500,000
Net assets acquired - at book value (\$1,450,000 - \$1,000,000)	<u>450,000</u>
Purchase price discrepancy	2,050,000
Allocated to:	
Current assets (\$800,000 - \$750,000)	\$50,000
Capital assets (\$1,500,000 - \$600,000)	900,000
Intangibles (\$200,000 - \$100,000)	100,000
Long-term debt (\$650,000 - \$600,000)	<u>(50,000)</u>
Goodwill	<u>\$1,050,000</u>

A new account is introduced at this time called the noncontrolling interest in S. This account is part of Shareholders' Equity on the Statement of Financial Position. The account represents the noncontrolling interest in the net assets of S at the Statement of Financial Position date. In this example, the initial noncontrolling interest is 20% of the fair value of S's net assets: $2,500,000 \times 20\% = \$500,000$

The consolidated Statement of Financial Position of P at the date of acquisition of S is as follows:

P Ltd.			
Consolidated Statement of Financial Position			
as at January 1, 20x5			
Current assets	(\$2,500,000 ^{P Ltd.} - 2,000,000 ^{Paid to purchase shares of S Ltd.})		
	+ 750,000 ^{S Ltd. Book Value}	+ 50,000 ^{Fair Value Increment on Inventory})	\$1,300,000
Capital assets	(\$4,000,000 + 600,000 ^{Cost of S Ltd. Capital Assets})		
	+ 900,000 ^{Fair Value Increment})		5,500,000
Patent	(\$100,000 ^{Book Value of S Ltd.} + 100,000 ^{Fair Value Increment})		200,000
Goodwill			1,050,000
			<u>\$8,050,000</u>
Current liabilities	(\$1,000,000 ^{P Ltd.} + 400,000 ^{S Ltd.})		\$1,400,000
Long-term debt	(\$3,000,000 ^{P Ltd.} + 600,000 ^{S Ltd.} + 50,000 ^{Fair Value Decrement})		3,650,000
Noncontrolling interest in S			500,000
Common stock			1,000,000
Retained earnings			1,500,000
			<u>\$8,050,000</u>

When we consolidate P and S, we include 100% of the assets and liabilities of S, even though we only own 80% of these amounts. The reason for this approach is because the consolidated Statement of Financial Position brings together the net assets under common control. P effectively controls 100% of the net assets of S. This reasoning is supported by the definition of an asset: An **asset** is defined as a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity.

Example 2 - On January 1, 20x1, the Brown Company acquired 65% of the outstanding shares of the Moran Company in return for cash in the amount of \$5,850,000. On this date, the book values and the fair values for the Moran Company's Statement of Financial Position accounts were as follows:

	<i>Book values</i>	<i>Fair values</i>
Cash and current receivables	\$ 325,000	\$325,000
Inventories	5,010,000	4,900,000
Land	2,960,000	3,400,000
Plant and equipment (net)	3,470,000	4,000,000
	<u>\$11,765,000</u>	
Current liabilities	950,000	950,000
Long-term liabilities	2,980,000	3,410,000
Common shares	5,350,000	
Retained earnings	2,485,000	
	<u>\$11,765,000</u>	

On the acquisition date, the remaining useful life of the Moran Company's plant and equipment was 10 years. The long-term liabilities mature on June 30, 20x3. The land is still on the company's books at December 31, 20x1.

The condensed Statement of Financial Positions and income statements of the Brown Company and its subsidiary, the Moran Company, for the year ending December 31, 20x1, are as follows:

	<i>Brown Co.</i>	<i>Moran Co.</i>
Revenues	\$16,540,000	\$2,635,000
Cost of goods sold	8,970,000	1,460,000
Depreciation expense	2,350,000	375,000
Other expenses	790,000	465,000
	<u>12,110,000</u>	<u>2,300,000</u>
Net income	4,430,000	335,000
Retained earnings, beginning	4,600,000	2,485,000
Dividends	210,000	150,000
Retained earnings, ending	<u>\$8,820,000</u>	<u>\$2,670,000</u>

	Brown Co.	Moran Co.
Cash and current receivables	\$2,400,000	\$ 760,000
Inventories	6,865,000	4,500,000
Land	4,500,000	2,960,000
Plant and equipment (net)	8,800,000	3,890,000
Investment in Moran Co.	5,850,000	
	<u>\$28,415,000</u>	<u>\$12,110,000</u>
Current liabilities	1,595,000	1,110,000
Long-term liabilities	8,000,000	2,980,000
Common shares	10,000,000	5,350,000
Retained earnings	8,820,000	2,670,000
	<u>\$28,415,000</u>	<u>\$12,110,000</u>

Additional Information –

1. The Brown Company carries its investment in the Moran Company using the cost method.
2. The Moran Company paid \$100,000 in management fees to the Brown Company.
3. A goodwill impairment test as at December 31, 20x1 establishes the permanent value of the goodwill in the Moran Company at \$680,000.

The first step is to calculate the purchase price discrepancy:

Purchase Price imputed at 100%: $\$5,850,000 / 0.65$	\$9,000,000
Net assets acquired – Net Assets of Moran ($\$5,350,000 + 2,485,000$)	<u>7,835,000</u>
Purchase Price Discrepancy	1,165,000
Allocation -	
Inventories: $\$4,900,000 - 5,010,000$	(\$110,000)
Land: $\$3,400,000 - 2,960,000$	440,000
Plant and equipment: $\$4,000,000 - 3,470,000$	530,000
Long-term liabilities: $\$3,410,000 - 2,980,000$	<u>(430,000)</u>
Goodwill	<u>\$735,000</u>

Purchase price discrepancy amortization schedule –

PPD Amortization Schedule -

	Balance Jan 1, 20x1	Amortization 20x1	Balance Dec 31, 20x1
Inventories (1)	(\$110,000)	\$110,000	-
Land	440,000	-	\$440,000
Plant and equipment (10)	530,000	(53,000)	477,000
Long-term liabilities (2.5)	(430,000)	172,000	(258,000)
Goodwill	735,000	(55,000)	680,000
	<u>\$1,165,000</u>	<u>\$174,000</u>	<u>\$1,339,000</u>

Brown Co.

***Consolidated Statement of Income and Retained Earnings
for the year ended December 31, 20x1***

Revenues (\$16,540,000 ^{Brown} + 2,635,000 ^{Moran} – 100,000 ^{Mgmt Fees} – 97,500 ^{Dividends from Moran})	\$18,977,500
Cost of goods sold (\$8,970,000 + 1,460,000 – 110,000 ^{Amort PPD – Inv})	(10,320,000)
Depreciation expense (\$2,350,000 + 375,000 + 53,000 ^{Amort PPD – P&E})	(2,778,000)
Goodwill impairment loss	(55,000)
Other expenses (\$790,000 + 465,000 – 100,000 ^{Mgmt Fees} – 172,000 ^{PPD Amort – LTD})	(983,000)
Net income – entity	4,841,500
Noncontrolling interest (\$335,000 ^{Moran's Net Income} + 174,000 ^{Amortization PPD}) x 35%	178,150
Consolidated net income	4,663,350
Consolidated retained earnings, Jan 1, 20x1	4,600,000
Dividends	210,000
Consolidated retained earnings, Dec 31, 20x1	<u>\$9,053,350</u>

Note that for the purpose of these notes, the income statement format as above will be used. However, IAS 1 mandates the following presentation for the bottom portion of the income statement:

Net income	<u>\$4,841,500</u>
Net income attributed to:	
Owners of the parent	\$4,663,350
Noncontrolling interests	178,150
	<u>\$4,841,500</u>

Consolidated Retained Earnings at December 31, 20x1 can be calculated independently as follows:

Brown Co. Retained Earnings, December 31, 20x1		\$8,820,000
Moran Co. Retained Earnings, December 31, 20x1	\$2,670,000	
Moran Co. Retained Earnings at acquisition	<u>2,485,000</u>	
Subsidiary Company Post-Acquisition increase in Retained Earnings	185,000	
Add amortization of PPD	<u>174,000</u>	
	359,000	
Times Brown Co. ownership %	65%	<u>233,350</u>
Consolidated Retained Earnings		<u>\$9,053,350</u>

***Brown Co.
Consolidated Statement of Financial Position
as at December 31, 20x1***

Cash and current receivables (\$2,400,000 + 760,000)	\$3,160,000
Inventories (\$6,865,000 + 4,500,000)	11,365,000
Land (4,500,000 + 2,960,000 + 440,000 PPD)	7,900,000
Plant and equipment (\$8,800,000 + 3,890,000 + 477,000 PPD)	13,167,000
Goodwill	<u>680,000</u>
	<u>\$36,272,000</u>
Current liabilities (\$1,595,000 + 1,110,000)	\$2,705,000
Long-term liabilities (8,000,000 + 2,980,000 + 258,000 PPD)	11,238,000
Noncontrolling interest liability (\$8,020,000 ^{Net Assets of Moran} + \$1,339,000 Unamortized PPD) x 35%	3,275,650
Common stock	10,000,000
Retained earnings	<u>9,053,350</u>
	<u>\$36,272,000</u>

If Brown Company has used the equity method to account for its investment in Moran, then the investment income would have been calculated as follows:

Share of Moran's net income: \$335,000 x 65%	\$217,750
Add amortization of PPD: \$174,000 x 65%	<u>113,100</u>
Investment income using equity	<u>\$330,850</u>

If we recalculate what Brown's net income would have been had the equity method been used, we get the following result:

Brown Co. Net Income – Cost Method	\$4,430,000
Less dividends received from Moran	(97,500)
Add investment income calculated using the equity method	<u>330,850</u>
Brown Co. Net Income – Equity Method	<u><u>\$4,663,350</u></u>

Note that the net income using the equity method is equal to the consolidated net income. This is not a coincidence.

The Investment in Moran account using the equity method can be calculated using three different approaches. First approach is the T-Account view:

Purchase price	\$5,850,000
Add investment income	330,850
Less dividends	(97,500)
Investment account balance, December 31, 20x1	<u><u>\$6,083,350</u></u>

The second approach takes into account that the investment account at any point in time is equal to the parent company's share of the subsidiary's net assets plus any unamortized purchase price discrepancy:

Brown's share of the net assets of Moran: \$8,020,000 x 65%	\$5,213,000
Unamortized PPD: \$1,339,000 x 65%	<u>870,350</u>
	<u><u>\$6,083,350</u></u>

The third approach is similar to the calculation of consolidated retained earnings. The investment account is equal to the initial purchase price less any amortization of PPD plus our share of the post acquisition increase in retained earnings:

Purchase price		\$5,850,000
Moran Co. Retained Earnings, December 31, 20x1	\$2,670,000	
Moran Co. Retained Earnings at acquisition	<u>2,485,000</u>	
Subsidiary Company Post-Acquisition increase in Retained Earnings	185,000	
Add amortization of PPD	<u>174,000</u>	
	359,000	
Times Brown Co. ownership %	65%	<u>233,350</u>
		<u><u>\$6,083,350</u></u>

Goodwill Impairment Test

IAS 36, Impairment of Assets deals with the impairment test of both tangible and intangible assets. We will deal only with the impairment of asset test as it relates to goodwill.

IAS 36 requires that goodwill be tested for impairment annually (or more often, if there is an indication of impairment). At a basic level, the recoverable amount of goodwill is compared to its carrying amount. If the recoverable amount is higher than the carrying amount, then no impairment needs to be accrued. However, if the recoverable amount is less than the carrying amount of goodwill, then goodwill needs to be written down to the recoverable amount.

The impairment test is done at the level of the Cash Generating Unit (CGU) which is defined by IAS 36, para 6 as ‘the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. For example, if you purchase a subsidiary which operates two operating segments whose cash flows are independent of each other, then we have a minimum of two CGU’s. We need to investigate whether the assets of each of the operating segment can be further broken down into more CGUs, since the breakdown of a CGU has to be made at the lowest possible level. The minimum number of CGU’s of a corporation is defined as the number of operating segments that the corporation operates in as defined by IFRS 8 – Operating Segments.

Whenever a business combination occurs, the total goodwill generated by the transaction must be allocated between all of the CGUS’s on the date of acquisition.

The recoverable amount is defined as the greater of fair value or value in use (VIU). Value in use is equal to the present value of cash flows expected from the future use and sale of assets at the end of their useful lives.

Because it is impossible to estimate the recoverable amount of goodwill directly, the impairment test is done at the CGU level by comparing the value in use of CGU to the consolidated carrying value of the CGU’s identifiable assets. Any impairment loss is allocated as follows:

- (i) to any goodwill allocated to the CGU, and
- (ii) to other assets of the CGU on a prorata basis of the carrying amount of each asset in the unit (IAS 36, para 104)

Example – on January 1, 20x3, Parent Company purchases 100% of the shares of Subsidiary Inc. for \$20,000. Subsidiary Inc. operates three distinct segments and each segment is considered a cash-generating unit. The purchase price allocation was as follows:

	<i>Allocation of Purchase Price</i>	<i>Fair Value of Identifiable Assets</i>	<i>Goodwill</i>
Segment 1	\$ 5,000	\$4,000	\$1,000
Segment 2	12,000	10,000	2,000
Segment 3	3,000	2,500	500
	<u>\$20,000</u>	<u>\$16,500</u>	<u>\$3,500</u>

At the end of 20x3, a value-in-use calculation was made of the recoverable amounts of each segment provided the following results:

Segment 1	\$5,400
Segment 2	9,000
Segment 3	4,500

The carrying values of each segment at December 31, 20x3 is as follows:

	<i>Identifiable Assets – net of depreciation</i>	<i>Goodwill</i>	<i>Total Carrying Value</i>
Segment 1	\$3,700	1,000	\$4,700
Segment 2	9,500	2,000	11,500
Segment 3	2,400	500	2,900

An impairment loss must be recognized for segment 2 only in the amount of \$11,500 – 9,000 = \$2,500. This is first allocated to goodwill of \$2,000, bringing it down to zero. The balance of \$500 needs to be allocated to the identifiable assets of Segment 2 on a pro-rata basis.

Assume that the fair value of the identifiable assets of Segment 2 consist of the following:

Land	\$2,500
Property, plant and equipment	10,500
Less Accumulated Depreciation	<u>(3,500)</u>
	<u>\$9,500</u>

The allocation of the remaining \$500 would be as follows:

	<i>Carrying Amount</i>	<i>%</i>	<i>Allocation</i>
Land	\$2,500	26.3%	\$131
Property, plant and equipment	7,000	73.7%	369
	<u>\$9,500</u>		<u>\$500</u>

One of the disadvantages of this impairment test is that it does not measure whether goodwill has really been impaired since the method arbitrarily allocates the impairment loss first to goodwill, i.e. it assumes that goodwill has been impaired. On the other hand, goodwill is protected by:

- (i) internally generated goodwill occurring after the business combination, and
- (ii) unrecognized identifiable net assets on the date of acquisition.

Both of these generate future cash flows but are not recorded in the carrying amounts of the assets. Consequently, the value in use may be somewhat inflated.

Goodwill must be tested for impairment annually, but need not necessarily be done at year end. Also, not all CGU's need to be tested for impairment at the same time.

An impairment charge cannot subsequently be reversed if the value in use of the assets increases about the carrying amount of the assets.

Joint Ventures

A joint venture is an arrangement whereby two or more parties (the venturers) jointly control a specific business undertaking and contribute resources towards its accomplishment. The life of the joint venture is limited to that of the undertaking which may be of short or long-term duration depending on the circumstances. A distinctive feature of a joint venture is that the relationship between the venturers is governed by an agreement (usually in writing) which establishes joint control. Decisions in all areas essential to the accomplishment of a joint venture require the consent of the venturers, as provided by the agreement; none of the individual venturers is in a position to unilaterally control the venture. This feature of joint control distinguishes investments in joint ventures from investments in other enterprises where control of decisions is related to the proportion of voting interest held.

The key feature of a joint venture, therefore, is that no venturer has control. On this basis alone, the accounting for joint ventures will differ from a business combination.

Accounting for joint ventures can be done using one of two approaches: (1) equity method or (2) proportionate consolidation (IAS 31.30 and IAS 31.38).

Proportionate consolidation is a method of accounting whereby a venturer's share of each of the assets, liabilities, income and expenses of a jointly controlled entity is combined line by line with similar items in the venturer's financial statements or reported as separate line items in the venturer's financial statements. (IAS 31.3)

12. Operating Segments

Consolidated financial statements are required in order to report financial results of the parent company and its subsidiaries as one economic entity. However, these statements increase the difficulty of analyzing a corporation because they could mask high-risk ventures and poor investments; different lines of business may have different earnings potential. It is possible for a consolidated income statement to show a healthy profit when some of its business segments are experiencing serious financial difficulties. This is addressed by IFRS 8 - Operating Segments.

The core principle of the standard is that 'an entity shall disclose information to enable users of its financial statements to evaluate the nature and financial effects of the business activities in which it engages and the economic environments in which it operates.' (IFRS 8.1)

The definition of an operating segment uses the “management method” to determine what are reportable segments. The management method requires disclosure of segment information based on the way management reviews it.

An **operating segment** is defined as a component of an entity:

- (a) that engages in business activities from which it may earn revenues and incur expenses (including revenues and expenses relating to transactions with other components of the same entity),
- (b) whose operating results are regularly reviewed by the enterprise’s chief operating decision maker to make decisions about resources to be allocated to the segment and assess its performance, and
- (c) for which discrete financial information is available. (IFRS 8.5)

Generally, an operating segment is one that is headed by a segment manager who is directly accountable to and maintains regular contact with the chief operating decision maker to discuss operating activities, financial results, forecasts or plans for the segment. (IFRS 8.9)

Reportable Segments

Once operating segments have been identified, the next step is to determine which segments are reportable, i.e. require separate disclosure. First, we need to determine if some operating segments can be aggregated. Two or more segments may be aggregated into a single operating segment if aggregation is consistent with the core principle, the segments have similar economic characteristics, and the segments are similar in each of the following respects:

- the nature of products and services;
- the nature of the production process;
- the type or class of customer for their products and services;
- the method used to distribute their products or provide their services; and

- if applicable, the nature of the regulatory environment, for example, banking, insurance or public utilities. (IFRS 8.12)

The second step is to determine if the operating segments meet the quantitative thresholds. An entity shall report separately information about an operating segment that meets any of the following quantitative thresholds:

- (a) Its reported revenue, including both sales to external customers and intersegment sales or transfers, is 10 percent or more of the combined revenue, internal and external, of all reported operating segments.
- (b) The absolute amount of its reported profit or loss is 10 percent or more of the greater, in absolute amount, of:
 - (i) the combined reported profit of all operating segments that did not report a loss, or
 - (ii) the combined reported loss of all operating segments that did report a loss.
- (c) Its assets are 10 percent or more of the combined assets of all operating segments. (IFRS 8.13)

Note that operating segments that do not meet any of the quantitative thresholds may be considered reportable, and separately disclosed, if management believes that information about the segment would be useful to users of the financial statements (IFRS 8.13).

For example, assume that we have eight operating segments with the following characteristics:

Segment:	<i>Revenues</i>	<i>Income</i>	<i>Assets</i>
A	\$1,000	\$250	\$1,500
B	600	50	1,200
C	2,000	(100)	2,600
D	500	100	750
E	800	(200)	1,600
F	1,800	190	3,400
G	300	30	200
H	<u>2,600</u>	<u>180</u>	<u>2,750</u>
	<u>\$9,600</u>	<u>\$500</u>	<u>\$14,000</u>

Revenue test: any segment whose revenues exceed \$960 ($9,600 \times 10\%$) would be reportable - these include segments A, C, F and H.

Income test: absolute amount of profit of these segments who reported a profit = \$800; absolute amount of loss of these segments who reported a loss = \$300. The greater of the two is \$800. Thus, any segment whose absolute income or loss exceeds \$80 ($\$800 \times 10\%$) are reportable - these include segments A, C, D, E, F and H.

Asset test - any segment whose assets exceed \$1,400 (14,000 x 10%) would be reportable - these include segments A, C, E, F and H.

Consequently, all but segments B and G would be reportable. Segments B and G would be grouped with another segment whose line of business most closely resembles that of segments B and G.

As well, there is a requirement that the total revenue generated by separately disclosed operating segments must be at least 75%; otherwise, you would need to disclose additional operating segments (even though they might not have met the quantitative thresholds) to get up to the 75%. (IFRS 8.15)

All other non-reportable segments are combined and disclosed in an 'all other segments' category. The source of revenue of the non-reportable segments needs to be disclosed. (IFRS 8.16)

Segment disclosures

There are fundamentally three overall disclosure requirements:

- (a) General Information - the following needs to be disclosed:
 - the factors used to identify the entity's reportable segments, including the basis of organization (for example, whether management has chosen to organize the entity around differences in products and services, geographical areas, regulatory environments, or a combination of factors and whether operating segments have been aggregated; and
 - types of revenues and services from which each reportable segment derives its revenues. (IFRS 8.22)

- (b) Information about profit and loss, assets and liabilities - a measure of profit and loss and total assets must be reported for each reportable segment. If segment liabilities are regularly reported to the chief operating decision maker, then these have to be disclosed also.

The following amounts have to be disclosed, but only if they are included in the measure of segment profit or loss reviewed by the chief operating decision maker:

- revenues from external customers;
- revenues from transactions with other operating segments of the same entity;
- interest revenue;
- interest expense;
- depreciation and amortization;
- material items of income and expenses when these were disclosed separately on the consolidated statement of income;
- the entity's interest in the profit or loss of associates and joint ventures accounted for by the equity method;

- income tax expense or income; and
- material non-cash items other than depreciation and amortization (IFRS 8.23)

The following asset disclosures have to be made, but only if they are included in the reports reviewed by the chief operating decision maker:

- the amount of investment in associates and joint ventures accounted for by the equity method; and
- the amount of additions to non-current assets other than financial instruments, deferred tax assets or pension assets. (IFRS 8.24)

- (c) Reconciliations - for all amounts listed below, a reconciliation between the segment totals and the amounts shown on the entity's statement of income;
- revenues;
 - profit or loss;
 - assets;
 - liabilities (if reported); and
 - other materials items. (IFRS 8.28)

Entity Wide Disclosures

Three additional disclosures are required:

- (a) information about products and services: the revenues from external customers for each product and service, or each group of products and services. (IFRS 8.32)
- (b) Information about geographical areas - the following have to be disclosed:
- revenues from external customers, and
 - non-current assets (other than financial instruments, deferred tax assets, pension assets)

For each of the above, disclosure is required for (i) revenues and assets attributed/located to/in the entity's country of domicile and (ii) attributed to all foreign countries in total.

If assets in an individual foreign county are material, those assets should be disclosed separately. (IFRS 8.33)

For both (a) and (b) an disclosure exemption is available if the necessary information is not available and the cost to develop it would be excessive, in which case that fact shall be disclosed.

- (c) Information about major customers - if revenues from transactions with a single external customer amount to 10% or more of total revenues, that fact should be disclosed along with the segment reporting the revenues. The identity of the external customer need not be disclosed. (IFRS 8.34)

13. Interim Financial Reporting

Interim reporting deals with the preparation of financial statements other than at year-end. As we shorten the accounting period, the number of estimates that need to be made increases. This is a good example of the trade-off between relevance and reliability: although the provision of interim financial statements are relevant to the shareholders, these may be less reliable due to the number of estimates that have to be made. Examples of such estimates are as follows:

- management bonuses and the like that can only be determined once the final net income figure for the year is known,
- the value of inventory that is confirmed when an inventory count is made at year end; inventory counts are not necessarily made for purposes of interim financial statements; this problem is compounded when the company does not keep perpetual records and therefore must estimate the inventory amount,
- income taxes where the tax provision can only be made when the final net income figure is known,
- depreciation: the annual depreciation number is contingent on purchases of fixed assets that may occur later in the year.

To deal with these problems, two schools of thought have emerged with respect to interim reporting: the discrete period approach and the integral period approach.

The **discrete period approach** assumes that each interim period is treated as an individual period. Therefore, any adjustments and estimates would be the same as we would make when preparing annual financial statements. In essence, we would be treating the interim period as if it were a year. Income taxes would be calculated as if the net income for the interim period was the net income for the year; depreciation expense would be calculated on the basis of the assets on hand; and bonuses would be calculated using the interim period net income.

The **integral period approach** assumes that the interim period is a part of a year. Income taxes would be calculated by estimating the annual income and applying the resulting tax rate to the interim period net income. Depreciation expense would be calculated by making an estimate of future fixed asset purchases. Bonuses would be calculated by estimating what the total annual bonus would be and accruing some of it to the interim period.

IAS 34 is a bit of a mixture of both approaches but tends to favour the discrete approach: each financial report, annual or interim is evaluated on its own for conformity to IFRSs (IAS 34.2).

Minimum Components/Form and Content of Interim Financial Statements

The following financial statements must be published:

- statement of financial position;
- statement of comprehensive income;
- statement of changes in equity;
- statement of cash flows; and
- selected explanatory notes. (IAS 34.8)

The entity can choose to present full or condensed financial statements; if condensed, then the minimum disclosures are the subtotals presented in the annual financial statements. However, additional line items shall be included if their omission would make the condensed interim financial statements misleading. (IAS 34.10)

Basic and diluted EPS must be published for the interim period. (IAS 34.11)

Notes from the annual financial statements that are still relevant to the interim financial statements do not have to be replicated in the interim financial statements (IAS 34.15).

Generally, the following needs to be disclosed:

- a statement to the effect that the same accounting policies as in the annual report are followed;
- explanatory comments about the seasonality or cyclicity of interim operations;
- unusual items;
- changes in debt and equity securities;
- nature and changes in estimates;
- dividends paid;
- material subsequent events;
- the effect of changes in the composition of the entity during the interim period (i.e. business combinations obtaining or losing control of subsidiaries and long-term investments, restructurings and discontinued operations); and
- changes in contingent liabilities or contingent assets since the end of the last annual period. (IAS 34.16).

Specific guidance is also provided with regards to segmented information that needs to be disclosed (IAS 34.16g).

Financial information to be disclosed

In addition to the amounts for the interim period, the following information must be disclosed:

Statement of financial position	Balance at the end of interim period Previous fiscal year balance
Statement of comprehensive income	Amount for the current period Cumulative amount since the beginning of the year. Amount for the same period from the previous year Cumulative amount since the beginning of the year to the end of the same period last year
Statement of changes in equity	Cumulative amount since the beginning of the year. Cumulative amount since the beginning of the year to the end of the same period last year
Statement of cash flows	Cumulative amount since the beginning of the year. Cumulative amount since the beginning of the year to the end of the same period last year

Recognition and Measurement

IAS 34.28 states that the entity shall apply the same accounting policies in its interim financial statements as are applied in its annual financial statements, i.e. the principles for recognizing assets, liabilities, income and expenses for interim periods are the same as in annual financial statements. However, the frequency of an entity's reporting (i.e. quarterly) shall not affect the measurement of its annual results. To achieve that objective, measurements for interim reporting purposes shall be made on a year-to-date basis. This acknowledges that an interim period is part of the larger financial year.

Three examples are provided:

- if losses on inventory write-down, restructuring and impairment were taken in a previous quarter and the estimate changes in a subsequent quarter, then this change in estimate is recorded in the subsequent quarter;
- a cost that does not meet the definition of an asset at the end of an interim period is not deferred in the statement of financial position either to await future information as to whether it has met the definition of an asset or to smooth earnings over interim periods within a financial year; and
- income tax expense is recognized in each interim period based on the best estimate of the weighted average annual income tax rate expected for the full financial year.

Revenues that are received seasonally, cyclically, or occasionally OR costs that are incurred unevenly within a financial year shall not be anticipated or deferred as of an interim date if anticipation of deferral would not be appropriate at the end of the entity's financial year. (IAS 34.37 and IAS 34.39)

Note that securities regulation may override (NI 152 in Canada) the required disclosures from IAS 34 and as a result, Canadian companies will likely have to continue to disclose more information than required by IAS 34.

14. Accounting for Income Taxes

A change in terminology: future income taxes are not called deferred income taxes.

Accounting for net operating losses

Recognition of a deferred income tax asset is permitted on net operating losses if it is **probable** that sufficient taxable income will be generated in the future to liquidate the tax asset created by the net operating losses. (IAS 12.34) Recall that net operating losses can be carried back three years and forward twenty years.

IAS 12 states that the existence of unused tax losses is strong evidence that future taxable income may not be available. It provides the following criteria in assessing whether the probability that taxable income will be available against which the unused tax losses or unused tax credits can be utilized before they expire:

- whether the entity has sufficient taxable temporary differences relating to the same taxation authority and the same taxable entity, which will result in taxable amounts against which the unused tax losses or unused tax credits can be utilized before they expire;
- whether it is probable that the entity will have taxable profits before the unused tax losses or unused tax credits expire;
- whether the unused tax losses result from identifiable causes which are unlikely to recur; and
- whether tax planning opportunities are available to the entity that will create taxable profits in the period in which the unused tax losses or unused tax credits can be utilized.

To the extent that it is not probable that taxable profit will be available against which the unused tax losses or unused tax credits can be utilized, the deferred tax asset is not recognized. (IAS 12.36)

For example, assume a company incurs a loss for tax purposes of \$100,000 and the tax rate is 40%. If it is probable that the company will generate enough taxable income in future years to completely use up this loss, then it may set up an asset of \$40,000 (\$100,000 x 40%) on its Statement of Financial Position. Note that this \$100,000 becomes a temporary difference.

Any losses carried back will result in a debit to income taxes receivable and a credit to income tax benefit.

Classification of DIT Balances on the Statement of Financial Position

The classification of DIT balances on the Statement of Financial Position are based on the whether or not the temporary difference result in an asset or a liability. All temporary differences causing a deferred income tax asset are aggregated and classified a long-term asset. Similarly, all temporary differences causing a deferred income tax liability are aggregated and classified as a long-term liability.

IAS 12 allows an entity to offset deferred tax assets against deferred tax liabilities but only in very restrictive and rare circumstances:

Current balances can be offset if, and only if, the entity:

- has a legally enforceable right to set off the recognized amounts; and
- intends either to settle on a net basis, or to realize the asset and settle the liability simultaneously. (IAS 12.71)

Deferred tax balances can be offset if, and only if:

- the entity has a legally enforceable right to set off current tax assets against current tax liabilities; and
- the deferred tax assets and the deferred tax liabilities relate to income taxes levied by the same taxation authority on either:
 - the same taxable entity; or
 - different taxable entities which intend either to settle current tax liabilities and assets on a net basis, or to realize the assets and settle the liabilities simultaneously in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered. (IAS 12.74)

The bottom line is that the circumstances under which an entity can offset deferred (current) income tax assets against deferred (current) income tax liabilities is rare.

15. Accounting Policies, Changes in Accounting Estimates and Errors

Selection and application of accounting policies

When an IFRS specifically applies to a transaction, other event or condition, the accounting policy or policies applied to that item shall be determined by applying the IFRS. (IAS 8.7)

Otherwise, management is expected to use judgment in developing and applying an accounting policy that results in information that is:

- (a) relevant to the economic decision-making needs of users, and
- (b) reliable. (IAS 8.10)

In making this judgment, management must refer to the following sources in descending order:

- the requirement in IFRS's dealing with similar and related issues, and
- the definitions, recognition criteria and measurement concepts for assets, liabilities, income and expenses in the *Framework*. (IAS 8.11)

In addition, management may also consider the most recent pronouncements of other standard-setting bodies that use a similar conceptual framework to develop accounting standards, other accounting literature and accepted industry practices, to the extent that these do not conflict with the two sources listed in paragraph 11. (IAS 8.12)

Change in an accounting policy

Accounting policies are defined as the specific principles, bases, conventions, rules and practices applied by an entity in preparing and presenting financial statements (IAS 8.5). There is a general presumption that the accounting policies followed by an enterprise are consistent within each accounting period and from one period to the next (IAS 8.13). A change in an accounting policy may be made only if the change: (a) is required by an IFRS, or (b) results in the financial statements providing reliable and more relevant information about the effects of transactions, other events or conditions on the entity's financial position, financial performance and cash flows. (IAS 8.14)

An example of a change in accounting policy is changing the basis of depreciating fixed assets from the straight-line basis to diminishing balance. The accounting treatment for a change in accounting policy is retrospective treatment; that is, all comparative financial figures are restated as if the newly adopted accounting policy had been adopted originally.

When a change in an accounting policy is applied retrospectively, the financial statements of all prior periods presented for comparative purposes should be restated to give effect to the new accounting policy, except in those circumstances when the effect of the new accounting policy is not reasonably determinable for individual prior periods. In such circumstances, an adjustment should be made to the opening balance of retained

earnings of the current period, or such earlier period as is appropriate, to reflect the cumulative effect of the change on prior periods. (IAS 8.22 to 8.25)

Change in an accounting estimate

Many items in financial statements cannot be measured with precision but can only be estimated. Estimation involves judgments based on the most recent available reliable information. Examples of accounting estimates are:

- residual value of a fixed asset,
- estimated useful life of a fixed asset,
- allowance for doubtful accounts,
- percentage of completion of long-term projects, and
- warranty obligations.

Whenever a change is made to an accounting estimate, the accounting treatment is prospective; that is, no restatement of previous balances are made. (IAS 8.36)

Correction of an error in prior period financial statements

Sometimes it is necessary to correct a material error made in financial statements that have already been issued. Such an error can be the result of a error in computation, misinterpretation of information, an oversight, or from a misappropriation of assets. The accounting treatment for errors is retrospective. That is, the error is corrected in the year in which it took place. Comparative financial statements are restated with the correction made. (IAS 8.42)

16. Foreign Currency Translation

When a Canadian company conducts business in a foreign country through a subsidiary, the results of those foreign operations must be consolidated with the financial statements of the Canadian company. The first step in this process is the translation of the foreign subsidiary's financial statements into Canadian dollars (or into whatever the presentation currency used by the Canadian parent company, i.e. many Canadian companies present their consolidated financial statements in US dollars).

The methodology used to translate the financial statements of the foreign operation depends on the functional currency of the foreign operation. The functional currency is defined as the currency of the primary economic environment in which the entity operates (IAS 21.8).

The following two primary factors are used to determine a foreign operation's functional currency:

- the currency:
 - (i) that mainly influences the sales price for goods and services (this will often be the currency in which sales prices for its goods and services are denominated and settled, and
 - (ii) of the country whose competitive forces and regulations mainly determine the sales price of its goods and services.
- the currency that mainly influences labour, material and other costs of providing goods or services (this will often be the currency in which such costs are denominated and settled). (IAS 21.9)

The following two secondary factors can also provide evidence of a foreign operation's functional currency:

- the currency in which funds from financing activities (i.e. issuing debt and equity instruments) are generated.
- the currency in which receipts from operating activities are usually retained. (IAS 21.10)

The following additional factors are considered in determining the functional currency of a foreign operation, and whether its functional currency is the same as that of the reporting entity:

- whether the activities of the foreign operation are carried out as an extension of the reporting entity, rather than being carried out with a significant degree of autonomy. An example of the former is when the foreign operation only sells goods imported from the reporting entity and remits the proceeds to it. An example of the latter is when the operation accumulates cash and other monetary items, incurs expenses, generates income and arranges borrowings, all substantially in its local currency.
- whether transactions with the reporting entity are a high or a low proportion of the foreign operation's activities.

- whether cash flows from the activities of the foreign operation directly affect the cash flows of the reporting entity and are readily available for remittance to it.
- whether cash flows from the activities of the foreign operation are sufficient to service existing and normally expected debt obligations without funds being made available by the reporting entity. (IAS 21.11)

When the above indicators are mixed and the functional currency is not obvious, management uses its judgment to determine the functional currency that most faithfully represents the economic effects of the underlying transactions, events and conditions. As part of this approach, management gives priority to the primary indicators in paragraph 9 before considering the indicators in paragraphs 10 and 11, which are designed to provide additional supporting evidence to determine an entity's functional currency. (IAS 21.12)

An entity's functional currency reflects the underlying transactions, events and conditions that are relevant to it. Accordingly, once determined, the functional currency is not changed unless there is a change in those underlying transactions, events and conditions. (IAS 21.13)

If the functional currency of the foreign operation is the local currency in the country the foreign operation is located, then the method of accounting used is the current rate method.

If the functional currency of the foreign operation is the currency of the reporting entity (the parent company), then the method of accounting used is the temporal method⁸.

If the functional currency of the foreign operation changes, the change in accounting treatment will be applied prospectively. (IAS 21.35)

⁸ Under previous Canadian GAAP, if the functional currency of the foreign operation was the currency of the country the foreign operation was located, we would say that the foreign operation was self-sustaining. If the functional currency was the currency of the reporting entity, we would say the foreign operation was integrated.

The differences in accounting treatment between the current rate and temporal methods is summarized as follows:

Functional Currency	Reporting Entity	Local Currency
Method of accounting	Temporal	Current Rate
Income Statement -		
Revenue and expenses	Historical rate; rate on date transaction occurs	Current Rate; annual average rate used as surrogate.
Depreciation	Historical rate	Annual average rate
Statement of Financial Position -		
Monetary items	Current rate	Current rate
Non-monetary items	Historical rate	Current rate
Shareholders' equity		
Share capital	Historical rate	Historical rate
Retained earnings	Accumulation of translated net income. Dividends translated at rate on day dividend is declared.	

Beyond this, the mechanics of translation remain the same as they were under Canadian GAAP.

Comprehensive Example

On January 2, 20x4, Chisnall Corp. purchased 100% of the outstanding shares of Flanagan Ltd. Flanagan operates in the country of Lalaland whose currency is the Lala (Ll). The financial statements of Flanagan as at December 31, 20x6 are as follows:

Flanagan Ltd.
Income Statement
for the year ended December 31, 20x6

Sales	10,000,000
Cost of goods sold	(7,000,000)
Depreciation	(410,000)
Interest	(110,000)
Gain on sale of fixed assets	30,000
Other operating expenses	(1,300,000)
Income tax expense	(352,000)
Net Income	<u>858,000</u>

Flanagan Ltd.
Statement of Financial Position
as at December 31, 20x6

	20x6	20x5
Cash	75,000	50,000
Accounts receivable	310,000	170,000
Inventory	350,000	250,000
Land	300,000	100,000
Fixed assets	3,990,000	3,600,000
Less Accumulated Depreciation	(1,235,000)	(900,000)
	<u>3,790,000</u>	<u>3,270,000</u>
Current liabilities	182,000	120,000
Long-term debt	1,100,000	1,400,000
Common stock	1,200,000	1,200,000
Retained earnings	1,308,000	550,000
	<u>3,790,000</u>	<u>3,270,000</u>

Other Information -

- On December 31, 20x6, an asset with an original cost of \$110,000 was sold for \$65,000. This asset had been purchased prior to January 2, 20x4.
- All fixed assets in place on January 1, 20x6 were purchased in 20x2 at an average rate of 1Ll = \$0.60C.

3. Asset purchases in 20x6 occurred on April 1, 20x6. All assets are depreciated on the straight line basis over 10 years. It is company policy to take a full year of depreciation expense in the year of acquisition.
4. Land was purchased on July 2, 20x6. All land on January 1, 20x6 was purchased in 20x2 when the exchange rate was 1Ll = \$0.55C.
5. Dividends were declared and paid on August 30, 20x6.
6. The December 31, 20x5 inventory was purchased on November 15, 20x5 and the December 31, 20x6 inventory was purchased on November 25, 20x6.
7. No dividends were declared or paid in 20x4 and 20x5. The net loss for the year ended 20x4 was \$150,000 and the net income for 20x5 was \$260,000.
8. Relevant rates are as follows:

Jan 2, 20x4	1Ll =	\$0.75C
Average 20x4		\$0.77C
Nov 15, 20x5	1Ll =	\$0.83C
Dec 31, 20x5	1Ll =	\$0.82C
Average 20x5		\$0.80C
Apr 1, 20x6	1Ll =	\$0.82C
Jul 2, 20x6	1Ll =	\$0.85C
Aug 30, 20x6	1Ll =	\$0.86C
Nov 25, 20x6	1Ll =	\$0.88C
Dec 31, 20x6	1Ll =	\$0.86C
20x6 Average	1Ll =	\$0.84C

Required -

- a. Assume that Flanagan's functional currency is the Canadian dollar, prepare a translated income statement and Statement of Financial Position for the year 20x6.
- b. Repeat (a) assuming that Flanagan's functional currency is the Lala.

Solution**Part (a)**

Note: in order to solve this problem, we first need to analyze the fixed asset and accumulated depreciation accounts:

Fixed Assets - Beginning	\$3,600,000
+ Additions (unknown)	500,000
- Disposals	<u>(110,000)</u>
Fixed Assets - Ending	<u>\$3,990,000</u>

Accumulated Depreciation - Beginning	\$900,000
+ Depreciation Expense - Old Assets: \$3,600,000 / 10	360,000
+ Depreciation Expense - New Assets: \$500,000 / 10	50,000
- Accumulated Depreciation on disposals	<u>(75,000)</u>
Fixed Assets - Ending	<u>\$1,235,000</u>

Gain on sale =	
Proceeds	\$65,000
Less NBV of asset sold (110,000 - 75,000)	<u>35,000</u>
Gain	<u>30,000</u>

Loss on Net Monetary Liabilities -

	<i>Lf</i>	<i>Rate</i>	<i>\$C</i>
Net monetary liabilities – beginning (50,000 + 170,000 – 120,000 - 1,400,000)	(1,300,000)	0.82	\$(1,066,000)
Sales	10,000,000	0.84	8,400,000
Purchases	(7,100,000)	0.84	(5,964,000)
Interest	(110,000)	0.84	(92,400)
Other operating expenses	(1,300,000)	0.84	(1,092,000)
Income tax expense	(352,000)	0.84	(295,680)
Purchase of land	(200,000)	0.85	(170,000)
Purchase of fixed assets	(500,000)	0.82	(410,000)
Proceeds on sale of fixed assets	65,000	0.86	55,900
Dividends	<u>(100,000)</u>	0.86	<u>(86,000)</u>
Net monetary liabilities – beginning (75,000 + 310,000 – 182,000 - 1,100,000)	(897,000)		(720,180)
Translated	(897,000)	0.86	<u>(771,420)</u>
FX Loss			<u>51,240</u>

Translated Statement of Financial Position as at December 31, 20x5

	<i>LI</i>	<i>Rate</i>	<i>\$C</i>
Net monetary liabilities	(1,300,000)	0.82	\$(1,066,000)
Inventory	250,000	0.83	207,500
Land	100,000	0.75	75,000
Fixed Assets	3,600,000	0.75	2,700,000
Accumulated Depreciation	(900,000)	0.75	(675,000)
Common Stock	(1,200,000)	0.75	(900,000)
Retained Earnings	(550,000)	PLUG	(341,500)

Translated Statement of Income and Retained Earnings for the year ended Dec 31, 20x6

	<i>LI</i>	<i>Rate</i>	<i>\$C</i>
Sales	10,000,000	0.84	8,400,000
Cost of goods sold	(7,000,000)	*	(5,863,500)
Depreciation - Old Assets	(360,000)	0.75	(270,000)
- New Assets	(50,000)	0.82	(41,000)
Interest	(110,000)	0.84	(92,400)
Other operating expenses	(1,300,000)	0.84	(1,092,000)
Income tax expense	(352,000)	0.84	(295,680)
Gain on sale of fixed assets	30,000	**	29,650
FX Loss			(51,240)
Net Income	858,000		723,830
Retained Earnings, beginning	550,000		341,500
Dividends	(100,000)	0.86	(86,000)
Retained Earnings, ending	1,308,000		979,330
*Cost of Goods sold			
Inventory, beginning	250,000	0.83	207,500
Purchases	7,100,000	0.84	5,964,000
Inventory, ending	(350,000)	0.88	(308,000)
	7,000,000		5,863,500
** Gain on sale of fixed assets			
Proceeds	65,000	0.86	55,900
NBV of assets	35,000	0.75	26,250
	30,000		29,650

Translated Statement of Financial Position as at December 31, 20x6

	<i>LI</i>	<i>Rate</i>	<i>\$C</i>
Net monetary liabilities	(897,000)	0.86	\$(771,420)
Inventory	350,000	0.88	308,000
Land - Old	100,000	0.75	75,000
- New	200,000	0.85	170,000
Fixed Assets - Old	3,490,000	0.75	2,617,500
- New	500,000	0.82	410,000
Accumulated Depreciation - Old	(1,185,000)	0.75	(888,750)
- New	(50,000)	0.82	(41,000)
Common Stock	(1,200,000)	0.75	(900,000)
Retained Earnings	(1,308,000)		(979,330)

Part (b)*Translated Retained Earnings as at January 1, 20x6*

	<i>LI</i>	<i>Rate</i>	<i>\$C</i>
Retained Earnings, January 1, 20x4	440,000	0.75	\$330,000
20x4 Loss	(150,000)	0.77	(115,500)
20x5 Net income	260,000	0.80	208,000
	<u>550,000</u>		<u>422,500</u>

Translated Statement of Income and Retained Earnings for the year ended Dec 31, 20x6

	<i>LI</i>	<i>Rate</i>	<i>\$C</i>
Net income	858,000	0.84	720,720
Retained earnings, beginning	550,000	-	422,500
Dividends	(100,000)	0.86	(86,000)
	<u>1,308,000</u>		<u>1,057,220</u>

Translated Statement of Financial Position as at December 31, 20x6

	<i>LI</i>	<i>Rate</i>	<i>\$C</i>
Net assets	2,508,000	0.86	2,156,880
Common Stock	(1,200,000)	0.75	(900,000)
Retained Earnings	(1,308,000)		(1,057,220)
Cumulative translation adjustment			(199,660)

Cumulative Translation Adjustment as at December 31, 20x6

	<i>LI</i>	<i>Rate</i>	<i>\$C</i>
Net assets - Jan 1, 20x4	1,640,000	0.75	1,230,000
20x4 Loss	(150,000)	0.77	(115,500)
20x5 Net income	260,000	0.80	208,000
20x6 Net income	858,000	0.84	720,720
20x6 Dividends	(100,000)	0.86	(86,000)
	<u>2,508,000</u>		<u>1,957,220</u>
Translated	2,508,000	0.86	<u>2,156,880</u>
			<u>199,660</u>

17. Financial Instruments

Available for sale, fair value through profit and loss and held to maturity investments were discussed in section 11. This section deals with compound financial instruments, accounting for derivatives and hedge accounting.

Compound Instruments

The definition of what constitutes a financial liability and an equity instruments are critical to how this split is made.

A *financial liability* is defined as a contractual obligation to deliver cash or another financial asset to another party in the future. An *equity instrument* shows evidence of a residual interest in the assets of the corporation once all liabilities have been settled.

The separation of a compound financial instrument into its liability and equity components is done using the incremental approach as follows:

1. measure the fair value of the liability component,
2. measure the value of the equity component by deducting the fair value of the liability component from the fair value of the instrument as a whole. (IAS 32.31)

Accounting for Derivatives

A derivative is a financial instrument that derives its value from some other security or index. For example, a contract allowing you to purchase a particular asset within a designated amount of time, at a predetermined price is a financial instrument that derives its value from changes in the price of the underlying asset. For example, a call option to purchase the shares of a corporation at a prespecified price over a given period is a derivative whose value is derived from the value of the shares of the corporation on which you purchased an option contract on. Financial futures, forward contracts, options, and interest rate swaps are some of the most commonly used derivatives.

All derivatives are accounted for as fair value through profit and loss investments. They are initially recorded at the amount of cash paid to enter into the contract. Any changes in the value in the derivative over the life of the derivative are recorded as gains or losses in the statement of income.

Example: on January 2, 20x5 you purchase 10,000 call options on the shares of the XYZ Corporation. The exercise price of the options is \$25 (equal to the market price of the shares on January 2, 20x5). The exercise price is \$40 (meaning you can purchase shares of the XYZ corporation for \$40) and the contract expires on June 30, 20x5. The cost of purchasing the call option is \$3,500 and is recorded as follows:

Call Options - XYZ Corporation	\$3,500	
Cash		\$3,500

Assume the company's year end falls on March 31, 20x5. At that time the market value of the call options is \$18,000. The increase in market value would be recorded as follows:

Call Options - XYZ Corporation	14,500	
Unrealized holding gain - Income		14,500

Hedge Accounting

Hedging means taking an action that is expected to produce exposure to a particular type of risk that is precisely the opposite of an actual risk to which a company already is exposed. For example, a company purchases 1,000 shares of the ABC Corporation for \$100,000 as a short term investment classified as a fair value through profit and loss investment. The plan is to hold this investment for 6 months and then liquidate it and use the cash for a planned capital investment. The downside risk is that the value of the shares of the ABC Corporation will decrease by the time they are sold. To offset this risk, we purchase a put option contract to sell 1,000 shares of ABC Corporation within the next 6 months at an exercise price of \$100 per share. If the price of the shares decreases, we will exercise the put option and not lose any of our investment. If the price of the shares increase, the put options will expire and all we lose is the cost of entering into the contract.

Note that a company could enter into this type of transaction and opt to not apply hedge accounting. In this case, they would simply account for the investment in the shares of ABC Company as a fair value through profit and loss investment. They would account for the investment in put options as a derivative, i.e. as a fair value through profit and loss investment as discussed in the previous section.

However, the company can elect to apply hedge accounting. If they do so, they must meet the following criteria (IAS 39.88)

- at the inception of the hedge there is a formal designation and documentation of hedging relationship and the entity's risk management objectives and strategy for undertaking the hedge, and
- the hedge is expected to be highly effective in achieving offsetting changes in the fair value or cash flow attributable to the hedge risk, consistently with the originally documented risk management strategy for that particular hedging relationship, and
- for cash flow hedges, a forecast transaction that is the subject of the hedge must be highly probable and must present an exposure to variations in cash flows that could ultimately affect profit or loss, and
- the effectiveness of the hedge can be reliably measured, i.e. the fair value or cash flows of the hedged item that are attributable to the hedged risk and in the fair value of hedging instrument can be reliably measured, and

- the hedge is assessed on an ongoing basis and determined actually to have been highly effective throughout the financial reporting period for which the hedge was designated.

There are generally two types of hedges: fair value hedges and cash flow hedges. Each will be explored at a very basic level.

Fair Value Hedges

A fair value hedge is when a derivative instrument is used to hedge the exposure of a financial asset or liability. Hedging a foreign currency exposure using a forward contract is an example of a fair value hedge.

As an example of a fair value hedge, assume that you purchase 500 shares of another corporation at a cost of \$10,000. This investment is classified as an available-for-sale investment. You are taking a risk that the market value of the shares will fluctuate in the future and decide to purchase a put-option contract to sell 500 shares of the other corporation's stock at a cost of \$200. A put option gives you the option to sell the shares at a fixed price (the exercise price) which is usually equal to the market price of the stock on the day it is acquired. In this example, this means that by purchasing the put option contract we have the option of selling our stock at a price of \$20 per share.

The journal entries to record the purchase of the shares and the purchase of the put option contract is as follows:

Available for sale investments	\$10,000	
Cash		\$10,000
Put Option Contract	200	
Cash		200

At year end, assume that the shares are trading at \$17. This means that the value of the put option contract would increase in value by 500 shares x \$3 – the decrease in the market price relative to the exercise price. Normally, an unrealized loss on available for sale securities flow through Other Comprehensive Income. However, when the investment is hedged, an exception is made and the unrealized loss and gain will flow through the income statement. This is the advantage of the hedge - without hedge accounting, the changes in fair value of the investment would flow to OCI and the adjustments to market value of the derivative would flow to income, thereby causing an accounting mismatch. The journal entries to record the change in market value of the available for sale investments and the put option contract are as follows:

Unrealized loss – 500 shares x (\$20 – 17)	1,500	
Available for sale investments		1,500
Put Option Contract	1,500	
Unrealized gain		1,500

Note that the unrealized loss on the available for sale securities is perfectly offset by the unrealized gain on the put option contract.

Cash Flow Hedges

A cash flow hedge is when we are hedging a future cash flow stream. For example, you issue bonds that pay a variable interest rate. The risk you are taking is that future interest rates will increase, thereby causing your cash interest payments to increase. You enter into an interest rate swap whereby you pay a fixed amount of interest to another party in exchange to receiving a variable interest revenue. You then use this revenue to pay the interest on your bonds.

Example - On December 31, 20x7, you issue 10 year bonds with a face value of \$10,000,000 paying prime + 2%. The prime rate at December 31, 20x7 is 6%. In order to hedge any future interest rate fluctuations, you enter into a 10 year interest rate swap agreement with a third party whereby you agree to pay a fixed amount of interest of 8% on a notional value of \$10,000,000. In exchange, you will receive a variable rate of interest equal to prime + 2%. Assume interest is paid annually.

The journal entry to record the bonds payable on December 31, 20x7 is as follows. Note that no entry is required to record the swap agreement since no cash changed hands on the date of the agreement.

Cash	\$10,000,000	
Bonds payable		\$10,000,000

Assume that, on December 31, 20x8, the prime rate is 7.5%. This means that you will receive a cash settlement from the other party of the swap agreement of \$10,000,000 x 1.5% = \$150,000. The journal entry to record the interest expense and the cash receipt on the swap agreement is:

Interest expense (\$10,000,000 x 9.5%)	\$950,000	
Cash		\$950,000

Cash	150,000	
Interest expense		150,000

Note that your interest expense is equal to the original prime rate of 6% plus 2% = 8%, or a net of \$10,000,000 x 8% = \$800,000.

When the prime rate moves, the value of the interest rate swap agreement will also change. Since interest rates went up, the value of the swap agreement will also increase. If we assume that the value of the contract has increased by \$75,000, then we would record the increase as follows:

Interest rate swap agreement	\$75,000	
OCI		\$75,000

Any subsequent changes in the fair value of the swap agreement would flow through OCI.

Assume that in 20x9, the prime rate dropped to 4%. The cash paid to the swap partner will be: $\$10,000,000 \times (8\% - 6\%) = \$200,000$.

Interest expense ($\$10,000,000 \times 6\%$)	\$600,000	
Cash		\$600,000

Interest expense	200,000	
Cash		200,000

Note that your interest expense is equal to \$800,000, the same amount as in 20x8.

Assume that the market value of the interest swap agreement drops by \$100,000, the decrease would be recorded as follows:

OCI	\$100,000	
Interest rate swap agreement		\$100,000

© The Society of Management Accountants of Ontario
25 York Street, Suite 1100, Toronto, Ontario M5J 2V5
Tel 416-204-3102 Fax 416-977-2128 Toll Free 1-866-999-3102
info@cma-ontario.org www.cma-ontario.org



**Certified
Management
Accountants**