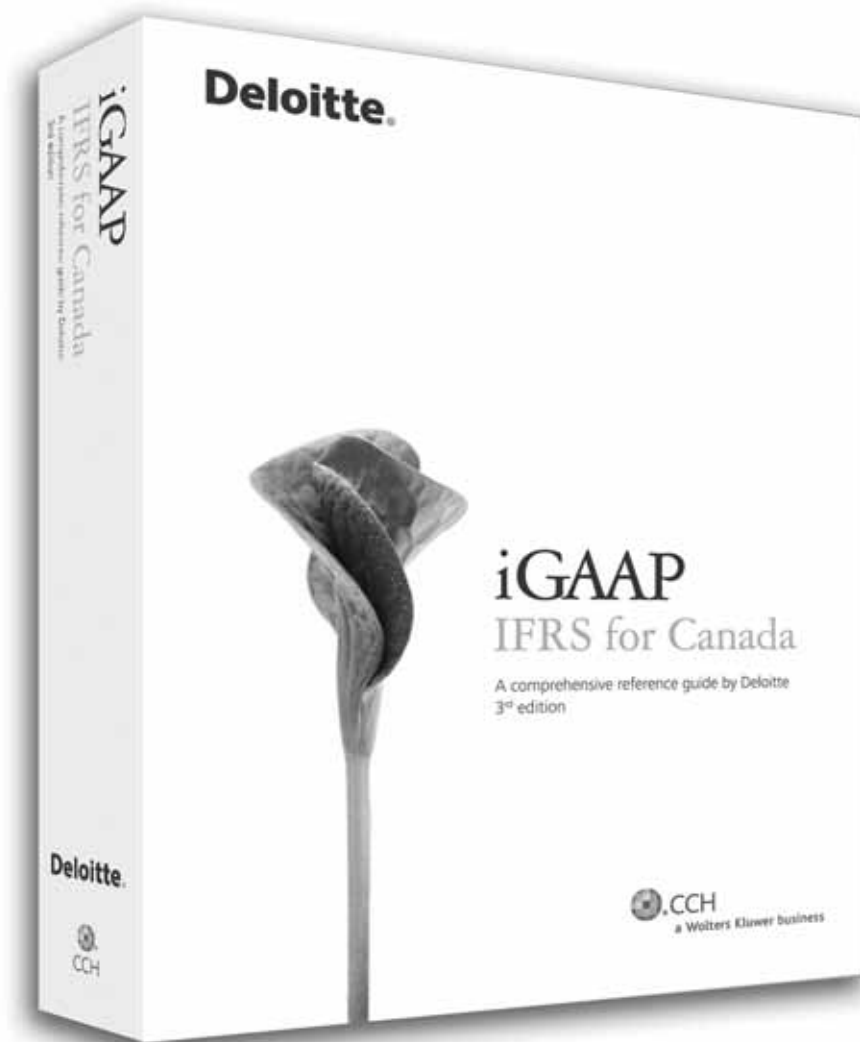


Sample Chapter

iGAAP: IFRS for Canada

A comprehensive reference guide by Deloitte, 3rd edition
Chapter 8: Property, Plant and Equipment



iGAAP: IFRS for Canada

A comprehensive reference guide by Deloitte
3rd edition



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8 Property, Plant and Equipment

8:1 Introduction

IAS 16 *Property, Plant and Equipment* specifies the required accounting treatment for property, plant and equipment, and addresses issues such as recognizing assets, determining their carrying amounts, and the depreciation charges and impairment losses recognized in relation to them. The Standard was last revised in December 2003 as part of the IASB's Improvements Project, and it was most recently amended by *Improvements to IFRSs*, issued in May 2008 to clarify the definition of the recoverable amount under impairment and to stipulate the treatment of assets held for lease that are subsequently put up for sale.

This chapter discusses the requirements of IAS 16 in the following sections:

Section 8:2 Scope

Section 8:3 Recognition

Section 8:4 Measurement at Recognition

Section 8:5 Alternatives for Measurement after Recognition

Section 8:6 Revaluation Model

Section 8:7 Depreciation

Section 8:8 Impairment

Section 8:9 Derecognition

Section 8:10 Presentation and Disclosure

Section 8:11 Future Developments

At the end of the chapter, in **section 8:12**, we have included brief notes on additional possible implications for Canadian preparers.

Certain matters related to accounting for property, plant and equipment and their impairment occur frequently in rate regulated entities and extractive operations; these are specifically considered in **Chapters 46** through **48**.

8:1.1 Comments for first-time Canadian readers

There are some significant conceptual and practical differences between IFRS and Canadian GAAP in this area. Some of these differences, such as measuring depreciation based on significant parts of items of property, plant and equipment — may make it more complex. This and other differences – such as stipulated methodologies under IFRS for accounting for replacement parts, major maintenance activities and asset retirement obligations – can potentially change the pattern in which costs flow through an entity's income stream. Depreciation methods are significantly different from certain forms of group depreciation methods used by many Canadian entities. Whether these changes will in fact have a material effect will depend on a company's specific facts and circumstances.

Overall, it is clearly evident how IAS 16 reflects a principles-driven approach to property, plant and equipment. IFRS allows, for instance, that property, plant and equipment may be measured at a revalued "fair value". This is a significant difference from Canadian GAAP, which effectively prohibits such valuations on a normal course basis.

If the "revaluation model" is used, assets revalued, even if regularly so, are still depreciated: depreciation is measured using the revalued amounts. Gains and losses on disposition are computed using the revalued amount to measure the gain or loss. Any upward revaluation of assets in use is recognized in other comprehensive income and accumulated in a "surplus account". However, that amount is never recognized in "operating income"; it is, in effect, an adjustment of the entity's equity. At the time the asset is depreciated or upon derecognizing the asset when it is sold or completely consumed, any amount in OCI is transferred directly to retained earnings.

Similarly, IAS 16 sets out a similar principles-based approach to the historical cost model. The following is a high-level summary of the basic depreciation model under IAS 16:



- Costs are capitalized if they are associated with an item that will provide future benefits to the entity and can be measured reliably (see **section 8:3.1**); capitalization of costs ceases (in broad terms) when assets are ready for their intended use (see **section 8:4.2.9**).
- At that point, depreciation commences (see **section 8:7.3.1**). It continues until the earlier of the date that the asset is reclassified as held for sale, or the date that the asset is derecognized. If an asset is never held for sale, it will be derecognized when no future benefits are expected from its use or disposal (see **sections 8:7.3.2** and **8:9**) i.e., when it has zero value.
- The depreciable amount of a depreciable asset, or part thereof, is its cost (or other substituted amount e.g., revalued amount) less its residual value (see **section 8:7**). The residual amount is the estimated amount that would be *currently* obtained from disposal of the asset, after deducting estimated disposal costs, if the asset were already of the age and in the condition the entity expects it to be at the end of its useful life (see **section 8:7.2**). Thus, this residual amount may well vary over the asset's useful life as price levels, market conditions, and the asset's condition change.
- The useful life of the asset is determined by each entity. It is an estimate, but may be affected by the entity's policies on ceasing to use assets, which may be well before the "economic life" of an asset is over. For example, many entities as a matter of policy sell automobiles well before the end of their economic life. Clearly, there is an interaction between an asset's useful life (which may be a function of entity policy) and the expectation of residual value at the end of that useful life, both of which factor into depreciation expense.
- The depreciation method used to allocate the depreciable amount over its useful life is that which most closely reflects the expected pattern of consumption of the benefits of the asset. It also may vary over an asset's useful life.
- Depreciation is to be calculated for significant parts of property, plant and equipment items (called "components") that have different useful lives and depreciation patterns from other parts and components. Identifying these parts is a matter involving significant judgment.

In short, developing depreciation expense under IAS 16 is in principle a series of related estimates determined by reference to a consistent model. Under this model, the various estimates of useful life, residual value, and depreciation pattern will be re-evaluated at least annually. Therefore, the depreciation amount may vary as those estimates vary. Changing the method of depreciation to better reflect the pattern of consumption of the asset's economic benefits is itself a change in estimate and consequently prospectively applied.

Another significant difference in principle is the treatment of asset retirement obligations, the liability side of which is addressed as a provision in IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*. IAS 16 requires capitalizing remediation and closure obligations arising from constructing an item of property, plant and equipment, and from operating that asset (to the extent that it is not operated to produce inventory). However, asset remediation obligations arising from production are considered production expenses, and are not capitalized into the asset (this would be inconsistent with the cost principle). They are instead treated as periodic production costs that, if appropriate, are charged to the production of inventory in accordance with IAS 2 *Inventories*.

Another example of a principles-based difference: under IAS 16, replacements are capitalized if they meet the test of a capitalized cost. There is no requirement to distinguish between an expenditure that maintains an asset's productivity and an expenditure that improves or lengthens its productive life, as there is in Canadian GAAP. Under IFRS, both would be capitalized at cost. At the same time, replacing a part also gives rise to the derecognition of the replaced part. Any loss on the replacement part, measured as the difference between its amortized carrying value and process of disposition, is consistently measured on the same basis as derecognizing an entire asset. There are no smoothing mechanisms that take into account group life characteristics, as there may be if group depreciation methods are used under Canadian GAAP. IAS 16 even designates methods to estimate the cost of replaced parts if they are not otherwise available, so that a cost for the replaced part is "derecognized" for all replacement activities, large or small.

The summary principles identified above are not the entire contents of IAS 16, but provide a flavour of how it is drafted. It is not a series of unconnected principles bundled into a Standard. It is instead a consistent view of several related topics. Readers should consider the fundamental principles behind the specific provisions whenever judgment needs to be applied in implementing the section.

8:1.2 Summary of major differences between IFRS and Canadian GAAP

Following are some of the most commonly noted points of difference between Canadian GAAP, as contained primarily in CICA 3061 *Property, Plant and Equipment*, and IFRSs. This does not necessarily set out all the detailed discrepancies that might apply in a specific fact situation, and it does not substitute for a close reading of either IFRS or Canadian GAAP.

Component Accounting

IAS 16 requires that each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item is depreciated separately. CICA 3061 requires that the cost of an item of property, plant and equipment made up of significant separable component parts is allocated to the component parts when practicable; the concept of practicability is not specifically mentioned in IAS 16. While the requirements are similar as written, implementing this element of IFRS will likely require more detailed accounting records than many Canadian entities may have maintained under Canadian GAAP (see **section 8:7.1** below).

Measurement after recognition

For measurement after recognition, IAS 16 provides a choice between a cost model and a revaluation model. The revaluation model does not exist under Canadian GAAP (see **section 8:6** below).

- An entity chooses one of the two models as its accounting policy. Under the revaluation model, an item of property, plant and equipment whose fair value can be measured reliably is carried at a revalued amount, being its fair value at the date of the revaluation less any subsequent accumulated depreciation and subsequent accumulated impairment losses. Revaluations must be made with sufficient regularity to ensure that the carrying amount does not differ materially from the amount which would be determined using fair value at the reporting date.
- If an item of property, plant or equipment is revalued, the entire class to which that asset belongs is revalued. A class of property, plant and equipment is a grouping of assets of a similar nature and use in an entity's operations.
- Increases in an asset's carrying amount as a result of revaluation are recognized in other comprehensive income and accumulated in equity under the heading of revaluation surplus. Decreases are recognized in the income statement as impairment losses. Any subsequent increase is recognized in the income statement to the extent that it reverses a previously recognized impairment of the same asset, and a decrease is recognized in other comprehensive income to the extent that a credit balance exists within revaluation surplus in respect of that asset.

Recognition

IAS 16 contains more detail than Canadian GAAP for an item of property, plant and equipment that is recognized as an asset and how its cost is determined – see **sections 8:3** and **8:4** below.

Start-up costs

Under IAS 16, only certain types of pre-operating costs may apply. These do not include training costs or losses incurred once operations have commenced. Although such costs may have previously been capitalized under EIC-27, *Revenues and Expenditures during the Pre-operating Period*, EIC-27 is no longer applicable once a company adopts CICA 3064 *Goodwill and Intangible Assets*, effective for fiscal years beginning on or after October 1, 2008 (see **section 8:4.2.1** below).

Cost of a self-constructed asset

CICA 3061 states that when a building is removed for the purpose of redeveloping rental real estate, the building's net carrying value is included in the cost of the redeveloped property, as long as the net amount considered recoverable from the redevelopment project exceeds its cost. This treatment is not allowed under IAS 16 – the pre-existing building is written off (see **section 8:4.2.2** below).

Incidental operations during construction or development

CICA 3061 states that net revenue or expense derived from an item of property, plant and equipment prior to substantial completion and readiness for use is included in the cost. IAS 16 states that the income and related expenses of "incidental operations" not necessary to bring an item to the location and condition necessary for it to be capable of operating in the manner intended by management, are recognized in profit or loss and included in their respective classifications of income and expense. However, the net proceeds from selling any items produced while bringing the



asset to its location and condition (such as samples produced when testing equipment) are deducted from the cost of preparing and testing the asset.

Ceasing capitalization

Canadian GAAP allows more flexibility than IAS 16 in determining when recognition of the initial costs of an item of property, plant and equipment ceases (see **section 8:4.2.9** below).

Borrowing cost

As discussed in **Chapter 9**, IAS 23 *Borrowing Costs* has been amended to require that borrowing costs be capitalized in certain circumstances. This is permitted but not required under Canadian GAAP in certain situations.

Depreciation

Under IAS 16, depreciation/amortization is based on allocating the cost of an asset, less its residual value, over its useful life. Canadian GAAP requires that annual depreciation/amortization be based on the greater of that amount and an allocation of cost less salvage value over the asset's entire life (see **section 8:7** below).

In addition, IAS 16 defines more specifically the calculation of residual value, as the estimated amount that an entity would currently obtain from disposal of the asset, after deducting estimated disposal costs, if the asset were already of the age and in the condition expected at the end of its useful life. In other words, the calculation is based on current prices. Also, the amount is reviewed at least at each financial year-end, again at then-current prices, with any change in the calculation being treated as a change in accounting estimate. CICA 3061 states that residual value is the estimated net realizable value of an item of property, plant and equipment at the end of its useful life, but it is not explicit about whether this concept reflects current or future prices (see **section 8:7.2** below).

IAS 16 specifies that depreciation does not cease when an asset becomes idle; Canadian GAAP is silent on this point (see **section 8:7.3.2** below).

Increasing charge depreciation method

CICA 3061 states that an increasing charge method may be used when an enterprise can price its goods or services so as to obtain a constant rate of return on the investment in the asset. The increasing charge method is not considered appropriate under IAS 16.

Asset retirement obligations

IFRS approaches asset retirement obligations as an application of its broad guidance for recognizing and measuring provisions, whereas in Canada the accounting is set out in CICA 3110 *Asset Retirement Obligations*. CICA 3110 contains more specific discussion than IFRS on recognizing and measuring such obligations. It requires that they be recognized only when they arise from legal obligations, whereas under IFRS they are also recognized when there is a constructive obligation. See further discussion in **Chapter 16**.

Overhauls

The IAS 16 requirements for overhauls differ from practice under Canadian GAAP (see **section 8:3.5.3** below).

Disclosure requirements

The disclosure requirements of IAS 16 are much more extensive than those of CICA 3061, including a full reconciliation of the carrying amount of each class of property, plant and equipment at the beginning and end of the period, and additional detailed disclosures for items stated at revalued amounts (see **section 8:10.2** below).

Various other detailed differences are noted in the course of this chapter.

8:2 Scope

IAS 16 is applicable in accounting for property, plant and equipment, which it defines as tangible items that:

- (a) are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes; and
- (b) are expected to be used during more than one period. [IAS 16(6)]

IAS 16 is applied except when another Standard requires or permits a different accounting treatment [IAS 16(2)]. For example IAS 17 *Leases* prescribes a different approach to the recognition of property, plant and equipment held under leases.

IAS 16 excludes the following from its scope:

- property, plant and equipment classified as held for sale in accordance with IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*;
- biological assets related to agricultural activity (addressed by IAS 41 *Agriculture*); and
- mineral rights and mineral reserves such as oil, natural gas, and similar non-regenerative resources. [IAS 16(3)]

Although biological assets and mineral rights and reserves are excluded from the scope of IAS 16, the Standard does apply to property, plant and equipment used to develop or maintain those assets [IAS 16(3)]. Thus, for example, it applies to agricultural land.

The term “mineral rights” is not defined in IFRSs. In practice, it is often used to refer to both rights to explore or mine, and to underlying mineral reserves. The illustrative examples accompanying IFRS 3 *Business Combinations* list “use rights” such as drilling and mineral rights as an example of a contract-based intangible asset recognized separately from goodwill in a business combination. However, it is not always possible to distinguish the intangible right from the tangible element. In accordance with paragraph 4 of IAS 38 *Intangible Assets*, an entity should assess which element is more significant when an asset incorporates both intangible and tangible elements. For that reason, the entity assesses whether the underlying reserve or the right to mine is more significant. If the tangible resource/reserve is the more significant element, the combined mineral rights are classified as tangible.

Factors to consider in this assessment include:

- whether the rights are granted for extraction of the mineral resource;
- whether the rights include ownership of the land on which the mineral resources are located; and
- whether the rights are granted for exploration only.

In practice, mineral rights are generally classified as elements of property, plant and equipment.

The requirements of IAS 40 *Investment Property* were amended by *Improvements to IFRSs* issued in May 2008, so that property being constructed or developed for future use as investment property is within the scope of IAS 40.

When an entity chooses to apply the cost model to investment properties under IAS 40, the cost model is as specified in IAS 16.

8:2.1 *Classifying hotel properties*

Depending on the circumstances, hotel properties may be classified as property, plant and equipment within the scope of IAS 16, or as investment properties within the scope of IAS 40. The key determinant is whether the owner acts primarily as the hotel/restaurant operator or as a landlord. If the property owner’s primary source of income from the property depends on day-to-day or week-by-week occupancy of hotel rooms and usage of restaurants and other facilities, and the property owner is providing services directly to hotel guests, the hotel is likely to be property held by the entity for use in the production of services, in which case IAS 16 applies. On the other hand, if the owner’s primary source of income from the property comes from longer-term leases (months and years rather than days or weeks), the hotel is likely to be an investment property, in which case IAS 40 applies. That is the case even if the property owner provides a relatively insignificant amount of ancillary services such as cleaning. Management makes the determination based on facts and circumstances. It is not a matter of accounting policy choice.

IAS 40 acknowledges that it may be difficult to determine when ancillary services are so significant that a property does not qualify as an investment property. For example, the owner of the hotel may transfer certain responsibilities to a third party under a management contract. The terms of such management contracts vary widely. At one end of the spectrum, the owner’s position may, in substance, be that of a passive investor. At the other end of the spectrum, the owner simply may have outsourced certain day-to-day functions, while retaining significant exposure to variations in the cash flows generated by the operations of the hotel. In the latter case, classification as an investment property is not appropriate.

A hotel may be classified as an investment property if the direct involvement of the reporting entity in the operation of the property is only for a short term. For example, following the acquisition of a hotel where the reporting entity

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operates it while seeking a suitable third party manager, the operation of the hotel can be seen to be incidental to the underlying objective of investment return.

8:2.2 *Base stock of assets*

It is common for restaurants and similar operations to maintain an unchanging amount or base stock inventory of items such as silverware and dishes. Additions to the stock are immediately expensed essentially using the cost of the replacement item as a proxy for the cost of the replaced item. These items are tangible assets held for use in the supply of goods and services and, assuming they are expected to be used for more than one period, are appropriately classified as property, plant and equipment, and are not included in current assets.

8:2.3 *Property, plant and equipment used in research activities*

Property, plant and equipment used in research activities are accounted for in the same way as other property, plant and equipment under IAS 16. IAS 38(54), which requires all expenditure on research to be recognized as expenses when they are incurred, does not apply to expenditures on property, plant and equipment used in research activities. However, the depreciation of property, plant and equipment used in research activities constitutes a research expense to which IAS 38 applies.

8:3 Recognition

8:3.1 *General recognition criteria*

The recognition criteria for property, plant and equipment are derived from the general principles for asset recognition established by the pre-2010 version of the *Framework for the Preparation and Presentation of Financial Statements* (see **Chapter 4**). An item of property, plant and equipment is to be recognized as an asset if, and only if:

- it is probable that future economic benefits associated with the asset will flow to the entity; and
- the cost of the asset to the entity can be measured reliably. [IAS 16(7)]

8:3.2 *Spare parts and servicing equipment*

Spare parts and servicing supplies are usually carried as inventories and recognized as an expense as they are consumed. Major spare parts and stand-by equipment will, however, qualify for recognition as property, plant and equipment when the entity expects to use them during more than one period. Similarly, if the spare parts and servicing equipment can be used only in connection with a particular item of property, plant and equipment, they are accounted for as property, plant and equipment [IAS 16(8)].

Example 8:3.2

Depreciation of stand-by equipment

An entity has installed two gas turbine electrical generating units outside a plant. One will produce energy for the plant, and the other will be used as a backup in case the first turbine fails, or is otherwise rendered out of service. The probability that the spare turbine will ever be used is very low. The spare turbine is necessary, however, to ensure the continuity of the production process if the first turbine fails. The useful life of the stand-by turbine will equal the life of the plant, which is the same as the useful life of the primary turbine.

IAS 16(8) states that items of stand-by equipment qualify as property, plant and equipment when the entity expects to use them during more than one period; it does not state that such use need be regular. Accordingly, the spare turbine is classified as property, plant and equipment and depreciated from the date it becomes available for use, i.e., when it is in the location and condition necessary for it to be capable of operating in the manner intended by management.

8:3.3 *Items acquired for safety or environmental reasons*

Acquiring property, plant and equipment for safety or environmental reasons, while not directly increasing the future economic benefits of any particular existing item of property, plant and equipment, may be necessary for the entity to obtain the future economic benefits from its other assets. Such expenditures qualify for recognition as assets, in that they enable future economic benefits to be derived from related assets in excess of what could otherwise have been derived. If the conditions of IAS 36 indicate that it is necessary to test the assets for impairment, the carrying amounts of such assets would be included with the related assets for the purposes of measuring impairment in accordance with IAS 36 *Impairment of Assets* [IAS 16(11)]. The Standard gives the following example:

Example 8:3.3

Items acquired for safety or environmental reasons

A chemical manufacturer is required to install certain new chemical handling processes in order to comply with environmental requirements for the production and storage of dangerous chemicals. Related plant enhancements are recognized as an asset because, without them, the entity is unable to manufacture and sell chemicals [IAS 16(11)].

8:3.4 *Recognizing individually insignificant items as assets*

The Standard does not prescribe what constitutes a separate item of property, plant and equipment, and it allows a degree of judgment according to the entity's circumstances. For example, entities frequently have a threshold amount below which an asset would not be recognized as a matter of administrative convenience. IAS 16 does, however, suggest that, for individually insignificant items (such as molds, tools, and dies), it may be appropriate to aggregate the items and to apply the recognition criteria to the aggregate value [IAS 16(9)].

Determining whether an item is significant requires carefully assessing the facts and circumstances. This includes, at a minimum:

- comparing the cost allocated to the item to the total cost of the aggregated property, plant and equipment; and
- comparing the effect on depreciation expense between aggregating and not aggregating.

8:3.5 *Subsequent costs*

IAS 16 also deals with recognizing costs incurred subsequently to add to, replace part of, or service a previously recognized item of property, plant and equipment. The general recognition criteria set out in **section 8:3.1** above are applied to such expenditures. If the recognition criteria are met, then the expenditures will be added to the carrying amount of the property, plant and equipment. If the recognition criteria are not met, then the expenditure will be expensed when incurred.

8:3.5.1 *Repairs and maintenance*

The costs of the day-to-day servicing, repair, or maintenance of an item of property, plant and equipment are not recognized in the item's carrying amount. These costs are primarily the cost of labour and other items consumed in the service/repair. They may also include the cost of small parts [IAS 16(12)].

In Canadian terms, these correspond to expenditures considered as “repairs” rather than “betterments” (i.e., costs incurred to enhance the service potential of an item of property, plant and equipment) [CICA 3061.26].



8:3.5.2 *Replacement parts*

Costs incurred on a replacement part for property, plant and equipment are recognized in the carrying amount of the affected item of property, plant and equipment, when the costs are incurred, if the recognition criteria set out in **section 8:3.1** above are met [IAS 16(13)].

If the cost of a replacement part is capitalized into the carrying amount of an asset, then the carrying amount of the part that was replaced is derecognized, regardless of whether it had been identified as a component and depreciated separately

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[IAS 16(13)]. Where it is not practicable to determine the carrying amount of the replaced part, the cost of the replacement, suitably depreciated, may be used as proxy for the depreciated cost of the replaced part [IAS 16(70)].

Example 8:3.5.2


Replacement costs

A hotel operator refurbishes one of its hotels. The costs of refurbishments are capitalized, as they replace capitalized assets (i.e., the recognition criteria in IAS 16(7) are met). The previously recognized assets are derecognized, typically giving rise to a loss to the extent that salvage value does not exceed the depreciated amount attributed to the derecognized assets.

8:3.5.3 *Major inspections or overhauls*

Major inspections or overhauls may be required at regular intervals over the useful life of an item of property, plant and equipment to allow the continued use of the asset. For example, an entity might acquire an aircraft that requires a major overhaul, say, once every 5,000 flight hours. When each major inspection or overhaul is performed, its cost is recognized in the carrying amount of the item or property, plant and equipment as a replacement if the recognition criteria set out in **section 8:3.1** above are met [IAS 16(14)].

If an inspection is required to operate an asset, any remaining carrying amount of the cost of any previous inspection is derecognized, regardless of whether the previous inspection was separately identified at the time that the asset was acquired or constructed. Where the cost of the previous inspection was not separately identified, the estimated cost of a similar future inspection may be used as an indication of the cost of the existing inspection component when the asset was acquired or constructed [IAS 16(14)].



Under Canadian GAAP, only costs meeting the criteria to be classified as a betterment are capitalized. Most overhaul costs are usually expensed as repairs, without derecognizing any previous carrying amount unless a significant component is replaced.

Example 8:3.5.3

Substantial modification costs

A retail outlet needs to be redecorated each year. Because the expenditure is incurred on a regular basis and is not particularly large, the retailer treats such redecoration as part of the day-to-day servicing of the store and recognizes an expense as it is incurred. This year, the entity has requested that the supplier carrying out the redecoration work install new partitioning intended to provide for better merchandising and hence result in additional future economic benefits.

The redecoration costs are accounted for as a profit or loss item, while the incremental partitioning costs are capitalized if they satisfy the recognition criteria set out in IAS 16(7) (i.e., the cost incurred to install new partitioning can be measured reliably, and it is probable that future economic benefits associated with the partitioning will flow to the entity).

8:4 Measurement at Recognition

8:4.1 *Measurement at cost*

Where an item of property, plant and equipment qualifies for recognition as an asset, it is initially measured at its cost [IAS 16(15)].

Cost is defined as “the amount of cash or cash equivalents paid or the fair value of the other consideration given to acquire an asset at the time of its acquisition or construction or, where applicable, the amount attributed to that asset when initially recognized in accordance with the specific requirements of other IFRSs (e.g., IFRS 2 *Share-based Payment*)” [IAS 16(6)].

At the date of transition to IFRSs, IFRS 1 *First-time Adoption of International Financial Reporting Standards* allows a first-time adopter to use a deemed cost for an item of property, plant and equipment, as discussed in **section 43:6.2 of Chapter 43**.

8:4.2 Elements of cost

8:4.2.1 Cost of an acquired asset

In the case of an acquired asset, cost comprises:

- the purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates.
- any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management.
- the initial estimate of the costs of dismantling and removing the item, and restoring the site on which it is located, the obligation for which the entity incurs either when the item is acquired, or as a consequence of having used the item during a particular period for purposes *other than* to produce inventories during that period. (See **section 8:4.4** below for guidance on how to deal with subsequent changes in the estimate of these costs.) [IAS 16(16)]

Note that these costs may apply to different components in different ways. For example, a powerhouse may have to be dismantled for refurbishment before the dam to which it is attached has to be removed. The different timing of the amounts of those costs would change their measurement and amortization. See further discussion of these provisions in **Chapter 16**. IFRS approaches asset retirement obligations as an application of its broad guidance for recognizing and measuring provisions, whereas, in Canada, the accounting is set out in a specific CICA 3110 *Asset Retirement Obligations*. The distinction in IFRS to carve out obligations incurred in the process of producing inventory does not explicitly exist under Canadian GAAP.

Costs cited by IAS 16 as suitable for inclusion in the cost of an item of property, plant and equipment are:

- costs of employee benefits (as defined in IAS 19 *Employee Benefits*) arising directly from the acquisition or construction 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 (after deducting the net proceeds from selling any items produced while bringing the asset to that location and condition – such as samples produced when testing equipment); and
- professional fees. [IAS 16(17)]

Example 8:4.2.1A

Costs of land clearing

A ski slope operator has developed a piece of land into a ski resort. To do that, the operator has cut the trees, cleared, and graded the land and hills, and constructed ski lifts. The tree cutting, land clearing, and grading costs are capitalized as part of the cost of the land. These costs are expenditures directly attributable to bringing the land to working condition for its intended use and, therefore, are part of the cost of the land. The ski lifts are not.

Costs listed in IAS 16 as unsuitable for capitalization, and therefore to be expensed, are:

- costs of opening a new facility;
- costs of introducing a new product or service (including costs of promotional activities);
- costs of conducting business in a new location or with a new class of customer (including costs of staff training); and
- administration and other general overhead costs. [IAS 16(19)]

Example 8:4.2.1B

Training cost as a component of the cost of an asset

An entity acquires equipment of a type that its employees have never operated before. During the installation period, the employees receive extensive training on the equipment. The cost to the entity includes the incremental cost of hiring experts to conduct the training, and the directly attributable cost of wages of the employees during the training period. The equipment could not be used by the entity unless its employees received the training. Do these training costs qualify as a component of the cost of the equipment?

No. The training costs do not fall within the scope of costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by the management. The training costs are specific to the employees, not the asset. The piece of equipment would be capable of operating in the manner intended by the management: it is the employees who would not know how to operate the equipment, and the employees are not capitalizable assets.

8:4.2.2 Cost of a self-constructed asset

The cost of a self-constructed asset is determined using the same principles as for an acquired asset, as set out in **section 8:4.2.1** above. The Standard states that if an entity makes similar assets for sale in the normal course of business, the cost of the asset is usually the same as the cost of constructing the asset for sale, in accordance with the principles of IAS 2 [IAS 16(22)].

Cost is therefore measured at the asset's production cost, consisting of the purchase price of the raw materials and consumables used, plus other costs incurred (including appropriate overheads) that are directly attributable to the production of the asset.

This concept of "directly attributable" costs is different from the concepts applied in measuring costs of conversion in IAS 2. The latter includes a systematic allocation of fixed and variable production overheads that are incurred in converting materials into finished goods. Such systematic allocation of fixed overheads to property, plant and equipment is not permissible under IAS 16, because IAS 16 looks to capitalize only directly attributable costs.

The Standard gives no further guidance on how to determine which costs may be viewed as "directly attributable". Certainly, costs that are directly incremental as a result of the construction of a specific asset appear to be directly attributable, if they relate to bringing the asset to working condition. Where an entity regularly constructs assets, however, it is possible that some element of apparently "fixed" costs may also be directly attributable. In such circumstances, it may be helpful to consider which costs would have been avoided if none of those assets had been constructed. For example, a construction company may employ workers who are normally engaged on the construction of properties for sale. If those workers are engaged for part of the year on the construction of a new head office for the company, their direct employment costs are capitalized.

Administration and other general overhead costs are not a component of the cost of property, plant and equipment because they cannot be directly attributed to the acquisition of the asset or to bringing the asset to its working condition.

The costs that may be included in the carrying amount of an asset are limited to those arising directly from constructing or acquiring the asset. Where, for example, costs are incurred to demolish existing structures to build on a site, their treatment may depend on whether the existing structures were previously used in the entity's business or were acquired as part of the site with the specific intention of demolishing them. In the latter case, the demolition costs are clearly incremental and are included in the cost of the new asset. In the former case, the cost of the old asset is written off to profit or loss, as the demolition costs incurred relate to derecognition of the old asset.

This treatment may differ from Canadian GAAP. CICA 3061.27 states that when a building is removed for the purpose of redeveloping rental real estate, the building's net carrying value is included in the cost of the redeveloped property, as long as the net amount considered recoverable from the redevelopment project exceeds its cost.

Example 8:4.2.2A**Existing building demolished in order to construct new building**

In 20X1, Entity E purchased land and buildings for \$100 million (land \$40 million and building \$60 million). The building is used by E in its business and is classified as property, plant and equipment and is depreciated over its estimated useful life. In 20X3, E demolishes the building and constructs a new building for its own use on the same piece of land. The carrying amount of the building prior to demolition was \$55 million.

Is the \$55 million written off to profit or loss, or capitalized as part of the cost of the new building in accordance with IAS 16?

The carrying amount of \$55 million is written off to profit or loss. Under IAS 16, E must depreciate the building to its residual value over its useful life. The useful life of E's building is equivalent to the period from when E decided to demolish the building until the demolition date in 20X3. The residual value of the building is zero because the building will be demolished. Therefore, after management's decision to demolish the building, E revises both the useful life and the residual value of the building and adjusts the depreciation charge accordingly, resulting in a write-down of the building to zero before demolition.

The following principles also apply:

- any internal profits are eliminated in arriving at the cost of an asset;
- the costs of abnormal amounts of wasted material, labour, or other resources incurred in the production of the self-constructed asset are excluded from its cost; and
- borrowing costs incurred during the period of production will be included, in accordance with IAS 23, if the self-constructed asset meets the definition of a qualifying asset (see **Chapter 9**). The revised version of IAS 23, which is effective for periods beginning on or after January 1, 2009, requires eligible costs to be capitalized. The previous version of IAS 23 permitted such costs to be capitalized or expensed as a matter of accounting policy. [IAS 16(22)]

As discussed in **Chapter 9**, the revised version of IAS 23 creates a difference between IFRS and Canadian GAAP.

**Example 8:4.2.2B****Cost of abnormal amounts of waste in producing a self-constructed asset**

A power company (P) signed a contract with a contractor to construct a power plant. P believed that the quality of the construction work was poor and terminated the construction contract. The contractor then sued P for breach of contract, and P lost. P then paid a lump sum to the contractor as compensation for the breach of contract, specifically, for the "lost profits" of the contractor (i.e., not related to work done on the site). Is the lump sum compensation paid to the contractor recognized immediately as an expense or added to the construction cost of the power plant?

The amount does not fall within the scope of costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. This cost is similar in nature to an abnormal cost described in IAS 16(22), and it is therefore expensed.

8:4.2.3 Cost of dismantling, removal, and site restoration

Costs incurred by an entity relating to obligations for dismantling, removing, and restoring the site on which an item of property, plant and equipment is located are recognized and measured in accordance with IAS 37. Where the obligations are incurred when the asset is acquired, or during a period when the item is used other than to produce inventories, they are included in the cost of the item of property, plant and equipment, as specified in **section 8:4.2.1** above. Where the obligations are incurred during a period when the entity uses the item of property, plant and equipment to produce inventories, the costs are accounted for under IAS 2 [IAS 16(18)].

(Note that accounting for changes in such obligations is discussed in **section 8:4.4** below.)

See comments under **section 8:4.2.1** above relating to the treatment of such obligations under Canadian GAAP.

8:4.2.4 *Start-up or commissioning period*

It is appropriate to recognize directly attributable costs in the carrying amount of an item of property, plant and equipment during a commissioning period. This is a period, generally relating to the physical preparation for use, in which it is not possible to operate at normal levels because of the need to run machinery, test equipment, or ensure the proper operation of the equipment. For example, it may be necessary to run a printing press for a period in order to achieve the necessary level of performance.

The following are examples of costs that are *not* included in the carrying amount of an item of property, plant and equipment:

- costs incurred while an item capable of operating in the manner intended by management has yet to be brought into use or is operated at less than full capacity;
- initial operating losses (such as those incurred while demand for the item's output builds up); and
- costs of relocating or reorganizing all or part of an entity's operations. [IAS 16(20)]

8:4.2.5 *Incidental operations*

Some operations occur in connection with constructing or developing an item of property, plant and equipment, but are not necessary to bring the item to the location and condition necessary for it to be capable of operating in the manner intended by management. These incidental operations may occur before or during the construction or development activities. For example, income may be earned through using a building site as a car park until construction starts. Because these incidental operations are not necessary to bring an item of property, plant and equipment to the location and condition necessary for it to be capable of operating in the manner intended by management, the income and related expenses of incidental operations are recognized in profit or loss and included in their respective classification of income or expense [IAS 16(21)].

CICA 3061.25 states that net revenue or expense derived from an item of property, plant and equipment prior to substantial completion and readiness for use is included in the cost.

8:4.2.6 *Reimbursement of part of the cost of an asset*

Example 8:4.2.6

Reimbursement of part of the cost of an asset

Company A enters into a contract to produce and sell a specific product to Company B. Company A needs to transform a major part of its plant to be able to produce that product, and commissions that transformation work from a third party, Company C, unconnected with Company A and Company B. The transformation costs are significant and exclusively for the purpose of this sales contract. As a result, Company A and Company B enter into an agreement under which Company B will reimburse Company A for a portion of the transformation costs for Company A. The question arises as to whether to deduct the reimbursement from the cost of the transformation.

From the perspective of Company A, two transactions are occurring: the purchase of services (transformation costs) from Company C, and the supply of products to Company B.

Company B will only receive the specified products from Company A; it does not gain any rights in respect of the property transformed.

Therefore, the amount received as a reimbursement from Company B is treated as revenue in accordance with IAS 18 *Revenue*, and not as a reduction in the cost of the transformation. As the payment is an integral part of the contract to produce and sell the product, the two transactions are accounted for together, in accordance with IAS 18(13) (see **section 22:5** in **Chapter 22**).

In January 2009, the IFRIC issued an Interpretation on this topic, IFRIC 18 *Transfers of Assets from Customers*, discussed in **section 22:2.3** of **Chapter 22**.

8:4.2.7 *Broker's commission received by purchaser of property*

Example 8:4.2.7

Broker's commission received by purchaser of property

During negotiations to purchase a property, the purchaser was unwilling to accept the seller's best offer. To induce the purchaser to proceed with the transaction, the broker agreed to rebate a portion of the seller-paid commission to the purchaser.

So far as the purchaser is concerned, there is only one transaction here: the purchase of property. Accordingly, the net amount paid by the purchaser is the cost of the property. The seller had already agreed with the broker that part of the selling price would be paid to the broker as commission for services to the seller. In effect, the broker, who is acting as the seller's agent, has been able to agree to a lower overall selling price by accepting that the reduction will reduce its commission without affecting the net amount retained by the seller.

Thus, the rebated commission received is a reduction of the cost of the purchased property. It is not immediate income to the purchaser. The commission rebate is a component of the cost of the property.

8:4.2.8 *Utility fees paid to a government*

In some jurisdictions, developers of factories, offices, apartment buildings, and shopping malls pay a "capacity fee" to the government for the privilege of being able to purchase, on an ongoing basis, defined quantities of electricity and other utilities beyond certain minimum quantities that can be purchased without paying the fee. The fee is paid on a one-off basis and covers supply, either on an indefinite basis or at least for a substantial number of years. The building owner still pays the going rate, however, to purchase the electricity and other utilities. The capacity fee attaches to the entity that owns the building, and it can be transferred to another building if the capacity allowed by the fee is not fully utilized.

As the capacity fees are transferable between buildings, they are not part of the cost of the building but are capitalized as a purchased intangible asset in their own right. As such, they are subject to the amortization and impairment requirements of IAS 38 (see **Chapter 11**).

If instead the fees are attached to the building and are not transferable, they are capitalized as part of the cost of the building and depreciated.

8:4.2.9 *Ceasing capitalization*

Recognition of costs in the carrying amount of an item of property, plant and equipment ceases when the item is in the location and condition necessary for it to be capable of operating in the manner intended by management. Therefore, costs incurred in using or redeploying an item from a location where it has already been installed and operated (or capable thereof) to a new location are not included in the carrying amount of that item [IAS 16(20)].

Canadian GAAP differs in the area of ceasing capitalization. CICA 3061.24 states: "Determining when an asset, or portion thereof, is substantially complete and ready for productive use requires consideration of the circumstances and the industry in which it is to be operated. Normally it would be predetermined by management with reference to such factors as productive capacity, occupancy level, or the passage of time". The Canadian guidance appears to allow more flexibility than IAS 16. IAS 16(20) states, as an example, that costs incurred while an item capable of operating in the manner intended by management has yet to be brought into use or is operated at less than full capacity are not included in the carrying amount of an item of property, plant and equipment; however, they could be included under Canadian GAAP. Likewise, certain costs excluded from the asset's carrying amount in **Example 8:4.3.1A** below might be included under Canadian GAAP.



In the case of a self-constructed asset or the installation of a major asset, a benchmark should be predetermined, i.e., an event or activity that characterizes the point in time when an asset's physical construction/installation is complete (i.e., when the item is in the location and condition necessary for it to be capable of operating in the manner intended by management). All costs incurred after that point are expensed. Where a commissioning period is involved, the benchmark would be the point that characterizes operating at normal levels. Costs incurred after reaching that point are expensed.

Where there is delay in or a suspension of activities toward achieving final physical completion, costs arising during the period of delay are likely to fall into the category of abnormal costs and so be expensed as incurred. Finance costs incurred during such a period of delay do not qualify for capitalization under IAS 23, which requires that capitalization cease when active development is suspended (see **Chapter 9**).

Regulatory consents (e.g., health and safety clearance) are sometimes required before an asset may be used legally. Cost capitalization will not necessarily continue until such consents are in place. Avoidable delays in obtaining consents which prevent the start of operations should be seen as abnormal and similar in effect to a labour dispute, during which capitalization ceases.

Once an asset has actually been brought into use, to produce output, even though below "designed" levels, cost could be capitalized on the basis that the asset does not live up to management's original intentions. In effect, normal levels would be determined by the asset's actual capabilities, if these differ from the designed capabilities.

Example 8:4.2.9

Capitalization of costs incurred between the completion of a building and the date of approval for occupation

On September 20, 20X0, Company A completed the construction of a building intended for use as its administrative headquarters.

By law, the local health and safety authority must approve the offices for occupation before any activity can commence. This approval can be requested only when the building is physically complete, and it takes on average three months to obtain the approval.

The health and safety authority issued the approval for occupation on December 20, 20X0. In the three months from September 20, 20X0, Company A incurred CU10 of building management costs (e.g., utility and security expenses) and interest expenses. (The building is identified as a qualifying asset under IAS 23 *Borrowing Costs*.)

Should the costs incurred by Company A between September 20, 20X0 (when the building was physically completed), and December 20, 20X0 (when the approval for occupation was issued), be included in the initial cost of the building?

Yes. The management costs incurred are considered "directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management" [IAS 16(16)(b)]. In addition, obtaining the approval for occupation is considered to be an activity "necessary to prepare the qualifying asset for its intended use or sale" [IAS 23(22)]; therefore, Company A should continue to capitalize borrowing costs until the approval is obtained.

However, any abnormal amounts of wasted resources incurred in obtaining that approval should not be capitalized [IAS 16(22)]. For example, if the approval for occupation had taken longer than the customary three-month period from the completion of construction, due to avoidable delays caused by Company A failing to provide the required information to the health and safety authority, Company A could include in the original cost of the building only costs incurred during the time usually required to obtain the approval for occupation (in the circumstances under consideration, three months).

If the delays were due to a slow response from the health and safety authority (without cause by Company A), the capitalization period would be extended.

8:8:4.2.10 *Rehabilitation liability — change in legislation***Example 8:4.2.10****Rehabilitation liability — change in legislation**

Company X acquired a building in 20X1. Asbestos was used in the construction of the building. During 20X5, legislation was enacted which requires Company X either to remove the asbestos or to vacate the building.

Company X obtains a reliable estimate of the costs of removing the asbestos. In accordance with IAS 37, Company X recognizes a provision for the cost of removing the asbestos.

Should Company X capitalize the estimated cost of removing the asbestos from the building?

IAS 16(16) states that the cost of an item of property, plant and equipment should include the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located, the obligation for which the entity incurred either when the item was acquired, or as a consequence of having used the item during a particular period for purposes other than to produce inventories during that period (see **8:4.2.1**). IAS 16(BC14) confirms that IAS 16(16) does not specifically address how an entity should account for the “cost of obligations an entity did not face when it acquired the item, such as an obligation triggered by a law change enacted after the asset was acquired”.

Company X should therefore assess whether the costs of removing the asbestos meet the general recognition criteria in IAS 16(7). In this scenario:

- the cost of removing the asbestos can be reliably measured; and
- it is probable that economic benefits associated with the asbestos removal will flow to Company X (because the building would otherwise be vacated).

Therefore, Company X should capitalize the estimated cost of removing the asbestos.

The change in legislation is also an indicator of impairment; consequently, when the legislation is enacted, Company X should estimate the recoverable amount of the building.

8:4.3 Measurement of cost

The cost of an item of property, plant and equipment (or of an element of an item) is the cash price equivalent (i.e., the amount that the entity would need to pay if it were to purchase the asset by paying cash immediately upon purchase) at the date on which the asset is recognized [IAS 16(23)].

8:4.3.1 Payments deferred beyond normal credit terms

When payment for an item of property, plant and equipment is deferred beyond normal credit terms, and a higher price is paid as a result of that deferral, the difference between the cash price equivalent and the total payments is recognized as an interest expense over the period of credit, unless it is capitalized in accordance with the requirements of IAS 23 (see **Chapter 9**) [IAS 16(23)].

Example 8:4.3.1A**Deferred payment terms**

On January 1, 20X1, an item of property is offered for sale at \$10 million, with payment terms being three equal instalments of \$3,333,333 over a two-year period (payments are made on January 1, 20X1, December 31, 20X1 and December 31, 20X2). The property developer is offering a discount of 5 per cent (i.e., \$500,000) if payment is made in full at the time of completion of the sale and purchase agreement (which corresponds to an implicit interest rate of 5.36 per cent per annum).

The purchaser will recognize the acquisition of the asset as follows:

Dr	Property, plant and equipment	\$9,500,000	
	Cr	Cash	\$3,333,333
	Cr	Accounts payable	\$6,166,667

8 Property, Plant and Equipment

The following entry will be required at the end of 20X1:

Dr	Interest expense (5.36% × \$6,166,667)	\$330,459	
Dr	Accounts payable	\$3,002,874	
	Cr Cash		\$3,333,333

The following entry will be required at the end of 20X2:

Dr	Interest expense (5.36% × \$3,163,793)	\$169,541	
Dr	Accounts payable	\$3,163,793	
	Cr Cash		\$3,333,334

Example 8:4.3.1B

Payment for an asset deferred beyond “normal credit terms”

The commercial property market in a particular city is very slow. As an inducement to potential purchasers, a seller of commercial property in that city advertises a property for sale at “no interest for the first three years after purchase, market rate of interest thereafter”. Other property sellers in the city are making similar offers. A buyer purchases a property on those terms. IAS 16(23) requires imputing interest if payment for an item of property is “deferred beyond normal credit terms”. In this circumstance, is the three-year interest-free period “normal credit terms”?

No. The intent of IAS 16(23) is to ensure that the asset is recognized at its current cash sale price. The “normal credit terms” requirement is intended to recognize that settling cash purchases often takes a few days, weeks, or even months (depending on the industry and national laws), and imputing interest is not required in those circumstances. Particularly for a large item such as a property, however, the cash sale price will be significantly lower if cash payment made up front rather than deferred for three years. If the deferral period is greater than what can be considered normal credit terms, the imputed interest element is recognized as a financial cost.

8:4.3.2 Exchanges of assets

Where an item of property, plant and equipment is acquired in exchange for a non-monetary asset or assets, or a combination of monetary and non-monetary assets, the cost of that item is measured at fair value (even if the entity cannot immediately derecognize the asset given up) unless:

- the exchange transaction lacks commercial substance; or
- the fair value of neither the asset received nor the asset given up is reliably measurable. [IAS 16(24)]

If the acquired item is not measured at fair value, its cost is measured at the carrying amount of the asset given up.

The entity will determine whether an exchange transaction has commercial substance by considering the extent to which its future cash flows are expected to change as a result of the transaction. An exchange transaction has commercial substance if:

- either:
 - 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 arising in either of the two circumstances outlined above is significant relative to the fair value of the assets exchanged. [IAS 16(25)]

Entity-specific value is the present value of the cash flows an entity expects to arise from the continuing use of an asset and from its disposal at the end of its useful life or expects to incur when settling a rotated liability [IAS 16(6)]. For the purpose of assessing commercial substance, post-tax cash flows are used [IAS 16(25)].

Example 8:4.3.2**Exchange of assets**

A transportation entity owns land and buildings, carried in its statement of financial position at an aggregate carrying amount of \$10 million, but with a market value of \$15 million. It exchanges the land and buildings for equipment, which has a market value of \$18 million, and pays an additional \$3 million cash.

Provided that the transaction has commercial substance, the entity will recognize the equipment at a cost of \$18 million and will recognize a profit on disposal of the land and buildings of \$5 million, calculated as follows:

	\$m
Consideration received, less:	18
Carrying amount of land and building disposed of	(10)
Cash paid	(3)
	5m
	5m

The required journal entry is therefore as follows:

		\$m	\$m
Dr	Property, plant and equipment (ship)	18	
	Cr Property, plant and equipment (land and buildings)		10
	Cr Cash		3
	Cr Profit on exchange of assets (profit or loss)		5

The fair value of an asset for which comparable market transactions do not exist is reliably measurable if:

- the variability in the range of reasonable fair value estimates is not significant for that asset; or
- the probabilities of the various estimates within the range can be reasonably assessed and used in estimating fair value. [IAS 16(26)]

Where an entity is able to reliably determine the fair values of either the asset received or the asset given up, then the fair value of the asset given up is used to measure the cost of the asset received, unless the fair value of the asset received is more clearly evident [IAS 16(26)].

8:4.3.3 Assets held under finance lease

The cost of assets held under finance leases is determined using the principles set out in IAS 17 *Leases* (see **Chapter 17** for details) [IAS 16(27)].

8:4.3.4 Government grants

The carrying amount of an item of property, plant and equipment may be reduced by government grants, in accordance with IAS 20 *Accounting for Government Grants and Disclosure of Government Assistance* (see **Chapter 38**) [IAS 16(28)].

8:4.3.5 Assets acquired as part of a business combination

IFRS 3 *Business Combinations* requires that property, plant and equipment of a subsidiary acquired as part of a business combination be measured initially at fair value for the purpose of inclusion in the consolidated financial statements (see **Chapter 41** for detailed discussion). This fair value is the cost of the asset for the purpose of subsequent accounting under IAS 16. All other aspects of the accounting treatment for these assets, including depreciation, is determined by reference to the requirements of IAS 16.


The fair value exercise does not amount to a revaluation of the assets concerned. Accordingly, it is not necessary thereafter to comply with the revaluation model prescribed in IAS 16.

8:4.4 IFRIC 1 Changes in Existing Decommissioning, Restoration and Similar Liabilities

IFRIC 1 *Changes in Existing Decommissioning, Restoration and Similar Liabilities* was issued in May 2004. It provides guidance on how to account for the effect of changes in the measurement of existing decommissioning, restoration, and similar liabilities. For example, such liabilities may exist for decommissioning a plant, rehabilitating environmental damage in extractive industries, or removing equipment located on rights of way that must be returned to the owner in their original state. IFRIC 1 applies to changes in the measurement of any existing decommissioning, restoration, or similar liability that is both recognized as:

- part of the cost of an item of property, plant and equipment, in accordance with IAS 16; and
- a liability, in accordance with IAS 37. [IFRIC 1(2)]

The guidance below deals with how to account for changes in the measurement of an existing decommissioning, restoration, or similar liability that result from changes in the estimated timing or amount of the outflow of resources required to settle the obligation, or a change in the discount rate.




As discussed in **section 8:4.2.1** above, CICA 3110 *Asset Retirement Obligations* deals with the initial recognition and measurement of such liabilities and the related assets, and with the effect of changes on both. The recognition and measurement of the obligation is considered in IAS 37, which is discussed in **Chapter 16**. The treatment of the asset cost and the effects of changes are dealt with in two separate places: changes arising from operations and producing inventory are dealt with in accordance with IAS 2; those arising from initial installation and non-productive activities are considered in IAS 16.

8:4.4.1 Cost model

If the related asset is measured using the cost model:

- changes in the liability are added to, or deducted from, the cost of the related asset in the current period, except that the amount deducted from the cost of the asset must not exceed its carrying amount. If a decrease in the liability exceeds the carrying amount of the asset, the excess is recognized immediately in profit or loss; and
- if the adjustment results in an addition to the cost of an asset, the entity considers whether this may indicate that the new carrying amount of the asset may not be fully recoverable. If so, the asset is tested for impairment in accordance with IAS 36 (see **Chapter 15**). [IFRIC 1(5)]



CICA 3110 contains more detailed discussion of determining the fair value of a liability for an asset retirement obligation, including matters such as determining an interest rate. Under IFRSs, as discussed in particular in **Chapter 16**, these obligations are subject to the overall requirements on recognizing and measuring provisions.

8:4.4.2 Revaluation model

If the related asset is measured using the revaluation model, changes in the liability alter the revaluation surplus or deficit previously recognized on that asset.

A decrease in the liability is consequently recognized in other comprehensive income and increases the revaluation surplus within equity, but is recognized immediately in profit or loss when:

- it reverses a revaluation deficit on the asset that was previously recognized in profit or loss; or
- it exceeds the carrying amount that would have been recognized had the asset been carried under the cost model. [IFRIC 1(6)]

An increase in the liability is recognized in other comprehensive income and reduces the revaluation surplus within equity to the extent of any credit balance relating to that asset, with the balance recognized in profit or loss.

A change in the liability is an indication that the asset may have to be revalued to ensure that the carrying amount does not differ materially from fair value at the end of the reporting period. Any such revaluation is taken into account in determining the amounts to be recognized in profit or loss or in other comprehensive income. If a revaluation is necessary, all assets of that class are revalued.

To comply with IAS 1 (see **sections 5:5.4** and **5:6.2** in **Chapter 5**), the change in the revaluation surplus arising from a change in the liability is separately identified and disclosed as a component of other comprehensive income.

8:4.4.3 *Other requirements*

The depreciable amount of the asset adjusted for changes in the provision for decommissioning is depreciated over its useful life. Accordingly, once the related asset has reached the end of its useful life, all subsequent changes in the liability are recognized in profit or loss as they occur. This applies under both the cost model and the revaluation model [IFRIC 1(7)].

The periodic unwinding of the discount is recognized in profit or loss as a finance cost as it occurs. Unwound discount is not a cost of borrowed funds under IAS 23.

IFRS 1 *First-time Adoption of International Financial Reporting Standards* allows first-time adopters an exemption from full retrospective application of IFRIC 1, as discussed in **section 43:6.8** of **Chapter 43**.

8:5 Alternatives for Measurement after Recognition

IAS 16 permits two different bases for determining the carrying amount of property, plant and equipment at the end of subsequent reporting periods: a cost model and a revaluation model.

8:5.1 *Cost model*

Where the cost model is selected, after recognition as an asset, an item of property, plant and equipment is carried at cost less any accumulated depreciation and any accumulated impairment losses [IAS 16(30)].

8:6 Revaluation Model

8:6.1 *Initial adoption of revaluation basis*

Where an entity initially adopts a policy to measure property, plant and equipment using the revaluation model, the initial adoption of the valuation basis represents a change in accounting policy. IAS 8(17) specifies, however, that it is dealt with as a one-time revaluation rather than retrospectively. The valuation increase or write-down occurring on the initial adoption of the revaluation basis is dealt with in other comprehensive income (and accumulated in the revaluation surplus) or in profit or loss, as appropriate, in accordance with the requirements of IAS 16 (see **section 8:6.8** below).

This is an exemption from the general rules for changes in accounting policies, which means that it will not be necessary to obtain valuations at the end of earlier reporting periods. One side effect of the approach, however, is that the amounts of depreciation included in current and prior-year profit or loss will not be comparable, as they are based on revaluation and on cost respectively.

8:6.2 *Determining fair value*

Fair value is defined as the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction [IAS 16(6)].

The fair value of land and buildings is usually determined from market-based evidence by appraisal that is normally undertaken by professionally qualified valuation specialists. The fair value of items of plant and equipment is usually the market value determined by appraisal [IAS 16(32)].

If there is no market-based evidence of fair value because of the specialized nature of the item of property, plant and equipment, and the item is rarely sold except as part of a continuing business, the entity may need to estimate fair value using an income or a depreciated replacement cost approach [IAS 16(33)].

The depreciated replacement cost valuation method is defined by International Valuation Standards as “the current cost of reproduction or replacement of an asset less deductions for physical deterioration and all relevant forms of obsolescence and optimisation” [International Valuation Guidance Note 8, par 3.1]. It involves determining the cost of rebuilding the item of property, plant and equipment and deducting an allowance for depreciation based on age, physical obsolescence, and market factors.

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The depreciated replacement cost valuation method is used where an item of property, plant and equipment is identified as a specialized asset. In particular, specialized properties are defined in International Valuation Standards as “property that is rarely sold in the market, except by way of a sale of the business or entity of which it is a part, due to the uniqueness arising from its specialised nature and design, its configuration, size, location or otherwise”. Examples may include a nuclear power station, a chemical plant, or a film studio.

8:6.3 Frequency of revaluations

IAS 16(31) requires making revaluations with sufficient regularity such that the carrying amount does not differ materially from that which would be determined using fair value at the end of the reporting period.

The Standard therefore does not insist on annual revaluations. The frequency of revaluations will depend upon fluctuations in the fair values of the items of property, plant and equipment under consideration. Some items of property, plant and equipment (e.g., properties situated in countries with high capital asset inflation rates) may experience significant and volatile movements in fair value, thus necessitating annual revaluations. Such frequent revaluations may not be necessary for items of property, plant and equipment with only insignificant movements in fair value (e.g., machinery situated in countries with relatively low capital-asset inflation rates and industries with low volatility in cash flows and asset values).

Where items of property, plant and equipment have only insignificant changes in fair value, the Standard indicates that it may be necessary to revalue them only every three or five years [IAS 16(34)].

8:6.4 Accumulated depreciation at the date of revaluation

IAS 16(35) states that any depreciation accumulated on an asset at the date of revaluation can be dealt with in one of two ways, either:

- *Method A* – restated 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. The carrying amount is increased to the revalued amount by restating the cost and depreciation proportionately. This method is often used when an asset is revalued to its depreciated replacement cost by means of an index; or
- *Method B* – eliminated against the gross carrying amount of the asset and the resulting net amount restated to the revalued amount of the asset. The accumulated depreciation is eliminated, and any remaining surplus is used to increase cost. This method is often used for buildings. It is the most commonly used method in practice.

Example 8:6.4 below illustrates the alternative methods permitted under the Standard.

Example 8:6.4

Accumulated depreciation at the date of revaluation

A property has a carrying amount of \$10 million, represented by cost of \$12 million and accumulated depreciation of \$2 million. It is revalued to its fair value of \$13 million.

	Method A	Method B
	\$'000	\$'000
Cost or valuation		
Before revaluation	12,000	12,000
Revaluation adjustment	3,600*	1,000
After revaluation	<u>15,600</u>	<u>13,000</u>
Accumulated Depreciation		

	Method A	Method B
	\$'000	\$'000
Before revaluation	2,000	2,000
Revaluation adjustment	600*	(2,000)
After revaluation	2,600	0
Revalued amount	13,000	13,000

* 30 per cent increase in carrying amount results in a 30 per cent increase in both cost and accumulated depreciation.

8:6.5 Revaluation to be made for entire class of assets

When an item of property, plant and equipment is revalued, the entire class of property, plant and equipment to which that asset belongs is required to be revalued [IAS 16(36)]. Items within a class of property, plant and equipment are revalued simultaneously to avoid selectively revaluing assets and reporting amounts in the financial statements that are a mixture of costs and valuations at different dates [IAS 16(38)]. This is intended to prevent selectively using revaluation to report gains without acknowledging declines in the value of other items in the class of assets (a process colloquially known as “cherry-picking”).

8:6.5.1 Definition of a “class” of assets

A class of property, plant and equipment is defined as “a grouping of assets of a similar nature and use in an entity’s operations” [IAS 16(37)]. The following examples are cited as being of separate classes:

- land;
- land and buildings;
- furniture and fixtures;
- office equipment;
- machinery;
- motor vehicles;
- aircraft; and
- ships.

The examples cited of separate classes are not intended to be prescriptive or comprehensive. In practice, it is common for some of these classes to be combined. For example, where motor vehicles are not significant to an entity, motor vehicles and machinery may be combined in a plant and machinery class. For similar reasons, office equipment may be included in the furniture and fixtures class.

8:6.5.2 Disclosure of classes

As discussed in **section 8:10.2** below, detailed disclosures are specified for each class of property, plant and equipment. This should be borne in mind when distinguishing classes: the level should not be too aggregate to obscure important changes in classes, nor be so diluted as to require excessive analysis.

8:6.5.3 Revaluation on a rolling basis

The requirement to revalue entire classes of assets is a potentially onerous requirement because, for some reporting entities, a class of assets could comprise a large number of items. For this reason, IAS 16(38) allows a class of assets to be revalued on a rolling basis, provided that revaluation of the class of assets is completed within a short period of time and that the revaluations are kept up to date.

No further guidance is given on what a “short period” might be, though given the drafting of the Standard, it is presumably rather less than a financial year. The general approach of IAS 16(38) is, however, to require simultaneous valuations so as to avoid reported amounts that are a mixture of costs and values as at different dates. Accordingly, it seems appropriate:

- for all such valuations to take place in the same accounting period (and in the same interim period where an entity produces interim financial statements); and
- for the acceptable length of the period to take into account how stable fair values are, so that greater volatility requires a shorter period over which to perform valuations.

8:6.6 *Assets for which fair value cannot be reliably measured*

Even where an entity has selected the revaluation model for its property, plant and equipment, only those assets whose fair value can be measured reliably are carried at revalued amounts [IAS 16(31)].

The Standard provides no guidance as to the circumstances in which the fair value of an item of property, plant and equipment cannot be measured reliably, nor does it address the appropriate accounting for those assets whose fair value cannot be measured reliably. These “gaps” in the framework provided by IAS 16 are most likely attributable to the fact that the IASB was, at the time of publication of the revised IAS 16 in 2003, taking part in joint projects with a number of national standard setters on revaluations of property, plant and equipment. This project no longer appears on the IASB’s work program, although other projects, particularly those on fair value measurement and the conceptual framework, may lead to amendments to IAS 16.

IAS 40 *Investment Property* contains guidance on the circumstances in which the fair value of an item of property cannot be measured reliably. IAS 40 provides for this exception when, and only when, comparable market transactions are infrequent and alternative reliable estimates of fair value (e.g., projections based on discounted cash flows) are not available. IAS 40 is very restrictive and allows this exception to be invoked only when an entity first acquires an investment property. IAS 16 is not so explicit and seems to permit a greater degree of flexibility. It seems, however, that the IASB’s intention is that, where the entity has selected the revaluation model as its accounting policy for a particular class of assets, a rebuttable presumption exists that all of the assets within that class will be carried at revalued amounts. The “not reliably measurable” exception should be invoked only in exceptional circumstances. Where the entity holds particular types of assets for which it will frequently be difficult to establish fair values (e.g., specialized plant and machinery), then it is preferable to adopt the cost basis for that entire class of assets so as to avoid the reporting of amounts in the financial statements that are a mixture of costs and valuations at different dates.

Where fair value cannot be reliably measured, the entity should account for those assets using IAS 16’s cost model. This is consistent with the treatment required by IAS 40 for those investment properties whose fair value is not reliably measurable. To assist users of the financial statements, additional disclosures are required in respect of those assets carried at cost less accumulated depreciation and accumulated impairment losses. In addition, entities are required by IAS 40 to disclose:

- a description of the property;
- an explanation of why fair value cannot be determined reliably;
- if possible, the range of estimates within which fair value is highly likely to lie; and
- on disposal of the property:
 - the fact that the entity has disposed of property not carried at fair value;
 - the carrying amount of the property at the time of sale; and
 - the amount of gain or loss recognized. [IAS 40(78)]

Although IAS 16 does not require equivalent disclosures, they should be seen as best practice. In addition, some of these disclosures may, on occasion, be necessary in order to comply with IAS 1 2007(97) (previously IAS 1 2003 (86)), which requires that, when items of income and expense are material, their nature and amount are disclosed separately.

8:6.7 *Voluntary disclosure of revalued amounts*

Entities that adopt the cost model of accounting for their property, plant and equipment may wish to disclose the fair value of their property, plant and equipment in a note to the financial statements when this is materially different from the carrying amount. Such disclosures are encouraged by IAS 16(79)(d). In disclosing such fair values rather than adopting the revaluation model of accounting, entities are not strictly bound by IAS 16's revaluation rules. Where the amounts disclosed do not represent current fair values, however, they could mislead users of the financial statements. Therefore, the entity either discloses the current fair values of the assets concerned, or does not disclose revalued amounts at all. Similar considerations apply where an entity discloses current values only for those assets whose fair values are significantly above carrying amounts and ignores those assets whose fair values are significantly below their carrying amounts. Accordingly, where fair values are disclosed voluntarily under IAS 16(79)(d), they are normally disclosed for an entire class of assets.

8:6.8 *Treatment of surplus or deficit arising on revaluation*

8:6.8.1 *Revaluation surplus*

IAS 16 requires that, when an asset's carrying amount is increased as a result of a revaluation, the increase (being the difference between the fair value at the date of revaluation and the carrying amount at that date) is recognized in other comprehensive income and accumulated in equity, under the heading of revaluation surplus [IAS 16(39)].

A revaluation increase is recognized in profit or loss, however, to the extent that it reverses a revaluation decrease of the same asset previously recognized as an expense [IAS 16(39)].

When a revaluation surplus is recognized, no amendment is made to profit or loss to reverse previously recognized depreciation on that asset.

8:6.8.2 *Revaluation deficit*

The Standard requires that, when an asset's carrying amount is decreased below its original cost as a result of a revaluation, the decrease is generally recognized in profit or loss [IAS 16(40)].

A revaluation decrease is first recognized in other comprehensive income to the extent of any credit balance existing in the revaluation surplus arising from a previous upward revaluation of that asset [IAS 16(40)].

8:6.8.3 *Illustrative examples*

The following examples illustrate the appropriate treatment of valuation movements in a number of circumstances. In each case, the deferred tax implications are ignored.

Example 8:6.8.3A

Revaluation surplus

An entity purchased a property on July 1, 20X1 for \$125 million. At December 31, 20X1, the property was valued at \$150 million.

The revaluation surplus of \$25 million is recognized in other comprehensive income and credited to a property revaluation reserve within equity.

Example 8:6.8.3B

Revaluation surplus reversing previous deficit

An entity purchased a property on July 1, 20X1 for \$140 million. At December 31, 20X1, the property was valued at \$125 million. At December 31, 20X2, the fair value of the property had increased to \$150 million.

20X1: Revaluation deficit of \$15 million is recognized in profit or loss.

20X2: Revaluation surplus is treated as follows:

- \$15 million is credited to profit or loss (i.e., reversal of the previous deficit).
- \$10 million is recognized in other comprehensive income and credited to the property revaluation reserve within equity.

Example 8:6.8.3C

Revaluation deficit reversing previous surplus

An entity purchased a property on July 1, 20X1 for \$60 million. At December 31, 20X1, the property was valued at \$70 million. At December 31, 20X2, the fair value of the property had decreased to \$55 million.

20X1: Revaluation surplus of \$10 million is recognized in other comprehensive income and credited to the property revaluation reserve within equity.

20X2: Revaluation deficit is treated as follows:

- \$10 million is recognized in other comprehensive income and debited to the property revaluation reserve within equity (i.e., reversal of the previous surplus).
- \$5 million is recognized in profit or loss (i.e., excess of deficit over available surplus attributable to the same property).

Example 8:6.8.3D

Revaluation surplus reversing previous deficit: Effect of depreciation

The cost of a property with a useful life of twenty years is \$10 million. Depreciation each year is \$0.5 million.

At the end of Year 5, the property has a carrying amount of \$7.5 million and a fair value of \$6 million. At that date, the directors move to the revaluation basis of accounting. The deficit on revaluation of \$1.5 million is recognized in profit or loss.

At the end of Years 6 through 9, the directors determine that there is no material difference between the carrying amount of the property and its fair value, and therefore no valuation adjustments are required. Depreciation of \$2 million (i.e., $5 \times \$0.4$ million) is recognized in the periods up to the end of Year 10, at which time the property has a carrying amount of \$4 million. During Year 10, however, the value of the property increases sharply to a closing fair value of \$7 million.

Applying the basic principle as stated in IAS 16(39), the portion of the revaluation surplus that is to be credited to profit or loss at the end of Year 10 might appear to be \$1.5 million i.e., the amount of the deficit previously recognized in profit or loss. In effect, however, part of this revaluation decrease has already been reversed through the recognition of a lower depreciation charge for Years 6 to 10.

Accordingly, the amount of the revaluation surplus that is credited to profit or loss is reduced by the cumulative reduction in depreciation in Years 6 to 10 as a result of recognizing the revaluation deficit (i.e., $(\$0.5 \text{ million less } \$0.4 \text{ million}) \times 5 \text{ years}$). Therefore the amount of the surplus credited to profit or loss is \$1 million. The remaining \$2 million of the revaluation surplus is recognized in other comprehensive income and credited to the revaluation reserve within equity. The end result is that the balance on the revaluation reserve (\$2 million) is the excess of the carrying amount (\$7 million) over what it would have been had the property never been revalued (\$5 million).

This treatment is consistent with the treatment prescribed for the reversal of an impairment loss (see **Chapter 15**).

8:6.8.4 Utilizing the revaluation reserve

Under IAS 16(41), the revaluation reserve may be transferred directly to retained earnings when the asset is derecognized. Hence, the reserve may be transferred on the retirement or disposal of the asset. Part of the reserve may, however, be transferred over during the period for which the asset is used by the entity. In such circumstances, the periodic amount of the reserve transferred is the difference between the depreciation charge based on the revalued carrying amount of the asset and

the depreciation charge based on the asset's original cost. Whether the transfer is made on disposal or on a systematic basis over the life of the asset, the transfer is directly from revaluation reserve to retained earnings, and it is not made through profit or loss.

Example 8:6.8.4

Transfer from revaluation reserve to retained earnings

The cost of a property with a useful life of twenty years is \$10 million. Depreciation each year is \$0.5 million.

At the end of Year 5, the property has a carrying amount of \$7.5 million and a fair value of \$12 million. The surplus on revaluation of \$4.5 million is credited to the revaluation reserve and the property is depreciated over its remaining fifteen-year useful life at the rate of \$0.8 million per annum. Assume that, for the remainder of its useful life, the depreciated carrying amount of the property is not materially different from its fair value. Therefore, no further revaluation adjustments are required.

In Years 6 through 20, depreciation has been increased by \$0.3 million per annum as a result of the revaluation. Therefore, at the end of each of those years, it is acceptable to make a transfer from the revaluation surplus to retained earnings of an amount of \$0.3 million, to reflect the realization of the revaluation surplus. If such periodic transfers are made, then the revaluation reserve will have been reduced to zero at the point that the property is fully depreciated. Any transfer between the revaluation reserve and retained earnings, made on a net of tax basis, will reduce the amount that is available for offset against future revaluation deficits in respect of individual assets.

The reserve transfers referred to in IAS 16(41) are implied to be at the option of the reporting entity rather than being mandated by the Standard. There therefore appears to be another alternative – to make no reserve transfer. That option will, however, result in the permanent retention of the portion of the revaluation reserve relating to assets that have been disposed of or fully depreciated. Hence, it is similar to or a form of “capital maintenance adjustment” applied to the equity but not through income.

8:6.9 Deferred tax impact

The revaluation of assets is also likely to have deferred tax implications. For the purposes of the examples in this chapter, the deferred tax impact is ignored. Readers should refer to **Chapter 18** for a detailed discussion of the deferred tax impact of revaluations.

8:6.10 The potential costs and benefits of the revaluation model

Any entity considering adopting the revaluation model should consider some practical consequences. First, it is not an “all or nothing” proposition: an entity may elect to revalue certain classes of assets while measuring others using the cost model. This may permit entities to selectively measure certain asset classes (but not particular assets) at fair value and to generate higher net carrying values, thereby satisfying financial covenants (if they are suitably worded) not otherwise capable of being satisfied. Offsetting this, however, revaluation may have an adverse impact on certain ratios, such as return on assets.

As land values generally reflect long-term trends, and as land is generally not depreciated, land may be better suited to the revaluation model than various other asset classes. Land values may reflect non-amortizing economies of location, which in certain industries such as retailing may be an important component of the value-generation process.

When assets are carried at their fair value, their depreciation expense reflects the current fair value of the assets consumed, assuming the depreciation method employed is in accordance with IAS 16's objectives. For certain entities, such as income trusts and flow-through vehicles, cash distributions to equity investors are not constrained by a need to maintain original levels of issued capital, and thus distributions may be made in excess of the retained earnings of the entity. This may not be the general case for corporations, although the precise limitations depend on the jurisdiction of the entity. In any case, for income trusts not subject to such limitations, a high proportion of current operating cash flows, calculated by adding back depreciation expense and other amortizations to operating income, is generally distributed to investors. This policy often raises questions about whether the entity is reinvesting sufficient amounts in

capital assets to maintain or improve its productive capacity, or whether, in lieu of reinvesting operating cash flows, the entity is distributing cash that could (if not should) be used to maintain productive capacity. In such circumstances, using the revaluation model provides at least some indication of whether the reported combination of depreciation expense, capital investment patterns, and asset revaluations maintains or improves the fair value of the entity's property, plant and equipment, or whether the fair market value is in fact being diminished through the combined effect of depreciation, low reinvestment, and revaluations. But fair value measures of property, plant and equipment would at least partially address that issue. Such information does not, of course, determine the wisdom of such distribution or reinvestment policies, which is another matter.

There are some potentially adverse consequences to using the revaluation model. There is obviously the cost of preparing fair value estimates, although entities likely to use the fair value model are also likely to have the internal resources as well as the external demand for such data that would justify those costs. Practically, revaluing a depreciating asset may adversely affect subsequent operating income through higher depreciation charges. This may reduce the apparent profitability of the entity when it is not clear that reinvestment of cash flows to preserve fair values is the optimal strategy from an investor point of view. However, the revaluation model may indicate at a much earlier date than the cost model when an appreciating market for classes of assets has become a depreciating one, which would appear to be relevant information for most investors.

Finally, capital tax, when applicable, is frequently levied on the carrying value of an entity's assets or on its capital and retained earnings. In certain circumstances the revaluation model could raise the tax base for such taxes. This is a matter of statutory interpretation; however, expert counsel should be sought before making any decision on this basis. If the tax base is increased, however, the present value of the additional tax burden could represent many multiples of the capital tax rate, given that the tax base increase might potentially have an indefinite life.

8:6.11 *Voluntary disclosure of fair values*

IAS 16(79) states that, when the cost model is used, preparers are encouraged to provide users with the fair value of property, plant and equipment through disclosure. While this approach may not provide all the information to investors that is provided by the revaluation model, such as reconciliations of the periodic changes in such fair values, it should provide investors with some information on fair value.

8:7 Depreciation

If an item of property, plant and equipment has a limited useful economic life, then its cost or, if applicable, its fair value, is reduced to its estimated residual value by the systematic allocation of depreciation over the asset's useful economic life [IAS 16(50)].

The depreciation charge for each period is recognized in profit or loss, unless it qualifies to be capitalized in the carrying amount of another asset [IAS 16(48)]. For example, the depreciation of plant and machinery used for construction purposes may be included in the cost of a self-constructed property.

Depreciation, as defined in IAS 16(6), is "the systematic allocation of the depreciable amount of an asset" (i.e., the cost of the asset or other amount substituted for cost, less its residual value) "over its useful life". In order to comply with the requirements of IAS 16 relating to depreciation, it is necessary to identify:

- the parts (components) of each item of property, plant and equipment that are to be depreciated separately;
- the cost or valuation of each separately depreciable component;
- the estimated residual value of each separately depreciable component;
- the length of time during which the component will be commercially useful to the entity; and
- the most appropriate depreciation method for each separately depreciable component.

Where a first-time adopter uses a deemed cost for an item of property, plant and equipment, subsequent depreciation is based on that deemed cost and starts from the date for which the entity established the fair value measurement or revaluation, as discussed in **section 43:6.2 of Chapter 43**.

Under Canadian GAAP, in contrast, annual depreciation/amortization is based on the greater of:

- cost less salvage value over the life of the asset, and
- cost less residual value over the useful life of the asset to the enterprise, where useful life is defined as “normally the shortest of its physical, technological, commercial and legal life”.

8:7.1 *Each significant component to be depreciated separately*

IAS 16 employs a principle known as “component depreciation accounting”. This requires that separately depreciating each “part” of an “item” of property, plant and equipment with a cost that is significant in relation to the item’s total cost [IAS 16(43)]. A part is a subset of an “item”; the choice of items is a matter of judgment [IAS 16(9) and **section 8:3.4** above]. However, IAS 16(45) indicates that significant factors in identifying similar parts of items are their “useful lives” and depreciation patterns. Logically, dissimilar items have different useful lives and depreciation patterns. In its Basis for Conclusions on IAS 16, the Board states:

Of particular concern to the Board were situations in which the unit of measure is the ‘item as a whole’ even though that item may be composed of significant parts with individually varying useful lives or consumption patterns. The Board did not believe that, in these situations, an entity’s use of approximation techniques, such as a weighted average useful life for the item as a whole, resulted in depreciation that faithfully represents an entity’s varying expectations for the significant parts. [IAS 16(BC26)]

Thus, in determining parts of an item, an entity identifies significant parts that have varying useful lives or consumption patterns.

IAS 16 requires separately depreciating each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item. CICA 3061 also requires allocating the cost of an item of property, plant and equipment made up of significant separable component parts to the component parts when practicable. While the requirements are similar as written, there is a common view that implementing IFRS in Canada will require more detailed accounting records than many Canadian entities may have maintained under Canadian GAAP. For example, depreciation classes based upon the “class” basis employed to determine capital cost allowance under the *Income Tax Act* would not provide the disaggregation required by IAS 16.

Entities, particularly those with different items of tangible capital assets with parts that have varying useful lives, will have to gather the necessary historical data for all significant parts and items. (See also the comments on general ledger packages in **section 8:7.6** below).

There may be some significant parts which, although separately identifiable, have the same useful life and which are appropriately depreciated using the same depreciation method. Such items will generally be grouped together for the purposes of calculating the depreciation charge [IAS 16(45)].

Once the individually significant parts have been identified, the remaining parts that are not individually significant are grouped together. Although the entity may have varying expectations as to the useful lives and pattern of consumption of the benefits of these remaining components, because they are not individually significant, the Standard states that they may be depreciated as a group, provided that the depreciation rate and method selected result in a faithful representation of the pattern of consumption of benefits [IAS 16(46)].

A common example of the allocation of the cost of an item of property, plant and equipment is that of an aircraft, as mentioned in IAS 16(44). The airframe, engines, and cabin interior of a single aircraft are likely to have significantly different useful lives. Under IAS 16, these parts are separately identified at the time that the aircraft is acquired, and each is depreciated separately over an appropriate useful life.

This approach of depreciating separate parts of a single item of property, plant and equipment is easily understood in relation to the physical components of a single item, as in the aircraft example discussed above. There will, however, also be “parts” that are less tangible. An entity may purchase an item of property, plant and equipment that is required to undergo major inspections or overhauls at regular intervals over its useful life. For example, an entity might acquire a fleet of trucks, each of which requires a major overhaul, say, once every five years. Part of the cost of the trucks may

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be allocable to the component that is the focus of the overhaul, such as drive assemblies to be restored by the periodic overhauls.

Identifying the cost of this inherent component at the time of acquisition may not be simple, as it will generally not have been separately invoiced. Therefore, an estimate of the cost will be required. This will generally be based on the current cost of the expected overhaul or inspection, i.e., the estimated cost of those activities if they were performed at the time of the purchase.

As discussed in **section 8:3.5** above, expenditure incurred subsequently on the major inspection or overhaul is capitalized provided that the recognition criteria set out in IAS 16(7) are met. To the extent that the separate component representing the estimated cost of the inspection or overhaul has not been fully depreciated by the time that the inspection/overhaul expenditure is incurred, it is derecognized and will therefore give rise to a loss.

Example 8:7.1 below illustrates the accounting treatment for major inspection or overhaul costs which qualify for separate recognition.

The treatment of costs of major overhauls under IAS 16 differs from that under CICA 3061 – see comments in **section 8:3.5.3** above.

Example 8:7.1

Separate depreciation of cost of major overhaul

An entity purchases an aircraft for \$10 million. This aircraft is required to undergo an overhaul every five years to restore its airworthiness. At the time of purchase, the service potential that will be required to be restored by the overhaul can be measured based on the cost of the overhaul if it had been performed at the time of the purchase of the aircraft.

The following shows the calculation of the depreciation of the ship for Years 1 to 5, using the straight-line method.

	Amount	Useful life
	\$'000	(years)
Purchase price of aircraft	10,000	
Comprising:		
The aircraft, excluding projected overhaul cost	9,000	30
Projected overhaul cost	1,000	5
For Years 1 to 5, depreciation charges per annum are:		
Aircraft (excluding the overhaul)	300	
Overhaul	200	

By the end of Year 5, the service potential is fully depreciated. When an overhaul is carried out in Year 6, the expenditure is capitalized to reflect the restoration of service potential, which is then depreciated over the period to the next overhaul in Years 6 to 10.

The process in Years 6 to 10 repeats every five years from Year 11 onwards until Year 30, when both aircraft and the cost of the last overhaul are fully depreciated.

Note that the entity is required to use its best efforts to separately identify components such as the service potential component, as described in **Example 8:7.1** above, when the asset is first acquired or constructed. Making that separate identification, and subsequently separately depreciating the service potential component, are not, however, necessary

conditions for capitalizing the subsequent expenditure on the overhaul as part of the cost of the asset. For example, if the entity had, in error, failed to identify the service potential component at the date of acquisition and had not depreciated it separately during Years 1 to 5, the expenditure on the overhaul in Year 6 would still be capitalized as part of the cost of the asset, provided that the general recognition criteria were met. In this circumstance, the entity would be required to estimate the remaining carrying amount of the original service potential component at the date of the first overhaul (see, for example, 8:3.5.2 on how such an estimate may be made) and to derecognize that carrying amount at the same time as the expenditure on the overhaul is capitalized.

IAS 16 gives a further example of circumstances in which cost may need to be allocated to significant parts of an asset. If an entity acquires property, plant and equipment subject to an operating lease in which it is the lessor, it may be appropriate to depreciate separately amounts reflected in the cost of the item that are attributable to favourable or unfavourable lease terms, relative to market terms, even though such attributes would not be broken out as a separate asset on initial recognition [IAS 16(44)].

Land and buildings acquired in such circumstances might qualify as investment property, in which case this guidance applies where the cost model within IAS 40 *Investment Property* is adopted.

Where lease terms are unfavourable for the lessor (e.g., fixed rentals are below market terms), this will tend to depress the fair value of the asset, so that the component relating to the unfavourable terms will be a credit. Separately depreciating such a credit component will reduce the total depreciation charge during the period for which unfavourable terms apply.

8:7.2 Residual value

IAS 16 defines residual value as “the estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life” [IAS 16(6)].

In practice, an asset’s residual value is often insignificant and, therefore, is immaterial in calculating its depreciable amount. However, where the residual value is significant, then it will directly impact on the depreciation recognized over the life of the asset.

Compared to Canadian GAAP, many entities will find that IAS 16 requires a more systematic approach to assessing residual value. Under IAS 16, the calculation for residual value is based on current prices. Furthermore, the amount is reviewed at least at each financial year-end and again at then-current prices, with any change in the calculation being treated as a change in accounting estimate. Therefore over time, all other things being equal, residual values under IAS 16 can be expected to change with the general price level as well as with the relative prices of similar assets of similar vintage. For appreciating assets, such as some buildings, it is entirely possible that residual value will rise so that, in due course, it exceeds carrying amount. When this happens, depreciation will temporarily be zero (but the asset will still be depreciated).

CICA 3061 states that residual value is the estimated net realizable value of an item of property, plant and equipment at the end of its useful life to an enterprise but is not explicit on whether this concept reflects current or future prices. The work required of some Canadian entities to implement the components approach may also require establishing processes to estimate and revise residual values as defined by IAS 16.

To recapitulate, the residual value of an asset is required to be reviewed at least at each financial year-end [IAS 16(51)]. The revised estimate is based on market conditions current at the end of the reporting period. Where the revised estimate differs significantly from previous estimates of residual value, the effect is accounted for prospectively as a change in estimate, in accordance with the requirements of IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* [IAS 16(51)]. Effectively, the depreciation recognized over the remaining useful life of the asset is adjusted to take account of the revised estimate of residual value.

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Where the revised estimate of residual value is equal to or greater than the asset's carrying amount, whether due to inflation or otherwise, then the asset's depreciation charge is zero, unless and until its residual value subsequently decreases to an amount below the asset's carrying amount [IAS 16(54)]. If an asset's carrying value is less than its estimated residual value, the accounting consequences depend on the manner in which that situation arose. If the situation arose as the result of an increase in the residual value of the asset, then there are no accounting consequences other than zero periodic depreciation expense. If the result arose because the asset was deemed to be impaired and was previously written down, then it may be appropriate to reverse some portion of that write-down – see **Chapter 15**.

The definition of residual value refers to the potential disposal value of the asset if it were already of the age and in the condition expected at the end of its useful life. The amount is therefore quite separate from the asset's current fair value. Where the asset's fair value exceeds its carrying amount (generally because the entity has adopted the cost model for accounting for its property, plant and equipment), this does not remove the obligation to recognize depreciation [IAS 16(52)].

The definition of residual value focuses on the amount that could currently be obtained on disposal of the asset (adjusted for vintage), rather than focusing on the amount that is expected to be obtained at the end of the asset's useful life. Therefore, expectations as to future increases or decreases in that disposal value are not taken into account. Thus, an increase in the expected residual value of an asset, because of past events, will affect the depreciable amount; expectations of future changes in residual value, other than the effects of vintage, such as wear and tear, will not [IAS 16(BC29)].

8:7.3 *Estimates of useful lives*

The useful life of an asset is defined as:

- (a) the period over which an asset is expected to be available for use by an entity; or
- (b) the number of production or similar units expected to be obtained from the asset by an entity. [IAS 16(6)]

8:7.3.1 *Commencing depreciation*

Depreciation of an asset commences when it is available for use, i.e., when it is in the location and condition necessary for it to be capable of operating in the manner intended by management [IAS 16(55)]. This is the same point in time at which the entity is required to cease capitalizing costs within the carrying amount of the asset. See **section 8:4.2.9** above for guidance as to when this point in time occurs.

In contrast, Canadian GAAP is silent on when depreciation commences.

8:7.3.2 *Ceasing depreciation*

Depreciation of an asset ceases at the earlier of:

- the date that the asset is classified as held for sale (or included in a disposal group that is classified as held for sale) in accordance with IFRS 5; and
- the date that the asset is derecognized. [IAS 16(55)]

IFRS 5 requires that a non-current asset (or disposal group) be classified as held for sale if its carrying amount will be recovered principally through a sale transaction rather than through continuing use [IFRS 5(6)]. For this to be the case, the asset (or disposal group) must be available for immediate sale in its present condition, and its sale must be “highly probable”. (See **Chapter 12** for further guidance.)

IAS 16 sets out requirements for derecognizing items of property, plant and equipment (see **section 8:9** below).

Depreciation of an asset does not cease when an asset becomes idle or is retired from active use, unless the asset is fully depreciated. Where the depreciation is calculated by reference to the usage of the asset, however, the depreciation recognized may be zero while there is no production [IAS 16(55)].

Canadian GAAP does not address depreciation when an asset becomes idle.

In any case, when an asset becomes idle or is retired from active use, it may trigger an impairment loss which will result in the reduction of the carrying amount of the asset to its estimated recoverable amount. If the asset has no future use in

production, this may be its fair value less selling costs at that date. This should not be significantly different from the residual value, which is the proceeds of disposal less selling costs at the end of its useful life (see **Chapter 15**).

8:7.3.3 *Factors that impact an asset's useful life*

The consumption of the future economic benefits embodied in an asset occurs principally through usage. Other factors are also taken into account, however, such as technical obsolescence and wear and tear while an asset remains idle, as they may result in a reduction in the economic benefits expected to be derived from the asset. Consequently, all of the following factors need to be considered in determining an asset's useful life:

- expected usage of the asset. Usage is assessed by reference to the asset's expected capacity or physical output.
- expected physical wear and tear. This depends on operational factors, such as the maintenance and repair program, and the maintenance and care of the asset while idle.
- technical or commercial obsolescence arising from changes or improvements in production, or from a change in the service output of the asset or market demand for the product.
- legal or similar limits on the use of the asset, such as the expiry dates of related leases. [IAS 16(56)]

As an asset's useful life is defined in terms of its expected utility to the entity, the reporting entity's asset management policy is taken into account when estimating useful life. For example, an entity may have a policy of disposing of assets after a specified time or after consuming a specified proportion of the economic benefits embodied in the assets. In such circumstances, an asset's useful life may be shorter than its economic life [IAS 16(57)]. For example, as a matter of operating policy, company cars are often disposed of well before the end of their economic life.

8:7.3.4 *Change in estimate of useful life*

IAS 16 requires reviewing the estimate of the useful life of an item of property, plant and equipment at least at each financial year-end. If expectations differ from previous estimates, the change is accounted for as a change in accounting estimate in accordance with IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* [IAS 16(51)].

Estimates of useful lives require adjustment from time to time in the light of changes in experience and knowledge. These changes may reflect the extension of estimated useful lives due to exceptional maintenance expenditure, curtailment of estimated useful lives due to excessive use, or obsolescence not included in the original estimates. When the original estimate of the useful life of an asset is revised, the undepreciated cost (or valuation) is recognized in profit or loss over the revised remaining useful life, except to the extent that the depreciation expense qualifies for capitalization into the cost of other assets, such as inventories.

CICA 3061 does not require that the useful life of an item of property, plant and equipment be reviewed at least at each financial year-end. CICA 3061.33 requires reviewing the amortization method and estimates of the life and useful life of an item of property, plant and equipment on a regular basis. CICA 3061.34 provides examples of significant events – such as changes in the manner in which or extent to which the asset is used, or external events such as technological or legal developments – that may indicate a need to revisit the amortization method or estimates.

Example 8:7.3.4

Change in estimate of useful life

An entity purchased an item of plant at a cost of \$1.2 million with an estimated useful life of ten years, and zero salvage.

At the end of Year 3, the asset has a carrying amount of \$840,000. On the basis of experience of similar assets, the item of plant is now estimated to have a remaining useful life of four years. The asset is determined not to be impaired. Consequently, the carrying amount of \$840,000 is depreciated over the remaining four years at \$210,000 per annum.

Depreciation charges for Years 1 to 7 will be as follows:

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	\$'000		\$'000
Year 1	120	Year 5	210
Year 2	120	Year 6	210
Year 3	120	Year 7	210
Year 4	210		

A significant reduction in an asset's estimated useful life may indicate that the asset has been impaired, because the amount that the entity expects to generate from using the asset may be reduced below its carrying amount. In such circumstances, a detailed impairment test should be performed and, if necessary, an impairment loss to reduce the asset's carrying amount to its recoverable amount (see **Chapter 15**). The recoverable amount is then depreciated over the revised estimate of the asset's useful life.

8:7.3.5 Fully-depreciated assets

If estimates of the useful lives of items of property, plant and equipment are made realistically and kept under regular review as required by IAS 16(51), there should be few fully depreciated assets still in use. Assets for which zero depreciation is recorded may occur more frequently, as residual values may be revised upward to reflect general inflation in price levels since acquired, and hence eliminating the depreciation base. In such circumstances, prior depreciation is not reversed. If the assets are no longer in use, either as the result of abandonment or decommissioning without intention of any further use, they are either classified as held for sale in accordance with IFRS 5 if it is anticipated they will be sold for salvage, or they are derecognized (see **section 8:9** below) if they have zero prospect of further use or proceeds. This would apply even if the asset is an element of a larger cash-generating group that has a positive net recoverable amount in excess of the carrying amount, including the abandoned or decommissioned asset. If the fair value less costs to sell of any asset approximates the value in use of the asset and the fair value less costs to sell can be reliably determined (which it very likely would upon abandonment (i.e., zero) or decommissioning), the individual asset is evaluated by reference to its fair value less costs to sell independently of the cash-generating unit [IAS36(22)(b)]. Thus, losses or impairment arising from the abandonment of individual assets are not "buried" in the carrying values of cash-generating units.

8:7.4 Methods of depreciation

It is necessary to select a method of applying depreciation that results in the carrying amount of the asset being allocated as fairly as possible to the periods expected to benefit from the use of the asset. The method used should be that most closely reflecting the pattern in which the asset's economic benefits are expected to be consumed by the entity. The depreciation method selected under IFRS is not, in concept, an accounting policy choice, but an estimate of the pattern of consumption of the asset's cost or value [IAS 16(60)].

8:7.4.1 Alternative methods of apportioning depreciation

There are several methods of apportioning depreciation over the anticipated useful life of the asset. Those most commonly employed are the straight-line method and the reducing balance (diminishing balance) method. Straight-line depreciation results in a constant charge over the useful life of the asset, because the annual depreciation charge is a fixed percentage of the original cost (or revalued amount). The reducing balance method results in a decreasing charge over the life of the asset, because the annual depreciation charge is a fixed percentage of the opening carrying amount. The straight-line method is the most popular, principally because of its simplicity.

Another useful basis is the unit of production method, which apportions the asset's cost over its productive life, measured in terms of the units produced or machine hours utilized, in relation to the total of such units or hours estimated over the asset's productive life. This method is theoretically superior to the straight-line and reducing balance methods when it more accurately matches costs with revenue, and where the life of the asset can be measured with some precision in terms of its relationship with ultimate total output. This method is commonly used in the oil, gas, and other extractive industries, where the life of an asset may be expressed in terms of a quantity of output, and production assets have no further value once reserves have been extracted.

8:7.4.2 Increasing charge depreciation

Entities will often acquire items of property, plant and equipment that are expected to generate benefits over many years. Customer demand to use the assets may, however, be expected to start slowly and take a number of years to reach an expected “normal” level. Examples of this might be a privately operated toll road or a cable-television distribution network. In such cases, an entity may wish the depreciation on the asset to increase gradually to reflect customers’ expected phased-in demand.

The appropriateness of such a policy will depend in theory not on demand for the asset but on how the asset’s benefits are being consumed. IAS 16(60) requires that depreciation reflect the pattern in which the asset’s economic benefits are consumed by the entity that owns or controls it. Those benefits should be viewed in light of its physical capacity or physical output (using up physical capability, wear and tear, and technical obsolescence), and legal limits on the physical use of the asset (such as a limited term as governed by a lease). The underutilization of capacity does not affect the depreciation of an asset if the way in which its economic benefits are consumed is more closely related to time. Thus, the intensity of use of a network may not affect the expected life of the network, which may be governed by obsolescence rather than use, which may grow over time.

Increasing charge methods of depreciation are based on some challenging assumptions. As a depreciation method is intended to reflect the consumption of the benefits of an asset, an increasing charge method indicates that potential benefits from using the asset that are more distant in time are larger and/or more valuable than those that more proximate in time. Such assertions contradict generally recognized valuation principles, which generally place a higher value on benefits that are nearer in the future. Generally, for any asset, the value of later benefits are discounted at a cumulatively diminishing discount factor compared to that of nearer benefits. Such discounting is compounded by the effects of uncertainty about the future, which logically increases with the length of the horizon.

Consequently, there is no generally accepted support in IFRS for using a method of depreciation that systematically projects an increasing pattern or rate to the expected consumption of benefits from the asset. In terms of the IAS *Framework*, such methods are “imprudent”. Consequently, an increasing charge or sinking fund method of calculating depreciation is not appropriate under IAS 16. A unit-of-production method of calculating depreciation will be appropriate if it most closely reflects the expected pattern of consumption of the benefits of an asset.

More generally, alternative methods of depreciation (e.g., decreasing charge depreciation and the sum-of-digits method, or “rule of 78”) are acceptable under IFRSs only if they reflect the pattern in which the asset’s economic benefits are expected to be consumed. As a consequence, a method based on tax allowances granted (e.g., the double declining balance method) is not permitted unless it also reflects the asset’s expected consumption pattern.

The depreciation method adopted is based on the asset’s economic depreciation, i.e., consumption of its potential utility, rather than on the return from the asset from its actual use. Therefore, considering the time value of money in determining the depreciation method (e.g., the annuity method) is not appropriate.

CICA 3061 states that “an increasing charge method may be used when an enterprise can price its goods or services so as to obtain a constant rate of return on the investment in the asset”. Any Canadian entities continuing to rely on this statement to produce an increasing charge method will be required to change this amortization method under IAS 16.



8:7.4.2.1 Group depreciation methods

A common practice under Canadian GAAP is the employment of “group depreciation” methods, also known as the “equal life group” method. Such methods are employed to account for large populations of similar items the cost of which may be relatively small individually, but the amounts are significant in aggregate. It is commonly used in network type businesses, such as utilities, telecommunications, transportation entities, and similar enterprises where there is a large number of identical items in use throughout the network, and for which the salvage value after failure of an item is generally small or zero. These items may include transformers, switching equipment, telephone poles, and many other elements of the physical plant. The cost of tracking the cost and useful life of each individual item would be, undoubtedly, significantly in excess of the benefit such precision would provide. Nonetheless, in rate-regulated enterprises, the aggregate amounts of such assets and their corresponding depreciation expense would have a significant impact on the behavior of book value and reported incomes, frequently important inputs into the rate-regulation process. The network-type attributes of many businesses that have multiple locations and computer systems that track large numbers of small assets make this a very common application.

An economical solution to the cost/benefit challenge of accounting for such populations adopted under Canadian and North American practice in general is to employ statistical models that characterize the distributions of the life of the individual members of the population of such items. These models generate probability distributions known as survivor curves or “Iowa curves” (named after the location of the university that developed this methodology). These models are frequently verified by population studies that update the parameters based on the entity’s experience. The survivor curves can then be converted into curves that describe the cumulative consumption of the aggregate population over time. This aggregate consumption pattern is then used to compute the depreciation expense for the class of assets as a whole.

A useful feature of the aggregate approach is that, as long as the survivor curve is reasonably updated, there is no need to track the specific cost of individual items that are replaced. Any given failure and removal of an asset from the class is simply one event that is captured by the aggregate model. Hence, the accounting process for the removal of any item can be reduced to crediting the aggregate balance of the class for any proceeds that are in fact received upon removal of the item. To the extent that an item fails or is replaced prior to its expected lifetime, it is assumed that there will be (statistically speaking) another item whose failure is the opposite side of the expected lifetime statistic. In the long run the law of large numbers virtually guarantees that the balance of the class will, in the aggregate, approach zero when the last of the items is in fact removed from the class at its ultimate failure date.

This theoretical approach has some practical challenges. Examples of these are unprogrammed natural events, such as ice storms, that destroy a significant element of the total population in one event; the intrusion of unanticipated technological change that requires the early replacement and removal of a class of items; and the effects of inflation and recycling requirements that result in proceeds from disposition at amounts different from those anticipated in the curves. Experience indicates that the process may result in a credit balance being associated with a class or subclass of assets. Statistically speaking, this might be explained as a random event resulting from the accelerated disposition of certain assets, but there will be “catch-up” when remaining assets in the class are removed at a rate that is less than that which characterizes the class as a whole. Or, the estimated parameters may just have incorrectly anticipated the behaviour of the population as a whole.

The process of “derecognition” employed by such group methods is not consistent, however, with the specific guidance for derecognition provided in IAS 16. That Standard explicitly states:

- 67 The carrying amount of an item of property, plant and equipment shall be derecognised:
 - (a) on disposal; or
 - (b) when no future economic benefits are expected from its use or disposal.
- 68 The gain or loss arising from the derecognition of an item of property, plant and equipment shall be included in profit or loss when the item is derecognised (unless IAS 17 requires otherwise on a sale and leaseback). Gains shall not be classified as revenue.

It is difficult to reconcile this approach with the derecognition process that simply credits the balance of the class with the proceeds and assumes that the aggregate depreciation rate will adjust for any statistical discrepancies. IAS 16(67) seems reasonably clear that a derecognition event should give rise to the removal of the asset from the class balance and the recognition of a gain or loss to the extent that the proceeds are greater than or less than the carrying amount attributed to the asset.

This does not mean, however, that there is no room for statistical methods in the circumstances. Specifically, IAS 16 states:

To the extent that an entity depreciates separately some parts of an item of property, plant and equipment, it also depreciates separately the remainder of the item. The remainder consists of the parts of the item that are individually not significant. If an entity has varying expectations for these parts, approximation techniques may be necessary to depreciate the remainder in a manner that faithfully represents the consumption pattern and/or useful life of its parts.
[IAS 16(46)]

This clearly entertains the use of statistical methods. It would be reasonable, therefore, to consider using the group life parameters to compute an average cost that could be attributed to a specific member of a large class of similar items, rather than tracking the cost of each item. That cost could then be used in the derecognition calculation, and any corresponding gain or loss recognized upon the asset’s disposition or abandonment. Such processes would not disturb the statistical principles behind the use of life curves and would be consistent with IFRS. They would also have the benefit of preventing the anomalous occurrence of credit balances in the asset classes, a matter that is clearly inconsistent with the principles of IFRS.

As with many elements of the principles-based approach, the acceptability of such a protocol would depend on such matters as the number of items in a class, their degree of homogeneity, the stability of the estimates, including the effects of unanticipated environmental and technological change, and other factors. Materiality could also be a factor.

Upon conversion to IFRS, entities that employ a group life method that does not provide for the explicit derecognition of specific items should consider these matters in their conversion plans. Specific consideration should also be given to the accuracy of estimates the Canadian GAAP books if, in fact, credit balances or other anomalous circumstances are observed.

8:7.4.3 Change in depreciation method

IAS 16 requires reviewing the depreciation method applied to an item of property, plant and equipment at least at each financial year-end. Except where there is a change in the expected pattern of consumption of economic benefits embodied in the asset, the depreciation method adopted is applied consistently from period to period. If there has been a significant change in the expected pattern of consumption of benefits, the depreciation method is changed to reflect the changed pattern. The change is accounted for as a change in accounting estimate in accordance with IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* [IAS 16(61)].

Therefore, a change from one method of recognizing depreciation to another does not constitute a change in accounting policy but is accounted for as a change in accounting estimate in accordance with IAS 8. The carrying amount of the asset is written off using the new method over the remaining useful life, commencing with the period in which the change takes place. Separate disclosure of the impact of the change will be required if the change has a material effect in the current period or is expected to have a material effect in subsequent periods.

Example 8:7.4.3

Change in depreciation method

An entity acquired an asset three years ago at a cost of \$5 million. The depreciation method adopted for the asset was 10 per cent reducing balance. No salvage or residual value is expected.

At the end of Year 3, the carrying amount of the asset is \$3,645,000. The entity estimates that the remaining useful life of the asset is eight years and determines to adopt straight-line depreciation from that date so as to reflect better the revised estimate pattern of recovery of economic benefits.

Depreciation charges for Years 1 to 11 will be as follows:

	\$'000		\$'000
Year 1	500	Year 7	455
Year 2	450	Year 8	455
Year 3	405	Year 9	455
Year 4	455	Year 10	455
Year 5	455	Year 11	460
Year 6	455		

8:7.5 Depreciation of particular classes of asset

8:7.5.1 Freehold land

Freehold land that is not subject to depletion (e.g., by the extraction of minerals) does not have a limited useful life and, therefore, the original cost of the land is not depreciated. In consequence, when freehold property including land and buildings is purchased, it is necessary to allocate the purchase consideration between the value of the land and that of the buildings. Similarly, any revaluations of freehold property should distinguish between land and buildings.

Where the cost of future site dismantlement, removal, and restoration is included in the cost of land, that portion of the cost of the land asset is, however, depreciated over the period during which benefits are obtained by incurring those costs. This may be the period over which the entity can utilize the land without incurring additional dismantlement and restoration costs, e.g., the life of a building built on the land that will be restored after the building is demolished. The restoration of land obviously does not add value to the building, but to the land. In some cases, the land itself may have a limited useful life (e.g., there is a limited tenancy), in which case it is depreciated in a manner that reflects the benefits to be derived from it [IAS 16(59)].

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There is an interesting challenge where such decommissioning costs are incurred for land or rights of way that are to be used indefinitely. Application of the principles would suggest amortization of such costs would likely be technically required but negligible until the expected life of the right of way became reasonably short. The costs themselves may also be negligible due to discounting, unless the remediation expenditures were to occur within a period of time that diminished the effects of discounting on the related provision that gives rise to those costs. In any case, where the value of freehold land is adversely affected by long-term environmental factors, an impairment loss is recognized to reflect any decline in its estimated recoverable amount below its carrying amount, calculated including the amount arising from the provision for such costs.

8:7.5.2 *Freehold buildings*

Buildings have generally limited useful economic lives even though the edifice itself may itself have a substantial physical life. Although their estimated useful lives are usually significantly longer than other items of property, plant and equipment, they are nevertheless depreciated in a similar manner, generally using the straight-line method. IAS 16 emphasizes that an increase in the value of the land on which a building stands does not affect the determination of the useful life of the building [IAS 16(58)]. An exception to the general requirement to depreciate buildings is allowed for those properties that qualify as investment properties (see **Chapter 10** for details).

IAS 16 does not grant any exemption in respect of historic buildings: the fact that they may have been built centuries earlier, and may be expected to last for centuries more, does not exempt them from depreciation. It is possible that the useful life of such a building may be very long. Also, where an entity intends to sell such a building in due course rather than using it for the remainder of its physical life, it is possible that the residual value may be relatively high.

However, recognition should be given to the fact that the residual value will be estimated by considering the current market conditions for a property in the condition it will be in at the end of its useful life. In many cases, buildings with substantial age are not commercially classified in the same manner as buildings of the age as the property is currently; the reference property for the purposes of estimating residual values for a thirty-year old building with an estimated remaining useful life of thirty years will not be a thirty-year old property, but a sixty-year old property – which may not be quite as attractive a proposition. And the value of such property would be exclusive of the land component, which may, in fact, capture much of the appreciation rather than the building itself. In any case, buildings with exceptional qualities may lead to the depreciation recognized being relatively small. But care should be taken to identify any components (roofs, cladding, interior furnishings, electrical, HVAC, elevators, and fire safety matters, for example) that may require replacement or upgrading at periodic intervals, which will need to be depreciated over a shorter period (see **section 8:7.1** above).

8:7.5.3 *Plant and machinery, tools and equipment, ships, vehicles, etc.*

Depreciation recognized is, in general, computed using the straight-line method, but the declining balance and unit-of-production methods are also suitable in appropriate circumstances. Some small assets with very short useful lives, such as loose tools, jigs, and patterns may, however, be dealt with more satisfactorily in the aggregate, as discussed in **section 8:3.4** above.

8:7.5.4 *Leased assets*

Tangible assets that are held under finance leases are required by IAS 17 to be depreciated. That Standard requires that the depreciation policy adopted for depreciable leased assets be consistent with that for similar assets that are owned, and requires calculating the depreciation recognized in accordance with the principles of IAS 16, as discussed throughout this section [IAS 17(27)].

IAS 17 also stipulates that, if there is reasonable certainty that the lessee will obtain ownership by the end of the lease term, the period of expected use is the useful life of the asset; otherwise, the asset is to be depreciated over the shorter of the lease term and its useful life [IAS 17(28)].

IAS 16(56)(d) requires taking into account the expiry dates of related leases in determining the useful life of a depreciable asset. Is the renewal option in a lease contract considered in estimating the useful life of leasehold improvements?

The renewal period(s) is taken into account if, at the inception of the lease, it is “reasonably certain” that the lessee will exercise the renewal option. For property acquired by a lessee under a finance lease, IAS 17(27) states that “If there is no reasonable certainty that the lessee will obtain ownership by the end of the lease term, the asset shall be fully depreciated over the shorter of the lease term and its useful life”. IAS 17(4) defines lease term to include “any further terms for which the lessee has the option to continue to lease the asset, with or without further payment, when at the inception of the lease it is reasonably certain that the lessee will exercise the option”. This “reasonable certainty” of renewal test is applied at the commencement of the lease both in accounting for the lease itself and in assessing the depreciable life of leasehold improvements relating to both finance and operating leases. The assumption regarding the lease term should be applied consistently for the lease and for any leasehold improvements.

See **Chapter 17** for a discussion of the lease term in IFRS compared to Canadian GAAP.



8:7.5.5 *Stand-by equipment*

The useful life of stand-by equipment is determined by the useful life of the equipment for which it serves as a backup. Take the example cited in **section 8:3.2** above, where an entity installed two turbines. One will produce energy for the plant and the other will be used as a backup in case the first turbine fails or is otherwise rendered out of service. The stand-by equipment is depreciated from the date it is made available for use (i.e., when it is in the location and condition necessary for it to be capable of operating in the manner intended by management) over the shorter of the life of the turbine or the life of the plant of which the turbine is part.

8:7.5.6 *Spare parts*

In contrast to the depreciation of stand-by equipment, the useful life of spare parts classified as property, plant and equipment (rather than as inventory – see **Chapter 5**) commences when they are put into use, rather than when they are acquired.

Example 8:7.5.6

Depreciation of spare parts classified as property, plant and equipment

An entity buys five new machines for use in its production facility. Simultaneously, it purchases a spare motor to be used as a replacement if a motor on one of the five machines breaks down. The motor will be used in the production of goods and, once brought into service, will be operated during more than one period. It is therefore classified as property, plant and equipment.

Since the motor does not qualify as stand-by equipment, in that it will not be ready for use until it is installed, the useful life of the motor commences when it is available for use within the machine, rather than when it is acquired. It is therefore depreciated over the period starting when it is brought into service, continuing over the lesser of its useful life and the remaining expected useful life of the asset to which it relates. If the asset to which it relates will be replaced at the end of its useful life and the motor is expected to be used or usable for the replacement asset, a longer depreciation period may be appropriate. During the period before the motor is available for service, any reduction in value is reflected as an impairment loss under IAS 36 *Impairment of Assets* at the time impairment is indicated.

8:7.6 *General ledger packages for property, plant and equipment*

The data-set necessary to support IAS 16 calculations of cost, depreciation, and disposals (or derecognition, more generally) may be inconsistent with the data currently utilized by many entities to compute depreciation measures under Canadian GAAP.



In particular, IFRS requires tracking data organized by significant parts of items, including updated measures of expected residual values, impairment charges and reversals, depreciable amounts before and after impairment (see **Chapter 15**), replacement parts, and expected useful lives (whether as a matter of asset management policy or as defined by the economic lifetimes of elements of property, plant and equipment).

This may require more data than is captured under the current practices of many Canadian entities in computing depreciation expense under current Canadian GAAP. As noted, the IAS 16 measures are likely to be inconsistent with the “class” or “pool” system generally used for income tax purposes in Canada.

Most providers or suppliers of common general-ledger packages used on information systems in Canada provide IFRS-compatible property, plant and equipment sub-ledgers and data sets as optional features or functionalities. Converting to IFRS requires populating a data set with the appropriate historical data and choosing the appropriate parameters of item, part, useful life, and estimated residuals. Recreating such a data set for the population of all property, plant and equipment items in existence at the date of conversion of IFRS will likely be a significant task, and may require significant lead times, as well as appropriate controls, particularly for those entities that require an audit opinion on internal controls.

IFRS 1, which governs the transition to IFRS, provides a one-time option to establish a deemed starting value for property, plant and equipment by using its fair value at the transition date. This one-time option, however, does not exempt the entity from the ongoing responsibility to collect the data necessary to identify significant parts of items, and to calculate depreciation expense, the cost of replacement parts, and similar matters on an on-going basis.

8:8 Impairment

IAS 36 *Impairment of Assets* provides the principles used to determine whether an item of property, plant and equipment is impaired. IAS 36 provides guidance on when an entity should test for impairment of the carrying amount of its assets, the determination of the recoverable amount of an asset, and the recognition or reversal of an impairment loss (see **Chapter 15**) [IAS 16(63)].

8:8.1 Compensation for impairment or loss

Where an asset is impaired, lost, or given up, any compensation from third parties is included in profit or loss when the compensation becomes receivable [IAS 16(65)].

Examples of such circumstances include:

- reimbursements by insurance companies after the impairment or loss of items of property, plant and equipment, e.g., due to natural disasters, theft, etc.;
- indemnities by governments for items of property, plant and equipment that are expropriated, e.g., the expropriation of land to be used for public purposes;
- compensation related to the involuntary conversion of items of property, plant and equipment, e.g., the mandatory relocation of facilities to conform with environmental concerns; and
- physical replacement in whole or in part of an impaired or lost asset.

The Standard emphasizes that impairments or losses of items of property, plant and equipment, related claims for or payments of compensation from third parties, and any subsequent purchase or construction of replacement assets are separate economic events and are accounted for as such. The three economic events are accounted for separately as follows:

- in respect of impairment or loss:
 - impairments of items of property, plant and equipment are recognized in accordance with IAS 36; and
 - derecognition of items of property, plant and equipment retired or disposed of is determined in accordance with IAS 16;
- compensation from third parties for items of property, plant and equipment that were impaired, lost, or given up is included in determining profit or loss when it becomes receivable; and
- the cost of items of property, plant and equipment restored, purchased, or constructed as replacements is determined in accordance with IAS 16. [IAS 16(66)]

In short, it is not acceptable to maintain the original cost of the damaged asset and to net the costs of repair against the proceeds of insurance. The damage to the asset gives rise to an impairment loss. The insurance recovery gives rise to a gain. Such gains may be netted against the reported losses, to the extent they occur, in the same reporting period as they are contractually related [see IAS 1(32–34) and IAS 37(IN7)(b), as well as IAS 37(54)]. The costs of restoring assets are recognized as replacement costs in accordance with IAS 16. New assets are treated as acquired assets, and the costs accrued appropriately (including if appropriate capitalized finance costs, in accordance with IAS 23).

8:9 Derecognition

IAS 16 requires derecognizing the carrying amount of an item of property, plant and equipment:

- on disposal; or
- when no future economic benefits are expected from its use or disposal. [IAS 16(67)]

Example 8:9

Disposal of property, plant and equipment

An entity enters into a transaction whereby it sells an item of property, plant and equipment to a third party. It concurrently enters into a contract with the third party to buy all of the asset's actual output over its remaining useful life at a fixed per-unit price, but in total not less than a minimum payment equal to the value of 90 per cent of the expected output. The minimum payment is to be made even if the actual output is below expectation. Does the entity recognize the sale of the asset by removing it from its statement of financial position?

In this situation, the entity should consider the requirements of IFRIC 4 *Determining whether an Arrangement contains a Lease* (see **section 17:2.1** in **Chapter 17**). If it is concluded that the supply arrangement involves a finance lease, the requirements of IAS 17 *Leases* regarding sale and leaseback transactions apply, and the entity will still recognize the asset in its statement of financial position after title has been transferred to the third party.

Except where IAS 17 *Leases* requires otherwise in the circumstances of a sale and leaseback, the gain or loss arising on derecognizing an item of property, plant and equipment is included in profit or loss when the amount is derecognized [IAS 16(68)].

On derecognizing an item of property, plant and equipment, the gain or loss arising is determined as the difference between the net disposal proceeds, if any, and the carrying amount of the item [IAS 16(71)]. As discussed in **section 8:6.8.4** above, where a revalued asset is disposed of, any credit balance on the revaluation reserve attributable to that asset may be transferred directly to retained earnings (although such a transfer is not mandatory), but it is not reflected in profit or loss.

If an item of property, plant or equipment that is measured at a revalued amount under IAS 16(31) is sold or otherwise disposed of, IAS 16 neither precludes nor specifically requires a “deathbed” revaluation (i.e., a final revaluation of the asset at the time the asset is disposed of). Therefore, a gain or loss will be recognized to the extent of any difference between disposal price and last revaluation.

Entities should adopt a single accounting policy as regarding deathbed revaluations, and apply that policy consistently to all revalued assets. If such revaluations have, or could have, a material effect on the financial statements, the policy on deathbed revaluations is disclosed. Where a general policy of revaluation upon disposition is adopted, significant gains or losses normally are not expected on disposal since the fair value of a revalued asset, being the price obtainable in an arm's length transaction, should not differ materially from its carrying amount.

The disposal consideration received is measured at its fair value. If payment is deferred beyond normal credit terms, the consideration received is recognized initially at the cash price equivalent. The difference between the nominal amount of the consideration and the cash price equivalent is recognized as interest income on an effective yield basis, in accordance with IAS 18 *Revenue* [IAS 16(72)].

IAS 16 specifically prohibits the classification as revenue of gains arising on derecognizing property, plant and equipment, except for dispositions of property that were previously leased out under operating leases (see **section 8:9.1** below) [IAS 16(68)]. The Standard does, however, require that the date of disposal of an item of property, plant and equipment be

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determined using the criteria for recognizing revenue from the sale of goods, as set out in IAS 18 *Revenue* (see **Chapter 22**) [IAS 16(69)].

8:9.1 Sales of property, plant and equipment held for rental

For periods beginning on or after January 1, 2009, the requirements of IAS 16 are amended by *Improvements to IFRSs*, issued in May 2008.

Where an entity, in the course of its ordinary activities, routinely sells items that it has held for rental to others, it transfers those assets to inventories at their carrying amount when they cease to be rented and become held for sale. Sale proceeds from such assets are recognized as revenue in accordance with IAS 18.



Canadian GAAP does not specifically address this situation.

When such assets are transferred to inventories, IFRS 5 does not apply to them [IAS 16(68A)].

Earlier application of this amendment is permitted, but an entity choosing to apply the amendment early discloses that fact and also applies the related amendments to IAS 7 *Statement of Cash Flows* (discussed in **section 34:5.1.4** of **Chapter 34**).

8:9.2 Application of IFRS 5 to “in-period” disposals of assets

It is necessary to consider the requirements of IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations* not only for items meeting the criteria for classification as held for sale at the end of the reporting period, but also for all “in-period” disposals including assets sold during the reporting period that were not classified as held for sale at the previous reporting date.

The following example illustrates how the requirements to IFRS 5 are applied to an asset that was not classified as held for sale at the previous reporting date.

Example 8:9.2

Application of IFRS 5 to “in-period” disposals of assets

Entity R prepares its financial statements to December 31 and it does not prepare interim financial reports. At December 31, 20X1, Entity R carried a property asset in its statement of financial position at its revalued amount of \$2 million in accordance with IAS 16. Depreciation is \$60,000 per year. In April 20X2, management decides to sell the property and it is advertised for sale. By April 30, 20X2, the sale is considered to be highly probable. At that date, the asset’s fair value is \$2.6 million and its value in use is \$2.8 million. Costs to sell the asset are estimated at \$100,000. On June 15, 20X2, the property is sold for \$2.75 million.

Is Entity R required to apply IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations* to the disposal of the property?

Yes. When the effect is material, the requirements of IFRS 5 should be applied to “in-period” disposals of assets.

In the circumstances described, the following steps are required.

- Entity R should determine the date at which the IFRS 5 criteria for classification as held for sale are met (assume the date is determined to be April 30, 20X2, in this case).
- Entity R should depreciate the property until the date of reclassification as held for sale. Accordingly, the depreciation charge is $\$60,000 \times 4/12 = \$20,000$.
- The property should be revalued to its fair value at that date of \$2.6 million if the difference between the property’s carrying amount at that date and its fair value is material (see **section 12:4.1** in **Chapter 12**). The revaluation increase should be recognized in other comprehensive income in accordance with IAS 16.
- Entity R should consider whether the property is impaired by comparing its carrying amount (fair value) with its recoverable amount (higher of value in use and fair value less costs to sell). In the above example, no impairment loss is recognized because value in use of \$2.8 million is higher than fair value less costs to sell of \$2.5 million. If any impairment loss were identified at this point, it would be accounted for as a revaluation decrease under IAS 16.

- The property should be reclassified as held for sale and remeasured to fair value less costs to sell (\$2.5 million). Because, in this example, the property is already carried at fair value, the requirement to deduct costs to sell results in the immediate recognition of a loss of \$100,000. In accordance with IFRS 5, this write-down to fair value less costs to sell should be recognized in profit or loss.
- When the property is disposed of on June 15, 20X2, a profit on disposal of \$150,000 is recognized (net proceeds of \$2.65 million less carrying amount of \$2.5 million). Any remaining revaluation reserve relating to the property is not recognized in profit or loss, but it may be transferred to retained earnings in accordance with IAS 16.

The application of IFRS 5 in the above example affects the amounts reported in profit or loss, because the valuation movement prior to the date of reclassification (\$620,000) is recognized in other comprehensive income and is not subsequently reclassified to profit or loss. In addition to the depreciation expense of \$20,000, there will be a net gain recognized in profit or loss of \$50,000 which is comprised of the fair value movement after reclassification (\$150,000) less costs to sell (\$100,000).

If IFRS 5 had not been applied, in addition to the depreciation expense of \$27,500 ($\$60,000 \times 5\frac{1}{2}\%$), the net gain recognized in profit or loss would have been \$677,500 (net proceeds of \$2.65 million less the carrying amount at 15 June 20X2 of \$1,972,500).

For assets measured under IAS 16's cost model, the application will not affect net amount reported in profit or loss for the period. However, it will affect the amounts disclosed under IFRS 5.41(c) (see **31:7.3** in **Chapter 31**) and, when disclosed separately, amount reported for gains or losses arising on the disposal of property, plant and equipment (see **3:5.3.1** in **Chapter 3**).

8:10 Presentation and Disclosure

8:10.1 Presentation

IAS 1 *Presentation of Financial Statements* requires that, where material, the aggregate carrying amount of the entity's property, plant and equipment be presented in the statement of financial position [IAS 1 2007(54)(a), previously IAS 1 2003 (68)(a)].

8:10.2 Disclosure

The disclosure requirements set out below under IFRS are more extensive than the disclosures required under Canadian GAAP.



8:10.2.1 General

In respect of each class of property, plant and equipment, an entity is required to disclose:

- the measurement bases (i.e., cost or valuation) 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 (aggregated with accumulated impairment losses) 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 a disposal group classified as held for sale in accordance with IFRS 5 and other disposals;
 - acquisitions through business combinations;
 - increases or decreases resulting from revaluations and from impairment losses recognized or reversed in other comprehensive income;
 - impairment losses recognized in profit or loss during the period;

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- impairment losses reversed in profit or loss during the period;
- depreciation;
- the net exchange differences arising on the translation of the financial statements from the functional currency into a different presentation currency, including the translation of a foreign operation into the presentation currency of the reporting entity; and
- other changes. [IAS 16(73)]

Note that the reconciliation above is required both for the current period and for the comparative period. The reconciliation may be presented for the carrying amount rather than separately for cost (or revalued amount) and depreciation.

The financial statements are also required to disclose:

- the existence and amounts of restrictions on title, and property, plant and equipment pledged as security for liabilities;
- the amount of expenditures recognized in the carrying amount of an item of property, plant and equipment in the course of its construction;
- the amount of contractual commitments for the acquisition of property, plant and equipment; and
- if not disclosed separately in the statement of comprehensive income, the amount of compensation from third parties for items of property, plant and equipment that were impaired, lost, or given up that is included in profit or loss. [IAS 16(74)]

Although the drafting is a little unclear in the Standard, it appears that the second point above requires disclosure of the cost of assets that are still in the course of construction at the end of the reporting period (i.e., rather than those that were in the course of construction when the costs were incurred). The drafting is also unclear whether it is the costs incurred in the year or the total cumulative costs incurred on such assets which are disclosed, although the latter interpretation appears more logical.

Disclosures may also be required by IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* in respect of changes in accounting estimates for residual values, useful lives, depreciation methods, or provisions for dismantling, removing, or restoring assets (see **Chapter 6**), or by IAS 36 *Impairment of Assets* (see **Chapter 15**) [IAS 16(76), (78)].

8:10.2.2 *Items stated at revalued amounts*

In respect of items of property, plant and equipment stated at revalued amounts, the entity is required to disclose:

- the effective date of the revaluation;
- whether an independent evaluation was obtained;
- the methods and significant assumptions applied in estimating the items' fair values;
- the extent to which the items' 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 revalued 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 movement for the period and any restrictions on the distribution of the balance to shareholders. [IAS 16(77)]

The last of these disclosure requirements could be made in the reserves note rather than in the property, plant and equipment note.

8:10.2.3 *Additional recommended disclosures*

The Standard also encourages, but does not require, the disclosure of the following information:

- the carrying amount of temporarily idle property, plant and equipment;
- the gross carrying amount of any fully depreciated property, plant and equipment that is still in use;
- the carrying amount of property, plant and equipment retired from active use and not classified as held for sale in accordance with IFRS 5; and
- when the cost model is used, the fair value of property, plant and equipment when this is materially different from the carrying amount. [IAS 16(79)]

8:11 Future Developments

8:11.1 ED/2009/5 Fair Value Measurement

On May 28, 2009, the IASB published an Exposure Draft (ED) of proposed guidance on measuring fair value when required by existing Standards. The ED does not propose to extend the use of fair value measurements in any way, but would add disclosure requirements about how fair values were determined. If adopted, the proposals would replace fair value measurement guidance contained within individual IFRSs with a single, unified definition of fair value, as well as providing further authoritative guidance on applying fair value measurement in inactive markets. On June 29, 2010, the IASB published ED/2010/7 *Measurement Uncertainties: Analysis Disclosure for Fair Value Measurements*, proposing relatively minor amendments to the disclosure proposals in the May 2009 Exposure Draft. The comment deadline was September 7, 2010. An overview of the proposals is included in **section 30:8.1** of **Chapter 30**.

8:12 Implications for Canadian Preparers

In addition to the broad challenges and issues described in the introduction to this chapter, listed below are a few additional implications for consideration.

Asset retirement obligations

As discussed in **section 8:4.4.1** above, CICA 3110 contains more detailed discussion than IFRSs on measuring an asset retirement obligation, including matters such as determining an interest rate. Under IFRSs, as discussed in particular in **Chapter 16**, these obligations are subject to the overall requirements on recognizing and measuring provisions. This may mean, in some cases, that methodologies for asset retirement obligations used under Canadian GAAP will not generate an acceptable result under IFRSs.

Useful lives of property, plant and equipment

IAS 16 requires reviewing the estimate of the useful life of an item of property, plant and equipment at least at each financial year-end. If expectations differ from previous estimates, the change is accounted for as a change in accounting estimate in accordance with IAS 8 [IAS 16(51)]. As discussed further in **section 8:7.3.4** above, CICA 3061 requires reviewing the useful life of an item of property, plant and equipment on a regular basis, but not necessarily annually. The different requirements under IAS 16 may require additional year-end processes and documentation. The use of alternative estimates may have to be considered if group life methods are employed in Canadian GAAP.

First-time adoption of IFRS

This area is addressed in **Chapter 43**. Note, however, that if an entity's depreciation methods and rates under previous GAAP differ from those acceptable under IFRSs, the entity adjusts accumulated depreciation in its opening IFRS statement of financial position retrospectively so that it complies with IFRSs. Some Canadian companies may find on implementing IFRS that their established depreciation methods and rates, although not challenged in the past under Canadian GAAP, cannot be viewed as acceptable under IFRS, and thus may be required to carry out retrospective calculations under different methods.



iGAAP: IFRS for Canada



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