

CHAPTER 12

INTANGIBLE ASSETS AND GOODWILL

CHAPTER TOPICS CROSS-REFERENCED WITH THE *CPA CANADA HANDBOOK*, Part II and IFRS

Business Combinations	Section 1582	IFRS 3
Goodwill and Intangible Assets	Section 3064	IAS 38
Impairment of Long-Lived Assets	Section 3063	IAS 36
Non-monetary transactions/Exchange of Assets	Section 3831	IAS 38

LEARNING OBJECTIVES

1. Understand the importance of intangible assets and goodwill from a business perspective and describe their characteristics.
2. Identify and apply the recognition and measurement requirements for purchased intangible assets.
3. Identify and apply the recognition and measurement requirements for internally developed intangible assets.
4. Explain how intangibles are accounted for after initial recognition.
5. Identify and explain the accounting for specific types of intangible assets.
6. Explain and account for impairments of limited-life and indefinite-life intangible assets.
7. Explain the concept of goodwill and how it is measured and accounted for after acquisition.
8. Explain and account for impairment of goodwill.
9. Identify the types of disclosure requirements for intangible assets and goodwill and explain the issues in analyzing these assets.
10. Identify differences in accounting between ASPE and IFRS
11. Explain and apply basic approaches to valuing goodwill (Appendix 12A).

CHAPTER REVIEW

1. Chapter 12 discusses the identification, measurement, and impairment of intangible assets and goodwill. Intangible assets are generally recognized only when it is acquired in a purchase and sale transaction and are measured at their cost and adjusted downward to reflect their future benefit to the entity as of the end of each fiscal period.

Intangible Asset Issues

2. The characteristics of intangible assets are: (1) they are identifiable, (2) they lack physical existence, and (3) they are not monetary assets.
 - a. Identifiability – An asset is identifiable if it has at least one of the following characteristics:
 - it results from contractual or other legal rights, or
 - it is separable—it can be separated or divided from the entity and sold, transferred, licensed, rented, or exchanged, either by itself or in combination with another contract, identifiable asset, or liability.
 - b. Non-physical existence – value comes from the rights and privileges granted to the company that uses them.
 - c. Non-monetary – As identified above, intangible assets are characterized by a non physical existence. Bank deposits, accounts receivable, and long-term investments also lack physical substance, and they are not classified as intangible assets, but as financial instruments. However, the value of these assets comes from the right or claim to receive fixed or determinable amounts of money in the future, whereas intangible assets do not have these rights or claims.
3. **Intangible assets:**
 - provide economic benefits over a period of years
 - are normally classified as long term assets
 - include patents, copyrights, franchises or licensing agreements, trademarks, trade names, secret formulas, computer software, technological knowledge, prepayments, and some development costs.

4. **Recognition and measurement:** Similar to property, plant, and equipment, intangible assets are recognized when it is probable that the entity will receive the expected future economic benefits, and the asset's cost can be measured reliably. Cost is the appropriate basis for recording purchased intangible assets. Again like property, plant, and equipment, cost includes acquisition price and all other expenditures necessary in making the asset ready for its intended use. When intangibles are acquired for consideration other than cash, **the cost of the intangible is the fair market value of the consideration given or the intangible asset, whichever is more clearly evident.**
5. **Prepayments** are recognized as an asset only when an entity pays for goods before their delivery.
6. **Costs incurred internally to create intangible assets are generally expensed as incurred.** This is due to the uncertainty of the future benefits to be derived from the specific expenditure. IFRS requires that costs for internally generated intangible assets can be capitalized when certain criteria are met. Because of the uncertainty of whether an asset should be recognized, two phases are considered:
 - a. Research Phase – expensed as incurred.
 - b. Development Phase – an entity capitalizes development costs only when the future benefits are reasonably certain - must meet six criteria:
 - i. Technical feasibility of completing the intangible asset;
 - ii. The entity's intention to complete it for use or sale;
 - iii. The entity's ability to use or sell it;
 - iv. Availability of technical, financial, and other resources needed to complete it, and to use or sell it;
 - v. The way in which the future economic benefits will be received; including the existence of a market for the asset if it will be sold, or its usefulness to the entity if it will be used internally; and
 - vi. The ability to reliably measure the costs associated with and attributed to the intangible asset during its development.
7. When **all** six criteria are met, direct costs attributable to create, produce, and prepare the intangible asset to operate in the way intended by management are accumulated and capitalized.
8. **Recognition and Measurement after Acquisition** – most after acquisition costs are expensed. After initial recognition, the cost model (CM) and revaluation model (RM) are used to measure intangible assets. The CM is the most widely used and the only one allowed under ASPE. IFRS allows both, but the revaluation model can only be used if the asset has a fair value determined in an active market, so its use is limited. Accounting under these two models is the same for intangible assets as it is for property, plant, and equipment.

9. The accounting standards prior to 2001 required that all intangibles be amortized over their useful life, not exceeding 40 years. In 2001, the CICA (now known as CPA Canada) Accounting Standards Board replaced the “one size fits all” approach to the treatment of intangibles subsequent to acquisition. This approach takes into consideration the differing nature of the particular intangible. Only intangibles that have a determinable or limited life are amortized.
10. Specifically identifiable (cost of creating the intangible can be identified) may have a determinable or **limited life**. Thus, their **cost less residual value should be amortized over the period the asset is expected to generate future economic benefits**, using either the cost model or revaluation model. Due to uncertainties, residual value is generally assumed to be zero, unless there is an observable market for the asset, and it is expected to exist at the end of its useful life. IFRS requires companies to assess the estimated residual values and useful lives of intangible assets least annually. Companies must also evaluate intangibles annually for impairment. If there is an indication of impairment, an impairment test is performed.
11. Factors considered in determining useful life are:
 - a. The expected use of the asset or of a related group of assets(s) by the entity;
 - b. Any legal or regulatory provisions that may limit the useful life;
 - c. Any legal or regulatory provisions that enable renewal or extension of useful life;
 - d. The effects of obsolescence, competition, and other economic factors; Note: Effective January 1, 2016, IAS 38 was clarified to note that expected future reductions in sales prices of items produced using an intangible asset (such as a patent) could indicate expected commercial or technological obsolescence.
 - e. The level of maintenance expenditure required to obtain the expected level of cash flows from the asset.

12. Intangibles are often classified into one of five major categories (excluding goodwill):
- a. **Marketing-related intangible assets** are those assets primarily used in the marketing or promotion of products or services. Examples are trademarks or trade names, newspaper masthead, Internet domain names, and noncompetition agreements. Trademarks are a common form of a marketing-related intangible. A **trademark or trade name** is a word, phrase, or symbol that distinguishes or identifies a particular enterprise or product. If a trademark or trade name is purchased, its capitalized cost is the purchase price and other direct costs of acquisition. If a trademark or trade name is developed by the enterprise itself, the capitalized cost includes only legal fees, registration fees, design costs, consulting fees and other expenditures directly related to securing it (excluding research costs, which must be expensed). Trademark registrations in Canada last for 15 years, and are renewable at a reasonable cost. Although the legal life of such assets may be unlimited, in practice they may only provide benefits to the enterprise over a finite period. Trademarks can, however, be determined to provide benefits to an enterprise indefinitely. In this case, the intangible asset is not amortized.
 - b. **Customer-related intangible assets** occur as a result of interactions with outside parties. Examples are customer lists, order or production backlogs, and both contractual and non-contractual customer relationships.
 - c. **Artistic-related intangible assets** involve ownership rights to plays, literary and musical works, paintings, sculptures, photography, etc. These rights are protected by **copyrights**. A copyright is a federally granted right that authors and other artists have in their creations. A copyright is granted for the life of the creator, plus 50 years. During this time, the owner or heirs have the exclusive right to reproduce and sell an artistic or published work. Generally, the copyright's useful life is less than its legal life. The costs of the copyright (acquisition and successfully depending the copyright) should be allocated to the years in which the benefits are expected to be received. The difficulty in determining the benefit period for a copyright generally encourages companies to amortize these costs over a fairly short period of time.

- d. **Contract-related intangible assets** represent the value of rights that arise from contractual agreements. Examples are franchise and licensing agreements, construction permits, broadcast rights, and service or supply contracts. A **franchise** is a contractual arrangement under which the franchisor grants the franchisee the right to sell certain products or services, to use certain trademarks or trade names, or to perform certain functions, usually within a designated geographical area. A **license or permit** is the arrangement commonly entered into by a governmental body and a business enterprise that uses public property. Franchises and licenses can have limited or indefinite lives. The cost of a franchise (or license) with a limited life should be amortized as operating expense over the life of the franchise; whereas those with an indefinite life should be carried at cost and not amortized.

A second type of contract-related intangibles is a **leasehold**. Leasehold is a contractual right for the use of specific property for a specified period of time. If rent is paid in advance, the amount is most appropriately included in the current or other asset category (e.g., prepaid expenses).

Improvements made to leased property normally revert to the lessor at the end of the lease. Thus, the cost of **leasehold improvements** should be capitalized by the lessee, and amortized over the life of the lease or the useful life of the improvement, whichever is shorter. Leasehold improvements are generally classified as tangible assets, although some accountants classify them as intangible assets.

- e. **Technology-related intangible assets** relate to innovations or technological advances. Examples are patented technology and trade secrets. A **patent** gives the holder exclusive right to use, manufacture, and sell a product or a process for a period of 20 years without interference or infringement by others. **Amortization is recorded over its useful life, which is often shorter than its legal life.** Any legal costs incurred to secure a patent or to successfully defend a patent suit may be capitalized; however, research and development costs related to the development of a product, process, or idea that is subsequently patented must be expensed as incurred, except for development costs when all of the six criteria listed above are satisfied.

Impairment and Derecognition

13. As with tangible capital assets, the pattern of recognizing amortization expense should be consistent with the way the enterprise benefits from the asset's use. Limited-life intangibles are **evaluated for impairment**. An impairment loss is recognized if the intangible's carrying amount is not **recoverable** and/or its carrying amount exceeds its fair value.
14. **Identifiable intangibles** generate specifically identifiable cash flow streams, singly or in combination with other assets. Examples include a contractual right to lease space at favourable rates or a customer list. **Goodwill and other intangibles**, on the other hand, do not generate identifiable cash flow streams on their own, are not separable from the rest of the entity, and control over future benefits does not result from a contractual or legal right.
15. For accounting purposes, **identifiable intangible assets are recognized separately from goodwill** if control over the future economic benefits is obtained through contractual or other legal rights or if the asset can be separated or divided and sold, transferred, licensed, rented, or exchanged. Intangibles acquired in a business combination that do not meet either of these two conditions become part of the residual goodwill.
16. Limited Life Intangibles:
 - The same impairment models and standards that apply to long-lived tangible assets also apply to limited-life intangibles.
 - ASPE requires that **limited-life intangibles** be **tested for impairment** whenever events and circumstances indicate the carrying value may not be recoverable.
 - IFRS requires this assessment at the end of each reporting period.
 - The asset is formally tested by applying the appropriate impairment model – the cost recovery impairment model (ASPE) or rational entity impairment model (IFRS). Reversal of the impairment loss is limited and only applicable under the rational entity impairment model.
17. Indefinite-Life Intangibles:
 - Under ASPE, they are **tested for impairment** whenever events and circumstances indicate the carrying value may not be recoverable, in which case the **fair value test** is applied. This impairment test differs from the one used for limited-life intangibles in that there is **no recoverability test**. The indefinite-life intangible's carrying amount is compared directly with its fair value and written down where fair value is lower. The **recoverability test does not apply to indefinite-life intangibles**, as it would be impossible to measure the future cash flows objectively.

- Under IFRS, the only difference in testing from limited life intangibles is that the testing must be done at least annually regardless of whether impairment appears to exist.

18. **Derecognition**

An intangible asset is derecognized when it is disposed of or is no longer expected to generate future economic benefits and the gain or loss recognized in income.

Goodwill

19. **Goodwill** generated internally should not be capitalized in the accounts, because of the complexity in measuring the components of goodwill and in associating any costs with future benefits. **Goodwill** is recorded only when an entire business is **purchased**, because **goodwill cannot be separated from the business as a whole**. Goodwill is measured in a business purchase by computing the difference between the fair value of the net assets purchased and their bargained-for price.
20. A **bargain purchase**, often called **negative goodwill**, arises when the fair value of the net assets acquired is higher than the purchase price of the assets. When negative goodwill exists, the excess is recognized as a gain only when all variables, values, and measurement procedures have been reassessed.
21. The standard setters in both Canada and the U.S. have concluded that most goodwill has value that is maintained, similar to identifiable intangibles with an indefinite life. Therefore, **goodwill should not be amortized under any circumstances**. If IFRS is being followed, goodwill is assigned to a cash generating unit (CGU) and if ASPE is being followed, goodwill is assigned to a reporting unit. The carrying amount of this goodwill is reduced when it is found to be impaired or is associated with assets to be sold or disposed of.

Impairment of Goodwill

22. Because of the significance of purchased goodwill, it is important to stipulate when impairment tests should be carried out.
- IFRS requires that an assessment of the estimated value of goodwill be done on an **annual basis or on an interim basis if circumstances indicate the CGU may be impaired**.
 - ASPE requires this assessment when events or changes in circumstances indicate impairment. A goodwill impairment reversal is not allowed under either IFRS or ASPE.

23. A) Under ASPE, the impairment test compares the carrying amount of the reporting unit with its fair value. The impairment test for goodwill is a two-step process:
- Compare the fair value of the reporting unit with its carrying amount, including goodwill. If the fair value exceeds the carrying amount, **goodwill is considered not to be impaired**. If not proceed to step b.
 - Calculate the implied current fair value of goodwill, and compare this fair value with the carrying amount. If fair value is less than carrying amount, then an impairment has occurred.

The loss is allocated to goodwill as a goodwill impairment loss (note that impairment test for other assets in the group is done before the goodwill impairment test)

- B) Under IFRS the process is similar, only the comparison looks at the recoverable amount of the CGU and its carrying value to determine impairment. Under IFRS, a goodwill impairment loss is recorded if the test shows that the carrying amount of the CGU including goodwill is greater than the recoverable amount. (Recoverable amount is the higher of value in used and fair value less costs to sell). The impairment loss is allocated first to goodwill, then remainder to other assets on a relative carrying amount (proportionate amount).

Under **both** ASPE and IFRS a goodwill impairment reversal is not allowed.

24. **Presentation, Disclosure, and Analysis**

As with other disclosure requirements, ASPE is limited because users can assess additional information available to them. Under IFRS, disclosure needs to be sufficient to allow users to assess the changes in the different classes of intangible assets, how the changes came about, the use of fair value measurements, and impairment calculations.

25. Analysis must consider disclosures and other financial reports provided regarding intangible assets that do not appear on the statement of financial position because they are subject to measurement uncertainty or because they don't meet the criteria to be capitalized (such as knowledge assets or intellectual property).
26. On the statement of financial position, goodwill is the only intangible requiring separate, single line item disclosure. All other intangibles should be aggregated and reported as a separate line item on the statement of financial position. For intangibles subject to amortization, disclosure is required of the amortization methods and rates used, as well as the amount of amortization expense charges to income for the period.
27. Impairment losses associated with intangibles do not require separate line disclosure on the income statement, but a description of each impaired asset and details related to the amount of the loss must be disclosed.

Comparison of IFRS and ASPE

28. Refer to Text Illustration 12-15 for a comparison of the differences and similarities in accounting for intangible assets and goodwill under IFRS and ASPE.

Looking Ahead

29. As discussed in Chapter 11, IAS 36, Impairment of Assets, was amended for annual periods starting on or after January 1, 2014 to require additional disclosures for impairment losses recognized or reversed during the period. For example, the level of the fair value hierarchy used for fair value measurements under IFRS 13 must be disclosed.

Effective January 1, 2016, IAS 38.92 was clarified such that there is a “rebuttable presumption that amortization methods based on revenue generated by an activity that includes the use of an intangible asset is inappropriate.

Appendix 12A—Excess Earnings Approach to Valuing Goodwill

30. The excess earnings approach calculates difference between the annual average normalized earnings of the company and the annual average earnings if it was to generate a rate of return similar to that of a firm in the same industry. The excess earnings amount is then discounted to estimate the value of goodwill.

LECTURE OUTLINE

This chapter can be covered in one or two class sessions. As students have likely been introduced to intangibles in previous accounting classes, additional emphasis should be placed on the most recent developments in accounting for intangibles.

A. Nature of Intangible Assets: Characterized by a lack of physical existence and a high degree of uncertainty concerning future benefits.

1. Intangibles may be categorized by these characteristics:

- a. Identifiability (must be separately identifiable or result from contractual or other legal rights);
- b. Non physical existence
- c. Non-monetary

2. **Intangible assets:**

- provide economic benefits over a period of years
- are normally classified as long term assets
- include patents, copyrights, franchises or licensing agreements, trademarks, trade names, secret formulas, computer software, technological knowledge, prepayments, and some development costs.
- Often classified into 5 major categories (excluding goodwill):
 - Marketing-related intangible assets (such as trademarks)
 - Customer-related intangible assets (such as customer lists)
 - Artistic-related intangible assets (such as copyrights)
 - Contract-related intangible assets (such as franchises or licenses)
 - Technology-related intangible assets (such as patents)

B. Recognition and Measurement:

At Acquisition:

1. Intangible assets are recognized when it is probable that the entity will receive the expected future economic benefits, and the asset's cost can be measured reliably. Initially, intangibles should be recorded at cost, which includes all expenditures necessary to make the intangible asset ready for its intended use. When intangibles are acquired for consideration other than cash, the cost of the intangible is the fair market value of the consideration given or the intangible asset, whichever is more clearly evident.

2. **Borrowing costs** can be capitalized if directly attributable to the asset and incurred during the acquisition, construction, or development stage.
Prepayments are recognized as an asset only when an entity pays for goods before their delivery.
3. Costs incurred internally to create intangible assets are generally expensed as incurred due to the uncertainty of the future benefits to be derived from the expenditures. Exception: IFRS allows costs for internally generated assets to be capitalized when certain criteria are met – two phases are then considered:
 - a. Research phase – generally expensed
 - b. Development phase – capitalized when future benefits are reasonably certain – 6 criteria must be met, including:
 - i. Technical feasibility of completing the intangible asset
 - ii. The entity's intention to complete it for use or sale
 - iii. The entity's ability to use or sell it
 - iv. Availability of technical, financial, and other resources needed to complete it, and to use or sell it
 - v. The way in which the future economic benefits will be received; including the existence of a market for the asset if it will be sold, or its usefulness to the entity if it will be used internally
 - vi. The ability to reliably measure the costs associated with and attributed to the intangible asset during its development

Amortization

4. Specifically identifiable (cost of creating the intangible can be identified) may have a determinable or **limited life**. Thus, their **cost less residual value should be amortized over the period the asset is expected to generate future economic benefits**, using either the cost model or revaluation model. Due to uncertainties, residual value is generally assumed to be zero, unless there is an observable market for the asset, and it is expected to exist at the end of its useful life. Factors to consider in determining useful economic life can include:
 - a. The expected use of the asset or of a related group of assets(s) by the entity;
 - b. Any legal or regulatory provisions that may limit the useful life;
 - c. Any legal or regulatory provision that enable renewal or extension of useful life;
 - d. The effects of obsolescence, competition, and other economic factors; and
 - e. The level of maintenance expenditure required to obtain the expected level of cash flows from the asset.

TEACHING TIP

Illustration 12-1 is provided as a summary of the process of evaluating intangibles after acquisition.

5. After Acquisition Measurement:

In general, most after acquisition costs are expensed. Two models are used to measure intangibles after acquisition – the **cost model (CM)** and the **revaluation model (RM)**. The CM is the most widely used and the only one allowed under ASPE. IFRS allows both, but the revaluation model can only be used if the asset has a fair value in an active market, so its use is limited. Accounting under these two models is the same for intangible assets with both limited and unlimited lives except for unlimited lives, the amortization amount would be 0.

TEACHING TIP

Illustration 12-2 provides a comparison of the cost method and the revaluation method – this is also **Illustration 12-4** in the text.

C. Impairment

1. Both limited-life intangibles and unlimited life intangibles are **evaluated for impairment**. An impairment loss is recognized if the intangible's carrying amount exceeds its fair value (cost recovery impairment model used for ASPE) or its carrying amount is less than its recoverable amount (rational entity impairment model used for IFRS).
2. **Limited-life intangibles:**
 - **Timing of impairment testing:**
 - i. whenever events and circumstances indicate the carrying value may not be recoverable (ASPE), or
 - ii. at the end of each reporting period (IFRS).
 - **Method of applying the test:** The asset is formally tested by applying the appropriate impairment model
 - i. the cost recovery impairment model (ASPE), or
 - ii. rational entity impairment model (IFRS).
1. **Reversal** of the impairment loss is limited and only applicable under the rational entity model.
2. **Recoverability test:** applicable under ASPE only (under the cost recovery impairment model).

3. Indefinite-Life Intangibles:

- a. Under ASPE, they are **tested for impairment** whenever events and circumstances indicate the carrying value may not be recoverable, but the **fair value test** is applied. This impairment test differs from the one used for limited-life intangibles in that there is **no recoverability test**. The indefinite-life intangible's carrying amount is compared directly with its fair value and written down where fair value is lower. The **recoverability test does not apply to indefinite-life intangibles**, as it would be impossible to measure the future cash flows objectively.
- b. Under IFRS the only difference compared to testing for limited-life intangibles is that the testing must be done at least annually regardless of whether impairment appears to exist.

TEACHING TIP

Illustration 12-3 provides a comparison of the cost recovery model and the rational entity impairment model – this is also **Illustration 12-6** in the text.

4. Derecognition

An intangible asset is derecognized when it is disposed of or is no longer expected to generate future economic benefits and the gain or loss recognized in income.

D. Goodwill: The most complex and controversial asset presented in financial statements.

1. Goodwill is only recorded when an **entire business entity** is purchased, because goodwill is a "going concern" valuation and cannot be separated from the business as a whole.
2. Recording goodwill:
 - a. Goodwill is recorded as the excess of the purchase price of an acquired business over the fair market value of the identifiable net assets acquired.
 - b. A **bargain purchase**, often called **negative goodwill**, arises when the fair value of the net assets acquired is higher than the purchase price of the assets. When negative goodwill exists, the excess is recognized as a gain only when all variables, values, and measurement procedures have been reassessed.

TEACHING TIP**Illustration 12-4** provides a numerical example of recording goodwill at acquisition.

3. If IFRS is being followed, goodwill is assigned to a cash generating unit (CGU) and if ASPE is being followed, goodwill is assigned to a reporting unit. The carrying amount of this goodwill is reduced when it is found to be impaired or is associated with assets to be sold or disposed of.
4. Because of the significance of purchased goodwill, it is important to stipulate when impairment tests should be carried out. IFRS requires that an assessment of the estimated value of goodwill be done on an **annual basis or on an interim basis if circumstances indicate the CGU may be impaired**. ASPE requires this assessment when events or changes in circumstances indicate impairment. A goodwill impairment reversal is not allowed under either IFRS or ASPE.
5. Under IFRS, a goodwill impairment test compares the carrying amount of the CGU with its recoverable amount. Under ASPE, the impairment test compares the carrying amount of the reporting unit with its fair value. The impairment test for goodwill is a two-step process:
 - a. Compare the fair value of the reporting unit with its carrying amount, including goodwill. If the fair value exceeds the carrying amount, **goodwill is considered not to be impaired**. If not proceed to step b.
 - b. Calculate the implied current fair value of goodwill, and compare this fair value with the carrying amount. If fair value is less than carrying amount, then an impairment has occurred.

Under IFRS the process is similar, only the comparison looks at the recoverable amount of the CGU and its fair value to determine impairment.

6. The entry to record an **impairment of goodwill** is:

Loss on impairment of goodwill	XXX	
Accumulated impairment losses—goodwill		XXX

E. Presentation, Disclosure, Analysis, and Comparison of IFRS and ASPE

1. **Presentation, Disclosure, and Analysis**

As with other disclosure requirements, ASPE is limited because users can assess additional information available to them. Under IFRS, disclosure needs to be sufficient to allow users to assess the changes in the different classes of intangible assets, how the changes came about, the use of fair value measurements, and impairment calculations.

2. Analysis must consider disclosures and other financial reports provided regarding intangible assets that do not appear on the balance sheet because they are subject to measurement uncertainty or because they don't meet the criteria to be capitalized (such as knowledge assets or intellectual property).
 3. On the statement of financial position, goodwill is the only intangible requiring separate, single line item disclosure. All other intangibles should be aggregated and reported as a separate line item on the balance sheet. For intangibles subject to amortization, disclosure is required of the amortization methods and rates used, as well as the amount of amortization expense charges to income for the period.
 4. Refer to Text **Illustration 12-15** in the text for a comparison of the differences and similarities in accounting for intangible assets and goodwill under IFRS and ASPE.
- F. Appendix 12-A discusses the excess earnings approach, the total-earnings approach and other methods of valuing goodwill.

Excess-Earnings Approach:

This approach is one method to estimate the amount of goodwill in a business. This approach works as follows:

1. Valuing goodwill:
 - a. Calculate the average annual "normalized" earnings that the company is expected to earn in the future.
 - b. Calculate the annual average earnings that the company would be expected to earn if it generated the same return on investment as the average firm in the same industry. The return on investment is the percentage that results when income is divided by the net assets or shareholders' equity invested to generate that income.
 - c. Calculate the excess annual earnings: the difference between what the specific company and the average firm in the industry are expected to earn in the future. The ability to generate a higher income indicates that the business has an unidentifiable value that provides this greater earning power.
 - d. Estimate the value of the goodwill based on the future stream of excess earnings.

This approach is a systematic and logical way to calculate goodwill because its value is directly related to what makes a company worth more than the sum of its parts.

Refer to Text **Illustration 12A-1 to 12A-6** which explains each of the four steps above.

Total-Earnings Approach:

This approach is another method to estimate the amount of goodwill in a business.

Under this approach, the value of the company as a whole is determined, based on the total expected earnings, not just the excess earnings. The fair value of the identifiable net assets is then deducted from the value of the company as a whole. The difference is goodwill.

Refer to Text **Illustration 12A-7** which provides a calculation of goodwill using the total earnings approach.

Other Valuation Methods:

There are several other methods of valuing goodwill: some are very basic and others are very sophisticated. The methods illustrated in the textbook are some of the least complex approaches. Others include simply multiplying excess earnings by the numbers of years that the excess earnings are expected to continue. One method, often referred to as the **number of years method**, is used to provide a rough measure of goodwill. The approach has the advantage only of simplicity; it does not consider the time value of money because the future cash flows are not discounted.

Another method is one that relies on multiples of average yearly earnings that are paid for other companies in the same industry or another method which is similar to discounting excess earnings is the discounted free cash flow method. This method involves projecting the company's free cash flow over a long period, typically 10 to 20 years. The objective with this method is to determine the amount of operating cash flow that will be generated over and above the amount needed to maintain existing capacity. The present value of the free cash flow is then calculated. This amount represents the value of the business.

TEACHING TIP

Use **Illustration 12-5** to demonstrate the calculation of a value for goodwill and a purchase price for an acquisition using the **excess earnings approach**. The example uses the same problem information as **Illustration 12-4**.

ILLUSTRATION 12-1

VALUATION OF INTANGIBLE ASSETS AFTER ACQUISITION

IDENTIFIABLE INTANGIBLES

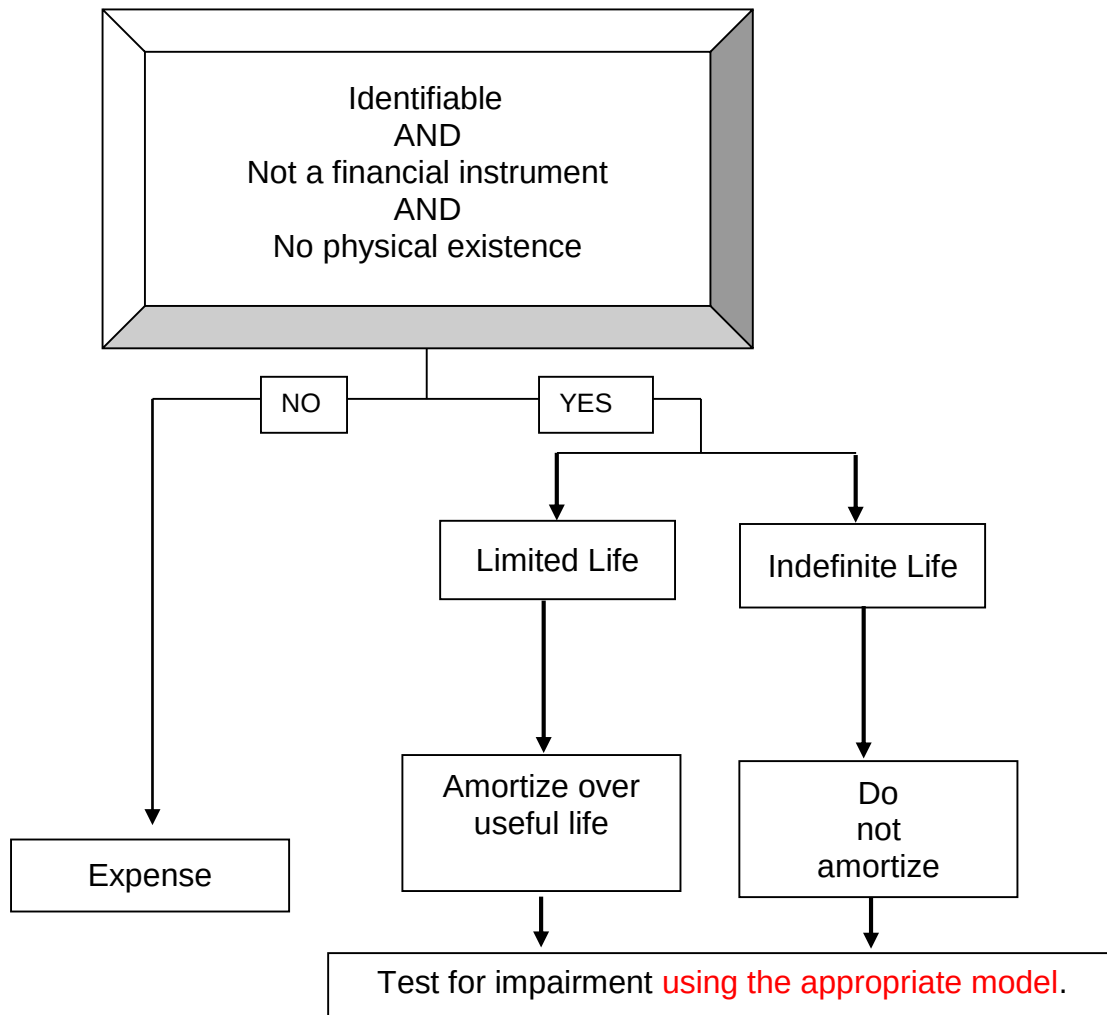


ILLUSTRATION 12-2

Cost Model (CM)	
At acquisition	Recognized and measured at cost.
After acquisition	Carried at cost less accumulated amortization and any accumulated impairment losses.
On disposal	Difference between asset's carrying amount and proceeds on disposal is gain or loss reported in net income.
Revaluation Model (RM)	
At acquisition	Recognized and measured at cost.
After acquisition	Carried at fair value at the date of the revaluation less any subsequent accumulated amortization and any subsequent impairment losses.
Revaluation increase	Record credit to Revaluation Surplus (Other Comprehensive Income) unless this reverses a previous decrease recognized in income. If so, recognize the increase in income to the extent of the prior decrease.
Revaluation decrease	Record debit to Revaluation Surplus (Other Comprehensive Income) to extent there is a balance associated with the same asset. Any remaining amount is recognized in income.
Revaluation	Apply either the proportional method (both asset and accumulated amortization balances continue and are adjusted so that net amount is asset's new fair value) or the asset adjustment method (accumulated amortization is closed to asset account and begins again at zero; asset is revalued to new amount).
On disposal	Either (a) bring asset to its fair value at the date of disposal, account for the revaluation increase or decrease as above, and recognize no gain or loss on disposal; or (b) recognize a gain or loss on disposal in net income equal to the difference between the proceeds on disposal and the asset's carrying amount on the date of disposal.
Revaluation Surplus account balance	Either transfer amounts directly to Retained Earnings each period (equal to the difference between amortization expense determined on the cost model basis and amortization expense determined on the revaluation model basis), or wait until asset is disposed of and transfer balance remaining in the account directly to Retained Earnings.

ILLUSTRATION 12-3

Cost Recovery Impairment Model	
Concept	Assumes asset will continue to be used; it is impaired only if the asset's carrying amount is not recoverable from the future undiscounted cash flows from use and eventual sale.
Recoverability test	If undiscounted future cash flows $\geq$ carrying amount, asset is not impaired. If undiscounted future cash flows $<$ carrying amount, asset is impaired. Proceed to calculate impairment loss.
Impairment loss	Asset's carrying amount – fair value = impairment loss; fair value is a discounted cash flow, market-based concept.
Entry to record loss	Impairment Loss Accumulated Impairment Losses \$ \$
Subsequent amortization	Review carrying amount to be amortized, useful life, and pattern of amortization and determine new periodic rate.
Reversal of impairment loss	Reversal not permitted. The fair value to which the asset is written down becomes the asset's new cost basis.
If no single-asset identifiable cash flows	Combine with other assets into an asset group, test for impairment and, if impaired, calculate impairment loss using same approach as for an individual asset. Allocate loss only to long-lived assets, based on their relative carrying amounts, within limits.
Rational Entity Impairment Model	
Concept	Assumes management will use the asset or dispose of it currently, whichever results in a higher return to the entity. It is impaired only if its carrying amount is not recoverable from the more profitable/less costly of the two options.
Recoverability test	No separate test.
Impairment loss	Calculate recoverable amount = higher of value in use and fair value less costs to sell, both of which are discounted cash flow concepts. If recoverable amount $\geq$ carrying amount, no impairment loss. If recoverable amount $<$ carrying amount, impairment loss = the difference.
Entry to record loss under cost model	Impairment Loss Accumulated Impairment Losses \$ \$
Subsequent amortization	Review carrying amount to be amortized, useful life, and pattern of amortization and determine new periodic rate.
Reversal of impairment loss	Reversal of loss is required if estimates underlying recoverable amount have changed. Reversal amount is limited.
If no single-asset identifiable cash flows	Combine with other assets into a cash-generating group and calculate impairment loss using same approach as for an individual asset. Allocate loss to assets based on their relative carrying amounts, within limits.

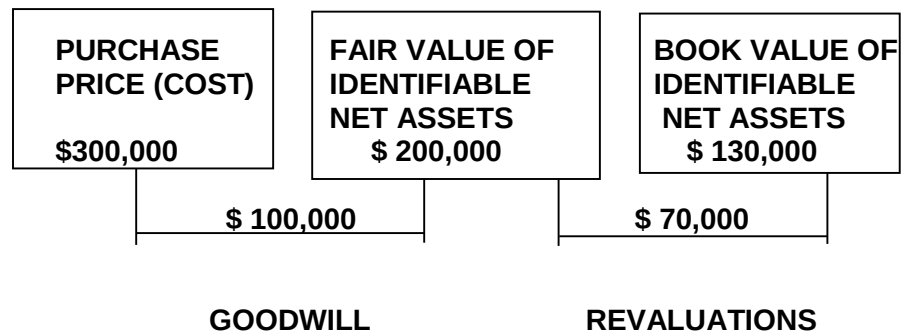
ILLUSTRATION 12-4

RECORDING GOODWILL: VALUATION AT ACQUISITION

EXAMPLE:

Global Corporation purchased the net assets of Local Company for \$300,000 on December 31, 2017. The statement of financial position of Local Company just prior to acquisition is listed below along with an appraisal of the fair values of its identifiable net assets.

FINANCIAL POSITION AND FAIR VALUES	Local Company STATEMENT OF FINANCIAL POSITION December 31, 2017		
	Asset	Fair Values	Increase (Decrease)
Cash	\$ 15,000	\$ 15,000	-0-
Receivables	10,000	10,000	-0-
Inventories (FIFO)	50,000	70,000	20,000
Prop., plant & equip	<u>80,000</u>	<u>130,000</u>	50,000
Total assets	\$155,000	\$225,000	
Current liabilities	<u>\$25,000</u>	<u>\$25,000</u>	
EQUITIES/ NET ASSETS	<u>\$130,000</u>	<u>\$200,000</u>	

ILLUSTRATION 12-4 (continued)**ANALYSIS****December 31, 2017****ACQUISITION
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ENTRY**

Cash	15,000	
Receivables	10,000	
Inventories	70,000	
Property, Plant & Equipment	130,000	
Goodwill	100,000	
Current Liabilities		25,000
Cash		300,000

ILLUSTRATION 12-5

**DETERMINATION OF GOODWILL AND PURCHASE PRICE
USING THE EXCESS-EARNINGS APPROACH.**

Valuing goodwill:

- Step 1. Calculate the average annual “normalized” earnings that the company is expected to earn in the future.
- Step 2. Calculate the annual average earnings that the company would be expected to earn if it generated the same return on investment as the average firm in the same industry. The return on investment is the percentage that results when income is divided by the net assets or shareholders’ equity invested to generate that income.
- Step 3. Calculate the excess annual earnings: the difference between what the specific company and the average firm in the industry are expected to earn in the future. The ability to generate a higher income indicates that the business has an unidentifiable value that provides this greater earning power.
- Step 4. Estimate the value of the goodwill based on the future stream of excess earnings.

Apply the 4 steps above to the numerical example given in Illustration 12-4. Emphasize to the students that the Global Corporation would employ an analysis similar to the 4 steps below in order to arrive at an approximate purchase price to be used in the negotiations for the acquisition of Local Company.

- Step 1: Calculation of the average net earnings of Local Company.

Historical earnings:	2012	\$21,000
	2013	30,000
	2014	19,000
	2015	55,000
	2016	<u>50,000</u>

$$\begin{array}{rcl} \text{Total earnings (5 years)} & \underline{\$175,000} & \\ \text{5 years} & = & \$ 35,000 \text{ Average Net Earnings} \end{array}$$

Step 2: Calculation of normalized earnings.

$$\begin{array}{l} \text{Normal average earnings} = 10\% \text{ (Obtained from industry sources)} \\ \text{Rate for industry} \\ \text{Industry Average Rate or Return} \times \text{Fair value of Identifiable Net Assets} \\ 10\% \times \$ 200,000 = \$ 20,000 \text{ Normal Earnings} \end{array}$$

Step 3: Calculation of excess earnings.

$$\begin{array}{l} \text{Average net earnings from Step 1 less normal earnings from Step 2.} \\ \$ 35,000 - \$ 20,000 = \$ 15,000 \text{ Excess Earnings} \end{array}$$

Step 4: Estimating the value of goodwill based on future stream of excess earnings..

Appropriate discount rate in perpetuity for Global Corporation = 15%.

Divide excess earnings by discount rate.

$$\frac{\$ 15,000}{15\%} = \$ 100,000 \text{ Value for Goodwill}$$

ILLUSTRATION 12-5

Cost Recovery Impairment Model	
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Subsequent amortization	Review carrying amount to be amortized, useful life, and pattern of amortization and determine new periodic rate.
Reversal of impairment loss	Reversal of loss is required if estimates underlying recoverable amount have changed. Reversal amount is limited.
If no single-asset identifiable cash flows	Combine with other assets into a cash-generating group and calculate impairment loss using same approach as for an individual asset. Allocate loss to assets based on their relative carrying amounts, within limits.

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