# LM01 Intercorporate Investments

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## 1. Introduction

Intercorporate investments are investments in the debt and equity securities of other companies. The motivations for intercorporate investments can range from diversifying the asset base to entering new markets or enhancing profitability. Intercorporate investments can have a significant impact on a company's financial performance and position.

This reading covers the various categories of intercorporate investments and their accounting treatments.

## 2. Basic Corporate Investment Categories

Investments in marketable debt and equity securities can be classified into the following four categories based on the degree of influence and control.

1. Investments in financial assets in which the investor has no significant influence or control over the operations of the investee.
2. Investments in associates in which the investor can exert significant influence (but not control) over the investee.
3. Business combinations, including investments in subsidiaries, in which the investor has control over the investee.
4. Joint ventures where control is shared by two or more entities.

The table below summarizes the accounting treatment for these categories under IFRS.

| | **Financial Assets** | **Associates** | **Business Combinations** | **Joint Ventures** |
|---|---|---|---|---|
| Influence | Not significant | Significant | Controlling | Shared control |
| Typical percentage interest | Usually < 20% | Usually 20% to 50% | Usually > 50% or other indications of control | |
| Financial reporting | Classified as:<br>▪ Fair value through profit or loss<br>▪ Fair value through other comprehensive income<br>▪ Amortized cost | Equity method | Consolidation | IFRS: Equity method |

**Instructor's Note**: The percentage of holding is used only as a guideline. The classification ultimately depends on the degree of influence or control.

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## 3. Investments in Financial Assets: IFRS 9

Both IASB and FASB developed new standards for financial investments. IFRS 9, which replaces IAS 39, became effective on 1 January 2018. With the new standard, there is now significant convergence between IFRS and US GAAP.

The new approach considers the contractual characteristic of cash flows as well as the management of the financial assets.

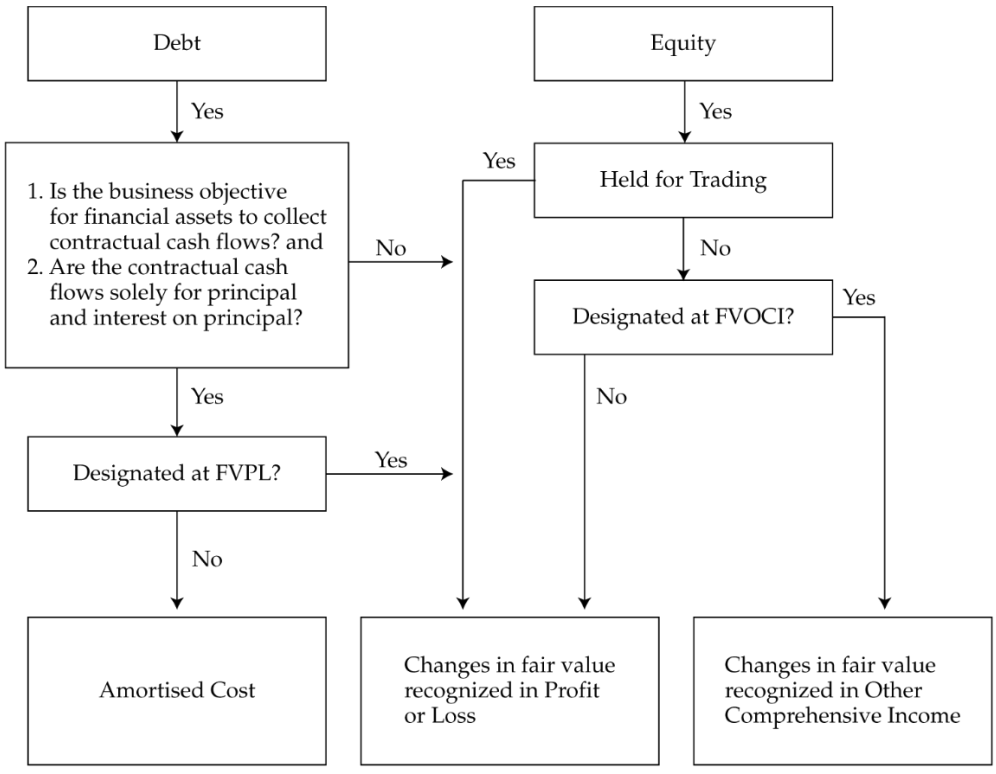
The portfolio approach of the previous standard is no longer appropriate, and the terms for "available-for-sale" and "held-to-maturity" no longer appear in IFRS 9. The new categories for measurement are:

1. Amortized cost
2. Fair value through profit or loss (FVPL)
3. Fair value through other comprehensive income (FVOCI)

IFRS 9 also has a different approach to loan impairment. With the new standard, we move from the incurred loss model to the expected credit loss model. Therefore, we not only consider historical and current information about loan performance but also consider forward-looking information.

### 3.1 Classification and Measurement

Exhibit 2 from the curriculum illustrates how financial assets will be classified and measured under IFRS 9.




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Debt instruments are measured at amortized costs, FVOCI, or FVPL depending on the business model.

Equity instruments are measured at FVPL or FVOCI. They cannot be measured at amortized cost.

### 3.2 Reclassification of Investments

The major points made by IFRS 9 with respect to reclassification are listed below:

- The reclassification of equity instruments is not permitted because the initial classification of FVPL and FVOCI is irrevocable.
- The reclassification of debt instruments from FVPL to amortized costs (or vice versa) is permitted only when the business model changes in a way that significantly affects operations. Changes to the business models will require judgment and are expected to be infrequent.

Analysts should evaluate the performance of operating activities and investing activities separately. Analysis of operating performance should exclude investing activities (such as interest income, dividends, and realized and unrealized gains and losses) because investing activities are not the core business of a company.

## 4. Investments in Associates and Joint Ventures

An investment is considered an "**associate company**" when the investor has (or can exercise) significant influence, but not control, over the investee's business activities. Significant influence is presumed with 20–50% ownership or voting power of the associate (investee).

Significant influence may be evidenced by:

- Representation on the board of directors
- Participation in the policy-making process
- Material transactions between the investor and the investee
- Interchange of managerial personnel
- Technological dependency

**Joint ventures** are ventures undertaken and controlled by two or more parties. IFRS identifies two characteristics of joint ventures as:

- A contractual arrangement exists between two or more venturers.
- The contractual arrangement establishes joint control.

The **equity method** is used to account for investments in associates and joint ventures.

### 4.1 Equity Method of Accounting: Basic Principles

The equity method is referred to as "one-line consolidation" because the investor's proportionate ownership interest in the assets and liabilities of the investee is disclosed as a single line item (net assets) on its balance sheet, and the investor's share of the revenues and

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expenses of the investee is disclosed as a single line item on its income statement. The key principles of accounting followed under the equity method are listed below:

**Income statement:** The investor's share of income is recorded in the income statement. As an example, say Company X (the investing company) has a 20% stake in Company Y (the investee). If Company Y reports a net income of 10 million for 2014, Company X will show an income of 2 million due to the investment in the associate.

**Balance sheet:** Equity investment is initially recorded on the investor's balance sheet at cost. Subsequently, the carrying amount of the investment is adjusted to recognize the investor's proportionate share of the investee's earnings or losses. Dividends received from the investee are treated as a return of capital and reduce the carrying amount of the investment.

Hence: value of investment = beginning value + share of profits – share of dividends.

**Example: Equity Method: Balance in Investment Account**
(*This is based on Example 1 from the curriculum.*)

Branch purchases a 20% interest in Williams for €200,000 on 1 January 2010. Williams reports income and dividends as follows:

| | **Income** | **Dividends** |
|---|---|---|
| 2010 | €200,000 | €50,000 |
| 2011 | 300,000 | 100,000 |
| 2012 | 400,000 | 200,000 |
| **Total** | **€900,000** | **€350,000** |

Calculate the investment in Williams that appears on Branch's balance sheet as of the end of 2012.

**Solution:**

Value of investment = beginning value + share of profits – share of dividends

Value of investment on balance sheet = €200,000 + 0.2 * 900,000 – 0.2 * 350,000 = 310,000

The investor includes its share of the investee's profits, €180,000, on the income statement.

Alternatively, the carrying value that appears on the branch's balance sheet as of the end of 2012 is calculated as:

| | | |
|---|---|---|
| Initial cost | €200,000 | |
| Equity income 2010 | €40,000 | = (20% of €200,000 Income) |
| Dividends received in 2010 | (€10,000) | = (20% of €50,000 Dividends) |
| Equity income 2011 | €60,000 | = (20% of €300,000 Income) |
| Dividends received in 2011 | (€20,000) | = (20% of €100,000 Dividends) |

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| | | |
|---|---|---|
| Equity income 2012 | €80,000 | = (20% of €400,000 Income) |
| Dividends received in 2012 | (€40,000) | = (20% of €200,000 Dividends) |
| Balance-Equity Investment | €310,000 | = [€200,000 + 20% × (€900,000 – €350,000)] |

## 5. Amortization of Excess Purchase Price, Fair Value Option and Impairment

Say Company X pays 40 million for a 25% stake in Company Y. Company Y's net identifiable assets have a book value of 100 million and a fair value of 120 million. In this case, the 40 million paid by Company X has three components:

1. 25% of 100 million book value = 25 million.
2. 25% of 20 million excess fair value over book value = 5 million. This amount is amortized over multiple periods.
3. The balance (40 million – 25 million – 5 million = 10 million) is treated as goodwill.

The example below shows how goodwill is calculated.

**Example: Equity Method Investment in Excess of Book Value**
(*This is based on Example 2 from the curriculum.*)

Assume that Blake Co. acquires 30% of the outstanding shares of Brown Co. At the acquisition date, book values and fair values of Brown's recorded assets and liabilities are as follows:

| | **Book Value** | **Fair Value** |
|---|---|---|
| Current assets | €10,000 | €10,000 |
| Plant and equipment | 190,000 | 220,000 |
| Land | 120,000 | 140,000 |
| Total Assets | €320,000 | €370,000 |
| Liabilities | 100,000 | 100,000 |
| Net assets | €220,000 | €270,000 |

Blake Co. believes that the value of Brown Co. is higher than the book value of its identifiable net assets. They offer €100,000 for a 30% interest in Brown, which represents a €34,000 excess purchase price. The difference between the fair value and book value of the net identifiable assets is €50,000 (270,000 – 220,000). Based on Blake Co.'s 30% ownership, €15,000 of the excess purchase price is attributable to the net identifiable assets, and the residual is attributable to goodwill. Calculate goodwill.

**Solution:**

| | |
|---|---|
| Purchase price | €100,000 |

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| | |
|---|---|
| Proportionate share in Brown's assets:<br>30% of the book value of Brown (30% × €220,000) | 66,000 |
| Excess purchase price | €34,000 |
| Attributable to net assets (fair value of assets – book value of assets) | |
| Plant and equipment (30% × [€220,000 – €190,000]) | €9,000 |
| Land (30% × €140,000 – €120,000) | 6,000 |
| Goodwill (residual) | 19,000 |
| | **€34,000** |

Since goodwill is the residual excess not allocated to identifiable assets or liabilities, it can also be calculated as = excess purchase price – excess price attributable to the net identifiable assets = 34000 – 15000 = €19000.

Alternatively, goodwill can be calculated as the amount paid by Blake that exceeds the fair value of its share in Brown. Blake purchased a 30% share in Brown, so the proportionate fair value is 0.30 x €270,000 = €81,000. Goodwill is therefore 100,000 – 81,000 = €19,000.

### 5.1 Amortization of Excess Purchase Price

When the investor's cost exceeds the book value of the investee's net identifiable tangible and intangible assets, the excess amount allocated to identifiable assets/liabilities of the investee must be amortized on the investor's income statement.

The example below illustrates this concept.

**Example: Equity Method Investments with Goodwill**
(*This is based on Example 3 from the curriculum.*)

On 1 January 2011, Parker Company acquired 30% of Prince Inc.'s common shares for the cash price of €500,000. It is determined that Parker has the ability to exert significant influence on Prince's financial and operating decisions. The following information concerning Prince's assets and liabilities on 1 January 2011 is provided:

| Prince, Inc. | | | |
|---|---|---|---|
| | Book Value | Fair Value | Difference |
| Current assets | €100,000 | €100,000 | €0 |
| Plant and equipment | 1,900,000 | 2,200,000 | 300,000 |
| Total Assets | €2,000,000 | €2,300,000 | €300,000 |
| Liabilities | 800,000 | 800,000 | 0 |
| Net assets | €1,200,000 | €1,500,000 | €300,000 |

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The plant and equipment are depreciated on a straight-line basis and have 10 years of remaining life. Prince reports net income for 2011 of €100,000 and pays dividends of €50,000. Calculate the following:

1. Goodwill included in the purchase price.
2. Investment in associate (Prince) at the end of 2011.

**Solution:**

1. Goodwill is calculated as the excess purchase price – the excess price attributable to the investor's share of identifiable net assets and liabilities.

| | |
|---|---|
| Purchase price | €500,000 |
| Acquired equity in book value of Prince's net assets (30% × €1,200,000) | 360,000 |
| Excess purchase price | €140,000 |
| Attributable to plant and equipment (30% × [€2,200,000 - €1,900,000]) | (90,000) |
| Goodwill (residual) | €50,000 |

2. Using the amortization rule we saw in this section, let us calculate the investment in the associate as follows:

| | |
|---|---|
| Purchase price | €500,000 |
| Parker's share of Prince's net income (30% × €100,000) | 30,000 |
| Dividends received (30% of €50,000) | (15,000) |
| Excess purchase price attributable to plant and equipment = 30% * 300,000 = €90,000<br>Amortization of excess purchase price attributable to plant and equipment (€90,000 ÷ 10 years) | (9,000) |
| 31 December 2011 balance in investment in Prince | €506,000 |

### 5.2 Fair Value Option

Both IFRS and US GAAP give the investor the option to account for their equity method investment at fair value. Under US GAAP, this option is available to all entities; however, under IFRS, its use is restricted to venture capital organizations, mutual funds, unit trusts, and similar entities, including investment-linked insurance funds.

### 5.3 Impairment

Equity method investments must be periodically reviewed for impairment. An impairment loss is recognized if the fair value of the investment is below its carrying value, as long as this decline is not temporary. US GAAP prohibits the reversal of impairment losses even if the fair value increases subsequently. However, IFRS permits the reversal of a previous

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impairment loss, to the extent that the recoverable amount of the net investment subsequently increases.

The condition to determine whether an investment is impaired and when to record an impairment loss differs under IFRS and US GAAP:

- Under IFRS, an impairment is recorded if there is evidence of one or more (loss) events occurring after the initial recognition of the investment and whether or not the loss event impacts the investment's future cash flows. The carrying value is reduced directly or through an allowance account.
- Under US GAAP, if the fair value of the investment declines below its carrying value and the decline is determined to be permanent, an impairment loss is recognized and the carrying value of the investment on the balance sheet is reduced to its fair value.
- In both cases, an impairment loss is recognized in the income statement.

## 6. Transactions with Associates and Disclosure

An investor's share of profits resulting from transactions between the investor and its associates (investee) must be deferred until the transactions are confirmed through a sale to a third party. This is because an investor company can influence the terms and timing of transactions with its associates. There are two types of transactions between an investor and an investee:

- **Upstream sale:** the investee sells goods to the investor. Profit is recorded on the investee's income statement.
- **Downstream sale:** the investor sells goods to the investee. Profit is recorded on the investor's income statement.

**How to calculate equity net income (upstream sale):**

1. Calculate the investor's share in the investee's net income.
2. Subtract the amortization of excess purchase price attributable to net assets.
3. Subtract the investor's share of unrealized profit.

**Example: Equity Method with Sale of Inventory: Upstream Sale**
(*This is based on Example 4 from the curriculum.*)

On 1 January 2011, Wicker Company acquired a 25% interest in Foxworth Company for €1,000,000 and used the equity method to account for its investment. The book value of Foxworth's net assets on that date was €3,800,000. An analysis of fair values revealed that all fair values of assets and liabilities were equal to book values except for a building. The building was undervalued by €40,000 and has a 20-year remaining life. The company used straight-line depreciation for the building. Foxworth paid €3,200 in dividends in 2011. During 2011, Foxworth reported a net income of €20,000. During the year, Foxworth sold inventory to Wicker. At the end of the year, there was an €8,000 profit from the upstream

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sale in Foxworth's net income. The inventory sold to Wicker by Foxworth had not been sold to an outside party.

1. Calculate the equity income to be reported as a line item on Wicker's 2011 income statement.
2. Calculate the balance in the investment in Foxworth to be reported on the 31 December 2011 balance sheet.

| | |
|---|---|
| Purchase price | €1,000,000 |
| Acquired equity in book value of Foxworth's net assets (25% × €3,800,000) | 950,000 |
| Excess purchase price | €50,000 |
| Attributable to: | |
| Building (25% × €40,000) | €10,000 |
| Goodwill (residual) | 40,000 |
| | €50,000 |

**Solution:**

1. Equity income is calculated as follows:

The unrealized profit of €2,000 is subtracted because the sale has not been confirmed by a third party yet.

| | |
|---|---|
| Wicker's share of Foxworth's reported income (25% × €20,000) | €5,000 |
| Amortization of excess purchase price attributable to the building, ((25% * €40,000) ÷ 20) | (500) |
| Unrealized profit (25% × €8,000) | (2,000) |
| Equity income 2011 | €2,500 |

The reported income is €2,500.

2. Investment in Foxworth is calculated as:

Investment in Foxworth on 31 Dec, 2011 = Initial purchase price + Wicker's share of net income – dividends = €1,000,000 + €2,500 - €800 = €1,001,700.

Alternatively, this can also be calculated as:

Wicker's share of 25% in [Foxworth's net assets + (net income in 2011 – unrealized gain from sale of inventory) – dividends paid in 2011) + excess purchase price – amortization of excess purchase price for land.

| | |
|---|---|
| Purchase price | €1,000,000 |
| Equity income 2011 | 2,500 |
| Dividends received (25% × €3,200) | (800) |

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| | |
|---|---|
| Investment in Foxworth, 31 Dec 2011 | €1,001,700 |
| Composition of investment account: | |
| Wicker's proportionate share of Foxworth's net equity (net assets at book value) [25% × (€3,800,000 + (20,000 − 8,000) − 3,200)] | €952,200 |
| Unamortized excess purchase price (€50,000 − 500) | 49,500 |
| | €1,001,700 |

Now, let us look at an example with a downstream sale: from investor to investee.

**Example: Equity Method with Sale of Inventory: Downstream Sale**
(*This is based on Example 5 from the curriculum.*)

Jones Company owns 25% of Jason Company; it uses the equity method of accounting. The amortization of excess purchase prices related to undervalued assets at the time of the investment is €8,000 per year. During 2011, Jones sold €96,000 of inventory to Jason for €160,000. Jason resold €120,000 of this inventory during 2011. The remainder was sold in 2012. Jason reports income from its operations of €800,000 in 2011 and €820,000 in 2012.

1. Calculate the equity income to be reported as a line item on Jones's 2011 income statement.
2. Calculate the equity income to be reported as a line item on Jones's 2012 income statement.

**Solution:**

1. The focus of this example is on the downstream sale of inventory from Jones to Jason. Let's calculate the unrealized profit first.

Jones's profit on the sale of inventory to Jason = €160,000 − 96,000 = €64,000

Jason sells 75% (€120,000/160,000) of the goods purchased from Jones; 25% is unsold. 75% of the profit is realized.

Total unrealized profit = €64,000 × 25% = €16,000

Jones's share of the unrealized profit = €16,000 × 25% = €4,000

Now, the equity income for 2011 is calculated the same way as in the previous example. Note that €4,000 is subtracted because this share of the inventory remains unsold to third parties, so it is an unrealized gain.

| | |
|---|---|
| Jones's share of Jason's reported income (25% × €800,000) | €200,000 |
| Amortization of excess purchase price | (8,000) |
| Unrealized profit (25% × €16,000) | (4,000) |
| Equity income 2011 | €188,000 |

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2. Equity income for 2012 is calculated the same way with one exception: Jason sells the remaining 25% of the goods purchased from Jones in 2012, so the €4,000 deducted earlier is added here as it is realized profit.

| | |
|---|---|
| Jones's share of Jason's reported income (25% × €820,000) | €205,000 |
| Amortization of excess purchase price | (8,000) |
| Realized profit (25% × €16,000) | 4,000 |
| Equity income 2012 | €201,000 |

### 6.1 Disclosure

Both IFRS and US GAAP require companies to disclose assets, liabilities, and the results of equity method investments. This information is presented in the footnotes to the financial statements.

### 6.2 Issues for Analysts

Some of the challenges faced by analysts in equity method accounting are as follows:

- The analyst should consider if the equity method is appropriate for the investor. For example, an investor holding less than 20% of an associate may, in fact, exert significant influence but may attempt to avoid using the equity method to avoid reporting associate losses. On the other hand, an investor holding more than 20% of an associate may be unable to exert significant influence and may be unable to access cash flows, and yet may prefer the equity method to capture associate income.
- The investor's ownership in the investee company is presented as a single line item because the equity method is effectively a one-line consolidation. However, this does not adequately reflect the investor's exposure to the investee's assets and liabilities. Net margin may be overstated, while debt ratios may be understated.
- Analysts must consider the quality of earnings. A percentage of income earned by the investee is earned by the investor, even though cash is not received. Analysts must review if there are any restrictions on dividend payments.

## 7. Acquisition Method

Business combinations involve the combination of two or more entities into a larger economic entity.

Under IFRS, there is no distinction among business combinations. Based on the resulting structure of the larger economic entity, one of the parties is identified as the acquirer.

Under US GAAP, there are four types of business combinations:

- **Merger**: Only one of the entities remains in existence.
  Company A + Company B = Company A

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- **Acquisition**: Both companies continue to exist legally but remain connected through a parent-subsidiary relationship. A single consolidated financial statement is reported.
  Company A + Company B = (Company A + Company B)
- **Consolidation:** After the combination, none of the earlier companies continue to exist; a new legal entity is formed.
  Company A + Company B = Company C
- **Variable interest (special purpose) entity:** (covered later)

**Accounting Treatment for Business Combinations:**

Historically, two methods have been used to account for business combinations:

- Pooling of interests method
- Purchase method

The pooling of interests method has been discontinued:

- US GAAP discontinued this method in 2001.
- IFRS discontinued it in 2004.

Both IFRS and US GAAP now require business combinations to be accounted for using the **acquisition method,** which replaces the purchase method.

### 7.1 Acquisition Method

The major points related to the acquisition method are listed below:

- Identifiable tangible and intangible assets (brand names, patents, etc.) and liabilities of the acquired company are measured at fair value on the date of the acquisition.
- Assets and liabilities that were not previously recognized by the acquiree must be recognized by the acquirer.
- The acquirer must recognize any contingent liability if it can be reliably measured and the obligation arises from past events.
- The acquirer must recognize an indemnification asset on the acquisition date.
- At the acquisition date, the acquirer can reclassify the financial assets of the acquiree based on the contractual terms, economic conditions, and the acquirer's operating or accounting policies.
- Recognition of goodwill differs between IFRS and US GAAP:
  - IFRS has two options for goodwill: partial goodwill and full goodwill.
    **Partial goodwill** = fair value of the acquisition - acquirer's share of the fair value of all acquiree's assets and liabilities
    **Full goodwill** = fair value of the entity as a whole - the fair value of all the acquiree's assets and liabilities
  - US GAAP only allows the full goodwill method.

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- In an acquisition, when the purchase price is less than the fair value of the target's (acquiree's) net assets, the acquisition is considered to be a bargain acquisition. IFRS and US GAAP require the difference between the fair value of the acquired net assets and the purchase price to be recognized immediately as a gain.

**Example: Recognition and Measurement of Goodwill**
(*This is based on Example 6 from the curriculum.*)

The acquirer contributes $800,000 for an 80% interest in the acquiree. The identifiable net assets have a fair value of $900,000. The fair value of the entire entity is determined to be $1 million. Determine the goodwill recognized under IFRS and US GAAP.

**Solution:**
IFRS permits partial and full goodwill, while US GAAP only allows full goodwill. Note that under full goodwill, the fair value of the entire entity is considered.

| **IFRS – Partial Goodwill** | |
|---|---|
| Fair value of consideration | $800,000 |
| 80% of the fair value of identifiable net assets | 720,000 |
| Goodwill recognized | $80,000 |
| | |
| **IFRS and US GAAP Full Goodwill** | |
| Fair value of entity | $1,000,000 |
| Fair value of identifiable assets | 900,000 |
| Goodwill recognized | $100,000 |

### 7.2 Impact of the Acquisition Method on Financial Statements, Post-Acquisition

This example shows the impact of the acquisition method on the balance sheet of an acquiring company.

**Example: Acquisition Method Post-Combination Balance Sheet**
(*This is based on Example 7 from the curriculum.*)

Franklin Company, headquartered in France, acquired 100% of the outstanding shares of Jefferson, Inc. by issuing 1,000,000 shares of its €1 par common stock (€15 market value). Immediately before the transaction, the two companies compiled the following information:

| | Franklin Book Value (000) | Jefferson Book Value (000) | Jefferson Fair Value (000) |
|---|---|---|---|
| Cash and receivables | €10,000 | €300 | €300 |
| Inventory | 12,000 | 1,700 | 3,000 |
| PP&E (net) | 27,000 | 2,500 | 4,500 |

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| | | | |
|---|---|---|---|
| **Total assets** | **€49,000** | **€4,500** | **€7,800** |
| Current payables | 8,000 | 600 | 600 |
| Long-term debt | 16,000 | 2,000 | 1,800 |
| **Total liabilities** | **24,000** | **2,600** | **2,400** |
| **Net assets** | **€25,000** | **€1,900** | **€5,400** |
| Shareholders' equity: | | | |
| Capital stock (€1 par) | €5,000 | €400 | |
| Additional paid-in capital | 6,000 | 700 | |
| Retained earnings | €14,000 | €800 | |

Jefferson has no identifiable intangible assets. Show the balances in the post-combination balance sheet using the acquisition method.

**Solution:**

First, let us calculate the excess purchase price paid by Franklin for Jefferson's assets:

| | |
|---|---|
| Fair value of the stock issued (1,000,000 * €15) | €15,000,000 |
| Book value of Jefferson's net assets | 1,900,000 |
| Excess purchase price | €13,100,000 |

Next, let us calculate the goodwill:

| | |
|---|---|
| Fair value of the stock issued (1,000,000 * €15) | €15,000,000 |
| Fair value allocated to Jefferson's identifiable net assets (from the table) | 5,400,000 |
| Goodwill | €9,600,000 |

Now, let us reaffirm if the €13,100,000 of excess purchase price is the sum of differences in fair values and book values of identifiable assets/liabilities and goodwill.

| | |
|---|---|
| Inventory | €1,300,000 |
| PP&E (net) | 2,000,000 |
| Long-term debt | 200,000 |
| Goodwill | 9,600,000 |
| | €13,100,000 |

Important points to note while preparing the balance sheet for the combined entity:

- Assets and liabilities are combined. The book values of assets and liabilities of the acquiring entity are added to the fair value of the assets and liabilities of the acquiree. For

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example, PP&E is €27,000 (book value) of Franklin plus €4,500 (fair value) of Jefferson. The combined PP&E is €31,500.

- Stock is measured at fair value under both IFRS and US GAAP. Before the acquisition, Franklin had 5,000,000 shares of €1 par. To acquire Jefferson, it issued 1,000,000 shares of €1 par. So, the capital stock outstanding is 5,000,000 + 1,000,000 = 6,000,000 shares of €1 par.
- The additional paid-in capital earlier was €6,000,000. For the Jefferson transaction, it is €15 * 1,000,000 = 15,000,000 – par value of €1,000,000 = €14,000,000. The total additional paid –in capital is €6,000,000 + €14,000,000 = €20,000,000.
- At the acquisition date, only the acquirer's retained earnings of €14,000 are included in the combined entity. The earnings of the acquiree are included in the consolidated income statement and retained earnings only in post-acquisition periods.

The post-combination balance sheet would appear as follows:

| **Franklin Consolidated Balance Sheet (Acquisition Method) (000)** | |
|---|---|
| Cash and receivables | €10,300 |
| Inventory | 15,000 |
| PP&E (net) | 31,500 |
| Goodwill | 9,600 |
| Total assets | €66,400 |
| Current payables | €8,600 |
| Long-term debt | 17,800 |
| Total liabilities | €26,400 |
| Capital stock (€1 par) | €6,000 |
| Additional paid-in capital | 20,000 |
| Retained earnings | 14,000 |
| Total stockholders' equity | €40,000 |
| Total liabilities and stockholders' equity | €66,400 |

## 8. The Consolidation Process

A consolidated financial statement combines the assets, liabilities, revenues, and expenses of subsidiaries with the parent company. Transactions between the parent and subsidiary are eliminated to avoid double counting and premature income recognition.

For business combinations with less than 100% acquisition, the acquirer also shows non-controlling (minority) interests as a separate component of equity on its balance sheet and as a separate line item on the income statement.

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The classification of non-controlling interests is similar under IFRS and US GAAP, but they differ in measurement in the following ways:

- Under IFRS, the non-controlling interest is measured using either the full goodwill or partial goodwill method.
- Under US GAAP, the parent must use the full goodwill method.

**Example: Non-controlling Asset Valuation**
(*This is based on Example 8 from the curriculum.*)

On 1 January 2012, Parent Co. acquired 90% of the outstanding shares of Subsidiary Co. in exchange for shares of Parent Co.'s no par common stock with a fair value of €180,000. The fair market value of the subsidiary's shares on the date of the exchange was €200,000. Below is selected financial information from the two companies immediately prior to the exchange of shares:

| | | Subsidiary | |
|---|---|---|---|
| | Parent Book Value | Book Value | Fair Value |
| Cash and receivables | €40,000 | €15,000 | €15,000 |
| Inventory | 125,000 | 80,000 | 80,000 |
| PP&E (net) | 235,000 | 95,000 | 155,000 |
| | €400,000 | €190,000 | €250,000 |
| Payables | 55,000 | 20,000 | 20,000 |
| Long-term debt | 120,000 | 70,000 | 70,000 |
| | 175,000 | 90,000 | 90,000 |
| **Net assets** | **€225,000** | **€100,000** | **€160,000** |
| Shareholders' equity: | | | |
| Capital stock (no par) | €87,000 | €34,000 | |
| Retained earnings | €138,000 | €66,000 | |

1. Calculate the value of PP&E (net) on the consolidated balance sheet under both IFRS and US GAAP.
2. Calculate the value of goodwill and the value of the non-controlling interest at the acquisition date under the full goodwill method.
3. Calculate the value of goodwill and the value of the non-controlling interest at the acquisition date under the partial goodwill method.

**Solution:**

This is an example of the acquisition method, as the parent company acquired less than 100% of the subsidiary company.

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1. Under the acquisition method (for IFRS and US GAAP), 100% of the subsidiary's fair value of assets and liabilities are included, even if the parent has acquired less than 100% but more than 50% of the subsidiary.
Value of PP&E (net) on the consolidated balance sheet = book value of parent + fair value of subsidiary = €235,000 + €155,000 = €390,000

2. The full goodwill method is required under US GAAP and optional under IFRS.
The fair value of the subsidiary's shares is given as €200,000.
Goodwill = total fair value of the subsidiary - the fair value of the subsidiary's identifiable net assets = €200,000 - €160,000 = €40,000
The value of the non-controlling interest under the full goodwill method = non-controlling interest's proportionate share of the subsidiary's fair value = 10% * 200,000 = €20,000

3. The partial goodwill method is permitted only under IFRS.
Goodwill = Purchase price – parent's proportionate share of the subsidiary's net identifiable assets
Goodwill = €180,000 – 90% of 160,000 = €36,000
Value of the non-controlling interest = proportionate share of the fair value of the subsidiary's identifiable net assets = 10% of €160,000 = €16,000

The consolidated balance sheet at the acquisition date under the full goodwill and partial goodwill methods is presented below:

| | **Full Goodwill** | **Partial Goodwill** |
|---|---|---|
| Cash and receivables | €55,000 | €55,000 |
| Inventory | 205,000 | 205,000 |
| PP&E (net) | 390,000 | 390,000 |
| Goodwill | 40,000 | 36,000 |
| Total assets | €690,000 | €686,000 |
| Payables | €75,000 | €75,000 |
| Long-term debt | 190,000 | 190,000 |
| Total liabilities | €265,000 | €265,000 |
| | | |
| Shareholders' equity: | | |
| Noncontrolling interests | €20,000 | €16,000 |
| Capital stock (no par) | €267,000 | €267,000 |
| Retained earnings | 138,000 | 138,000 |
| Total equity | €425,000 | €421,000 |
| | | |

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| | Full Goodwill | Partial Goodwill |
|---|---|---|
| Total liabilities and shareholders' equity | €690,000 | €686,000 |

As you can see, the goodwill changes under the full goodwill and partial goodwill methods. Due to this, the total assets and non-controlling interest are different, as is the total equity.

Income statement impact:

Non-controlling (minority) interests are presented on the income statement as a line item reflecting the allocation of profit or loss for the period. Intercompany transactions, if any, are eliminated in full.

Although net income to the parent's shareholders is the same, the impact on financial ratios such as the return on assets and return on equity would be different because total assets and stockholders' equity would differ. These ratios would be lower under the full goodwill method.

**Goodwill Impairment:**

Goodwill is not amortized; it is tested for impairment at least annually. Once written down, goodwill cannot be restored.

Under both IFRS and US GAAP, an impairment loss is recorded as a separate line item in the income statement. However, IFRS and US GAAP differ in the way goodwill is tested for impairment.

Under IFRS:

- Goodwill is allocated to the acquirer's cash-generating units.
- Goodwill impairment testing is done using a one-step approach: the recoverable amount is compared with the carrying amount.
- An impairment loss is recognized when the recoverable value is below the carrying value.
- The impairment loss is the difference between the carrying value and recoverable amount.

Under US GAAP:

- Goodwill is allocated to the acquirer's reporting units.
- Prior to 2017, goodwill impairment testing was done using a two-step approach: identification of impairment and then measurement of loss.
- The first step involves identifying the possibility of impairment by comparing the carrying value to the fair value. If CV > FV, there is potential impairment.
- The second step is to determine the implied fair value of goodwill: fair value of reporting unit – fair value of net assets.

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**Instructor's Note**: Post 2017, the two-step process has been replaced by a single step process. If the carrying value of the reporting unit exceeds its fair value, goodwill impairment is simply measured as the difference.

However, the examples in the curriculum still show a two-step process, so we will follow this process to solve questions on the exam.

The examples below show how goodwill is tested for impairment under IFRS and US GAAP.

**Example: Goodwill Impairment: IFRS**
(*This is based on Example 9 of the curriculum.*)

The cash-generating unit of a French company has a carrying value of €1,400,000, which includes €300,000 of allocated goodwill. The recoverable amount of the cash-generating unit is determined to be €1,300,000, and the estimated fair value of its identifiable net assets is €1,200,000. Calculate the impairment loss.

**Solution:**

The unit is impaired since the carrying value is less than the recoverable value.

Impairment loss = recoverable amount – carrying value.

| | |
|---|---|
| Recoverable amount of unit | €1,300,000 |
| Carrying amount of unit | 1,400,000 |
| Impairment loss | €100,000 |

An impairment loss of €100,000 is reported on the income statement, and the goodwill is reduced to €200,000.

**Example: Goodwill Impairment: US GAAP**
(*This is based on Example 10 from the curriculum.*)

A reporting unit of a US corporation has a fair value of $1,300,000 and a carrying value of $1,400,000 that includes recorded goodwill of $300,000. The estimated fair value of the identifiable net assets of the reporting unit at the impairment test date is $1,200,000.

1. Calculate the impairment loss.

2. Calculate the impairment loss if the fair value of the reporting unit and its net assets was $800,000 instead of $1,300,000.

**Solution:**

1. Under US GAAP, the impairment loss is calculated using a two-step approach as outlined below:

Step 1: Determine if there is an impairment: is fair value < carrying value?
Since the fair value of the reporting unit is less than its carrying book value, a potential impairment loss has been identified. Fair value of unit: $1,300,000 < $1,400,000

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Step 2: Calculate the impairment loss.

| | |
|---|---|
| Fair value of reporting unit | $1,300,000 |
| Less: fair value of net assets | 1,200,000 |
| Implied goodwill | $100,000 |

| | |
|---|---|
| Current carrying value of goodwill | $300,000 |
| Less: implied goodwill | $100,000 |
| Impairment loss | $200,000 |

An impairment loss of €200,000 is reported on the income statement.

2. If the fair value of the carrying unit was $800,000, then implied goodwill = $800,000 - $1,200,000 = -$400,000.
Maximum impairment loss = $300,000

## 9. Financial Statement Presentation

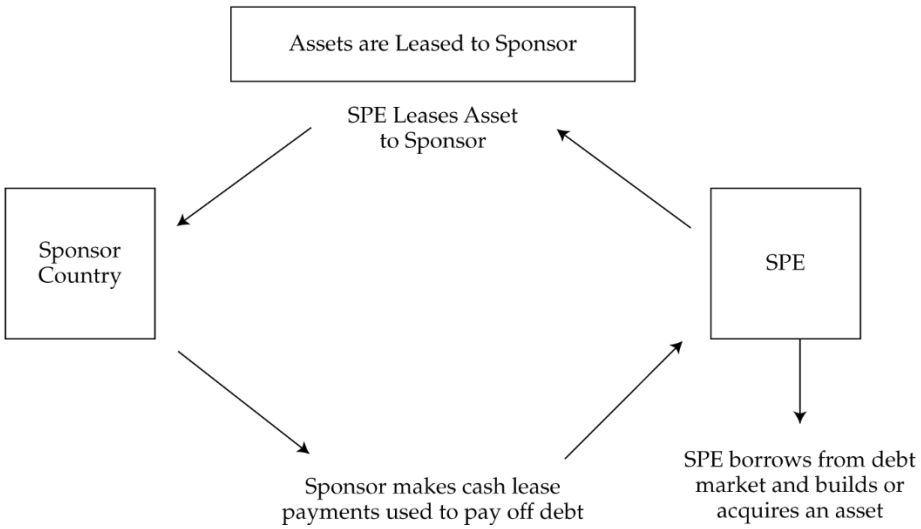
The presentation of consolidated financial statements is similar under IFRS and US GAAP. Each line item (e.g., turnover, cost of sale, etc.) includes 100% of the parent and subsidiary transactions after eliminating any upstream (subsidiary sells to parent) or downstream (parent sells to subsidiary) intercompany transactions. The portion of income accruing to non-controlling shareholders is presented as a separate line item in the consolidated income statement. The net income is the same under IFRS and US GAAP.

## 10. Variable Interest and Special Purpose Entities

A VIE (variable interest entity) or SPE (special purpose entity) is an enterprise that is created to accommodate the specific needs of the sponsoring entity. It may be used to securitize receivables, lease assets, and so on. The sponsoring entity frequently transfers assets to the SPE, obtains the right to use assets held by the SPE, or performs services for the SPE, while other parties provide funding to the SPE. SPEs can be a legitimate financing mechanism for a company to segregate certain activities and thereby reduce risk. SPEs may take the form of a limited liability company (corporation), trust, partnership, or unincorporated entity.

The diagram below illustrates the SPE for a leased asset. A sponsoring company creates an SPE with minimal third-party equity. The SPE raises money from the debt market to acquire an asset, then leases the asset, and uses the cash flow from lease payments to repay the debt and provide a return to equity holders.

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In the past, sponsors were able to avoid consolidating SPEs on their financial statements because they did not have control (i.e., own a majority of the voting interest) of the SPE. By avoiding consolidation, sponsors did not have to report the assets and the liabilities of the SPE. As a result, the financial performance as measured by unconsolidated financial statements was potentially misleading. The benefit to the sponsoring company was improved asset turnover, lower operating and financial leverage, and higher profitability.

However, according to the new accounting standards (IFRS 10), the sponsoring entity must now consolidate if it controls the SPE.

**Variable Interest Entity**

VIE is a US GAAP concept and refers to an entity that is financially controlled by one or more parties that do not hold a majority voting interest. An SPE is a VIE if:

1. Total equity at risk is insufficient to finance activities without financial support from other parties, or
2. Equity investors lack any one of the following:
   a. the ability to make decisions
   b. the obligation to absorb losses
   c. the right to receive returns

The primary beneficiary of a company must consolidate it as its subsidiary regardless of how much of an equity investment it has in the VIE.

**Example: Receivables Securitization**
(*This is based on Example 11 from the curriculum.*)

Odena, a (fictional) Italian auto manufacturer, wants to raise €55M in capital by borrowing against its financial receivables. To accomplish this objective, Odena can choose between two alternatives:

1. Alternative 1: Borrow directly against the receivables; or

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2. Alternative 2: Create a special purpose entity, invest €5M in the SPE, have the SPE borrow €55M, and then use the funds to purchase €60M of receivables from Odena.

Using the financial statement information provided below, describe the effect of each alternative on Odena, assuming that Odena meets the definition of control and will consolidate the SPE.

| | |
|---|---|
| Cash | €30,000,000 |
| Accounts receivable | 60,000,000 |
| Other assets | 40,000,000 |
| Total assets | €130,000,000 |
| Current liabilities | €27,000,000 |
| Noncurrent liabilities | 20,000,000 |
| Total liabilities | €47,000,000 |
| Shareholder equity | €83,000,000 |
| **Total liabilities and equity** | **€130,000,000** |

**Solution:**

Alternative 1: If Odena borrows directly against the receivables, then its cash will increase by €55,000,000 to €85,000,000. Its debt also increases by €55,000,000. There is no change to net income or sales. Its balance sheet would look like this:

| | |
|---|---|
| Cash | €85,000,000 |
| Accounts receivable | 60,000,000 |
| Other assets | 40,000,000 |
| Total assets | €185,000,000 |
| Current liabilities | €27,000,000 |
| Noncurrent liabilities | 75,000,000 |
| Total liabilities | €102,000,000 |
| Shareholder equity | €83,000,000 |
| Total liabilities and equity | €185,000,000 |

Alternative 2: By creating a special purpose entity, the following changes will occur for Odena:

- Its accounts receivable will reduce by €60,000,000.
- Cash will increase by €55,000,000.

The SPE's balance sheet would look like the following:

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| | |
|---|---|
| Accounts receivable | €60,000,000 |
| Total assets | €60,000,000 |
| Long-term debt | €55,000,000 |
| Equity | 5,000,000 |
| Total liabilities and equity | €60,000,000 |

Odena's balance sheet would look like the following because it consolidates the SPE:

| | |
|---|---|
| Cash | €85,000,000 |
| Accounts receivable | 60,000,000 |
| Other assets | 40,000,000 |
| Total assets | €185,000,000 |
| Current liabilities | €27,000,000 |
| Noncurrent liabilities | 75,000,000 |
| Total liabilities | €102,000,000 |
| Shareholder equity | €83,000,000 |
| Total liabilities and equity | €185,000,000 |

Notice that the balance sheet for both alternatives looks the same.

## 11. Additional Issues in Business Combinations That Impair Comparability

In addition to the major issues covered so far in the reading, other issues that impair comparability between IFRS and US GAAP when accounting for business combinations are:

- Contingent assets and liabilities
- Contingent consideration
- In-process R&D
- Restructuring costs

**Instructor's Note**: This section is not very testable. The curriculum points out subtle differences between IFRS and US GAAP accounting treatment for these categories. As analysts, we should be aware of the fact that there is a fair amount of subjectivity while reporting these categories, and we should take this into consideration while comparing different companies.

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## Summary

**LO: Describe the classification, measurement, and disclosure under International Financial Reporting Standards (IFRS) for 1) investments in financial assets, 2) investments in associates, 3) joint ventures, 4) business combinations, and 5) special purpose and variable interest entities.**

The table below summarizes the accounting treatment for various investment categories under IFRS.

| | **Financial Assets** | **Associates** | **Business Combinations** | **Joint Ventures** |
|---|---|---|---|---|
| Influence | Not significant | Significant | Controlling | Shared control |
| Typical percentage interest | Usually < 20% | Usually 20% to 50% | Usually > 50% or other indications of control | |
| Financial Reporting | Classified as:<br>▪ Fair value through profit or loss<br>▪ Fair value through other comprehensive income<br>▪ Amortized cost | Equity method | Consolidation | IFRS: Equity method |

**LO: Compare and contrast IFRS and US GAAP in their classification, measurement, and disclosure of investments in financial assets, investments in associates, joint ventures, business combinations, and special purpose and variable interest entities.**

The classification varies between IFRS and US GAAP for business combinations: under IFRS, there is no distinction. Under US GAAP, there are four types: merger, acquisition, consolidation, and variable interest entity.

IFRS allows either the partial goodwill or full goodwill method to account for goodwill and non-controlling interest. US GAAP allows the full goodwill method only.

**LO: Analyze how different methods used to account for intercorporate investments affect financial statements and ratios.**

The following table compares the effect of the equity method and the acquisition method on ratios:

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| | **Equity method** | **Acquisition method (partial goodwill)** | **Acquisition method (full goodwill)** |
|---|---|---|---|
| Sales | Lower | Higher (full consolidation) | Higher (full consolidation) |
| Net income | Same | Same | Same |
| Assets | Lower (net assets) | Higher (all assets) | Higher (all assets) |
| Liabilities | Lower | Higher (all liabilities) | Higher (all liabilities) |
| Equity | Net assets | Net assets | Slightly higher relative to the partial goodwill method |
| Net profit margin | Higher (most favorable) | Lower (less favorable because revenue is higher) | Lower (less favorable because revenue is higher) |
| Leverage | Lower (most favorable) | Higher (less favorable) | Higher (slightly better than the partial goodwill method) |
| Return on equity and return on assets | Higher (most favorable) | Lower than the equity method but higher than the full goodwill method | Lowest (least favorable) |

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