INTERNATIONAL FINANCIAL ACCOUNTING

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LEARNING OBJECTIVES

Accounting practices developed differently within varying historical, political, economic, and social environments. However, accounting differences across countries may generate a lack of comparability between companies and may involve difficulties in making a proper analysis of financial statements. To address this, a call for a uniform set of international accounting standards emerged in the 1980s, and today, companies located in over 144 countries base the preparation of their annual reports on International Financial Reporting Standards (IFRS).

Given the importance of IFRS, **International Financial Accounting** will provide you with a practical understanding of general-purpose financial reporting according to IFRS standards.

Your learning journey will start with an overview of various factors that influence the development of accounting practices in each country and variables that may cause worldwide accounting diversity. In this context, you will also learn the history of the standard setter, the International Accounting Standards Board (IASB), and its goal to achieve international convergence of financial reporting. You will learn how IFRS are structured and understand the importance of the conceptual framework as well as its key content.

International financial accounting encompasses an enormous number of topics. This coursebook will cover several important aspects related to the statement of financial position or balance sheet and the statement of profit and loss and other comprehensive income. Specifically, you will learn the fundamentals of accounting for inventories, property, plant and equipment, intangible assets, revenue, provisions, and contingent liabilities.

Since companies adopting IFRS are often part of groups and other business combinations, you will learn how to prepare consolidated financial statements. Mergers and acquisitions play a prominent role in our global economy. Therefore, an analysis of the consolidation of financial statements is vital.

UNIT 1

WORLDWIDE ACCOUNTING DIVERSITY

STUDY GOALS

On completion of this unit, you will be able to ...

- understand major variables that influence the development of accounting systems and lead to international accounting diversity.
- explain classification systems to categorize accounting differences.
- explain some problems caused by accounting diversity.
- critically evaluate international convergence efforts.

1. WORLDWIDE ACCOUNTING DIVERSITY

Introduction

In 1494, Luca Pacioli, an Italian mathematics scholar, published his famous book *Summa de Arithmetica, Geometria, Proportoni et Proportionalita* (The Collected Knowledge of Arithmetic, Geometry, Proportion, and Proportionality). This book shaped the discipline of accounting in one chapter of the book; the *Particularis de Computis et Scripturis* (About Accounts and Other Writings) described double-entry accounting for the first time.

His groundbreaking work provided a new and innovative system of recording transactions. However, accounting regulation and practices have developed differently across countries since the time of Luca Pacioli. For example, the International Financial Reporting Standards (IFRS), the German *Handelsgesetzbuch* (Commercial Code, HGB), or US Generally Accepted Accounting Principles (GAAP) may use different terminology in the presentation of disclosures and provide different recognition and measurement regulations for the preparation of financial statements.

Any differences in accounting regulation may result in significantly different amounts being reported. A case in point is the "Volkswagen AG Annual Report 2001" highlighted in Table 1. As one of the largest automobile manufacturers in the world, the company owns production facilities in various countries and sells its products globally. Headquartered in Germany, the Volkswagen AG was required to disclose financial statements in accordance with the HGB. In addition to these mandatory disclosures, the company decided to prepare accounting information in accordance with IFRS on a voluntary basis (German companies listed in an EU securities market follow IFRS since 2005. However, reviewing the "Volkswagen AG 2001 Annual Report" allows us to compare two sets of disclosures and identify differences between the HGB and IFRS). Accordingly, the Volkswagen AG provided the following disclosures in the notes of the 2001 annual report:

Table 1: Excerpt from the Volkswagen AG Annual Report 2001

Volkswagen AG 2001 (opening reconciliation)	**€m**
Equity (HGB) 01.01.2000	9,811
Capitalization of development costs	3,982
Amended useful lives and depreciation methods of tangible and intangible assets	3,483
Capitalization of overheads in inventories	653
The differing treatment of leasing contracts as lessor	1,962
Differing valuation of financial instruments	897
Effect of deferred taxes	−1,345

Volkswagen AG 2001 (opening reconciliation)	€m
Elimination of special items	262
Amended valuation of pension and similar obligations	−633
Amended accounting treatment of provisions	2,022
Classification of minority interests not as part of equity	−197
Other changes	21
Equity (IFRS) 01.01.2000	20,918

Source: Volkswagen AG, 2001, p. 86.

Depending on the accounting regulation applied, Volkswagen AG showed a different equity figure. If the HGB is the basis, the equity amount is €9,811 million, while the equity amount is more than double as high, i.e., €20,918 million, if IFRS is the basis.

In this unit, we will classify and discuss some reasons that influence the development of national accounting systems that may lead to differences in disclosures as highlighted in the "Volkswagen AG Annual Report 2001". Furthermore, you will learn how the International Accounting Standards Board (IASB) attempts to address problems caused by accounting diversity.

1.1 Reasons for Accounting Diversity

Gernon and Wallace (1995) use the term "accounting ecology" to describe a national accounting system.

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Gernon and Wallace (1995) define the accounting ecology as follows: "A national accounting ecology is a multidimensional system in which no one factor occupies a predominant position. Such a synthesis would emphasize the interrelationships of the environmental factors which influence and are influenced by accounting and would focus on the importance of perceptual as well as non-cultural factors such as population and land area" (Gernon & Wallace, p. 59).

The concept of accounting ecology categorizes variables that may influence the development of accounting into five separate but interacting dimensions.

Table 2: Examples of Reasons for Accounting Diversity

Dimension	Example
Societal dimension	Culture
Organizational dimension	Sources of finance
Professional dimension	Training, education, and registration
Individual dimension	Regulation and ethics
Accounting dimension	Legal system

Source: Based on Gernon & Wallace, 1995 and Hellmann et al., 2010.

Among others, important variables included in those five dimensions are the legal system, providers of financing, and culture.

Legal System

Two primary legal systems employed globally are common law and codified law. Common law, originating in England, relies on a minimal amount of statutory law and is subject to interpretation by the courts. Court decisions form case law that complements statutes. Code law, on the other hand, evolved from Roman *jus civile* and has relatively more statutes.

Accounting rules in code law countries are often legislated through national statutes, minimizing the influence of the accounting profession on standard development. In common law countries, specific accounting rules are typically formulated by the profession or an independent nongovernmental body. Consequently, the legal system in a country plays a crucial role in determining whether government or nongovernmental organizations are the primary source of accounting rules.

Furthermore, code law countries often have relatively general accounting laws. In common law countries, rules tend to be more detailed with extensive guidance being provided.

Providers of Financing

The main providers of financing for businesses include family members, banks, governments, and shareholders. If financing is dominated by families, banks, or governments, there is less pressure for public accountability and the disclosure of information. The reasons for this are, among others, that banks are often represented on the board of directors or can request internal information before loans are granted. If shareholders are the main provider of financing, the demand for more information made available on a regular basis becomes greater. The reason for this is that the vast number of shareholders cannot access internal records and as such require extensive disclosures in accounting reports.

Additionally, the content of the accounting reports may also be influenced by the providers of financing. Shareholders are more interested in profit and, hence, the accounting emphasis is on the income statement, and banks are more interested in solvency and liquidity. This leads to an accounting emphasis on the balance sheet.

Culture

For decades, many accounting researchers have been focusing their attention on the influence of culture on accounting rules and the way accountants apply those rules. A classic framework has been created by Gray (1988). His framework put forward the notion that culture influences the development of an accounting system through its influence on a professional's accounting values. In other words, Gray hypothesized that cultural values shared by members of a society influence the accounting values shared by members of the accounting subculture. This in turn would affect the financial reporting rules and practices found within a country. Furthermore, Gray (1988) believed that the higher a country ranks on the cultural dimensions of uncertainty avoidance and long-term orientation, and the lower it ranks on the cultural dimensions of individualism and masculinity, then the more likely it is to rank highly in terms of conservatism (One of the first attempts to classify cultural dimension was the work of Hofstede [1980]. For a critique, review Baskerville [2003]). Conservatism, in turn, has been shown to influence the application of professional judgments (e.g., Doupnik & Richter, 2004).

1.2 Classification of Accounting Systems

Despite the many variables that influence the development of a country, historically, there were clusters of countries that shared similar accounting practices.

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Classification schemes aim to identify clusters that share similar accounting practices. Models differ in terms of the variables they apply to create such clusters.

Nobes (1998) uses the financing system as the dominant variable in determining his classification consisting of two categories, i.e., Class A and Class B.

Class A accounting systems are those with strong equity-outside shareholder financing. It features less conservative measurement practices and extensive disclosures. Class B accounting systems are those with weak equity-outside shareholder financing. It features more conservative measurement, disclosure is not as extensive, and accounting practices are often influenced by taxation rules.

Good examples of countries that have Class A accounting systems are the United Kingdom and the United States, where accounting originated toward the decision needs of investors. As this model is also found in other English-speaking countries that were influenced by the United Kingdom and the United States, Class A accounting is sometimes referred to as the "Anglo-American model". Class B accounting systems were historically used by most of Europe, Japan, and other code-law countries. Hence, it is often referred to as the "Continental European model".

1.3 Problems Caused by Accounting Diversity

Over the past sixty years, the expansion of consumer, production, and capital markets on a global scale has exerted significant influence on the field of accounting (Doupnik et al., 2020, p. 41–72). The globalization of consumer markets, coupled with advancements like the Internet and mobile banking, has not only accelerated the exchange of goods and services but has also facilitated trading for companies and consumers worldwide. Likewise, the globalization of production markets has driven down production costs and allowed companies to access parts from international suppliers. Lastly, the globalization of capital markets has intensified the interconnection between economies, enabling foreign investors to engage with domestic companies and providing companies access to global capital markets for financing their operations.

This led to multinational companies such as the Volkswagen Group, which sells its products in 153 countries and operates production facilities in 29 countries (Volkswagen AG, 2024). Given the differences in accounting practices worldwide, multinational companies such as the Volkswagen AG would have to comply with a wide variety of accounting regulations that are applicable in all countries in which the company operates. This may cause the following problems.

Preparation of Consolidated Financial Statements

Preparing financial statements based on various local accounting standards would lead to inefficiencies and higher costs. Imagine a Japanese company that has subsidiaries in many countries around the world. Each subsidiary would be required to prepare financial statements in accordance with local regulations, including using local currencies and languages. To prepare consolidated financial statements in Japan, the parent company must convert the financial statements of its foreign subsidiaries into Japanese GAAP as well as translate the foreign currencies into Japanese Yen. This means that each subsidiary must maintain two sets of records, i.e., one in accordance with Japanese GAAP and one in accordance with the respective local standards, or it must make reconciliations at the end of the accounting period. Such a scenario involves considerable effort and cost as time and personnel must be committed to this task.

Access to Foreign Capital Markets

Similarly, companies may face additional costs if they want to obtain capital in a foreign country. The reason for this is that companies seeking a listing on a stock exchange must comply with the accounting standards applicable in the respective country. The requirements can become quite costly. For example, the German company Daimler-Benz (now called Mercedes-Benz Group AG) was the first German company to list on the New York Stock Exchange in 1993. In preparing this listing, Daimler-Benz estimated to spend €60 million to initially prepare financial statements in accordance with US GAAP.

Comparability of Financial Statements

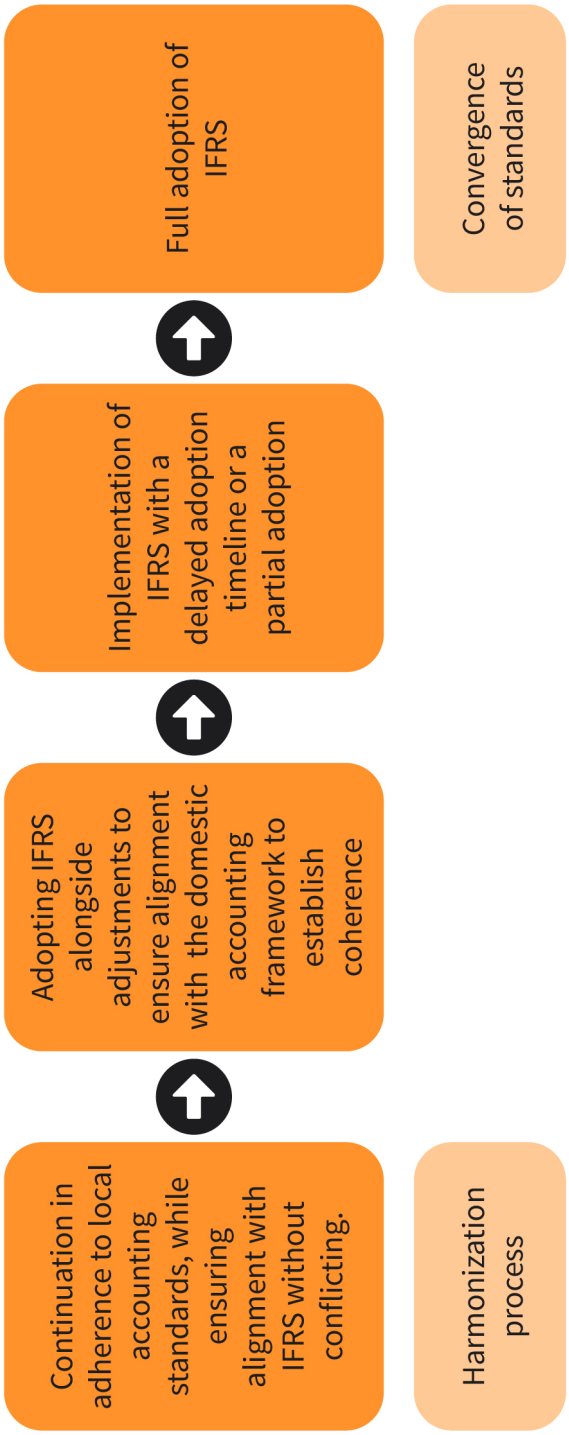
In addition to increased costs and inefficiencies, companies may find it difficult to attract foreign investors if they cannot compare the financial statements of companies that have prepared them under different accounting standards. Similarly, a lack of comparability can also affect the ability of companies to evaluate opportunities and risks when making foreign acquisition decisions.

1.4 International Convergence of Financial Reporting

Perceived market inefficiencies resulting from the problems caused by accounting diversity have led to pressure to reduce differences in accounting practices across countries. This process is known as “harmonization” or “convergence” (Doupnik et al., 2020, 136–188).

Harmonization is the process of reducing contradictory accounting rules across countries in order to improve the international comparability of financial statements. However, harmonization allows countries a high degree of flexibility if standards across countries do not conflict with each other. In other words, harmonization allows countries to keep their national accounting standards. Convergence, in contrast, is the adoption of a set of international standards. It is the process that has led to the adoption of IFRS across many countries.

Figure 1: Harmonization and Convergence



Source: Based on Doupnik et al., 2020.

Harmonization Efforts Through the International Accounting Standards Committee (IASC)

Early harmonization attempts were made by the IASC, which was established in 1973 by an agreement of the leading professional accounting bodies in Australia, Canada, France, Germany, Ireland, Japan, Mexico, the Netherlands, the United Kingdom, and the United States. The broad objective of the IASC was to formulate international accounting standards, resulting in a set of 30 core International Accounting Standards (IAS) until 1998. A milestone was achieved in 2000 when the International Organization of Securities Commissions recommended its members to permit foreign companies to use IAS to gain access to a country's capital market instead of using local standards.

However, the IASC also faced problems of legitimacy with regard to independence and technical expertise, largely because critics argued that the IASC was created by the accounting profession with its self-interests.

Creation of the International Accounting Standards Board (IASB)

To address legitimacy concerns, the IASC changed its emphasis from harmonization to convergence. For this purpose, it reorganized its structure and changed its name to IASB. The names of the standards also changed, and all standards developed after 2001 were called International Financial Reporting Standards (IFRS). Importantly, the IAS did not cease to exist, and the complete set of standards includes the IAS developed before 2001 as well as the IFRS developed after 2001.

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Whenever the term IFRS is used in this script to describe the set of standards, it always includes IAS as well as IFRS. There are currently 17 IFRS and 41 IAS.

As of today, IFRS have been permitted or required to be used by more than 160 jurisdictions (IASB, 2022). This shows that IFRS have become a truly global set of accounting standards. They are increasingly important for companies operating in both developed and developing countries. For example, listed companies in the EU have had to prepare their consolidated financial statements in accordance with IFRS since 2005. It is worth noting that the United States is amongst the jurisdictions that did not adopt IFRS.

Arguments Against Convergence

Convergence may address the problems caused by accounting diversity as discussed above. However, to provide a comprehensive overview, arguments against convergence should also be introduced. Given the magnitude of all differences across countries and the political cost of eliminating those differences, arriving at principles that satisfy all stakeholders seems to be an almost impossible task. The "one size fits all" approach ignores the unique contextual factors that led to the development of accounting in a country. If

one argues that differences in contextual factors exist, then differences in accounting across countries might be appropriate. This is supported by the fact that well-developed global capital markets already exist and have developed without uniform accounting standards such as IFRS.

Another argument is that convergence should be differentiated into two dimensions: convergence of accounting standards (called de jure convergence) and convergence of the actual accounting practices (called de facto convergence). De facto convergence requires that accounting standards are also interpreted and applied across countries. However, evidence suggests that accountants across countries apply their professional judgments differently despite the application of the same accounting standards (e.g., Doupnik & Richter, 2004).

SUMMARY

Based on contextual factors, classification systems aim to cluster accounting systems that share similarities. Such systems show that accounting practices developed differently across countries. Differences in accounting practices may have disadvantages, especially for multinational companies and investors. To address these perceived disadvantages, IFRS have become the most popular set of accounting standards in the world, being permitted or required by more than 160 jurisdictions for one or more purposes. They are developed by the IASB, a private standard-setting body, which argues that IFRS enhance the comparability of accounting information across countries.

The goal of the IASB is to achieve convergence, which means the worldwide adoption of IFRS. However, there are also perceived limitations of convergence, such as an inconsistent application and interpretation of the standards.

UNIT 2

FUNDAMENTALS OF INTERNATIONAL FINANCIAL REPORTING ACCORDING TO IFRS

STUDY GOALS

On completion of this unit, you will be able to ...

- identify the types of financial statements and reporting requirements.
- explain the elements of the financial statements.
- describe the limitations of the financial statements.
- identify the key features of the conceptual framework.
- discuss the qualitative characteristics of accounting information.

2. FUNDAMENTALS OF INTERNATIONAL FINANCIAL REPORTING ACCORDING TO IFRS

Introduction

Accounting as a profession and field of study is much larger than many individuals realize. Accountants often specialize in a particular area, similar to what attorneys do in their law practice. Specialization areas include the following:

- **financial accounting:** the creation and interpretation of financial statements
- **management accounting:** the creation of budgets, ratios, and costs of manufacturing reports
- **tax accounting:** individual or corporate tax planning and tax returns
- **auditing:** internal or external (independent) auditing
- **governmental and nonprofit accounting:** accounting for a vast array of nonprofit as well as local, state, and federal accounting organizations

Table 2 shows some of the primary differences between financial and managerial accounting.

Table 3: Financial versus Managerial Accounting

	Financial Accounting	Managerial Accounting
Stakeholder focus	primarily external	primarily internal
Types of statements created	financial statements	manufacturing costs, budgets
Follows GAAP?	yes	optional
Focus on ...	... accuracy of information	... timeliness of information
Relevance or reliability?	reliability	relevance
Degree of use of estimates	medium	high

Source: Sandra Oller, 2022.

Reviewing these characteristics, it becomes clear that IFRS regulate financial accounting. This unit introduces the different types of financial statements, i.e., the output of financial accounting. It further discusses the structure of IFRS with particular reference to the conceptual framework. This pronouncement is important because it describes, among other things, the qualitative characteristics of accounting information and defines the basic elements of accounting.

2.1 Types of Financial Statements and Reporting Standards

Financial reporting gathers (1) financial information for (2) an economic entity for (3) user groups within a specific (4) legal, economic, political, and social environment:

1. Financial information is the object of financial reporting. It includes different types of information to provide a faithful representation of the situation of the company, regarding, e.g., its performance and its financial position.
2. An economic entity is the subject of financial reporting, whose information is reported. It can be a legal entity when the financial reporting corresponds with its individual financial statements and information or otherwise a consolidated group, which is made of different legal entities that are related and act as an economic entity.
3. User groups refer to the different stakeholders that will be using financial statements and the companies' financial information for their decision-making. This involves a variety of stakeholders, such as existing and potential investors, analysts, banks or potential creditors, institutions, etc.
4. The legal, economic, political, and social environment refers to the context and the variety of stakeholders. Companies are not isolated entities but interact within their context, and they can have a significant impact on it. That is why stakeholders from these different areas can be interested in obtaining information about the company.

This process involves the identification, measurement, and communication of financial information that is summarized in the following four key financial statements:

1. The Statement of Profit and Loss and Other Comprehensive Income (for simplicity referred to as income statement in this script) focuses on revenue and expenses. Income statements may also include gains and losses, which are not from daily operations, and result in either net income or net loss.
2. The Statement of Financial Position (for simplicity referred to as balance sheet in this script) contains assets, liabilities, and equity. This statement is often characterized as showing the financial strength of an organization. It contains permanent accounts that roll over from period to period.
3. The Statement of Changes in Equity focuses on equity and links the income statement to the balance sheet. The result of this statement is ending capital, which then rolls over to the balance sheet.
4. The Statement of Cash Flows (for simplicity referred to as cash flow statement in this script) consists of three sections: operating, investing, and financing activities. The statement reflects how changes in many accounts (primarily from the current and previous year's balance sheet) affects changes in cash during the reporting period.

Income Statement

The income statement is an essential source of financial information of a company as it provides information on its performance during the reporting period, which is key to assess its profitability during that time. It includes the revenues of the business as well as

the costs and expenses needed to reach them in the said period. In financial reporting, the main reporting period is the fiscal year, although quarterly reporting is sometimes required as well.

Under IAS 1 – Presentation of Financial Statements, entities can choose between presenting a single combined statement of profit and loss and other comprehensive income or two separate statements, i.e., a statement that presents the items of profit and loss for the period. This is the Statement of Profit and Loss and a Statement of Other Comprehensive Income (BDO, 2021).

IAS 1 – Presentation of Financial Statements sets a minimum of lines to be included in the statement of profit and loss:

- revenues
- financial costs
- losses and gains from financial assets derecognition (when measured at amortized cost)
- corresponding profits and losses from joint ventures and associates, recognized using the equity method
- some losses or gains related to financial assets reclassification
- tax expenses
- a single amount as a result of the total of discounted items

Expenses can be grouped according to their nature (raw materials purchases, labor, depreciation, etc.) or according to their function (e.g., cost of sales, which can involve raw materials, some labor, etc.). In this second case, additional disclosure of its nature is required (Deloitte, 2024).

In the example below, the income statement of adidas AG for 2020, additional lines are presented, and the expenses are shown according to their function. This can be highly relevant information for stakeholders to better understand the business results.

Table 4: Income Statement Example: adidas AG, 2020

adidas AG Consolidated Income Statement (IFRS) € in millions

	Note	Year ending Dec. 31, 2020	Year ending Dec. 31, 2019	Change
Net sales	38	19,844	23,640	(16.1%)
Cost of sales		9,990	11,347	(12.0%)
Gross profit		**9,855**	**12,293**	**(19.8%)**
(% of net sales)		49.7%	52.0%	(2.3pp)
Royalty and commission income		83	154	(46.2%)
Other operating income	31	42	56	(24.5%)

adidas AG Consolidated Income Statement (IFRS) € in millions

	Note	Year ending Dec. 31, 2020	Year ending Dec. 31, 2019	Change
Other operating expenses	11, 14, 32, 33	9,229	9,843	(6.2%)
(% of net sales)		46.5%	41.6%	4.9pp
Marketing and point-of-sale expenses		2,573	3,042	(15.4%)
(% of net sales)		13.0%	12.9%	0.1pp
Distribution and selling expenses		4,962	4,997	(0.7%)
(% of net sales)		25.0%	21.1%	3.9pp
General and administration expenses		1,461	1,652	(11.6%)
(% of net sales)		7.4%	7.0%	0.4pp
Sundry expenses		119	134	(11.6%)
(% of net sales)		0.6%	0.6%	0.0pp
Impairment losses (net) on accounts receivable and contract assets		114	18	541.8%
Operating profit		**751**	**2,660**	**(71.8%)**
(% of net sales)		3.8%	11.3%	(7.5pp)
Financial income	34	29	64	(55.2%)
Financial expenses	34	204	166	23.2%
Income before taxes		**575**	**2,558**	**(77.5%)**
(% of net sales)		2.9%	10.8%	(7.9pp)
Income taxes	36	146	640	(77.2%)
(% of income before taxes)		25.4%	25.0%	0.3pp
Net income from continuing operations		**429**	**1,918**	**(77.6%)**
(% of net sales)		2.2%	8.1%	(6.0pp)
Gain from discontinued operations, net of tax	03	13	59	(77.5%)

adidas AG Consolidated Income Statement (IFRS) € in millions

	Note	Year ending Dec. 31, 2020	Year ending Dec. 31, 2019	Change
Net income		**443**	**1,977**	**(77.6%)**
(% of net sales)		2.2%	8.4%	(6.1pp)
Net icome attributable to shareholders		**432**	**1,976**	**(78.1%)**
(% of net sales)		2.2%	8,4%	(6.2pp)
Net icome attributable to non-controlling interests		**11**	**2**	**540.9%**
Basic earnings per share from continuing operations (in €)	37	**2,15**	**9,70**	**(77.9%)**
Diluted earnings per share from continuing operations (in €)	37	**2,15**	**9,70**	**(77.9%)**
Basic earnings per share from continuing and discontinued operations (in €)	37	**2,15**	**10,00**	**(77.8%)**
Diluted earnings per share from continuing and discontinued operations (in €)	37	**2,15**	**10,00**	**(77.8%)**

Source: adidas, 2021.

Table 5: Statement of Comprehensive Income Example: adidas AG, 2020

adidas AG Consolidated Statement of Comprehensive Income (IFRS) € in millions

	Note	Year ending Dec. 31, 2020	Year ending Dec. 31, 2019
Net income after taxes		**443**	**1,977**
Items of other comprehensive income that will not be reclassified subsequently to profit or loss			
Remeasurements of defined benefit plans (IAS 19), net of tax*	25	(15)	(50)
Net (loss) / gain on other equity investments (IFRS 9), net of tax	30	(2)	12

adidas AG Consolidated Statement of Comprehensive Income (IFRS) € in millions

	Note	Year ending Dec. 31, 2020	Year ending Dec. 31, 2019
Subtotal of items of other comprehensive income that will not be reclassified subsequently to profit or loss		**(17)**	**(38)**
Items of other comprehensive income that will not be reclassified to profit or loss when specific conditions are met			
Net loss on cash flow hedges and net foreign investments hedges, net of tax	30	(100)	(148)
Net gain / (loss) on cost of hedging reserve - options, net of tax	30	7	(7)
Net (loss) / gain on cost of hedging reserve - forward contracts, net of tax	30	(30)	11
Reclassification of foreign currency differences due to dissolution of subsidiaries		-	0
Currency translation differences		(401)	98
Subtotal of items of other comprehensive income that will be reclassified to profit or loss when specific conditions are met		**(524)**	**(46)**
Other comprehensive icome		**(540)**	**(84)**
Total comprehensive icome		**(97)**	**1,894**
Attributable to shareholders of adidas AG		(87)	1,898
Attributable to non-controlling interests		(10)	(4)

Source: adidas, 2021.

*Includes actuarial gains or losses relating to defined benefit obligations, return on plan assets (excluding interest income) and the asset ceiling effect. The accompanying Notes are an integral part of these consolidated financial statements.

Income statements are useful in that stakeholders can evaluate past performance in order to estimate, with some degree of confidence, a company's future profitability. They can also assess risk or uncertainties regarding the company's future cash flows, recognizing that some items on the income statement will persist annually while others may be temporary.

However, there are also limitations to the income statement, since there are items that are excluded. This would include any items such as revenues, expenses, gains, and losses that cannot be measured reliably. In addition, depending on which accounting treatments are chosen, results on the income statement will vary. An example of this would be inventory valuation method decisions.

Balance Sheet

The balance sheet portrays the financial strength of an organization at a specific point in time, typically marking the end of the reporting period. It delineates the company's resources and sources (or obligations) at that moment, classified into different categories. It contains permanent accounts, which are assets, liabilities, and equity.

To enhance the information value, there is a distinction between noncurrent and current assets and liabilities (Deloitte, 2024).

Examples of asset categories include the following:

- cash and cash equivalents
- trade and other receivables
- financial assets
- inventories
- property, plant, and equipment
- biological assets
- investment properties
- intangible assets
- receivables related to current taxes
- deferred-tax assets

Examples of liability categories include the following:

- trade and other payables
- provisions (such as warranty, liabilities, and pension benefits)
- financial liabilities
- taxes payable
- deferred tax liability

An example of a balance sheet is shown below, continuing with the example of adidas AG.

Table 6: Balance Sheet Example: adidas AG, 2020 (I)

adidas AG Consolidated Statement of Financial Position (IFRS) € in millions

	Note	Dec. 31, 2020	Dec. 31, 2019	Change in %
Assets				
Cash and cash equivalents	05	3,994	2,220	80

adidas AG Consolidated Statement of Financial Position (IFRS) € in millions

	Note	Dec. 31, 2020	Dec. 31, 2019	Change in %
Short-term financial assets	06	0	292	(100)
Accounts receivable	07	1,952	2,625	(26)
Other current financial assets	08	702	544	29
Inventories	09	4,397	4,085	8
Income tax receivables	36	109	94	17
Other current assets	10	999	1,076	(7)
Assets classified as held for sale		0	-	n.a.
Total current assets		**12,154**	**10,934**	**11**
Property, plant and equipment	11	2,157	2,380	(9)
Right-of-use assets	12	2,430	2,931	(17)
Goodwill	13	1,208	1,257	(4)
Trademarks	14	750	859	(13)
Other intangible assets	14	252	305	(18)
Long-term financial assets	15	353	367	(4)
Other non-current financial assets	16	414	450	(8)
Deferred tax assets	36	1,233	1,093	13
Other non-current assets	17	103	103	(1)
Total non-current assets		**8,899**	**9,744**	**(9)**
Total assets		**21,053**	**20,680**	**2**

Source: adidas, 2021.

Table 7: Balance Sheet Example: adidas AG, 2020 (II)

adidas AG Consolidated Statement of Financial Position (IFRS) € in millions

	Note	Dec. 31, 2020	Dec. 31, 2019	Change in %
Liabilities and equity				
Short-term borrowings	18	686	43	1,483
Accounts payable		2,390	2,703	(12)
Current lease liabilities	21	563	733	(23)
Other current financial liabilities	19	446	235	90
Income taxes	36	562	618	(9)
Other current provisions	20	1,609	1,446	11
Current accrued liabilities	22	2,172	2,437	(11)
Other current liabilities	23	398	538	(26)
Total current liabilities		**8,827**	**8,754**	**1**
Long-term borrowings	18	2,482	1,595	56
Non-current lease liabilities	21	2,159	2,399	(10)
Other non-current financial liabilities	24	115	92	24
Pensions and similar obligations	25	284	229	23
Deferred tax liabilities	36	241	280	(14)
Other non-current provisions	20	229	257	(11)
Non-current accrued liabilities	22	8	9	(9)
Other non-current liabilities	26	17	7	156
Total non-current liabilities		**5,535**	**4,868**	**14**
Share capital		195	196	(0)

adidas AG Consolidated Statement of Financial Position (IFRS) € in millions

	Note	Dec. 31, 2020	Dec. 31, 2019	Change in %
Reserves		(474)	45	n.a.
Retained earnings		6,733	6,555	3
Shareholders' equity	**27**	**6,454**	**6,796**	**(5)**
Non-controlling interests	29	237	261	(9)
Total equity		**6,691**	**7,058**	**(5)**
Total liabilities and equity		**21,053**	**20,680**	**2**

Source: adidas, 2021.

The balance sheet information reflects financial resources and associated obligations as well as implied required rate of return on investments and risk associated with the company. Limitations of the balance sheet stem from the fact that many valuable items cannot be reported on the balance sheet, such as human capital. Estimates are widely used when reporting certain items, such as net realizable value, which reflects the number of accounts receivable that the company expects to collect. A company's cash flow and cash generation capacity are important indicators for companies and stakeholders. Important concepts related to the company's capacity to generate cash based on their balance sheet are the following:

- liquidity, which measures how easily and soon an asset can be turned into cash
- solvency, which reflects an organization's capacity to meet their long-term financial obligations
- financial flexibility, which reflects how well a company can respond to unexpected financial needs

The Statement of Cash Flows

This statement reflects the cash outflows and inflows for the period. It is structured into three main parts:

1. Cash from operating activities (main activities of the company, operations not involving investment or financing)
2. Cash from investing activities (related to transactions of noncurrent assets)
3. Cash from financing activities (related to borrowings and equity)

This classification provides helpful information to understand the cash's sources and uses for the period.

The cash from operating activities can be reported using two different methods. In the indirect method, the starting point is the profit or loss which is adjusted with the changes of working capital in the period (inventories, trade receivables, and payables), the non-cash elements (depreciation and amortization, provisions, etc.), and the items that involve cash flows from investing or financing operations. In the direct method, the net cash of operating activities is displayed as cash inflows or outflows from different items that affect the cash flow, such as customers, suppliers, employees, operating expenses, interests, etc.

Finally, the cash flow statement shows the reconciliation between cash at the beginning of the period and cash at the end of the period, as it can be observed in the example below. Cash from operating activities is presented with the indirect method, taking income before taxes as the starting point.

Table 8: Statement of Cash Flows example: adidas AG, 2020 (I)

adidas AG Consolidated Statement of Cash Flows (IFRS) € in millions

	Note	Year ending Dec. 31, 2020	Year ending Dec. 31, 2019
Operating activities:			
Income before taxes		575	2,558
Adjustments for:			
Depreciation, amortization and impaiment losses	11, 12, 13, 14, 32, 34	1,370	1,214
Reversals of impaiment losses	31	(6)	(8)
Interest income	34	(25)	(50)
Interest expense	34	164	160
Unrealised foreign exchange losses / (gains), net		35	(1)
Losses on sale of property, plant and equipment and intangible assets, net		28	11
Other non-cash effects from operating activities	31, 32	2	(12)
Payment for external funding of pension obligations (CTA)		-	(105)
Operating profit before working capital changes		**2,144**	**3,767**
Decrease / (Increase) in receivables and other assets		394	(694)
Increase in inventories		(503)	(505)

adidas AG Consolidated Statement of Cash Flows (IFRS) € in millions

	Note	Year ending Dec. 31, 2020	Year ending Dec. 31, 2019
(Decrease) / Increase in accounts payable and other liabilities		(141)	951
Cash generated from operations before taxes		**1,893**	**3,519**
Income taxes paid		(404)	(692)
Net cash generated from operating activities - continuing opertaions		**1,489**	**2,819**
Net cash used in operating activities - discontinued operations		(3)	(9)
Net cash generated from operating activities		**1,486**	**2,819**
Investing activities:			
Purchase of trademarks and other intangible assets		(64)	(110)
Proceeds from sale of trademarks and other intangible assets		4	0
Purchase property, plant and equipment		(379)	(598)
Proceeds from sale of property, plant and equipment		17	13
Proceeds from sale of a disposal group	03	1	8
Proceeds due to business combinations	04	-	54
Proceeds from disposal of discontinued operations		41	20
Proceeds from / (Purchase of) sale of short-term financial assets		289	(284)
Purchase of investments and other long-term assets		(49)	(80)
Interest received		25	50
Net cash used in investing activities - continuing operations		**(115)**	**(925)**
Net cash generated from investing activities - discontinued operations		-	-
Net cash used in investing activities		**(115)**	**(925)**
Financing activities:			

Source: adidas, 2021.

Table 9: Statement of Cash Flows example: adidas AG, 2020 (II)

adidas AG Consolidated Statement of Cash (IFRS) € in millions

	Note	Year ending Dec. 31, 2020	Year ending Dec. 31, 2019
Proceeds from issuance of bonds	18	1,490	-
Reverse transaction of buyback of Eurobonds	18	11	-
Interest paid		(157)	(156)
Repayments of lease liabilities		(611)	(597)
Dividend paid to shareholders of adidas AG	27	-	(664)
Dividend paid to non-controlling interest shareholders		(17)	(2)
Repurchase of adidas AG shares	27	(257)	(809)
Repurchase of adidas AG shares due to share - based payments		(29)	(28)
Proceeds from reissuance of treasury shares due to share - based payments		25	24
Proceeds from short-term borrowings	18	543	-
Repayments of short-term borrowings	18	(519)	(42)
Net cash generated from / (used in) financing activities - continuing operations		**479**	**(2,273)**
Net cash generated from financing activities discontinued operations			
Net cash generated from / (used in) financing activities		**479**	**(2,273)**
Effect of exchange rates on cash		**(75)**	**(30)**
Increase / (Decrease) in cash and cash equivalents		1,774	(410)
Cash and cash equivalents at beginning of year	05	2,220	2,629
Cash and cash equivalents at end of period	**05**	**3,994**	**2,220**

Source: adidas, 2021.

The Statement of Changes in Equity

The Statement of Changes in Equity reconciles the beginning and ending balances of various equity elements. They can include the following: contributed capital accounts related to investments by owners, common and preferred stock, retained earnings, including net income (loss) and distributions to owners (dividends), and reserves.

In the example below, adidas AG presents a reconciliation between the opening balance of the different concepts included into equity and their closing balance at the end of the reporting period, in this case December 31, 2020, detailing the different actions that generated these changes.

Table 10: Statement of Changes in Equity Example: adidas AG, 2020 I

adidas AG Consolidated Statement of Changes in Equity (IFRS) € in millions

	Note	Share capital	Capital reserve	Cumulative currency translation differences
Balance at January 1, 2019		**199**	**887**	**(574)**
Other comprehensive income				104
Net Income				
Total comprehensive income				**104**
Repurchase of adidas AG shares	27	(3)		
Repurchase of adidas AG shares due to equity-settled share-based payment	27	(0)		
Reiccuance of treasury shares due to equity-settled share-based payment	27	0		
Dividend payment				
Equity-settled share-based payment	28			
First-time consolidation due to obtaining control in accordance with IFRS 10	04			
Balance at December 31, 2019 / January 1, 2020		**196**	**887**	**(470)**
Other comprehensive income				(380)
Net income				
Total comprehensive income				**(380)**
Repurchase of adidas AG shares	27	(1)		

adidas AG Consolidated Statement of Changes in Equity (IFRS) € in millions

	Note	Share capital	Capital reserve	Cumulative currency translation differences
Repurchase of adidas AG shares due to equity-settled share-based payment	27	(0)		
Reissuance of treasury shares due to equity-settled share-based payment	27	0		
Dividend payment				
Equity-settled share-based payment	28			
First-time consolidation due to obtaining control in accordance with IFRS 10	04			
Balance at December 31, 2020		**195**	**887**	**(850)**

Source: adidas, 2021.

Table 11: Statement of Changes in Equity Example: adidas AG, 2020 II

adidas AG Consolidated Statement of Changes in Equity (IFRS) € in millions

	Hedging reserve	Cost of hedging reserve options	Cost of hedging reserve forward contracts	Other reserves
Balance at January 1, 2019	**(3)**	**(3)**	**(5)**	**(180)**
Other comprehensive income	(147)	(7)	11	(38)
Net Income				
Total comprehensive income	**(147)**	**(7)**	**11**	**(38)**
Repurchase of adidas AG shares				
Repurchase of adidas AG shares due to equity-settled share-based payment				
Reiccuance of treasury shares due to equity-settled share-based payment				

adidas AG Consolidated Statement of Changes in Equity (IFRS) € in millions

	Hedging reserve	Cost of hedging reserve options	Cost of hedging reserve forward contracts	Other reserves
Dividend payment				
Equity-settled share-based payment				
First-time consolidation due to obtaining control in accordance with IFRS 10				
Balance at December 31, 2019 / January 1, 2020	**(150)**	**(10)**	**6**	**(218)**
Other comprehensive income	(100)	7	(30)	(17)
Net income				
Total comprehensive income	**(100)**	**7**	**(30)**	**(17)**
Repurchase of adidas AG shares				
Repurchase of adidas AG shares due to equity-settled share-based payment				
Reissuance of treasury shares due to equity-settled share-based payment				
Dividend payment				
Equity-settled share-based payment				
First-time consolidation due to obtaining control in accordance with IFRS 10				

adidas AG Consolidated Statement of Changes in Equity (IFRS) € in millions

	Hedging reserve	Cost of hedging reserve options	Cost of hedging reserve forward contracts	Other reserves
Balance at December 31, 2020	**(250)**	**(3)**	**(23)**	**(235)**

Source: adidas, 2021.

Table 12: Statement of Changes in Equity Example: adidas AG, 2020 III

adidas AG Consolidated Statement of Changes in Equity (IFRS) € in millions

	Retained earnings	Shareholders equity	Non-controlling interests	Total equity
Balance at January 1, 2019	**6,054**	**6,377**	**(13)**	**6,364**
Other comprehensive income		(78)	(6)	(84)
Net Income	1,976	1,976	2	1,977
Total comprehensive income	**1,976**	**1,898**	**(4)**	**1,894**
Repurchase of adidas AG shares	(806)	(809)		(809)
Repurchase of adidas AG shares due to equity-settled share-based payment	(28)	(28)		(28)
Reiccuance of treasury shares due to equity-settled share-based payment	32	323		
Dividend payment	(664)	(654)	(2)	(666)
Equity-settled share-based payment	(10)	(10)		(10)
First-time consolidation due to obtaining control in accordance with IFRS 10			280	280

Balance at December 31, 2019 / January 1, 2020	**6,555**	**6,796**	**261**	**7,058**
Other comprehensive income		(519)	(21)	(540)
Net income	432	432	11	443
Total comprehensive income	**432**	**(87)**	**(10)**	**(97)**
Repurchase of adidas AG shares	(263)	(264)		(264)
Repurchase of adidas AG shares due to equity-settled share-based payment	(29)	(29)		(29)
Reissuance of treasury shares due to equity-settled share-based payment	36	36		36
Dividend payment			(17)	(17)
Equity-settled share-based payment	2	2		2
First-time consolidation due to obtaining control in accordance with IFRS 10			3	3
Balance at December 31, 2020	**6,733**	**6,454**	**237**	**6,691**

Source: adidas, 2021.

Notes to the Financial Statements

According to IAS 1 – Presentation of Financial Statements, annual reports must include disclosed notes. These notes contain the main accounting policies along with other relevant explanations, including assumptions, estimates, judgments, and other significant insights crucial for decision-making.

Their function is essential, as they contain important information for an accurate understanding of the financial statements and allow stakeholders to better assess the comparability of the financial information of different companies or different reporting periods.

Part of the notes refer to general accounting policies, whereas others are specific to the different items on the financial statements to provide further insights, assumptions, and required disclosures.

Disclosures

IFRS disclosures include a company's overall objectives, policies, and approaches for capital management. IFRS require that the following items are disclosed (Gordon et al., 2021):

- sources of uncertainty when measuring assets and liabilities
- subsequent events, meaning that companies are required to disclose the authorization date of the financial statements and the person who authorized them
- going concern one-year within the financial statement date
- related-party transactions, which include disclosing executive compensation
- sources of estimation uncertainty if there is a high risk of significant revision to the carrying amounts of the assets and liabilities within the next 12 months

2.2 Structure of the International Financial Reporting Standards

The term IFRS is frequently used for the entire regulatory framework. However, IFRS are principle-based and are applied in conjunction with interpretations developed by the IFRS Interpretations Committee (which was formerly known as the International Financial Reporting Interpretations Committee). Those interpretations are referred to as "IFRIC Interpretations" and are issued after approval by the IASB.

Principle-based standards provide broad guidelines that can be applied in many situations. They allow accountants to use their professional judgments in assessing the substance of a transaction. Professional judgment must be applied to interpret probability expressions, assess materiality thresholds, select specific accounting options, or when the accounting treatment of a transaction lacks regulation.

Both standards and interpretations are based on the Conceptual Framework for Financial Reporting. The conceptual framework establishes the theoretical foundation for both IFRS and IFRICs. However, it is not a standard and does not override specific IFRS. Accounting standards undergo continuous revision, reflecting increasing complexities of economic activities. All standards and interpretations are based on the principles outlined in the conceptual framework. The conceptual framework helps the IASB to develop standards that are based on consistent concepts. The standards regulate individual accounting problems which are further explained by the interpretations. A list of currently existing standards and interpretations is provided at the end of the script.

DIGRESSION

The entire regulatory framework consists of IFRS, IFRIC interpretations, and the Conceptual Framework for Financial Reporting.

The development of accounting standards follows due process procedures. This involves publishing exposure drafts and considering comments received. As a result, it may take considerable periods from setting an item on the agenda until the publication of the final accounting standard. Another implication of due process is that an accounting standard setting is privy to outside influence. Stakeholders' participation in due process is driven by available resources and economic consequences of the proposed standard. Those who would be negatively affected are likely to be particularly active in the due process. Powerful professional bodies, governments, and industries may lobby the IASB through comment letters (and informal consultations) to influence the direction and content of a proposed standard. An example in point is the amendment to IAS39 − Financial Instruments: Recognition and Measurement after the EU put pressure on the IASB.

Standards are promulgated in English and translated into 48 languages and versions. For example, the endorsement process of the EU requires translation into all official languages of the EU. However, translating technical concepts and jargon is not an easy task, and differences may exist between the IFRS language versions (Hellmann & Patel, 2021). Such differences may undermine the goal of achieving comparability.

2.3 The International Accounting Standards Board Conceptual Framework

As outlined above, the conceptual framework provides the theoretical foundation of IFRS and IFRIC interpretations. An important aspect of this involves providing the objective of general purpose financial reports and the qualitative characteristics for the selection and presentation of financial information. Finally, the conceptual framework provides definitions, recognition criteria, and measurement concepts for assets, liabilities, equity, income, and expenses (i.e., the key accounting elements).

The Objective of General Purpose Financial Reports

The conceptual framework outlines the primary users of general purpose financial report as follows:

> The primary users of general purpose financial reporting are present and potential investors, lenders and other creditors, who use that information to make decisions about buying, selling or holding equity or debt instruments, providing or settling loans or other forms of credit, or exercising rights to vote on, or otherwise influence, management's actions that affect the use of the entity's economic resources (IASB, 2018).

This means that the main aim of general purpose financial reports is to provide information to its primary users, i.e., investors and creditors, to help them make economic decisions and to discharge managers' accountability to users for the resources entrusted to them.

However, as outlined in the conceptual framework, general purpose financial reports do not provide all information that users may require to satisfy their needs. Users should also consider information from other sources, such as general economic conditions or the ramifications of events such as the COVID-19 pandemic.

Qualitative Characteristics of Accounting Information

To allow stakeholders to make effective decisions, accounting information must contain various important characteristics. As such, qualitative characteristics specify the nature of decision-relevant financial information. According to the conceptual framework, financial information is useful if it meets the two fundamental qualitative characteristics of "relevance" and "faithful representation".

For accounting information to be relevant, it must impact the economic decisions of its users. Relevant information aids users in predicting or analyzing outcomes of past, present, or future events, and in confirming or changing their previous evaluations of phenomena. In summary, relevant information offers predictive and confirmatory value to users.

Another aspect of relevance is the "materiality" of the reported items. Information is material if omitting (or misstating) it could influence users' decisions. The evaluation of materiality must be made in relation to individual items, classes, or similar items. For example, errors may be immaterial if they are related to individual items but can become material in aggregate.

Faithful representation is linked to the core purpose of financial reporting: the objective to provide information that effectively represents the economic and financial situation of the entity. It means that information should represent the substance of an economic phenomenon instead of a representation of its legal form only. In other words, information must be a faithful representation of the real-world economic phenomena it purports to represent. For this purpose, the qualities of completeness, neutrality, and freedom of error should be maximized to the greatest extent possible.

The usefulness of financial information is further enhanced if it fulfills the following four enhancing qualitative characteristics (IASB, 2018, p. 25–30):

1. **Timeliness:** This involves the communication of financial information within a reasonable amount of time. Generally, the older the information is, the less useful it is. However, some information may continue to be timely, especially if decision-makers are interested in identifying trends in the data. An implication of this enhancing qualitative characteristic is to publish reports on a regular basis.
2. **Understandability:** This means that information must be classified, characterized, and presented clearly and concisely, which does not imply simplicity. The IASB assumes that users have sufficient knowledge of business and economic activities and analyze the information diligently.
3. **Verifiability:** This means that different independent observers reach a consensus that the disclosed information is a faithful representation of the economic phenomena. It reinforces faithful representation of information.
4. **Comparability:** This allows users to identify and examine similarities in and differences among items. For example, it is more useful to learn that an entity reported a profit of €1,000,000 if we also know that the same entity reported a profit of €500,000 in the previous period. Only if we have this information, we can identify an increase in profit which may guide our decision. An important implication of comparability is that users understand the accounting policies used in the preparation of financial statements. Therefore, the notes provide information about the accounting policies used, plus any changes to those policies and their effects.

Definition of the Elements of Financial Statements

The conceptual framework provides definitions for basic accounting elements, along with criteria for their recognition and measurement. Individual standards provide further regulation for specific elements. For example, IAS 38 – Intangible Assets defines intangible assets. "Going concern" is the underlying assumption for the definition, recognition, and measurement of the accounting elements. This means that it is assumed that the entities will continue to operate indefinitely.

Assets

The conceptual framework defines an asset as a "present economic resource controlled by the entity as a result of past events. An economic resource is a right that has the potential to produce economic benefits" (IASB, 2018, p. 38).

DIGRESSION

Previously, the conceptual framework defined an asset as "a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity" (Deloitte, 2016).

Compared to the previous definition, the focus shifts to the existence of a present economic resource. The term "right" provides clarification regarding the control requirement.

Assets can be differentiated into current and noncurrent assets. For example, current assets – cash and inventory – are those that are reasonably utilized within the next operating cycle. Noncurrent assets have a timeframe of more than 12 months. Examples include property, plant and equipment, or intangible assets.

Liabilities

The conceptual framework defines liabilities as a "present obligation of the entity to transfer an economic resource as a result of past events" (IASB, 2018, p. 38).

DIGRESSION

Previously, the conceptual framework defined liabilities as "a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits" (Deloitte, 2016).

Similar to the definition of an asset, the conceptual framework shifts the focus to present instead of past events. A notable attribute of the current definition is an "enforceable obligation" instead of an "expected future sacrifice". This requires the existence of a mechanism that could require the entity to act in a particular way.

Equity

Equity is defined as "the residual interest in the assets of the entity after deducting all of its liabilities" (IASB, 2018, p. 38). This is visualized in the following formula:

$$Equity = assets - liabilities$$

As such, equity is influenced by how assets and liabilities are measured.

Income

The conceptual framework defines income as "increases in assets, or decreases in liabilities, that result in increases in equity, other than those relating to contributions from holders of equity claims" (IASB, 2018, p. 38).

Expenses

The conceptual framework defines income as "decreases in assets or increases in liabilities that result in decreases in equity, other than those relating to distributions to holders of equity claims" (IASB, 2018, p. 38).

SUMMARY

Financial statements contain a significant amount of information to stakeholders. The income statement, statement of changes in equity, balance sheet, and statement of cash flows all provide insights into the operations and financial strength of an organization. The notes provide important supporting information. The regulatory framework consists of the conceptual framework, various accounting standards, and interpretations. The conceptual framework provides the theoretical foundation and sets the overarching principles, definitions, and qualitative characteristics of useful information.

UNIT 3

INVENTORIES

STUDY GOALS

On completion of this unit, you will be able to ...

- define inventory and differentiate between perpetual and periodic inventory systems.
- calculate inventory and cost of goods sold under different valuation methods.
- understand net realizable value and its importance in inventories measurement.
- understand disclosures of inventory.

3. INVENTORIES

Introduction

Inventories are an essential part of doing business for a large number of companies, notably those whose business consists of selling goods, whether they are finished products, components, or materials. In these companies, different core processes are related to inventories, such as production (in the case of manufacturers) and sales to other businesses or to individuals (consumers). As sales of inventories is the main source of revenue for a large number of companies, an accurate accounting of inventories and the transactions related to them is essential for their financial statements to reflect the economic reality of the business.

During the 1960s, the US-based electronics-and-appliances retail chain called Crazy Eddie started their business and was known for bargain prices. Managers at Crazy Eddie began **skimming cash sales**, paying employees under the table with cash to evade payroll taxes and filed fraudulent insurance claims. This fraud lasted from 1969 until 1987 (Antar, n.d.).

Skimming cash sales
This involves fraudulent taking cash before the organization records the sale in their system.

Recognizing the growth potential, the family that owned the company initiated plans to undergo an **initial public offering (IPO)** to secure additional capital. This happened in 1984 with a relatively low starting share price of §8 per share. The company's original owners started looking for ways to increase profitability, unaware of the wide-spread fraud being perpetrated within their company by certain members of the management team (Antar, n.d.).

IPO (Initial Public Offerings)
These relate to the first time a company's stock is sold in the stock market.

Among various tactics employed in this fraudulent activity were the following:

- overstating inventory levels to inflate profit
- prematurely recording sales revenue
- understating accounts payable
- unnoticed changes in accounting policies

In 1987, the company filed bankruptcy (Antar, n.d.).

This example illustrates the significance of precise inventory measurement. The fact that inventories are often assets that tend to move fast (the company objective is to sell them rapidly to collect cash) generates additional complexity compared to fixed assets. Their value is especially relevant as it is used to calculate gross profit, a key indicator of business profitability.

3.1 Recognition, Measurement, and Disclosure of Inventories

Inventories are regulated in IAS 2 − Inventories and are defined as assets "held for sale in the ordinary course of business, in the process of production for such sale, or in the form of materials or supplies to be consumed in the production process or in the rendering of services" (IASB, 2021).

Inventories impact the gross profit for the period by including the appropriate cost of goods sold (COGS), which aligns with the revenues generated during the period, and by being listed as assets on the balance sheet. Important concepts include Goods Available for Sale, COGS and Ending Inventory, which are defined as follows:

- **Goods Available for Sale:** This includes all inventory an organization can potentially sell.
- **Cost of Goods Sold (COGS):** This refers to the beginning inventory plus purchases and other related costs minus ending inventory.
- **Ending Inventory:** This refers to what is left at the end of the reporting period. Ending inventory is what is recorded as inventory on the balance sheet.

Types of Inventories

There are two main types of companies holding inventories: manufacturing and merchandising entities. Merchandising entities are usually distributors (wholesalers) and retailers, and the transformation of merchandise is not part of their activity. In these types of companies, there is usually a single inventory account: merchandise inventory. In the case of manufacturing entities, their operations usually require three different types of inventories (Hoggett et al., 2024):

1. **Raw materials**, which are purchased as inputs of the production process
2. **Work-in-progress**, which are goods that have initiated the manufacturing process but are not completed
3. **Finished goods**, which have finalized the production process and are ready to be sold

Inventories Recognition and Measurement

IAS 2 does not specify recognition criteria for inventories, and hence, reference to the conceptual framework is required.

Generally, inventories are initially measured at cost. An adjustment is made to reduce the carrying amount in subsequent measurements if the net realizable value becomes lower than the cost. In the following sections, these two concepts will be explained.

DIGRESSION

Recognition is the process of incorporating an item in the balance sheet or income statement that meets the definition of an element and satisfies the recognition criteria specified in the conceptual framework: relevance and faithful representation.

Cost of inventories

The concept of cost of inventories includes three main types of costs:

- **Costs of purchase:** These include transportation, handling, and taxes. In case there are trade discounts, they should be deducted (cost net of trade discounts).
- **Conversion costs:** These are the manufacturing costs, both fixed and variable.
- **Other costs incurred:** These bring the inventories to their current condition and location.

DIGRESSION

Conversion means that raw materials and other supplies are converted into finished goods. Costs of conversion apply only to manufacturers.

Some of the costs that should not be included are costs arising from any abnormal waste, storage, selling costs, or administrative overheads.

The approach of companies can also vary depending on whether they update the inventories accounts every time there are purchases or sales, or in other words, whether a perpetual or a periodic inventory method is being used.

Perpetual and Periodic Inventory Methods

In order to determine the cost of inventories, it needs to be considered that inventories are assets that may include different goods and materials that are (quickly) moved in and out of an entity. To keep track of inventories, companies can use either the perpetual or the periodic inventory method. Many companies use the perpetual inventory method since inventory and costs of goods sold (COGS) accounts are updated whenever inventories are received or sold by the company. This method does not depend on physical counts, as the impact of every transaction is registered in inventory accounts and COGS. However, physical counts should be carried out at the end of an accounting period to verify the accuracy of the records and adjust them accordingly.

In the periodic inventory method, the calculation of COGS is only done at the end of the reporting period. In fact, this method is based on a physical count that takes place periodically and that determines the inventory quantity. COGS are calculated indirectly by deducting from the initial inventory, the inventory at the end of the period, and adding the inventory purchases of the period or the cost of the units produced in the case of manufacturing companies. The formula is the following:

$$COGS = inventory \quad at \quad the \quad beginning \quad of \quad the \quad period \\ + inventory \quad purchases - inventory \quad at \quad the \quad end \quad of \quad period$$

A key metric related to COGS is gross profit, also referred to as gross margin. It is calculated by subtracting COGS from sales revenue. Some companies evaluate management performance on this metric and use financial incentives to motivate management to maximize gross profit by minimizing COGS. It is calculated as follows:

$$Sales \quad revenue - COGS = gross \quad profit$$

Perpetual inventory vs. periodic inventory methods example

The inventory of ABC Company at the beginning of 2023 was of €500,000. On January 5, 2023, ABC Company purchased €100,000 of inventory in cash and sold it to their customers on account on 25 April 2023 for €130,000.

The journal entries would be as follows:

Table 13: Journal Entries Using the Perpetual Inventory Approach

		DR	CR
1/5/23	Inventory	€100,000	
	Cash		€100,000
4/25/23	Accounts receivable	€130,000	
	Revenue		€130,000
4/25/23	COGS	€100,000	
	Inventory		€100,000

Table 14: Journal Entries Using the Periodic Inventory Approach

		DR	CR
1/5/23	Purchases	€100,000	
	Cash		€100,000
4/25/23	Accounts receivable	€130,000	

		DR	CR
	Revenue		€130,000

The inventory amount on June 30, 2023 (in this example, the accounting period ends in June), after conducting the physical inventory count, is €500,000.

$$\begin{aligned} COGS = & \text{ € } 500,000 \quad (initial \quad inventory \quad) \\ & + \text{ € } 100,000 \quad (purchases \quad) - \text{ € } 500,000 \quad (final \quad inventory \quad) \\ & = \text{ € } 100,000 \end{aligned}$$

Table 15: Inventory Journal Entry Using the Periodic Inventory Approach

		DR	CR
6/30/23	Inventory (final) COGS	€500,000 €100,000	
	Inventory (initial) Purchases		€500,000 €100,00

As evident, ABC Company recognized the COGS in April when using the perpetual inventory method, whereas it was recognized at the end of the accounting period when the periodic inventory system is used. If ABC Company would like to track its gross profit on a continuous basis, the perpetual inventory system would be more adequate.

Cost Flow Assumptions

Cost flow assumptions can be used to assign costs to inventories on sale if the specific identification method cannot be used, i.e., if it is not possible or feasible to identify exactly the cost of each inventory item. Imagine a stockpile of thousands of kilograms of grain acquired at different prices. In such cases, IAS 2 allows the following two cost flow assumptions:

1. **Weighted average:** The inventory value per unit is calculated as the average of the value of the different units. This average can be calculated on a periodic basis or as each additional shipment is received (also referred to as the moving weighted average method).
2. **First in, first out (FIFO):** This assumes that inventory first purchased by the company or first produced is first to be sold. In other words, inventories remaining at the end of the accounting period are those most recently purchased (or produced). Consequently, more recent purchase costs are assigned to the inventory accounting and older costs are assigned to COGS.

DIGRESSION

US GAAP also allows last in, first out (LIFO) as a cost flow assumption. This is prohibited in IFRS. The IASB argues that LIFO results in an unrealistic cash flow and violates the principle of representational faithfulness.

Companies must decide which inventory valuation method is most appropriate for them and within their industry. Recall, IAS 2 establishes that the measurement preference should be the specific identification of costs, i.e., attributing costs specifically to each item. A suitable scenario where this would be possible is haute couture, where each piece or garment is unique and different from others, so the differences in costs from one item to another can be very significant. When instead inventories are interchangeable, companies can select either the weighted average cost or the FIFO methods. For homogenous groups of inventories, the same cost formulas should be used.

Calculation Examples

Specific identification

When companies use this inventory valuation method, they are selling a specific item versus one from a group of homogenous items. For example, a jewelry shop will sell a specific diamond ring. If they purchased it from a wholesaler for €1,000 and sell it for €2,000, the COGS is €1,000.

Weighted Average and FIFO example

ABC Company has the following data available:

Table 16: ABC Company Transactions

Transaction	Units Purchased	Unit Cost	Units Sold
Beginning inventory	400	€9	
February 1 purchase	100	€10	
May 25 sale			330
June 10 purchase	300	€13	
August 20 sale			250
December 31 purchase	350	€15	

Source: Sandra Oller, 2022.

The following table shows how ABC Company calculated their ending inventory (EI) under the weighted average assumption.

Table 17: Calculation of COGS and Ending Inventory: Weighted-average Method

Date	Beginning Inventory	Operations and COGS	Ending Inventory
2/1	400 x €9 = €3,600 400 units Cost per unit = €9	Purchase of 100 units, at €10	EI: (400 x €9) + (100 x €10) = €3,600 + €1,000 = $4,600 Units: 400 + 100 = 500 Cost per unit: €4,600/500 = €9.20
5/25	$4,600 500 units Cost per unit = $9.20	Sale of 330 units **COGS:** 330 x $9.20 = **$3,036**	EI: 170 x $9,20 = $1,564 Units: 500 - 330 = 170 Cost per unit: $9,20
6/10	€1,564 170 units Cost per unit = €9.20	Purchase of 300 units, at €13	EI: (170 x €9,20) + (300 x €13) = €1,564 + €3,900 = €5,464 Units: 170 + 300 = 470 Cost per unit: 5,464/470 = €11.6255 (*)
8/20	€5,464 470 units Cost per unit = €11.6255	Sale of 250 units **COGS:** 250 x €11.6255 = **€2,906.38**	EI: 220 x €11.6255 = €2,557.61 Units: 470 - 250 = 220 Cost per unit: €11.6255
12/31	€2,557.61 220 units Cost per unit = €11.6255	Purchase of 350 units, at €15	EI: (220 x €11.6255) + (350 x €15) = €7,807.61 Units: 220 + 350 = 570 Cost per unit: €7,807.61/570 = €13.6976
		Total COGS: €5,942,38	**Total EI: €7,807,61**

Source: Sandra Oller, 2022 based on IASB, 1998.

(*) Differences due to decimal rounding may arise in the calculation.

Note that the moving average is constantly changing.

Using the same original information for ABC Company, FIFO is calculated as follows:

Table 18: Calculation of COGS and Ending Inventory: FIFO Method

Date	Cost of Goods Sold	Ending Inventory
2/1		400 x €9 = €3,600 and 100 x €10 = €1,000. Total: €4,600
5/25	330 x **€9** = **$2,970**	70 x €9 = €630 and 100 x €10 = €1,000. Total: €1,630

Date	Cost of Goods Sold	Ending Inventory
6/10		€1,630 and 300 x €13 = €3,900 Total: €5,53
8/20	70 x **€9** = €630 and 100 x **€10** = €1,000 and 80 x **€13** = €1,040 **COGS: 2,670**	220 x €13 = €2,860
12/31		€2,860 and 350 x €15 = €5,250 Total: €8,110
	Total COGS: €5,640	**Total EI: €8,110**

Source: IASB, 1998.

As demonstrated in the summary below, employing one method over the other may have a different impact on the company's results for the period (income statement) and the value of assets (balance sheet).

Table 19: Summary of COGS and Ending Inventory Under Each of the Three Methods

	Weighted Average	FIFO
Total COGS	€5,942	€5,640
Ending inventory	€7,808	€8,110

Source: Sandra Oller, 2022.

This is a simplified example; companies have multiple operations and prices of materials, and other types of costs can widely vary. This is why understanding each of the methods is important when selecting the most appropriate for the company, when interpreting financial statements, and especially comparing different companies. Such information is provided in the notes accompanying financial statements.

Measurement Techniques

The following methods are accepted in IFRS to simplify the measurement of cost in some complex circumstances, such as a manufacturing context where multiple varying elements are part of the cost of inventories, or a retail context where a large variety of inventories can move quickly.

Standard cost method and retail method

The standard cost method is often used by manufacturing companies. It is based on a predefined cost per unit, i.e., the standard cost which can be useful for company managers in terms of internal planning and control. Adjustments are made at the end of the accounting period in case of differences between standard and actual costs.

DIGRESSION

The standard cost methods generate a "standard" value of materials, direct and indirect labor as well as overheads for products based on normal levels of activity.

The retail method can be useful for retailers. Under this method, they can assimilate items with similar margins. Some retailers deal with large quantities of similar items, which in some cases vary rapidly. Having the possibility of assimilating these items reduces the difficulties of other methods. The similarity of margins is an important element for an accurate application of the method, as the cost is determined by reducing the sales value by the gross margin percentage. It is the same as calculating the cost-to-sales ratio and applying it to calculate the cost.

$$Cost-to-retail \quad percentage = \frac{cost}{retail \quad value} x100$$

The retail method is an estimation method and not as accurate as the standard cost method, because some items, even within the same inventory category (such as women's shoes), can be marked up with different percentages. The more different the mark-ups are, the less accurate this method will be (imagine some women's shoes marked up 75%, some 50% and some 30%).

Retail method example

XYZ Company is specialized in selling sneakers. They offer different models, but they apply very similar mark-ups, and as they have a high rotation of inventories, they use the retail method to estimate the cost. On average, they sell the pair for €80, with an average cost of €60. This is their cost-to-retail percentage: $(60/80) \quad x \quad 100 \quad = \quad 75\,\%$. Below is the additional information regarding their inventories and operations:

- beginning inventory: €100,000
- new purchases: €50,000
- sales: €120,000

Based on this information, COGS for the period and the end-of-period inventory can be calculated as follows:

$$Total \quad goods \quad available \quad for \quad sale \quad = \quad beginning \quad inventory$$
$$+ \quad purchases$$
$$= \quad € \, 100,000 \quad + \quad € \, 50,000 \quad = \quad € \, 150,000$$

$$COGS \quad = \quad sales \quad x \quad \text{cost} - to - retail \quad percentage$$
$$= \quad € \, 120,000 \quad x \quad 75\,\% \quad = \quad € \, 90,000$$

$$End-of-period\ \ inventory\ \ =\ \ beginning\ \ inventory\ \ +\ \ purchases\ \ -\ \ COGS\ \ =\ \ €\,100,000\ \ +\ \ €\,50,000\ \ -\ \ €\,90,000$$
$$=\ \ €\,60,000$$

The gross margin that the company is obtaining is 25%. It can be calculated as follows (see also Accounting Tools, 2022):

$$Gross\ \ profit\ \ =\ \ sales\ \ -\ \ COGS\ \ =\ \ €\,120,000\ \ -\ \ €\,90,000$$
$$=\ \ €\,30,000$$

$$Gross\ \ margin\ \ =\ \ (gross\ \ profit/sales)\ \ x\ \ 100$$
$$=\ \ (\,€\,30,000\ \ /\ \ €\,120,000)\ \ x\ \ 100\ \ =\ \ 25\,\%$$

This is the equivalent of 1 minus cost-to-retail percentage: $1\ \ -\ \ 75\,\%\ \ =\ \ 25\,\%$

Net realizable value

IFRS requires for inventories to be measured at the lower of cost or net realizable value (NRV). NRV is defined as "the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale" (IFRS, 2021).

Under IFRS, whatever cost method the company is using for inventories, it needs to compare their cost with their NRV and measure them according to the lower. The NRV may be lower than the cost because of a fall in the selling price (e.g., in the case of outdated fashion items) or physical deterioration (e.g., in the case of fresh meat or vegetables).

3.2 Subsequent Measurement of Inventories

Companies must track their inventory costs both initially and subsequently. IAS 2 provides guidance for companies on measurement of their inventory costs and any applicable write-downs to NRV.

When calculating the total cost of inventory, companies must factor in the original cost of the inventory and **conversion costs** (direct labor and manufacturing overhead) required to bring the inventory to a saleable level. Upon sale of the inventories, their carrying amount is recorded as an expense, so COGS is recognized in the period "in which the related revenue is recognized. The amount of any write-down of inventories to net realizable value and all losses of inventories are recognized as an expense in the period the write-down or loss occurs" (IFRS, 2021).

Conversion costs
They include the amounts which the company incurs to transform the raw material or components into finished goods.

As sales occur, the cost of the units of inventory sold must be credited from the inventories amount with the perpetual inventory method, i.e., if 100 units are sold for €20 each, and the carrying amount on the books for each unit is €10. The following journal entry should be recorded at the same time as the sale is recognized:

Table 20: Journal Entries Inventories Sale

	DR	CR
Trade receivables	2,000	
Sales		2,000
COGS	1,000	
Inventories		1,000

Source: Sandra Oller, 2022.

Under IFRS, companies must track their inventory value in every reporting period and adjust it accordingly to the lower of cost or net realizable value.

Thus, the procedure to measure inventories in the subsequent periods is as follows:

1. Compare the cost and the net realizable value.
   a) When the cost is lower than the net realizable value, inventories should be measured at cost.
   b) When the net realizable value is lower than the cost, inventories should be measured at net realizable value.
2. In the second case, when the net realizable value is lower than the cost, it is required to adjust the value of inventories by writing them down. The adjustment can be recognized as part of cost of goods sold. However, for tracking purposes, it is recommended to do it in a separate account, especially if amounts are significant. It can be directly debited to the inventory account, or, alternatively, an inventory allowance account (that decreases the net inventory amount) can be used.
3. In subsequent periods, the inventory value needs to be reassessed by applying the same procedure. In case the net realizable value in this period is higher than the existing inventory value on the books, the write-down should be reversed under IFRS.

Example of calculating Net Realizable Value (NRV)

GHI Company produces and sells cooking robots. Their inventory at the beginning of the period is 500 units valued at cost, and it amounts to €100,000. They used to sell each unit for €350, having an internal inventory cost per unit of €200.

Competitors have launched new and more technologically advanced cooking robots, causing a significant shift in the market. As a result, GHI Company's cooking robots can only be sold for €200.

GHI Company needs to compare its inventory cost and the NRV. In this case, the inventory cost is €200 per unit. What about the NRV? Apart from the €200 at which the company could sell each unit, they need to estimate the costs of selling them. If it involves €20 per unit, the total NRV is as follows:

$$NRV = (€200 - €20) \ x \ 500 \ units = €90,000$$

Table 21: Inventory Write-down Journal Entry

	DR	CR
P/L write-down/ COS	10,000	
Inventories (allowance)		10,000

Source: Sandra Oller, 2022.

If the company maintains its existing units and later discovers that the factors leading to the write-down no longer exist, or if they realize a greater net value after deducting costs, the NRV per unit would be €190. This would involve a total value of €95,000 (€190 x 500 units). The existing write-down should be reversed to align the inventories value to their NRV in that reporting period.

Table 22: Inventory Write-down Reversal Journal Entry

	DR	CR
Inventories (allowance)	5,000	
P/L reversal of write-down/ COS		5,000

Source: Sandra Oller, 2022.

Disclosures

The following seven disclosures are required by IFRS (IFRS, 2021):

1. Accounting policies on inventory
2. Carrying amount for different categories, including merchandise, supplies, finished goods, work in process, and raw materials
3. Inventory at carrying value as fair value less selling costs
4. Inventory write-downs recognized as expenses
5. Reversals of write-downs and explanation of why this occurred
6. Carrying amounts of inventories pledged as securities for liabilities
7. Cost of goods sold

SUMMARY

For many companies, inventory is a significant item on the balance sheet. Profit is directly affected by the inventory method chosen, since inventory sales generate revenue. Calculating the value of inventory is an important task for companies, and the methods they can use are: specific identification, weighted-average, and first in, first out (FIFO). IFRS do not allow use of the LIFO method (last in, first out) whereas US GAAP allows it. This is a contentious issue with many companies that report both under US GAAP and IFRS. Depending on the method used, the amount of ending inventory and cost of goods sold (COGS) can vary. Cost of goods sold is a separate category on the income statement, and when subtracted from sales revenue, gross profit is obtained, with gross profit margin being an important profitability indicator.

Selection of the valuation method depends on the business; companies typically use the inventory valuation method common within their industry. Some methods to estimate cost are used, such as the standard cost in the case of manufacturing companies, or the retail method for retail establishments. The principle of conservatism influences the requirement of the calculation of inventory's lower-of-cost or net realizable value, which may generate inventories write-downs when the net realizable value is lower than the cost. These can be reversed in subsequent periods, based on evidence of higher net realizable value.

UNIT 4

PROPERTY, PLANT, AND EQUIPMENT

STUDY GOALS

On completion of this unit, you will be able to ...

- understand the scope, recognition, and measurement criteria of noncurrent assets.
- calculate basket/lump sum purchases and the depreciation of noncurrent assets using the most commonly used methods.
- explain the rationale in how IFRS approach asset retirement obligations.
- recognize asset derecognition and asset impairment.
- analyze balance sheet features.

4. PROPERTY, PLANT, AND EQUIPMENT

Introduction

Balance sheets often contain a significant amount of property, plant, and equipment (PPE). For example, in 2022, the balance sheets of US electric companies reported approximately €1.8 trillion in PPE (Statista, 2024). PPE is regulated in IAS 16 – Property, Plant and Equipment. They are tangible items that are "held of use in the production or supply of goods or services, for rental to others, or for administrative purposes" (IASB, 2023). Furthermore, they are expected to be used during more than one period. Tangible assets are physical assets, e.g., land or a building.

4.1 Scope, Recognition, and Measurement

A company's initial recognition of PPE will differ from subsequent measurements, primarily due to depreciation of PPE. Land and possible impairment are not depreciated. To organize their assets into broad categories, companies need to use a logical method. Typical categories include land, land improvements, machinery and equipment, and buildings.

PPE are initially recognized at cost, including the following (IASB, 2023):

- The acquisition price of the item, net of rebates, or trade discounts: Taxes on the acquisition which are not to be refunded and import duties should be included as well.
- Costs to bring the asset to the required place and working condition, such as installation, delivery, testing, fees of engineers, etc.: These costs are called directly attributable cost.
- Estimation of costs to remove, dismantle the asset, and leave the state of the location in the previous conditions.

To identify directly attributable costs, the following question needs to be answered: Are the costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management? Only those costs are capitalized if the answer to the above question is yes. Otherwise, the costs need to be expensed.

Expenses that cannot be directly linked to the asset's specific location and condition, such as costs associated with preparing a temporary location during the setup of the final one, initial operational losses, training expenses, etc., should be recognized and accounted for as they occur (IASB, 2023).

After the initial recognition, IAS 16 allows two possible models for subsequent measurement: the cost model or revaluation model. Under the cost model, PPE assets continue to be recorded at cost less accumulated depreciation and accumulated impairment losses, if applicable. For example, if equipment was acquired for a total cost of €2,000,000, and the accumulated depreciation is €200,000, this would equal €1,800,000 in subsequent asset measurement. IAS 16 defines depreciation as "the systematic allocation of the depreciable amount of an asset over its useful life" (IASB, 2023). Useful life is either the period over which an asset is expected to be available for use by an entity, or the number of production or similar units expected to be obtained from the asset by an entity.

DIGRESSION

Depreciation is an allocation process requiring the depreciable amount to be allocated on a systematic basis. Importantly, depreciation does not measure the change in value. Three depreciation methods are commonly used in practice: the straight-line method, the diminishing-balance method, and the unit-of-production method. The residual value is an estimate based on what the entity would obtain at the asset's disposal.

The alternative model for subsequent measurement is the revaluation model. If a company uses the revaluation model, PPE is recorded at the assets' fair value less accumulated depreciation and accumulated impairment losses, if applicable.

Regular revaluations are required to align the carrying amount to the fair value of the asset at the reporting date. Revaluations should be done for all the items of the same asset class. If there is an increase in the fair value of an asset, "it should be credited to other comprehensive income and accumulated in equity under the heading 'revaluation surplus' unless it represents the reversal of a revaluation decrease of the same asset previously recognized as an expense" (IASB, 2023). If this second circumstance occurs, recognition must be done in profit or loss. If there is a revaluation adjustment (i.e., increase or decrease), the accumulated depreciation must first be written off. For example, in the case of a revaluation decrease, accumulated depreciation is written off while decrease is recognized as an expense. A disadvantage of the revaluation method is that the revaluation of assets is a costly process for companies. Consistency when using valuation techniques is important, so that stakeholders can assess a company's financials over time. If an organization chooses to change their valuation technique or the way they apply it, in most instances, the change will result in a fair value that more accurately shows the assets' true value.

The issue is whether the revisions from a change in revaluation technique or its application should be categorized as a change in accounting estimate. Changes in estimates are considered less material than changes in principles. Changes in estimates are normally recorded in a **prospective** manner instead of a retrospective manner, and disclosure rules per IAS 8 – Accounting Policies, Changes in Accounting Estimates and Errors are not required.

Prospective application
This includes the current period and subsequent periods, whereas retrospective application includes only prior periods.

Fair value measurements are further regulated in IFRS 13 – Fair Value Measurement. When a company is to be sold or assets acquired, the most reliable way to determine the assets' fair value is to list them on an exchange. This is known as "mark-to-market". Assets' values can also be assessed annually by an appraiser. However, there are numerous instances when a company will not have access to a readily determinable fair value. Therefore, alternative methods are permitted. IFRS allows the three following techniques when fair value is not easily determinable (IASB, 2011):

1. **Market approach:** The company can use comparable or similar assets, or a group of assets and liabilities to value the asset in question.
2. **Income approach:** The company can recalculate future amounts (i.e., cash flows) to a current amount.
3. **Cost approach:** This would be the cost to replace the asset.

Enron's utilization of the mark-to-market technique in the early 2000s stands out as a notorious example of fraudulent application. Ultimately, during that period, Enron collapsed, leading to a significant decline in its stock value.

Figure 2: Enron Stock Prices Decline from Year 2000 to 2001

Source: Used under license CC BY-SA.

Costs of Self-constructed Assets and Subsequent Costs

In certain situations, companies might opt to construct certain PPE assets rather than acquiring them. The criteria for recognizing costs should align with those applicable when purchasing the item. This entails acknowledging all expenses required to complete the item's production, up to its recoverable amount, and excludes any internal profit that should not be allocated to it, along with abnormal wastage of resources.

Whether the asset has been purchased or internally constructed, subsequent costs may involve expenses or capitalization under certain conditions. For an amount to be capitalized, it needs to either extend the life of the asset, increase its quality or number of units of output, or reduce the need of other inputs (and its cost). Maintenance costs constitute expenses.

Calculating Basket and Lump Sum Purchases

If a company purchases multiple assets in a bundle, they often must disaggregate (i.e., separate) the assets for recording purposes. The assets' total fair market value often differs from the assets' total purchase price. Therefore, a calculation known as a basket purchase must be completed. This applies to heterogenous assets where the total cost of the assets must be correctly allocated to each asset on the balance sheet. For example, on January 1, 2023, Biddle Company purchased land with a market value (FMV) of €1,000,000, equipment for €50,000, and a building for €1,150,000. As Biddle Company purchased all of them together, they managed to get them for a total cost for these assets of €2,200,000.

In order to distribute the cost among the assets, it is necessary to calculate the percentage that each asset represents of the total market value and then apply this percentage to the overall cost, i.e., €2,200,000.

Table 23: Basket and Lump Sum Purchase Example

Assets	FMV	FMV Allocation	Allocated Cost
Land	€1,000,000	45.45%	€909,091
Equipment	€50,000	2.27%	€45,454
Building	€1,150,000	52.27%	€1,045,455
Total	€2,200,000	100%	€2,000,000

Source: Sandra Oller, 2022.

The associated journal entry would look as follows:

Table 24: Journal Basket and Lump Sum Purchase Example

	Debit	Credit
Land	€909,091	
Equipment	€45,454	
Building	€1,045,455	
Cash		€2,000,000

Source: Sandra Oller, 2022.

Interest Capitalization

The IAS 23 – Borrowing Costs states the following:

> Borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset form part of the cost of that asset. Other borrowing costs are recognized as an expense. Borrowing costs are interest and other costs that an entity incurs in connection with the borrowing of funds (IASB, 2017a).

In March 2007, the IASB revised the IAS 23, which had eliminated the option to immediately recognize borrowing costs as expenses. The result is that borrowing costs must now be capitalized instead of being expensed immediately.

Depreciation of Noncurrent Assets

The depreciation of assets should be carried out in a logical and systematic manner, as it is concerned with allocating the cost of an asset over its estimated useful life. The following table outlines the three types of depreciation methods, which are the straight-line method, diminishing balance method, and units of production method. There are numerous estimates involved with depreciation, which include the estimated useful life − typically depicted in months or years − and salvage or residual value, which is the estimated value of an asset at the end of its useful life. In IFRS, the diminishing balance method is an accelerated method in which the depreciation rate is applied to the net carrying value, which decreases in each accounting period as depreciation is applied.

Book values, also known as net book value, reflect a closer approximation to an asset's value since it is calculated as the cost less accumulated depreciation. This number is important because when selling an asset, the book value is compared to the selling price to obtain the asset gain or loss.

Table 25: Overview of Different Depreciation Methods

	Advantage	**Disadvantage**	**Information Provided for Asset Replacement**
Straight-line Method	easy to calculate	assumes equal use over time	little information
Diminishing Balance Method	accelerated method	focuses on asset write-off instead of asset use	little information
Units of Production Method	based on a realistic depiction of asset use	many stakeholders are unfamiliar with this method	higher level of information needed to replace asset

Source: Sandra Oller, 2022.

DIGRESSION

The depreciation method should reflect the pattern in which the asset's future economic benefits are expected to be consumed.

Straight-line depreciation is calculated as follows:

$$\frac{Historical \quad \text{cost} - salvage \quad value}{estimated \quad useful \quad life}$$

For example, a €110,000 asset with a €10,000 salvage value and ten-year lifespan is purchased on January 1, 2023.

$$\frac{(\text{€}\,110,000 - \text{€}\,10,000)}{10} = \text{€}\,10,000 \quad depreciation \quad expenses$$

$$\frac{(\text{€}\,110,000 \quad - \text{€}\,10,000 \quad)}{10 \quad years} = \quad \text{€}\,10,000 \quad depreciation \quad expense$$

$$every \quad year \quad for \quad 10 \quad years$$

Note that a company does not have to keep an asset until the end of its estimated useful life, nor is it required to sell it precisely at the end of its useful life.

The diminishing balance method is considered an accelerated depreciation method, meaning that more depreciation expense is taken in the early years and less with each subsequent year.

The formula to calculate the depreciation rate is as follows:

$$Depreciation \quad rate = 1 - \quad \sqrt[n]{\frac{r}{c}}$$

Where n = estimated useful life

r = estimated residual value and

c = original cost of the asset.

The depreciation rate remains constant from year to year, but the carrying amount to which the rate applies declines each year. The following table shows an example of a diminishing-balance depreciation schedule. The data of ABC Company's asset are as follows:

- cost: €13,000
- expected residual value: €1,000
- estimated useful life: 5
- calculated depreciation rate: 40%

Table 26: Diminishing-balance Depreciation Schedule

Diminishing-Balance Depreciation Schedule	Calculation					End of Year	
Year	Carrying amount beginning of year	X	Depreciation rate	=	Annual repreciation expense	Accumulated depreciation	Carrying amount
2022	€13,000		40%		€5,200	€5,200	€7,800
2023	7,800		40		3,120	8,320	4,680
2024	4,680		40		1,872	10,190	2,808
2025	2.808		40		1,123	11,315	1,685
2026	1,685		40		685*	12,000	1,000

Source: Andreas Hellmann, 2024.

* Calculation of €674 is adjusted to €685 in order to carry the amount to equal residual value. This is because the rate was rounded to 40%.

IFRS Component Accounting Approach – Depreciation of Components

Because large asset parts of PPE, such as planes or production plants, are made of a variety of parts that may have different useful lives and need to be replaced at different moments, IFRS require that these components are depreciated separately. This is called the component accounting approach. Its objective is to align the value of the asset with the consumption patterns of the components. It needs to be adopted for signi,icant parts (i.e., parts that represent a material amount of the asset's total cost) that are to be depreciated under different methods or considering different useful lives. For example, companies using IFRS would depreciate the separate components of an aircraft instead of depreciating it as a single unit.

Sale or Exchange of Property, Plant, and Equipment

When depreciable assets are sold, the selling price of the asset is compared to its book value to calculate if there is a gain or loss. For example, equipment that was purchased on January 1, 2020, for €100,000 with no residual value and a 10-year useful life was sold on July 1, 2021, for €90,000. Assuming the straight-line depreciation method is being used, the following three steps are necessary to calculate if the asset was sold at a gain or loss:

1. Calculate the depreciation of the asset for the applicable period:

$$\frac{€\ 100,000}{10} = €\ 10,000 \quad per \quad year$$

A year and a half have passed, which is calculated as follows:

$$1.5 \times €\ 10,000 = €\ 15,000$$

This is the total depreciation expense for the 1.5 years since the acquisition of the equipment, which is referred to as the accumulated depreciation. This is all the depreciation expenses for this particular asset.

2. Calculate the book value for the asset:

$$€\ 100,000 - €\ 15,000 = €\ 85,000$$
$$Acquisition \quad \text{cost} - accumulated \quad depreciation$$
$$= €\ 85,000 \quad book \quad value$$

3. Compare book value to selling price to calculate the gain or loss upon sale of the asset:

$$€\ 90,000 \quad selling \quad price - €\ 85,000 \quad book \quad value$$
$$= €\ 5,000 \quad gain$$

Asset Retirement Obligations

The asset retirement obligations are important because they provide stakeholders with information about a company's estimated future disposal costs of fixed assets and site remediation costs, if applicable. According to IAS 16, companies need to include in the initial recognition the costs of assets, costs of their removal, dismantling, and restoration of the site to its original condition (IASB, 2023). The present value of these costs must be integrated. In IFRS, it is often expressed as decommissioning costs. Growing concerns regarding sustainability make asset retirement obligations become even more important.

A common example is when a company retires a ship used for their business. The following example illustrates it.

Table 27: Asset Retirement Obligation Example

Initial data (in thousand €):	
Acquisition cost	100,000.00
Residual value	0.00
Useful life (years)	20.00
Decommissioning costs	10,000.00
Discount rate	6.00%

Source: Sandra Oller, 2022.

It is required to calculate the present value of the future decommissioning costs. To do that, the future estimated decommissioning costs need to be discounted:

$$Present \quad value \quad of \quad decommissioning \quad costs = \frac{10,000}{(1+0.06)^{20}}$$

$$= 3,118.05$$

Table 28: Total Asset Value Example

PV of decommissioning costs	3,118.05
Acquisition cost	100,000.00
Total asset value	103,118.05

Source: Sandra Oller, 2022.

The initial recognition journal entry would be as follows:

Table 29: Initial Recognition Journal Entry Example

Initial recognition (in thousands)	DR	CR
Ship	€103,118.05	
Cash		€100,000.00
Asset retirement obligation ship		€3,118.05

Source: Sandra Oller, 2022.

At the end of year 1, apart from the depreciation, the financial cost of the retirement obligation should be recognized, calculated as the discount rate on the present value of the obligation in the end of the reporting period. It is calculated as follows:

$$6\% \times \text{€}3,118.05 = \text{€}187.08$$

Considering that the company uses the straight-line depreciation method, they should account for €5,155.90 of depreciation $\left(\frac{103,118.05}{20}\right)$.

Table 30: Year 1 Journal Entries Example

Year 1 (in thousands)	DR	CR
Ship depreciation	€5,155.90	
Ship accumulated depreciation		€5,155.90
Interest expense	€187.08	
Asset retirement obligation ship		€187.08

Source: Sandra Oller, 2022.

The carrying value of the obligation is used to calculate the year-2 cost, i.e., $€3,118.05 + €187.08 = €3,305.13$.

Year after year, the value of the retirement obligation increases until reaching €10,000 by the end of year 20. At that moment, the asset is 100% depreciated, and the effective retirement takes place. It therefore requires a cash outflow for the payment of its retirement costs.

The journal entry would be as follows:

Table 31: Asset Retirement Journal Entry Example

	DR	CR
Accumulated depreciation	€103,118.05	
Asset retirement obligation	€10,000	
Ship		€103,118.05
Cash		€10,000

Source: Sandra Oller, 2022.

Under IFRS, the asset retirement obligation is often referred to as “decommissioning provision.”

Reality can be more complex: as the estimated amount of the retirement costs may vary, the asset may experience change in its value for other reasons.

Impairment of Assets

IAS 36 – Impairment of Assets defines an impairment loss as “the amount by which the carrying amount of an asset of a cash-generating unit exceeds its recoverable amount” (IASB, 2013). In other words, an impairment loss occurs if the entity expects to recover less than the carrying amount. IAS 36 requires that impairment tests are conducted for assets to check whether any impairment loss occurred. This should help to ensure that assets are not overstated.

The impairment test is a two-step process. First, the recoverable amount needs to be determined. This is done by considering the fair value, costs of disposal, and the value in use.

DIGRESSION

Costs of disposal are the incremental costs directly attributable to the disposal of an asset. The value in use is the present value of the future cash flows expected to be derived from the asset.

The recoverable amount is the higher of the asset's fair value less costs of disposal or its value in use. Second, the recoverable amount needs to be compared with the carrying amount of the asset as recorded by the entity. There is an impairment loss if the recoverable amount is less than the carrying amount. In other words, an impairment loss is an amount by which the carrying amount of an asset exceeds its recoverable amount.

If an impairment loss occurs, the asset must be written down to the recoverable amount. Under the cost model, the impairment loss is recognized immediately. This is done by debiting an expense account and crediting accumulated depreciation and impairment losses. Under the revaluation model, an impairment loss is treated as a downward revaluation in the same way as it would be done for property, plant, and equipment. Finally, where improvements occur in the recoverable amount, impairment losses may be reversed.

Impairment testing example

XYZ Company uses a high-precision machine for the production of goods, which is threatened to become outdated by a new and more advanced technology. They must utilize the impairment indicators to assess the situation. The original cost of the machine was €1,600,000. When the company realizes that it may be impaired, its fair value is €750,000, and its carrying value on books is €900,000. XYZ Company calculates that, with the machine, they could generate yearly cash flows of €200,000 in the next 5 years, and in order to sell the asset on the market, they would incur costs of €5,000. The discounting rate for the company is 8%.

The recoverable amount needs to be determined. It will be the higher of the fair value less the costs of selling the machine and its value in use:

- fair value less costs of disposal: $750,000 - 5,000 = \text{€}\ 745,00$
- value in use (discounted cash flows): $\text{€}\ 798,542$

Table 32: Present Value Calculation

	Year	CF @year n	Present Value
Cash flow year 1	1	200,000	185,185
Cash flow year 2	2	200,000	171,468
Cash flow year 3	3	200,000	158,766

	Year	CF @year n	Present Value
Cash flow year 4	4	200.,000	147,006
Cash flow year 5	5	200,.000	136.117
Total			**798,542**

Source: Sandra Oller, 2022.

The cash flow of year one is calculated as: $\frac{200,000}{((1+0.08)^{1})} = 185,185$

The cash flow of year two is calculated as: $\frac{200,000}{((1+0.08)^{2})} = 171,468$ etc.

As the value in use is higher, it needs to be compared to its carrying value.

The value in use is €798,542, which is lower than the carrying value: €900,000. This involves an impairment loss of €101,458 ($900,000 - 798,542$) to be recognized in the profit and loss (debit) as well as a decrease of the carrying value of the asset (balance sheet).

4.2 Balance Sheet Features and Disclosure

Below is an example of a partial balance sheet. Note that the current assets are listed separately from the noncurrent assets. The number to the far right is the book value for the equipment and buildings, respectively.

Figure 3: Partial Balance Sheet

Current assets:				
Cash			€	2,390,490
Accounts receivable			€	3,491,110
Prepaid assets			€	1,004,009
Supplies			€	45,000
Inventory			€	11,126,939
Total current assets			€	**18,057,548**

Non-current assets:					
Land				€	56,244,450
Equipment		€	7,811,000		
Accumulated depreciation		€	134,900	€	7,676,100
Buildings		€	20,740,006		
Accumulated depreciation		€	3,000,450	€	17,739,556
Total non-current assets				€	**63,920,550**

Intangible assets:					
Copyrights				€	2,911,188
Patents				€	3,900,111
Accumulated depreciation		€	40,000	€	3,860,111
Total assets				€	**88,789,397**

Source: Sandra Oller, 2022.

Note: Accumulated depreciation and accumulated amortization are deducted from PPE and intangible assets, respectively.

Disclosures

IFRS disclosure notes often include **reconciliations** that show how some financial results were derived by the company. More specifically, IFRS requires that companies disclose the following for each class of PPE:

Reconciliations
Reconciliations are used in finance to check accuracy by comparing information from different sources or, in the case of balance sheet disclosures, to show the main elements of the evolution from the opening position to the closing position at the end of the reporting period.

- the useful lives – i.e., if it is indefinite or finite – or otherwise the depreciation rate,
- the method that the company uses to depreciate the assets if the assets have finite lives,
- how the carrying amount has been measured,
- "gross carrying amount and accumulated depreciation and impairment losses", and
- "reconciliation of the carrying amount at the beginning and the end of the period" (IASB, 2023).

Additional disclosures may include commitments made through a contract of the company for the acquisition of PPE, expenditures for the construction of PPE in the period, and any compensations received from external parties regarding PPE as a result of impairment, loss, or retirement included in the income statement.

Table 33: Disclosures of PPE Example: Reconciliation of the Carrying Amount, adidas AG, 2020

Property, plant and equipment € in millions

	Land and buildings	Technical equipment and machinery	Other equipment, furniture and fixures	Construction in progress	Property, plant and equipment
Acquisition cost					
January 1, 2019	**1,324**	**357**	**1,808**	**480**	**3,969**
Additions	144	31	303	121	599
Disposals	(42)	(9)	(219)	(3)	(272)
Transfers	347	43	(15)	(380)	(6)
Increase in companies consolidated	40	1	0	-	41
Decrease in companies consolidated	-	-	(2)	-	(2)
Currency translation differences	28	9	35	4	76
December 31, 2019/January 1, 2020	**1,842**	**432**	**1,910**	**221**	**4,405**

Property, plant and equipment € in millions

	Land and buildings	Technical equipment and machinery	Other equipment, furniture and fixures	Construction in progress	Property, plant and equipment
Additions	73	13	165	128	378
Disposals	(32)	(7)	(162)	(4)	(205)
Transfers	51	6	17	(75)	(1)
Currency translation differences	(82)	(28)	(129)	(13)	(251)
Net charge due to lease modification/ remeasurement	0	-	-	-	0
December 31, 2020	**1,852**	**416**	**1,800**	**258**	**4,326**
Accumulated depreciation and impairment					
January 1, 2019	**412**	**180**	**1,221**	-	**1,814**
Depreciation	105	39	288	-	432
Impairment losses	3	1	0	-	5
Reversals of impairment losses	(2)	-	(7)	-	(8)
Disposals	(36)	(9)	(207)	-	(252)
Transfers	31	(5)	(28)	-	(3)
Decrease in companies consolidated	-	-	(2)	-	(2)
Currency translation differences	6	7	25	-	39
December 31, 2019/January 1, 2020	**520**	**214**	**1,291**	-	**2,025**
Depreciation	128	42	287	-	456
Impaiment losses	6	0	10	-	16
Reversals of impairment losses	(1)	-	(5)	-	(6)
Disposals	(23)	(6)	(146)	-	(175)
Transfers	21	(0)	(21)	-	-

Source: adidas, 2021.

SUMMARY

Noncurrent assets are an important asset class of many companies. A company's financials can be significantly impacted based on how and when they are recorded and when they are obtained. Companies can choose between fair value or historical cost for PPE assets in IFRS. They can also choose between various depreciation methods. Sometimes, companies may have to address lump sum purchases of assets and how they report asset retirements and asset impairments.

UNIT 5

INTANGIBLE ASSETS

STUDY GOALS

On completion of this unit, you will be able to ...

- define and recognize intangible assets.
- measure the value of intangible assets.
- understand disclosure requirements for intangibles.
- recognize and calculate subsequent measurement of intangibles, including amortization and impairment.
- discuss the role of goodwill in the global economy.

5. INTANGIBLE ASSETS

Introduction

Goodwill
This is defined as the difference between the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed (measured in accordance with IFRS 3).

Intangible assets are assets that have value but no physical substance. Examples include copyrights, patents, trade secrets, customer lists, company brands, and **goodwill**.

They are one of the main assets that support the success of many companies, especially in sectors such as pharmaceuticals where they play an essential role. In the case of pharmaceuticals, patents that commercially protect new formulas are basic to the business model of the industry, contributing to the revenues of these companies and compensating them for their research and development (R&D) efforts.

Another example is the luxury industry. In the case of the largest luxury conglomerate, LVMH, intangibles represented 40.3% of the total assets of the group recognized on their consolidated balance sheet by the end of 2021. The two main categories are brands and goodwill, as LVMH is a group that has acquired multiple companies within their different business sectors. The €17.4 billion increase of intangible assets in 2021 versus the previous year is mainly due to the integration of Tiffany's, whose acquisition was finalized in January 2021. It needs to be taken into consideration, as stated in the accounting policies of the financial documents for the year ending December 31, 2021, that not all the value of brands is reflected on the financial statements as "only acquired brands and trade names that are well known and individually identifiable are recorded as assets based on their market values at their dates of acquisition" (LVMH, 2022).

Table 34: Summarized Balance Sheet Example LVMH, 2021

(EUR millions)	**2021**	**2020**	**Change**
Intangible assets	50,455	33,054	17,401
Property, plant and equipment	20,193	18,224	1,969
Right-of-use assets	13,705	12,521	1,184
Other non-current assets	6,657	4,899	1,758
Non-current assets	**91,010**	**68,698**	**22,312**
Inventions	16,549	13,016	3,533
Cash and cash equivalents	8,021	19,963	(11,942)
Other current assets	9,731	6,994	2,737
Current assets	**34,301**	**39,973**	**(5,672)**

Assets	**125,311**	**108,671**	**16,640**
Equity	48,909	38,829	10,080
Long-term borrowings	12,165	14,065	(1,900)
Non-current lease liabilities	11,887	10,665	1,222
Other non-current liabilities	24,361	19,795	4,566
Equity and non-current liabilities	**97,322**	**83,354**	**13,968**
Short-term borrowings	8,075	10,638	(2,563)
Current lease liabilities	2,387	2,163	224
Other current liabilities	17,526	12,516	5,010
Current liabilities	**27,989**	**25,318**	**2,671**
Liabilities and equity	**125,311**	**108,671**	**16,640**

Source: LVMH, 2022.

Table 35: Detailed Balance Sheet Example LVMH, 2021

Assets	**Notes**	**2021**	**2020**	**2019**
EUR millions				
Brands and other intangible assets	3	24,551	17,012	17,212
Goodwill	4	25,904	16,042	16,034
Property, plant and equipment	6	20,193	18,224	18,533
Right-of-use assets	7	13,705	12,521	12,409
Investments in joint ventures and associates	8	1,084	990	1,074
Non-current available for sale finacial assets	9	1,363	739	915
Other non-current assets	10	1,054	845	1,546
Deferred tax		3,156	2,325	2,274
Non-current assets		**91,010**	**68,698**	**69,997**
Inventories and work in progress	11	16,549	13,016	13,717

Trade accounts receivable	12	3,787	2,756	3,450
Income taxes		338	392	406
Other current assets	13	5,606	3,846	3,264
Cash and cash equivalents	15	8,021	19,963	5,673
Current assets		**34,301**	**39,973**	**26,510**
Total assets		**125,311**	**108,671**	**96,507**

Liabilities and equity	**Notes**	**2021**	**2020**	**2019**
EUR millions				
Equity, Group share	16.1	47,119	37,412	36,586
Minority interests	18	1,790	1,417	1,779
Equity		**48,909**	**38,829**	**38,365**
Long-term borrowings	19	12,165	14,065	5,101
Non-current lease liabilities	7	11,887	10,665	10,373
Non-current provisions and other liabilities	20	3,980	3,322	3,812
Deferred tax		6,704	5,481	5,498
Purchase commitments for minority interests' shares	21	13,677	10,991	10,735
Non-current liabilities		**48,413**	**44,524**	**35,519**
Short-term borrowings	19	8,075	10,638	7,610
Current lease liabilities	7	2,387	2,163	2,172
Trade accounts payable	22.1	7,086	5,098	5,814
Income taxes		1,267	721	722
Current provisions and other liabilities	22.2	9,174	6,698	6,305
Current liabilities		**27,989**	**25,318**	**22,623**
Total liabilities and equity		**125,311**	**108,671**	**96,507**

Source: LVMH, 2022.

Consistency over time and comparability between companies' financial statements are both key reporting principles. Violating these principles can be confusing to stakeholders. The IASB has put forth much effort in establishing uniformity so that comparability in companies' financials across international borders can occur more easily. As intangible

assets are often unique and there are not always markets with comparable items, measurement of intangibles to ensure comparability can be challenging and involves professional judgment.

The wide gap that sometimes companies have between market capitalization versus their book value is often attributed to intangibles, apart from other differences such as tangible fixed assets at historical cost compared to market value. In the case of Enron, the company market value (€75,2 billion) was more than 6.5 times its book value (€11.5 billion) at the end of the year 2000. The case of Enron seemed to show the fragility of intangibles as sources of value compared to tangible assets. However, when examining specific intangibles, their presence and their amounts were not substantial to support it. For example, in terms of R&D expenses, there were not any reported in the previous two years. Therefore, attention needs to be driven to the specific intangible assets that are sources of value, such as the case of patents of IBM that helped it overcome hard times by the 1980s and early 1990s (Gwilliam & Jackson, 2008). This is why proper disclosure and processes, such as impairment tests on intangible assets, are especially important.

The treatment of most intangible assets is regulated in IAS 38 – Intangible Assets. As defined in §8, intangible assets are "an identifiable non-monetary asset without physical substance" (IASB, 2004). Items can only be recognized as intangible assets if they meet all three characteristics.

DIGRESSION

The term "identifiable" is not specifically defined, but IAS 38 explains that an asset is identifiable if it is separable or arises from contractual or other legal rights. Assets such as brands and trademarks are separable, as an entity could sell them to other entities.

5.1 Recognition of Expenditure on Intangible Resources, Recognition, and Measurement

Recognition of Intangible Assets

As seen above, intangible assets are characterized by their lack of physical substance, their identifiability, the control that the company has on them, and the potential economic benefits that the company expects from them.

The main difference of intangible assets versus tangible assets lies in the absence of physical substance of the first while tangible assets have this physical characteristic. This intangibility component as well as the different types of intangibles often renders their meas-

urement more complex. Market information regarding intangibles may not be as evident as for tangible assets (e.g., compare a building with a brand). Intangible assets are sometimes generated internally, e.g., with the company efforts on research and development (R&D), which usually take multiple reporting periods. However, there are also similarities. For example, both tangible and intangible assets are resources that the company holds to obtain future economic benefits. As in the case of PPE, the useful life of intangible assets is also important. When they have a finite life, noncurrent tangible assets are depreciated over time, whereas intangible assets are amortized over time. Amortization is similar in approach to depreciation in that the asset cost is written off gradually as an expense on the income statement.

IAS 38 regulates the recognition of intangible assets. They are recorded on the balance sheet like PPE. This type of asset must be separable so that it is identifiable. Assets that are separable can be sold, transferred, or licensed to other entities. IAS 38 does not regulate goodwill, which is part of IFRS 3. Some intangible assets are separable, they can be sold as an independent item, such as patents or software, while others arise from contracts or other specific legal rights.

Examples of intangible assets include the following:

- patents
- copyrights
- trademarks and trade secrets
- customer lists
- goodwill
- licenses
- computer software
- research and development

An organization can obtain or generate intangible assets in the following ways:

- **separate acquisition:** This is when there is a mutual agreement between a buyer and seller about the purchase and sale of the asset.
- **acquired in business combination:** In a business combination, the value of an intangible asset is part of the agreement. Typically, the fair value must be assessed.
- **internally generated:** This is a common situation in which a company expends their own resources to develop an intangible asset, which they can then use for their own benefit.
- **government grant:** Sometimes governments sell or give intangible assets, such as licenses or landing rights, to companies.

For an intangible asset to be recognized as per IAS 38, whether they are acquired from a third party or internally generated, two conditions must concur:

1. It needs to be "probable that the future economic benefits that are attributable to the asset will flow to the entity;
2. The cost of the asset can be measured reliably" (IASB, 2004).

The first condition is often considered as compliant in the case of intangible assets, which are separately purchased or under a business combination. This makes it simpler to recognize purchased intangible assets, whilst in the case of intangible assets generated internally, they are often not capitalized, due to the difficulty to estimate the likelihood of the economic benefits sustained on assumptions that are reasonable and supportable. As in the example above, LVMH specified that only brands purchased that comply with additional criteria were recognized on their financial statements.

Research and Development

Per IAS 38, **research costs** and development costs are differentiated from each other and are put into different categories for accounting treatment. IFRS-based companies do expense research costs but capitalize any development costs, including internal costs.

Research costs
These can never be recognized as intangible assets regardless of whether they meet the recognition tests.

What makes this approach more complex is that disaggregation of the costs can be challenging. Research can be described in broad terms as "the search for new knowledge and development, the application of this knowledge to the creation of commercially viable products and services (Doupnik et al., 2020, p. 122). An example would be the research for a newly developed operating system for a smartphone to supplant an existing operating system. Development would include testing the new operating system that replaces the existing operating system.

DIGRESSION

To recognize an internally generated intangible asset, the entity must classify the generation of the asset into a research phase and a development phase.

Capitalization of development costs is a gradual process, the commencement of which is dependent upon the following:

- the timing of when the intangible asset's technical feasibility indicates that the asset can be used or sold
- the organization's intention to use or sell the developed intangible assets
- the amount to which the company can use or sell the intangible assets
- the amount to which the intangible assets can result in future economic benefits
- the organization's level of technical, financial, and other resources availability that is needed to complete the development, use, or sale of the intangible assets
- the company's ability to provide an estimate of their expenditures on the intangible assets during the development stage

In other words, the presence of all these factors is necessary to capitalize the development costs: technological feasibility, usage or selling ability, intention and available resources to finish the project, obtention of economic benefits is probable, and expenditures on the intangible asset in this development phase can be identified (ACCA, 2022).

Example

The pharmaceutical XYZ Company started working on a project for a new pharmaceutical, having spent €1 million in 2020 and getting the approval of additional funding in January 2021. During the first half of 2021, an additional €1.2 million were spent, but problems arose from trials, which required €1 million to solve them. By December 2021, the new pharmaceutical was approved by the medical regulating body. An additional €2 million were required to finish the development of the product, which is expected to be generating revenues of €30 million over the upcoming 5 years. According to the principles, only the last €2 million could be capitalized, as it is when there is the approval that all the conditions required concur (ACCA, 2022).

Measurement of Intangible Assets

For the initial recognition of an intangible asset (whether it is purchased or internally developed), it is measured and recorded at cost. Cost is defined in IAS 38 §8 as "the amount of cash or cash equivalents paid or the fair value of other consideration given to acquire an asset at the time of its acquisition or construction" (IASB, 2004). In subsequent years, a company will record the asset value as cost minus accumulated amortization. Occasionally, the asset can be measured and recorded at fair value, assuming there is an active market where the value can be determined. A practical example of this are taxi licenses.

Subsequent Measurement: Amortization and Impairment

Intangible assets need to be classified based on their lifespan. They can have either indefinite or finite lives. Indefinite life assets are tested for annual impairment instead of having their costs amortized (i.e., written off gradually). The assumptions of infinite life and generation of economic benefits need to be tested at least annually if no other indicators of impairment exist. For each period, these assumptions should be reviewed, as well as the asset's capacity to generate benefits in the future, and any change (if applicable) would be considered a change in estimate according to IAS 8. In case it was identified that its life is not infinite anymore, it should be amortized as a finite life asset.

Conversely, finite life assets are required to be amortized over their useful life, and the method must be reflective of how the asset provides future economic benefits to the organization. If that pattern is not determinable, the only option is to use the straight-line method of amortization. Goodwill is a more complex concept, and it plays a significant role in today's global economy. Recognition of goodwill in accounting reporting has been a contentious area. Until recently, goodwill was amortized as an intangible asset. Now it is tested for impairment annually. As mentioned before, goodwill is not addressed in IAS 38 but in IFRS 3.

Instead of following the cost model for the subsequent measurement of intangible assets and amortizing them, companies can choose the revaluation model, which is based on the fair value of the asset at the moment of revaluation.

DIGRESSION

Measurement after initial recognition is done using the cost model or the revaluation model.

IFRS-based companies can record asset revaluations, which is the difference between the revalued asset amount and the carrying value. This difference is recorded in net income or in other comprehensive income. If the assets increased in carrying value, the unrealized gain is recorded in their revaluation surplus account, whereas a decrease in the assets' carrying value would result in an unrealized loss and be recorded on the income statement. If there are subsequent gains, these gains are limited to the extent of the original loss; in the case of intangibles, it is more challenging, as a market with comparable items not always exists.

An annual impairment test is required for certain categories of intangible assets, because there is a significant level of uncertainty about their ability to generate enough future economic benefits to recover their respective carrying amounts. The following categories of assets are tested annually for impairment, even if there is no evidence of impairment indicators (IASB, 2013):

- goodwill, which includes the cash generating unit (CGU) or group of CGUs to which goodwill has been allocated
- intangible assets with an indefinite useful life
- intangible assets not yet available for use

Intangible assets with finite useful lives are amortized. The disposal of an intangible asset will result in either a gain or a loss and will be shown on the income statement.

Potential Unethical Behavior

Companies with material amounts of intangible assets sometimes try to take advantage of jurisdictions with very low tax rates. Technological giants and multinational pharmaceutical companies have been known to conduct some of their operations in low tax countries like Ireland. Although this practice is not illegal, some argue that it is unethical, since these large conglomerates are taking advantage of a tax haven situation.

There is now a heightened awareness that industries that derive many of their revenues from operations based on intangible assets must be closely monitored. Recently, the Organization of Economic Cooperation and Development (OECD) proposed to establish a global minimum corporate tax rate to help reduce the propensity of multinational companies to avoid taxation (Jang, 2019). This plan is part of the OECD's larger program of tax reform to ensure a fairer allocation of taxing rights. The OECD intends that countries will be able to "tax back" organizations who pay taxes in other jurisdictions with low tax rates or that do not have a physical presence in their area of authority (Jang, 2019). This plan was instituted to mitigate the risk of multinational corporations that seek to shift profits to

low- or no-tax jurisdictions. The types of companies that would be particularly affected by these new rules are those that earn significant profits from intangible assets (e.g., patents and brands).

Impairment

IFRS prefer companies to estimate recoverable amounts of individual assets. However, this is not always possible, and in such cases, asset groups can be created. IFRS refer to an asset group as a cash-generating unit (CGU). This microlevel designation is the smallest identifiable group of assets that can result in a material level of cash inflows.

There are some commonly accepted impairment indicators that help guide companies in their decision to write down an asset. These impairment indicators, outlined in the following table, can be viewed from a macroeconomic perspective or from an internal perspective.

Table 36: Impairment Indicators

Macro/External Factors	Internal Factors
Decline in market value	Lower economic performance than expected
Negative changes in technology, markets, economies, or laws	Technological obsolescence
Increase in interest rates	Lack of full use of asset, either due to idle asset or put aside for future disposal
Market capitalization is less than a company's net asset (assets minus liabilities).	

Source: Sandra Oller, 2022.

Conservatism principle
This principle focuses on not overstating assets and revenue while not understating liabilities and expenses.

The theoretical construct supporting that assets are not overstated is the **conservatism principle**. The theory and practical application for substantiating impairment is that assets should not be carried on the financials at amounts less than their recoverable amounts. This is calculated as the higher of fair value less costs of disposal or value in use (IASB, 2023).

Assets are grouped together when an organization cannot reasonably estimate the recoverable amount of the individual asset. Although less exact, the information lost by grouping assets (CGUs), instead of analyzing them individually, is normally immaterial.

IFRS-based companies are required to review impairment indicators annually to determine whether the next step of an impairment test is required. This applies to impairment of indefinite life intangibles. A full assessment of both internal and external indicators is required.

The required impairment test compares an asset's or cash-generating unit's carrying amount with its recoverable amount (IASB, 2013). The recoverable amount is the higher of either the asset's fair value less costs of disposal or the value in use. In other words, when

the carrying amount is higher than the recoverable amount, the entity must recognize an impairment loss. The carrying amount is the amount the asset is recorded at after deduction of accumulated depreciation (or amortization for intangible assets) and accumulated impairment losses (if applicable). The interesting caveat is that IAS 36 requires that an item assessed for impairment must generate cash inflows that are mostly independent or separate from other assets (IASB, 2023). Since this classification is rarely the case, individual assets (including goodwill) are required by IAS 36 to be grouped into cash-generating units. IFRS uses a one-step impairment test in which we calculate the CGU recoverable amount, then compare the recoverable amount of the CGU to the carrying value of the CGU, inclusive of goodwill. The recoverable amount is the higher of the value in use (the present value of future cash flows generated from the asset) or the asset's estimated fair value minus associated selling costs.

Unlike US GAAP, IFRS allows companies to reverse impairment loss on write-downs of finite-life intangible assets, except in the case of goodwill, if economic conditions warrant them to do so. As in the case of PPE, there are some limitations on this potential write-up/reversal of the recorded impairment loss. This is because the reversal (if applicable) cannot be in an amount greater than the original impairment loss, and it cannot result in asset valuation higher than would have been the case without asset impairment.

5.2 Balance Sheet Features, Disclosure, and Examples

Intangible assets are listed on the balance sheet. The accumulated amortization is netted against the original asset value. The following figure illustrates how intangible assets are included in the balance sheet.

Table 37: Partial Balance Sheet: Intangible Assets

Intangible assets:				
Copyrights			€	2,911,188
Patents			€	3,900,111
Accumulated amortization	€	40,00	€	3,860,111
Total assets			€	**88,789,397**

Source: Sandra Oller, 2022.

Disclosures

If a company records an impairment loss, disclosure of the following items is required:

- the asset or asset group that was impaired
- specific circumstances or events leading up to the impairment

- the amount of the impairment loss in the disclosure notes, unless already noted on the income statement
- the methods used to estimate the fair values of the applicable assets

Related to any revaluations, IFRS-based companies must also disclose the following:

- a reconciliation of any intangible asset that was revalued including the date of the revaluation
- if and when an **independent appraiser** assessed the value of the asset
- the extent to which existence of an active market for that asset impacted the valuation

Independent appraiser
This refers to a third-party professional who is appointed to provide an external valuation for it to be disinterested and unbiased.

For each of the classes of intangible assets, some relevant disclosures include the following (IASB, 2004):

- useful life, amortization method, and amortization rate
- gross carrying amount, accumulated amortization, and impairment losses
- reconciliation or the initial carrying amount of the reporting period with the final amount, including additions, retirements, and disposals, revaluations, impairments, and reversals, if any, held for sale assets and amortization
- income statement lines in which amortization is recorded
- justification to consider indefinite life of an asset
- for assets which are material, their individual carrying value

Table 38: Example of Disclosures of Intangible Assets LVMH, 2021

(EUR millions)			**2021**	**2020**	**2019**
	Gross	**Amortization and impairment**	**Net**	**Net**	**Net**
Brands	21,645	(772)	20,873	13,737	13,736
Trade names	3,889	(1,604)	2,285	2,130	2,303
License rights	144	(90)	53	55	45
Software, websites	3,143	(2,294)	849	665	650
Other	1,115	(625)	490	425	479
Total	**29,936**	**(5,385)**	**24,551**	**17,012**	**17,212**

The net amounts of brands, trade names and other intangible assets changed as follows during the fiscal year:

Gross value	**Brands**	**Trade names**	**Software, websites**	**Other intangible assets**	**Total**

(EUR millions)

As of December 31, 2020	**14,513**	**3,614**	**2,388**	**1,121**	**21,636**
Acquisitions	-	-	244	337	581
Disposals and retirements	-	-	(96)	(116)	(212)
Changes in the scope of consolidation	6,474	-	361	46	6,880
Translation adjustment	658	275	100	29	1,062
Reclassifications	-	-	148	(158)	(11)
As of December 31, 2021	**21,645**	**3,889**	**3,143**	**1,259**	**29,936**

Amortization and impairment	**Brands**	**Trade names**	**Software, websites**	**Other intangible assets**	**Total**

(EUR millions)

As of December 31, 2020	**(777)**	**(1,484)**	**(1,722)**	**(641)**	**(4,623)**
Amortization expense	(9)	-	(372)	(148)	(529)
Impairment expense	1	-	(1)	(13)	(13)
Disposals and retirements	-	-	90	116	206
Changes in the scope of consolidation	29	-	(214)	(18)	(202)
Translation adjustment	(18)	(120)	(67)	(13)	(217)
Reclassifications	-	-	(7)	1	(6)

As of December 31, 2021	**(772)**	**(1,604)**	**(2,294)**	**(715)**	**(5,385)**
Carrying amount as of December 31, 2021	**20,873**	**2,285**	**849**	**544**	**24,551**

Changes in the scope of consolidation mainly resulted from the acquisition of Tiffany.

Source: LVMH, 2022.

SUMMARY

Investors must realize that intangible assets can be a significant part of a company's balance sheet and that not all intangible assets may be recognized (e.g., internally developed brands). In fact, the cost of intangibles can be as simple as the price paid, but in some cases, it can be more complex, such as in the case of the internal development of intangible assets. One must use their best judgment when accounting for intangible assets. Intangible assets are divided into categories, some have finite and others indefinite lives, and this has important implications in terms of their subsequent measurement. In the first case, they are often amortized during the life of the asset (revaluation method can be used in IFRS, but may present difficulties), whereas for the second, there is the requirement of performing impairment tests at least annually.

Accounting for goodwill is more dynamic and complex than when accounting for other intangibles. In the past, goodwill was amortized. Now it remains on the balance sheet, but it is tested for impairment. Impairment indicators must be readily recognizable by a company, so they record their intangibles at a revised amount, if applicable.

The goal of impairment testing is to ensure compliance with the conservatism principle, which mandates that assets' values be recorded at a realistic level and not be overstated.

UNIT 6

REVENUE RECOGNITION AND CONSTRUCTION CONTRACTS

STUDY GOALS

On completion of this unit, you will be able to ...

- understand overall revenue recognition and related measurement.
- list and explain the five steps associated with revenue recognition per IFRS.
- identify special revenue recognition scenarios.
- describe the accounting for long term-contracts, specifically for the measurement of progress in construction contracts.
- list the required disclosures related to revenue recognition.

6. REVENUE RECOGNITION AND CONSTRUCTION CONTRACTS

Introduction

Revenue disclosures are important because they allow stakeholders to understand how a company is currently performing and its performance capacity in the future. For example, shareholders require information about the revenue-earning capacity of a company to evaluate their potential return on investment. Additionally, it is a key indicator for the management's performance. However, the nature, amount, timing, and uncertainty of revenue a company recognizes can have very significant impact on that specific company's income statement. There is much judgment required in this area of accounting, and there are both uncertainties and estimates made on a consistent basis.

IFRS 15 – Revenue from Contracts with Customers, which was instituted in 2014, regulates the transfer of goods and services. IFRS 15 was issued in response to concerns about the timing and amount of revenue recognized by entities, the lack of comparability in the revenue recognition practices, and the insufficient disclosure of revenue-related information.

6.1 Revenue Recognition

Revenue is defined in IFRS 15 as "income arising in the course of an entity's ordinary activities" (IASB, 2014). Recall that some income may arise other than during ordinary activities. In other words, income can also include gains in addition to revenue. Understandability of revenue recognition is a key goal to assist stakeholders in the analysis of a company's current and future financial performance. Revenue recognition is a multifaceted concept with much judgment involved in the nature, amount, timing, and uncertainty of the revenue being recognized.

Five-Step Model for Revenue Recognition

IFRS 15 introduced a five-step model of revenue recognition capable of general application to a variety of transactions. This standard requires detailed revenue-related disclosures. IFRS 15 provides guidance on how to account for numerous contract types, including the following (IASB, 2014):

- contracts with a right of return period
- contracts providing goods or services with warranties
- contracts in which a third party provides the goods or services to the customer
- contracts with options for customers to purchase additional goods or services at a discount or free of charge
- customer prepayments and payment of nonfundable upfront fees
- consignment and bill-and-hold arrangements

The five steps are as follows:

1. Identify the contract with the customer.
2. Identify the contract's performance obligations.
3. Identify the transaction price.
4. Allocate the contract transaction price to the performance obligations.
5. Recognize revenue when (or as) the company satisfies the performance obligation.

Step 1: Identify the contract

In carrying out step 1, IFRS 15 defines a customer as "a party that has contracted with an entity to obtain goods or services that are an output of the entity's ordinary activities in exchange for consideration" (IASB, 2014). Furthermore, a contract is "an agreement between two or more parties that creates enforceable rights and obligations" (IASB, 2014). Such an agreement can be written, oral, or implied by customary business practices. A company must apply IFRS 15 to each contract that has all of the following attributes (IASB, 2014):

- The parties have approved the contract and are committed to perform their obligations.
- The entity can identify each party's rights regarding, and the payment terms for, the goods or services to be transferred.
- The contract has commercial substance, i.e., should have an effect on future cash flows of the entity.
- It is probable that the entity will collect the consideration that it is entitled to in exchange for the goods or services that it transfers to the customer.

If these attributes are all present, the entity can proceed to step 2.

Step 2: Performance obligations

In §22, IFRS 15 states that "a promise constitutes a performance obligation if it is for the transfer of either

- a good or service (or a bundle of goods or services) that is distinct, or
- a series of distinct goods or services that are substantially the same and that have the same pattern of transfer to the customer" (IASB, 2015).

A good or service is considered distinct when (IASB, 2015)

- "the customer can derive benefit from the good or service either on its own or together with other resources that are readily available to the customer, and
- the entity's promise to transfer the good or service to the customer is separately identifiable from other promises in the contract."

Step 3: Determining and allocating transaction price

Determining the total transaction price is important because once the transaction price is determined, it is allocated among the performance obligations within the contract and is recognized when those performance obligations are satisfied.

The transaction price is "the amount of consideration to which an entity expects to be entitled in exchange for transferring promised goods or services to a customer, excluding amounts collected on behalf of third parties" (IASB, 2015). This means that Goods and Services Tax (GST) is excluded. Transaction prices often involve numerous aspects or components. The seller must consider the impact of the following items that could affect the agreed upon transaction price:

- variable consideration, including any constraining estimates of that consideration
- the existence of a significant financing component in the contract
- noncash considerations
- consideration that is payable to a customer, e.g., in exchange for a distinct good or service that the customer transfers to the entity

Step 4: Allocate the transaction price to the performance obligations

The stand-alone selling price is an important aspect of this step. Since the transaction allocation process requires a fair amount of judgment, IFRS 15 requires more transparency with use of the stand-alone selling price concept. Companies must now identify each performance obligation and then allocate the transaction price proportionately between the performance obligations.

The stand-alone selling price is the price (at the time of entering into the contract) for which an entity would sell the promised good or service separately to a customer (IASB, 2015).

If a stand-alone price is not directly observable, entities must estimate that price. While there is no prescribed method, the estimation method must provide a faithful representation of the price at which the entity would sell the promised good or service separately to a customer.

IFRS 15 suggests three suitable estimation methods:

1. **Adjusted market assessment approach:** This involves a price estimation a customer would be willing to pay given a specific market and competitions' similar goods and service prices. Under this approach, an entity focuses on market conditions.
2. **Expected cost plus a margin approach:** This involves estimation of any expected costs of satisfying a performance obligation and subsequently adding an appropriate margin. Under this approach, the entity primarily focuses on entity-specific factors.
3. **Residual approach:** This involves subtracting observable stand-alone selling prices that are known for other goods or services to be supplied from the entire contract price. This method can only be used when there are many prices for the same product or service or when that specific product or service has not been sold on a stand-alone basis.

DIGRESSION

- adjusted market assessment approach: estimate the price customers would pay
- expected cost plus a margin approach: add an appropriate margin
- residual approach: calculate total transaction price less the sum of the observable stand-alone selling prices

Step 5: Recognize revenue when (or as) the company satisfies the performance obligation

Recall that step 4 requires to allocate the transaction price of the contract to each separate performance obligation in the contract. Under step 5, the portion of the transaction price allocated to a performance obligation is recognized as revenue when (or as) the entity satisfies that performance obligation. Under IFRS 15, a performance obligation is satisfied when a promised good or service is transferred to the customer. A good or service is considered to be transferred when the customer obtains control. "Control of an asset" refers to the ability to direct the use of, and obtain substantially, all of the remaining benefits from the asset (IASB, 2015). Control can be transferred considering the timing in two ways: at a specific point in time or over time.

If one of the following conditions concur, the company should recognize revenue over time (IASB, 2015):

- The purchasing entity simultaneously receives and consumes the benefits provided by the entity's performance as the entity performs.
- The entity's performance creates or enhances an asset that the customer controls as the asset is created or enhanced.
- The entity's performance does not create an asset with an alternative use to the entity, and the entity has an enforceable right to payment for performance completed to date.

To recognize revenue over time, the company must account for revenue on the basis of progress toward completion. This point will be further developed in the next section on "Construction Contracts".

When none of these circumstances apply, it is considered that the company's performance obligation is satisfied at a certain point in time. Then revenue must be recognized at that specific point in time when control is transferred.

Special Issues in Revenue Recognition

Many companies' revenue sources are from unique scenarios, including consignment sales, right-to-return sales, bill-and-hold transactions, and channel stuffing (Gordon et al., 2021). This is not to say that all companies' revenue sources are from any or all of these special situations, since much of this is influenced by the type of industry in which a company operates.

Consignment sales

These involve a seller, known as the consignor, delivering goods or services to a third party, and the consignee who then sells the goods on behalf of the consignor. **Consignment sales** can be considered principal-agent transactions, since one party acts on behalf of and in the best interests of the other (Gordon et al., 2021).

Consignment sales
The consignor, or original owner of the inventory, maintains the inventory on their books until a sale occurs.

Right-to-return sales

This type of contract mandates that the seller accepts the returned products, and the right of return is considered to be a part of variable consideration, i.e., payment (Gordon et al., 2021).

Bill-and-hold scenarios

These entail a buyer accepting the title and being billed by the company, but the physical receipt of the goods is delayed. If the seller relinquishes or transfers control of the goods to the buyer, the seller is entitled to recognize revenue at that time. However, the seller must meet all of these criteria to substantiate transfer of control. There must be a substantive reason for this arrangement; the product be separately identifiable as the customer's; the product is required to be physically transferred to the customer at that time and the seller cannot have access to the product (Gordon et al., 2021).

Channel stuffing

This involves potentially questionable practices of accelerating recognition of revenue by offering financial incentive inducements to wholesale distributors to purchase more than they can anticipate and sell in the near future, with the objective to provide a better image in terms of the company results for the said period (and usually involving worse ones in the following period when returns take place). The buyer has not received any risks or rewards of owning the assets (Gordon et al., 2021). Consequently, the reduction of the rev-

enue and COGS recognized, based on expected returns, would be required as well. This could prevent from providing a distorted image of the company results and position, but incentives would erode profitability.

Consignment sale example

ABC Company sells inventory on behalf of NEW Company. NEW Company owns the inventory and pays ABC Company a fee to sell their inventory. In this example, ABC Company is the consignee and NEW Company is the consignor or owner of the inventory. Inventory and sales revenue are recorded on NEW Company's financials, and ABC Company only records any fees they collect from NEW Company.

6.2 Construction Contracts

Construction contracts are arrangements whereby one company builds or constructs an asset, normally a building for another company. They are also regulated with IFRS 15. Since these contracts last for numerous years, they require the company to account for the contract appropriately. An example would be an office building with many floors, which takes years to build. Accounting for long-term contracts can be complex, and an essential point to consider under IFRS 15 is whether the performance obligation is satisfied over time or at a point in time. This will set the basis for the timing of revenue recognition – throughout the contract period or at the end of the process. In the first few years of the process, the financial results differ significantly.

As these types of contracts are regulated with IFRS 15, revenue recognition needs to follow the five-step procedure explained in the first part of this unit. They often take more than one reporting period to complete, and how revenue is recognized can significantly impact the results of the entity for a certain reporting period.

Recall step 5, which defines that the entity should recognize revenue, as it satisfies a performance obligation. It can be satisfied at a specific point in time, or it can be satisfied over time.

Construction contracts are a good example of a performance obligation satisfied over time, as this type of contract tends to involve the creation of an asset specifically for the use of the customer based on its concrete requirements (not alternative use), and the contract includes payments for partial completion. As per IFRS 15, payments need to be enforceable, i.e., they need to involve the payment of the completed performance to date, in case the customer wants the termination of the contract that is not caused by a reason attributable to the vendor's fault. It can depend on the contract conditions, laws applicable, or based on the courts' precedents.

In the case of performance obligations satisfied over time, the construction company must account for revenue on the basis of progress toward completion.

Progress Towards Completion

As per IFRS 15, two types of methods can be used to measure progress towards satisfaction of the performance obligations: output or input methods.

Output methods base revenue recognition on the value of the products or services that were already passed on to the customer, e.g., in terms of units delivered. These methods present the challenge of estimating value transferred. Indicators such as milestones can be useful, and in the case of construction contracts, certifications are an example. In large construction projects that include different units or parts, each of them may be certified in different moments in time, as completed.

Input methods support the progress towards completion on indicators of use or consumption of resources (e.g., materials, labor hours) or costs. When using input methods, inputs not directly related to the goods or services being transferred to the customer should be excluded as well as extraordinary waste of materials.

The choice of method needs to be consistent for each performance obligation as well as for different contracts in similar circumstances.

Revenue recognition based on these methods may result in a different amount than the amount invoiced to the client or received as payment. If revenue recognized is higher, it will generate a contract asset (e.g., if payment is conditional to another performance obligation) or an unbilled receivable (if only time is required for the payment), whilst if it is lower, a contract liability will arise. This can be seen in the following example.

Example of output method

In the case of construction contracts, different conditions can be established. Imagine a contract for the construction of a complex, specifically designed for the client, with no alternative use. The payment for performance to date is enforceable in that jurisdiction. In the normal course of the project, the contract establishes three payments: €7 million at the end of 2020, €6 million at the end of 2021, and €7 million at the end of 2022 upon completion of the project. As the work advances, technical certification sets the value performed at the end of 2020 at €5 million. This is 25% of the project; at the end of 2021, it is €14 million (70%), and at the end of 2022, €20 million (100%).

Table 39: Example of Output Method

	2020	2021	2022	TOTAL
Payments	**700,0000,00**	**6,000,000**	**7,000,000**	**20,000,000**
Certification (%)	25.0%	70.0%	100.0%	
Total value certified	5,000,000	14,000,000	20,000,000	

Source: Sandra Oller, 2022.

Revenue recognition is based on the output, i.e., in this case the estimated value is 25% of the total value (€5 million at the end of 2020). As the amount is lower than the amount received, €7 million, i.e., a contract liability of €2 million, should be recognized at the end of 2020.

At the end of 2021, an additional €6 million are received from the customer, so the total amount received to that date for the project is €13 million. Based on the value certified, revenue recognition at the end of 2021 is €14 million. This means that at the end of 2021, €9 million of revenue need to be additionally recognized (€14 million – €5 million recognized in 2020). At the end of 2021, there is a contract asset for €1 million instead of a liability. At the end of 2022, additional revenue needs to be recognized (€6 million; €20 million – €14 million already accounted for in the previous periods). At the end of the project, as completed, no contract asset or liability remains.

Table 40: Journal Entries Output Method Example

31/12/2020		DR	CR
	Cash	7,000,000	
	Revenue from contact		5,000,000
	Contact liability		2,000,000
31/12/2021			
	Cash	6,000,000	
	Contact liability	2,000,000	
	Contact asset	1,000,000	
	Revenue from contact		9,000,000
31/12/2022			
	Cash	7,000,000	
	Revenue from contact		6,000,000
	Contact asset		1,000,000

Source: Sandra Oller, 2022.

Often, invoicing and payment are based on technical certifications.

Input Methods: Cost-to-Cost Method

The **cost-to-cost method** is a frequently used method to calculate revenue recognition based on the input, in this case the costs incurred versus the total estimated costs of the project.

The cost-to-cost method uses the following formula:

Cost-to-cost method
This is an input method to estimate progress towards completion. It entails identifying the costs accrued by the company thus far to fulfill its performance obligation and dividing this sum by the total estimated project costs.

$$\frac{Actual \quad job \quad costs \quad to \quad date}{estimated \quad job \quad costs}$$

This percentage is then multiplied by total estimated revenue to get the contract earned.

There are multiple ways to determine a project's percentage of completion, including a consideration of

- costs,
- units, or
- labor hours.

Example of cost-to-cost method

A project that has estimated costs of €300,000 has incurred €60,000 in costs to date. Dividing the costs (€60,000) into total estimated costs (€300,000) gives a percentage of completion of 20%.

$$\frac{€\ 60,000}{€\ 300,000} = 0\ .\ 20 \quad or \quad 20\,\%$$

Therefore, 20% of the total revenue can be recognized in that year's income statement. If the total revenue for the project is €500,000, the company should recognize revenues of €100,000 for that period.

The Percentage-of-Completion Method

The percentage-of-completion method was part of IAS 11 – Construction Contracts, which is superseded by IFRS 15 and establishes revenue recognition and measurement as explained above. The percentage-of-completion method has been used in construction contracts under IFRS until recently. Based on the stage-of-completion concept, it may look like measuring progress towards completion. The main difference relies on the fact that IFRS 15 focuses on the performance obligations and its transfer to customers, instead of just stages of development of the project. That is why the concept of transfer of control is so relevant under IFRS 15. The standard specifies whether recognition of revenues should be made over time or at a specific point in time.

In practice, the concept of progress may exist, and input and output methods were already used under the percentage-of-completion method, and they still are under IFRS 15.

Disclosures

As mentioned above, revenue recognition is a complex area of accounting, and stakeholders need to be informed about the nature, amount, timing, and uncertainty of revenue, which also includes cash flow from sales to customers. Since revenue recognition involves a high level of judgment, both qualitative and quantitative types of disclosures are warranted (Gordon et al., 2021).

Required disclosures include the following:

- **disaggregation of revenue:** This prevents misinformation about the components of a sales contract with customers.
- **contract balances:** Quantitative information includes the beginning and ending balances of receivables, unearned revenue from contracts with customers, and significant changes in these accounts.
- **performance obligations:** These obligations that a company has with its customers must be disclosed, including their descriptions.
- **transaction price allocated to the remaining performance obligations:** These are the disclosure of transaction prices that are a result of any performance obligations which are not satisfied (or partially satisfied) at the end of the reporting period.

In addition, given the fact that a high level of judgment is required for revenue recognition, companies must also disclose information about the agreed-upon transaction price and the consideration allocated to specific performance obligations (Gordon et al., 2021):

- the transaction price which should incorporate estimated variable consideration, time value of money adjustments, and measurement of noncash consideration
- assessment of any constraints on variable consideration estimates
- allocation of the price including standalone prices and variable consideration
- measurement of obligations for returns, refunds, or other similar obligations

SUMMARY

Transparency is a key element in providing shareholders with sufficient levels of information about a company's revenue recognition process, as it may have a very significant impact on the company's financial statements.

IFRS 15 is using the five-step method in revenue recognition. The primary benefits of the five-step method of revenue recognition are understandability and transparency. The two most common sets of accounting rules for long-term contracts are the percentage-of-completion method and the completed contract method. With IFRS 15, the satisfaction of the contract obligation and transfer of control become determining elements for the timing of revenue recognition, as they can come about either at a single point in time or over time. There are also numerous types of revenue recognition situations such as bill-and-hold, consignment sales, right-to-return, and channel stuffing that can easily be manipulated. Shareholders need to be aware of these revenue recognition situations and read a company's disclosure notes carefully to stay well informed about the practices and impacts of revenue recognition.

UNIT 7

PROVISIONS, CONTINGENT LIABILITIES, AND CONTINGENT ASSETS

STUDY GOALS

On completion of this unit, you will be able to ...

- understand the concept of provisions.
- differentiate different types of provisions.
- explain measurement issues with provisions as well as contingent liabilities and contingent assets.
- detail required disclosures.

7. PROVISIONS, CONTINGENT LIABILITIES, AND CONTINGENT ASSETS

Introduction

A provision is a subset of liabilities. In IAS 37– Provisions, Contingent Liabilities, and Contingent Asset, it is defined as “a liability of uncertain timing or amount” (IASB, 1998). In other words, they are a reserve set aside to cover future expenses and losses. However, Peek (2004) provides evidence that provisions are often used for earnings management. He examined highly discretionary provisions, consisting of, among others, warranty provisions, provisions for maintenance cost, and provisions for underinsured risks of Dutch listed companies until the year 2000. Peek (2004) found that Dutch listed companies use their discretion in recognizing such provisions under two circumstances: first, they report unexpectedly large provisions to smooth current earnings increases, and second, when earnings are low relative to the previous year’s earnings. Peek (2004) provides evidence that large provisions are reported in both circumstances if they expect that current earnings are relatively transitory.

7.1 Provisions and Contingent Liabilities

Understanding the importance of the accurate accounting and reporting of provisions is essential, as their amount and recognition may determine a difference in profit for the reporting period and have an impact on the bonuses of managers or budget objectives for the subsequent year. At times, provisions are utilized for earnings management. For instance, managers who have achieved their targets may opt to include additional provisions before the end of the year, even if the likelihood of the obligation is low. This allows them to meet objectives while potentially reducing the final result. This would alleviate the pressure on them concerning results and the budget for the following year. Since the event is not highly probable, reversing the provision would lead to a positive impact on the income statement of the subsequent period.

It is important to outline that beyond any interests of management, accounting needs to be accurate and follow the principle of faithful representation, and in this example the provision should not be recognized because the requirements, which will be explained below, are not met. It would involve an interested manipulation of results. That is why a thorough understanding of the recognition and measurement of provisions is required.

IAS 37

IAS 37 defines and specifies the accounting for and disclosure of provisions, contingent liabilities, and contingent assets. Provisions are a type of liability which is characterized as having uncertain timing and/or amount (IASB, 1998). The uncertainty component involves a certain complexity in terms of recognition and measurement, as will be explained in this unit. Examples of provisions include the following:

- warranty obligations
- legal or constructive obligations to clean up contaminated land or restore facilities
- obligations caused by a retailer's policy to make refunds to customers

Consideration paid to settle the provision is an important aspect of provision recognition. When a company reports a provision, it is because it is a probable outflow of cash or other types of consideration which are necessary to settle, i.e., pay the obligation. If the economic outflow is not probable, it is not a provision but a contingent liability (IASB, 1998).

Consideration
This is a term used to describe payments which are typically in cash.

Recognition of provisions

Before focusing on the measurement of provisions, it is important to understand the conditions under which they can be recognized.

Table 41: Recognition Criteria: Provisions versus Contingent Liabilities and Contingent Assets

Provisions		Contingent Liabilities	Contingent Assets
Criteria to recognize:	Specifics:	not applicable	not applicable
1. Past events trigger	legal obligation results	possible	probable economic resource inflow
2. Likelihood of economic resources needed to settle	probable		
3. Information is available about costs to settle	estimates must be made by company		

Source: IASB, 1998.

As shown in the table above, for a provision to be recognized, the concurrence of three conditions are required:

1. There is an obligation in the present (either constructive or legal) resulting from a previous event.
2. The settlement of this obligation is probable and requires a cash outflow or other economic resources.
3. There is the possibility to estimate this amount reliably.

This obligation may stem from various sources, including legal contracts, acts, or legislation, as well as constructive obligations. A constructive obligation is based on company actions or business practices that involve the acceptance of some responsibilities (IASB, 1998). Even if an obligation is not included in a contract, it may still exist.

In situations where the likelihood is uncertain, such as in the context of a lawsuit, the guiding principle is to deem an obligation probable if, based on all available information and evidence, "it is more likely than not that a present obligation exists" at the reporting moment (IASB, 1998).

Contingent Liabilities

According to IAS 37, "contingent liabilities are possible obligations whose existence will be confirmed by uncertain future events that are not wholly within the control of the entity" (IASB, 1998). In other words, liabilities for which the amount of future sacrifices is so uncertain that it cannot be faithfully represented are classified as contingent liabilities. Examples include unresolved lawsuits brought against the company and the potential liability resulting from a tax audit in progress.

Contingent liabilities are often more challenging to identify because, "contingent liabilities also include obligations that are not recognized because their amount cannot be measured reliably or because settlement is not probable" (IASB, 1998).

DIGRESSION

Contingent liabilities are not recognized because they are not probable or are unable to be faithfully represented, or both.

As anticipated above and according to IAS 37, contingent liabilities should not be recognized in the Statement of Financial Position. Instead, they are disclosed in the notes, except when the likelihood of the cash or other economic resources flowing out of the company is considered remote (IASB, 1998).

The table below summarizes the recognition of provisions and contingent liabilities.

Table 42: Provision or Contingent Liability

Level of Probability	Future resources flowing out of the company
Remote	–
Possible	Disclose contingent liability
Probable	Recognize provision

Source: Sandra Oller, 2022.

Measurement of Provisions

Recall that the amount of the provision is uncertain. When a company needs to estimate the cost of a provision, they must make an estimate as accurate as possible about the settlement cost in today's terms for recognition on the balance sheet.

There are some unknown factors which affect the amount at which a provision is recognized, including risks, uncertainties, and time value of money. These factors need to be taken into account by considering the present value of the estimated future cash outflows required to settle the obligation. It aligns with the necessary sum the entity must have by the conclusion of the accounting period to either fulfill the obligation or transfer it to a third party (IASB, 1998).

Taking the above into consideration, there are different methods to estimate the provision amount. The first option is based on its most likely outcome, and it is to be used in the case of one-off events, such as a lawsuit or a restructuring initiative.

Example of the most likely outcome

An employee has initiated legal action against ABC Company, seeking indemnification due to a previous workplace issue. The legal team informs ABC Company that there is a 75% probability of needing to pay €12,000, a 15% chance of the amount being €15,000, and a 10% chance of not having to pay anything.

It being a specific and single event, according to the most likely outcome, the company should recognize a provision of €12,000. Even if a potentially higher amount is possible (€15,000), the most probable outcome still needs to be considered.

Another option is to utilize the expected value, which is calculated by weighting each potential outcome by its probability. This is particularly useful when dealing with a large population or series of units, such as refunds or warranties (IASB, 1998).

Example of weighted average probability

XYZ Company needs to measure the provision related to the warranties that they provide to clients. It is a one-year guarantee, and they sold 10,000 units in 2023. They have very strict quality controls, and according to their experience with their products, in 90% of the cases, no repair is needed. The costs of repair vary largely. In the case of a major repair, which only happens in 3% of cases, it costs €1,000 per unit. In the 7% of cases, where a minor repair is needed, it costs only €150 per unit.

To measure this provision, XYZ Company calculates the following:

$$\begin{aligned} Provision\ \ amount\ \ =\ \ &(\text{cost}\ \ of\ \ major\ \ repair\ \ x \\ &probability\ \ of\ \ major\ \ repair\ \ x\ \ total\ \ number\ \ of\ \ units) \\ +\ \ &(\text{cost}\ \ of\ \ minor\ \ repair\ \ x\ \ probability\ \ of\ \ minor\ \ repair \\ &x\ \ total\ \ number\ \ of\ \ units) \end{aligned}$$

$$\begin{aligned} Provision\ \ amount\ \ &= (€\,1,000\ \ x\ \ 3\%\ \ x\ \ €\,10,000) \\ +\ \ (€\,150\ \ x\ \ 7\%\ \ x\ \ €\,10,000) \\ =\ \ €\,300,000\ \ +\ \ €\,105,000 \\ =\ \ €\,405,000 \end{aligned}$$

Alternatively, the provision could be determined by estimating the total potential cost of major repairs, amounting to €10,000,000 if all units require major repair and €1,500,000 if all units require minor repair. The provision would then be calculated using the weighted average probability of all possible outcomes.

$$\begin{aligned} &Provision\ \ amount\ \ = (probability\ \ of\ \ major\ \ repair\ \ x \\ &\ \ outcome\ \ of\ \ all\ \ major\ \ repairs) \\ &x\ \ (probability\ \ of\ \ minor\ \ repair\ \ x\ \ outcome\ \ of\ \ all\ \ minor \\ &\ \ repairs) \\ &x\ \ (probability\ \ of\ \ no\ \ repair\ \ x\ \ outcome\ \ of\ \ no\ \ repair) \end{aligned}$$

$$\begin{aligned} Provision\ \ amount\ \ &= (3\%\ \ x\ \ €\,10,000,000) \\ +\ \ &(7\%\ \ x\ \ €\,1,500,000)\ \ +\ \ (90\%\ \ x\ \ €\,0) \\ =\ \ €\,300,000\ \ &+\ \ €\,105,00 \\ =\ \ €\,405,000 \end{aligned}$$

Time value component

Time value of money is an important aspect of business; a euro today is not the same as a euro in the future. Noncurrent assets and liabilities must often be revalued or brought back into present value terms using the discounting technique.

Per IAS 37, at the end of each reporting period, a company must review their reporting provision amounts to reflect actual economic outflows needed to settle their provisions. The concept of time value of money is used, and the discount interest rate must be known. The passage of time will affect the recognized amount of the provision, and that amount will increase.

123 Company has estimated that their warranty obligation 3 years from now will come at a cost of €200,000. The risk-free interest rate is stated as 6%.

Table 43: Changes of Provisions Example

Year	Present Value	Interest Expense	Present Value
	Beginning of year	6%	End of year
1	167,924	10,075	177,999
2	177,999	10,680	188,679
3	188,679	11,321	200,000 cash flows – (188,679 + 11,321) = 0

Source: Sandra Oller, 2022.

Table 44: Journal Entries Time Value of Provisions Example

Year 1:	DR.	CR.
Warranty expense	167,924	
Warranty provision		167,924
Interest expense	10,075	
Warranty provision		10,075
Year 2:		
Interest expense	10,680	
Warranty provision		10,680
Year 3:		
Interest expense	11,321	
Warranty provision		11,321
End of year 3		
Warranty provision	200,000	
Cash		200,000

Source: IASB, 1998, 2021 based on Picker et al., 2016, p. 103.

Specific Applications

IAS 37 elaborates on the application of the recognition and measurement requirements for three specific cases (IASB, 1998):

1. Future operating losses (a provision cannot be recognized)
2. An onerous contract which gives rise to a provision
3. A provision for restructuring costs which arises when a constructive obligation exists

Onerous contracts

An onerous contract is an accounting term that refers to a contract that will cost a company more to fulfill it than what the company will receive in return. As soon as the company notices that the costs will be higher than inflows of the contract, the amount of the loss should be recognized as a liability.

For example, consider a scenario where a company designs and constructs a building under a buyer's contract. The total construction costs amount to €2 million, while the agreed-upon selling price to the purchaser stood at €1.8 million. The €200,000 disparity illustrates the company's anticipated loss in meeting its obligations under the contract.

Restructuring

Restructuring refers to the strategic measures implemented by a company to substantially modify its financial and operational components, typically in response to financial challenges. This process aims to improve the financial performance or substantially transform the operational framework of that company.

Sometimes, companies find it necessary to undergo restructuring in order to close or relocate certain activities or units. For instance, a company may change from a decentralized structure, where each subsidiary operates with its own local team, to a centralized structure where certain activities are performed at the headquarters for all subsidiaries. This shift typically involves downsizing the structure of subsidiaries, which can lead to cost savings in the medium to long term. However, the process of restructuring incurs significant immediate costs (e.g., employee severance packages, early termination of contracts, and legal expenses).

In case of restructuring, it is important to first identify at which moment the provision should best be recognized. Once employees are notified of the restructuring, an obligation arises. This implies that there is no obligation before the restructuring is communicated. The second fundamental aspect is how to measure it. Only costs associated with the interruption of the activity, such as closure or redundancy costs, should be factored in. Any costs linked to the relocation of employees or the continuation of certain activities should be disregarded.

In the case of future operating losses, as anticipated above, a provision cannot be recognized as there is no obligation.

7.2 Contingent Assets

A contingent asset may arise from past events and will be confirmed only upon the occurrence (or non-occurrence) of one or more uncertain future events beyond the complete control of the company. According to the conservatism principle, contingent assets should not be recognized unless there is a high degree of certainty regarding their existence and the company's ability to derive benefit from them.

Although contingent assets are not recorded, they are disclosed in situations where there is substantial suggesting that the company will likely receive benefits, as indicated by the term "more likely than not" (IASB, 1998). In cases of certainty, the asset can be recognized in the financial statements since contingency no longer exists.

For example, ABC Company filed a lawsuit against 123 Company for infringing a patent. If it is more likely than not that ABC Company will win the lawsuit, it will disclose a contingent asset.

SUMMARY

The measurement and recognition of provisions, along with the risks and uncertainties, present challenges. The time value component and the most suitable method for measuring the provision (most likely outcome or weighted average probability) need to be considered. Depending on their probability, contingent liabilities and contingent assets should not be recognized but rather disclosed under IFRS. A thorough understanding and sound judgment in accordance with IAS 37 are required to properly report provisions, contingent liabilities, and assets, offering important information to stakeholders.

UNIT 8

CONSOLIDATED FINANCIAL STATEMENTS

STUDY GOALS

On completion of this unit, you will be able to ...

- identify business combinations and the fundamental aspects of IFRS 3.
- understand the role of control and noncontrolling interests.
- recognize the pros and cons of how goodwill is recognized.
- understand journal entries, specifically for inventory transfers and revenue recognition.
- recognize the disclosure requirements.

8. CONSOLIDATED FINANCIAL STATEMENTS

Introduction

The economic and business dynamics of geographical expansion, diversification, and mergers and acquisitions (M&A) of companies result in the need to consolidate the financial statements of multiple legal entities that operate under one direction, i.e., an economic entity, and to have a more accurate view of the economic and business reality of these groups, as the financial statements of each of the legal entities provide a limited perspective. Frequently, value is generated within the group through the utilization of assets across different entities, developing operations, and transactions within different units, or through the execution of global strategies designed at headquarters and implemented in subsidiaries.

IFRS 3 – Business Combinations and IFRS 10 – Consolidated Financial Statements regulate these types of operations.

Mergers and acquisitions are important because they offer many benefits for company expansion into different markets, increased access to assets owned by other companies, and increased economies of scale.

Amazon is one of the best-known companies in the world. According to its annual report, their competition comes in many forms, spanning various geographies and international borders, across industries such as technology-based companies using e-commerce services, web and infrastructure computing, transportation, and logistics (Amazon, 2020).

According to Amazon, although they have experienced a tremendous level of growth in recent years, their international operations expose them to numerous risks including the following (Amazon, 2020, p. 6):

- economic and political conditions
- government regulation
- restrictive governmental actions (such as trade protection measures, including export duties and quotas as well as custom duties and tariffs)
- nationalization
- restrictions on foreign ownership

One way that international companies mitigate various types of risk they are exposed to is through diversification into different types of industries. This is often accomplished through acquisitions. For example, Amazon purchased Whole Foods Market in 2017 (Amazon, 2020, p. 18).

Amazon distributes many forms of content via streaming and downloading through their subsidiaries, including Amazon Prime Video, Amazon Music, Twitch, and Audible. Amazon's business also encompasses a publishing division, a film and television studio, and a subsidiary focused on cloud computing (Amazon, 2020).

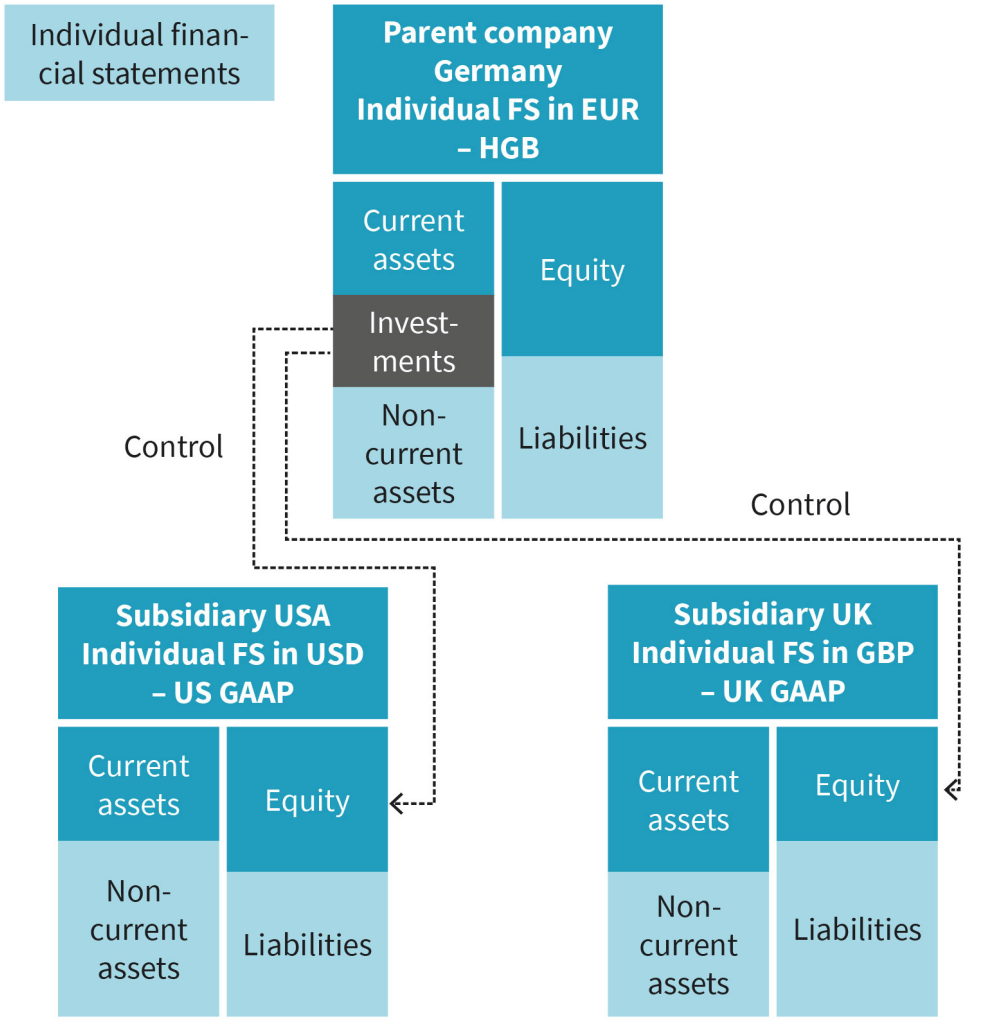
8.1 Groups and Business Combinations

Groups and Control

Financial accounting is performed at the level of the legal entity, with individual financial statements being generated based on their level of operation. The presence of business groups in the global economy is a reality that accounting and financial reporting need to reflect. A group consists of a parent company and its subsidiaries, with the **parent company** exercising control over one or more entities, and subsidiaries being the entities controlled by another entity (IASB, 2015). A thorough understanding of the concept of control is crucial for determining whether related companies constitute a group or not. When control exists, the different entities are required to act as a single economic unit. Thus, obtaining financial statements that reflect group and financial performance is essential to stakeholders. These are consolidated financial statements which result from the consolidation process.

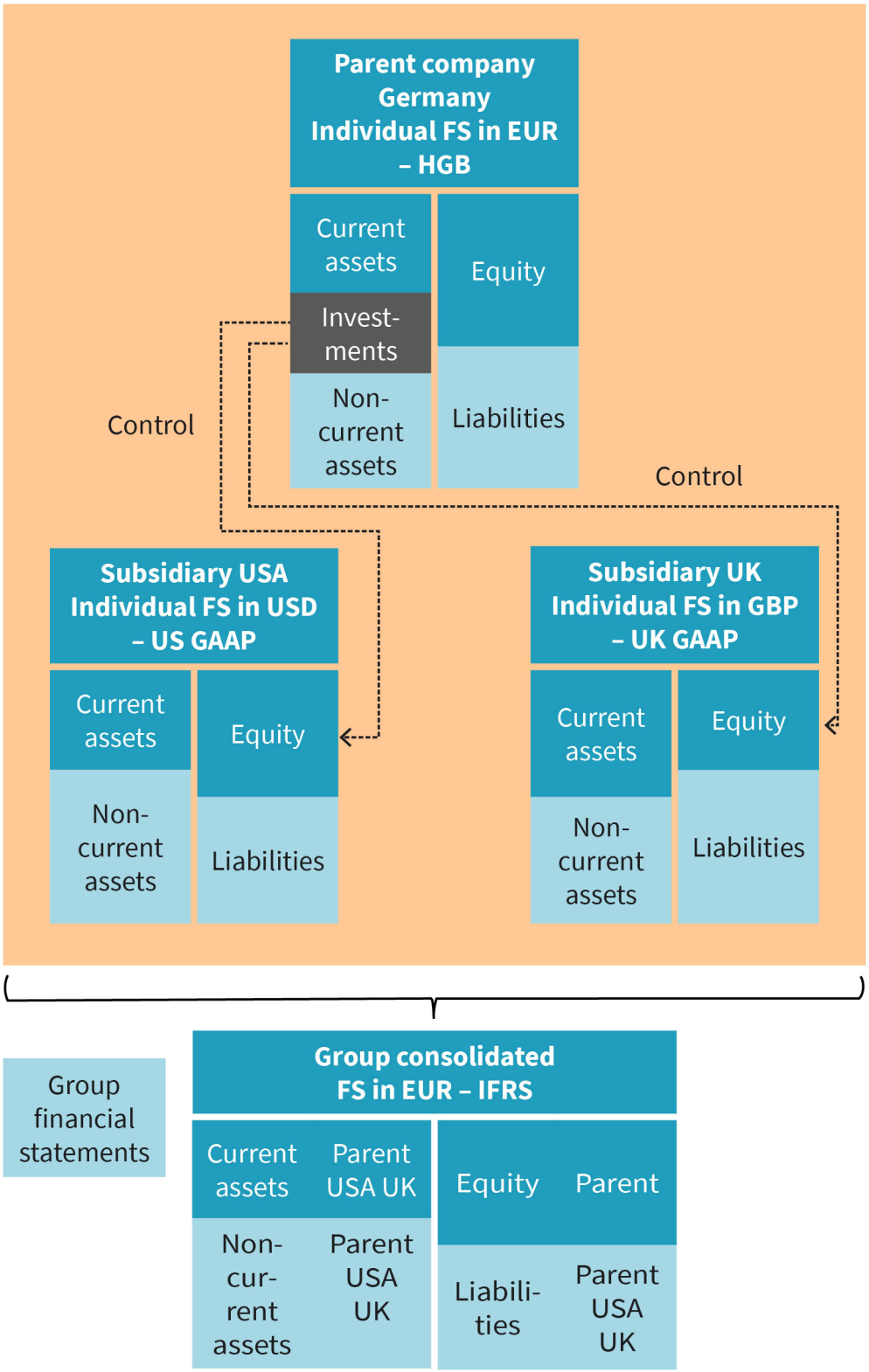
Parent company
This is the legal entity that has control over one or more entities, wich are called subsidiaries. It is often materialized in a majority ownership stake but must be defined according to the concept of control, as per IFRS.

Figure 4: Individual Financial Statements



Source: Sandra Oller, 2022.

Figure 5: Group Financial Statements



Source: Sandra Oller, 2022.

The concept of control is defined in IFRS 10 − Consolidated Financial Statements. As per IFRS 10, the investor has control and influence over the investee when the following three conditions exist:

1. Power over the investee company
2. Rights to variable returns from its association with the investee company
3. Influence on the investee's returns

For an entity to assert control over another, it must be able to direct its activities, possess rights to receive variable returns from this investment, and exert influence over these returns.

Many different types of investments from a company in another are possible nowadays, and dynamism of markets and business needs may require different types of ownership and corporate operations. The table below summarizes different types of investments of a company in another, including the standards that mainly address each of them. To interpret the table accurately, it is important to emphasize that the predominant criterion is what determines the relationship established between the investor company and the investee, along with the accounting method and standards primarily addressing it, with the percentage of shares serving as an indicator. The concept of control determines the existence of a parent and subsidiary relationship.

Table 45: Types of Investments of a Company in Another

	Prevailing Criteria	Indicator: % of Shares Owned	Accounting Method	IFRS
Subsidiary	control	> 50%	acquisition method (full consolidation)	IFRS 3 IFRS 10
Associate	significant influence	> 20%	equity method	IAS 28
Joint Arrangement	joint control	50% – 50%	depends	IFRS 11
Financial Investment	financial	–	financial asset	IFRS 9

Source: Sandra Oller, 2022.

Examples

ABC Company produces and sells recycled packaging. It already operates in different countries, mainly within the European Union, but wants to expand rapidly into new markets. A venture capital firm has joined the company as an investor, and they have injected a significant amount of funds that will allow ABC Company to execute their expansion plan:

- ABC Company's executives have identified a local company in the USA, ABC PACK, that has a significant market share but some operating problems that involve low profitability. They see great potential in this company, as they could rapidly grow in one of their target markets, and they could apply their operating model, to turn it around and increase profit. They decide to fully acquire it. In this case, ABC Company will have total control over ABC PACK. They will own 100% of the shares, they will make decisions, get variable returns from it, and have a direct impact on these returns. ABC Company will be the parent company and ABC PACK a subsidiary.
- The marketing director of ABC Company has identified a great opportunity to enter a joint venture in Brazil with a local partner to start producing and selling their products. Each partner will own 50% of the shares of the new jointly created company. To make major decisions, a 51% majority is required. This is an example of a joint arrangement.
- ABC Company sees an investment opportunity in a local company in China which produces cardboard. They decide to buy 30% of shares. Even if they will not be able to direct the company, they want to start a close relationship to ensure partnership over time. This share package will allow them to have significant influence over the company. This is an example of an associate.
- After all these investments, the finance director decides to buy a few shares of PQR Company with the remaining cash. PQR Company is a public company that has great perspectives in terms of return and value appreciation. In this case, it would be a financial investment.

The examples above are very clear about the type of acquisition and relationship, but reality can be more complex. This is why IFRS 10 delineates the control model with the following five elements (IASB, 2015):

1. The purpose and structure of the investee must be evaluated, considering factors such as relevant activities, decision-making authority, and beneficiaries of returns. In certain cases, voting rights alone may not confer effective control.
2. Pertinent activities include, among others, the sale and purchase of services or goods, asset acquisition and disposal, management of financial assets, development of new processes or products, and securing funding.
3. Rights to direct relevant activities must be substantial, providing genuine capacity for practical exercise. These rights may take various forms, including voting rights, the ability to appoint key management personnel, or the authority to make decisions benefiting the controlling company. For example, a company might exercise control over another entity without holding the majority of voting rights, leveraging a contract or agreement with other shareholders who do possess voting rights. In situations where other shareholders hold minimal stakes and are widely dispersed, and the company possesses a substantial proportion of voting rights without constituting a majority, the company could effectively exert influence over the investee depending on the circumstances.
4. Exposure to variable returns, whether positive, negative, or both, can include dividends, fees from providing liquidity, exposure to losses, synergies, and access to specific resources such as scarce products.
5. When evaluating the relationship between power and returns, it is essential to differentiate between the principal (who holds control) and the agent (who acts in the interest of the principal).

Based on the above, accounting treatment options may differ and require different methods: the cost method, the equity method, or the consolidation method. The determining factor of which approach is most appropriate stems from both the percentage of ownership the purchasing company has of the acquired company and the level of influence and control the purchasing company can exert.

- The **cost method** needs to be used when one company purchases less than 20% of another company (i.e., financial investment).
- The **equity method** is used when one company purchases 20−50% of another company.
- The **consolidation method** is used when one company purchases over 50% of another company.

Sometimes, a company will deviate from these standards if one company has more or less control over the other company than expected, given the level of ownership. Both the consolidation method and equity method will be explained in the second part of the unit.

Business Combinations

The objective of IFRS 3 − Business Combinations is to improve the acquirer's or parent company's reporting quality about the business combination and its effects.

Apart from the concept of control, the acquisition must pertain to a business entity. It is especially relevant to differentiate it from asset acquisitions, which do not involve the combination of businesses. In order to assess it, businesses must encompass three components: inputs, processes, and outputs (IASB, 2020):

1. **Inputs** refer to assets or resources (e.g., PPE or intangible assets) that are used to generate outputs through the application of processes.
2. **Processes** are systematized activities to obtain outputs out of the inputs, such as management and operation.
3. **Outputs** are the resulting products or services, which are sources of income. Acquiring uniquely a brand or a license without the different assets, processes, and others that support their exploitation would be examples of intangible assets acquisitions instead of businesses.

Normally, these business combinations are recognized by using the acquisition method. Through the acquisition method, the acquiring company evaluates the assets now under its control as a result of the business combination, along with the liabilities assumed from the same combination, based on their fair values (IASB, 2020).

Specifically, IFRS 3 sets the principles and requirements for the following aspects of a business combination: recognition and measurement of assets and liabilities as well as associated goodwill acquired because of a business combination, and any applicable bargain purchase and disclosure requirements (IASB, 2020).

An acquiring company "measures the cost of the acquisition at the fair value of the consideration paid; allocates that cost to the acquired identifiable assets and liabilities on the basis of their fair values; and allocates the rest of the cost to goodwill" (IASB, 2020). In the

event of a bargain purchase, the surplus of acquired assets over acquired liabilities must be promptly recognized on the income statement (IASB, 2020). This is the acquisition method, which requires further explanation.

IFRS 3 also includes specific guidance regarding disclosure notes that provide sufficient information about the nature and financial ramifications of said business combination.

Acquisition Method

There are four steps involved in accounting for business combinations under the acquisition method. These guidelines increase the level of transparency:

Step 1: Identify the company acquiring another company

The initial step may appear straightforward, and in some cases it is. However, within business combinations, mergers between two companies can occur where identification is not so clear. The entity that effectively gains control needs to be identified, as outlined in IFRS 10, providing IFRS 3 with additional specific guidelines.

Step 2: Determining the acquisition date

This refers to when control is effectively transferred. Often the acquisition date is the closing date (when consideration is transferred), however, not always – it depends on the specific agreements in the contract.

Step 3: The acquiring company recognizes the assets purchased, distinct from goodwill, as well as the liabilities assumed, along with any noncontrolling interest, if applicable

At the date of the acquisition, the acquirer must measure all these assets and liabilities at their fair value. There are some exceptions, such as contingent liabilities, income taxes, or assets held for sale.

It is important to consider that the acquired company may have some assets not recognized on its balance sheet, such as an internally generated brand (intangible assets). The acquiring company needs to identify and measure them at fair value.

The fair value of some assets at the acquisition date may be different from their net value recognized on the books of the investee, which may cause adjustments of fair value.

A noncontrolling interest arises when the parent company acquires less than 100% of the shares of the investee. It must be measured either at fair value or by considering the proportionate percentage of shares not held by the parent company, applied to the net assets of the acquired company recognized in the business combination.

Step 4: The acquiring company recognizes the financial amount of goodwill or any applicable gain resulting from a bargain purchase of an acquired company

Goodwill arises when the total consideration transferred for the acquisition (at fair value), plus the value of any noncontrolling interests, exceeds the net asset value at the acquisition date. If the acquirer already held shares of the investee before the acquisition, their fair value should also be included in the calculation of goodwill. The equation is as follows:

$$\begin{aligned} Goodwill &= consideration\ transferred \\ &+ amount\ of\ noncontrolling\ interest \\ &+ fair\ value\ of\ previous\ equity\ interest \\ &- net\ assets\ recognized \end{aligned}$$

Example of acquisition method

XYZ Company produces and sells electronic devices. It acquires 100% of GHY Company for €100 million, which offers the same products. GHY is a company with its own brand and an outstanding reputation. The acquisition takes place on January 15, 2022, at which XYZ takes control of GHY and satisfies the payment of €100 million. The balance sheet of GHY on January 15, 2022, is as follows:

Table 46: Statement of Financial Position at January 15, 2022 (in Million Euros)

Cash	5	**Trade payables**	5
Trade receivables	10	**Other current liabilities**	5
Inventory	10	**Long-term loan**	20
Machinery	15	**Shareholders equity**	60
Plant	50		
Total assets	90	**Total liabilities and shareholders equity**	90

Source: Sandra Oller, 2022.

We will follow the steps outlined above to assess if there is a business combination:

- **Step 1:** The acquirer in this case is clear. XYZ Company is the acquirer, as it is taking full control over GHY by acquiring a majority stake of 100% of the shares.
- **Step 2:** The acquisition date is January 15, 2022, as it is the date in which XYZ Company takes control over GHY.
- **Step 3:** XYZ Company needs to identify all the assets and liabilities of GHY Company and measure them at fair value. XYZ Company is conscious of the importance of the brand under which GHY sells their products. As it is a self-generated brand, it is not recognized on GHY's balance sheet, but XYZ Company needs to recognize it and measure it at fair

value, which is €20 million. XYZ Company identifies as well that the fair value of the plant is of €45 million, whilst the values of the rest of assets and liabilities on the balance sheet at the acquisition date correspond to their fair value at the acquisition date.

Table 47: Individual Assets and Liabilities Identified and Measured at Their Fair Value on January 15, 2022

Cash	5	**Trade payables**	5
Trade receivables	10	**Other current liabilities**	5
Inventory	10	**Long-term loan**	20
Brand	20		
Machinery	15		
Plant	45		
Total identifiable assets	105	**Total liabilities**	30
Net value	75		

Source: Sandra Oller, 2022

- **Step 4:** XYZ Company must assess if there is goodwill and, if so, recognize and measure it.

In this case, the consideration transferred is €100 million, while the net asset value (total asset liabilities of the acquiree at fair value) is €75 million $(105 - 30 = 75)$. As XYZ Company did not have any previous shares of GHY Company and acquired 100% of the shares, the goodwill is calculated as follows:

$$Goodwill = consideration\ transferred - net\ asset\ value\ at\ acquisition\ date$$

$$Goodwill = 100 - 75 = 25$$

XYZ Company must recognize a goodwill of €25 million on the consolidated financial statements.

In case XYZ Company acquired 80% of the shares of GHY for €80 million, it must measure the noncontrolling interest. This is the value that corresponds to the 20% of the shares which are not owned by the parent company. In the table below, the noncontrolling interest is measured according to the fair value (€20 million for the 20% shares), whereas on the second column, it is calculated based on the 20% of the net asset value.

The goodwill is calculated by deducting the net asset value from the consideration transferred plus the noncontrolling interest. Under the first method, goodwill is recognized at its full amount of €25 million (the same as in the case of the acquisition of 100% of shares), while in the second case it is measured at €20 million.

Table 48: Noncontrolling Interest Calculation

	Fair Value	Proportionate Share on Net Assets
Consideration transferred	80	80
Noncontrolling interest	20	15
Minus net assets value	–75	–75
Goodwill	25	20

Source: Sandra Oller, 2022.

Business Combinations and the Consolidation Process

Business combinations can be the result of the following:

- **statutory merger:** In this situation, only one of the original entities still exists as a legally incorporated entity while the acquiring entity dissolves after acquisition of assets and liabilities of the other entity. In that case, the purchasing company will also acquire all capital stock.
- **statutory consolidation:** This occurs when two or more companies transfer their associated assets or capital stock, resulting in the formation of a new company.

Another option is when an acquiring company purchases a substantial controlling interest of another company's voting stock, typically a common stock. In this case, both companies keep their separate and legal corporate identity, and neither company is dissolved.

After a business combination, consolidated financials must be created that represent the entire economic entity. On occasion, an acquiring company may purchase another target company's stock incrementally. Gaining control is key. This approach is referred to as a step acquisition. Once control has been garnered, the parent's entire investments in the subsidiary are adjusted to reflect fair value, and any applicable gain or loss is recognized.

Importantly, 100% ownership of a subsidiary is not required for consolidation of financial statements. The primary requirement is that the acquiring company can establish and maintain control of the decision-making processes of the acquired company. In fact, there is often less than a parent's 100% ownership of the subsidiary. If this occurs, a third-party company, unrelated to the acquirer, is referred to as the noncontrolling interest.

Companies in which there is a parent–subsidiary relationship often transfer some assets within the consolidated entity. Acquisitions frequently occur because the acquiring company (known as the parent company) is motivated to purchase another company's assets. Often, the assets targeted in the acquisition are inventory.

As outlined in the next section, consolidation is a multistep process that combines two companies' financials "as if" they were one company. Many intercompany transactions must be eliminated during the consolidation process. The elimination process must occur because, when looking at the consolidated financial statements, the companies have become one economic entity.

8.2 Consolidation

Consolidation describes the necessary process of obtaining consolidated financial statements of an economic entity made of two or more legal entities, i.e., to generate the income statement, balance sheet, and statement of cash flows of the consolidated entity.

A primary goal of consolidation is to reflect the combined entities' economic substance. Groups often rely on intercompany operations and a global management of assets and liabilities within the group perimeter to shape their strategies and ongoing operations. These may include asset transfers between different entities, internal rendering of services from the parent company to subsidiaries, internal financing, or use of assets owned by another legal entity within the group (e.g., a brand). These relationships generate value for the group and are also an important source of competitive advantage.

IFRS 10 not only establishes the concept of one entity exerting control over another but also outlines the principles for entities to compile and present consolidated financial statements. These financial statements are mandated for companies that have control over at least one other entity, with certain exceptions. The consolidation process addressed by IFRS 10 is known as Full Consolidation Method.

However, not all relationships between investor company and investee imply the control of the first over the second. As discussed above, in some cases, there is a significant influence but no control of the investor company over the investee, which falls under IAS 28 – Investments in Associates and Joint Ventures. This standard addresses the recognition and accounting of this type of investments under the Equity Method. Joint ventures, as per IFRS 11, are also required to integrate the investment in joint ventures (with some exceptions) through the Equity Method.

Full Consolidation Method

This method entails fully integrating the financial statements' individual items of all subsidiary entities controlled by the parent company, followed by a set of eliminations and adjustments necessary for factors such as intercompany operations. The transfer of

assets, especially inventory, is one of the most common operations. This requires specific focus during the consolidation process on sales, inventories, cost of goods sold (COGS) accounts, and gross profit.

After consolidation, companies move assets within the consolidated entity. Initially, the intra-entity transfer of assets is recorded as a sale by one company and a purchase by the other. However, elimination journal entries are then required, since the transaction did not involve an outside unrelated party. In other words, it was not a sale of the consolidated entity to a third party but rather an internal transaction between two members of the consolidated group, involving the transfer of inventories from one entity to another.

In circumstances where the parent company, otherwise known as the acquirer, has total control over the subsidiary company, the parent is required to consolidate all of the subsidiary's assets, liabilities, revenue, and expenses. This is required even when the parent does not own 100% of the subsidiary. The stockholders' equity section of the parent company's consolidated financial statements will include the balance of noncontrolling interest (IASB, 2015).

Consolidation Process

Consolidation requires different steps, but first there needs to be a common basis:

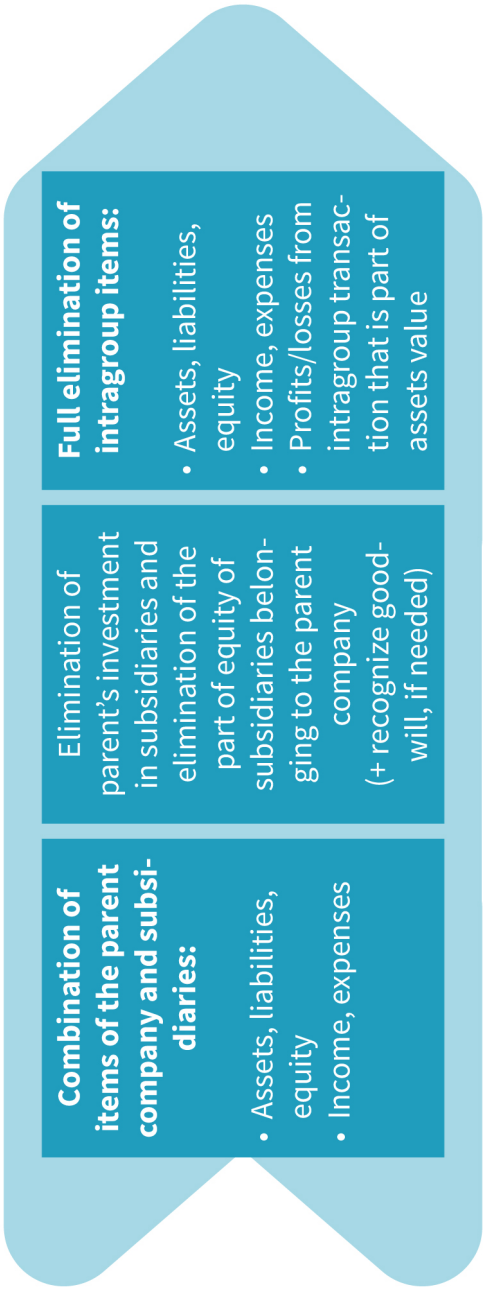
- common accounting principles and policies
- homogenous criteria for estimates
- same reporting date (and period)

Because different legal entities may maintain accounting and financial statements in different currencies based on their location, it becomes necessary to **translate** their individual financial statements into the same currency as that of the consolidated entity, i.e., the parent company.

Currency translation
This process encompasses the conversion of subsidiary financial statements from their respective currencies into the currency of the consolidation group. This step is vital in the consolidation process to facilitate the aggregation of items from entities that maintain financial statements in different currencies.

The main phases of the consolidation process can be seen on the graph below.

Figure 6: Consolidation Procedure



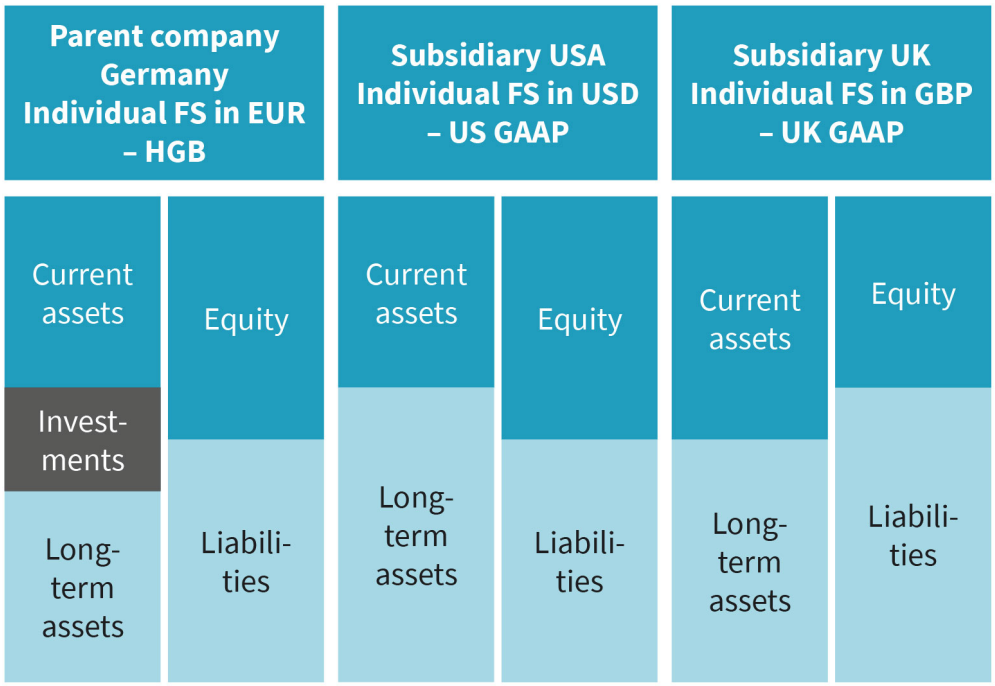
Source: Sandra Oller, 2022 based on IASB, 2015.

The income statement and balance sheet are derived by aggregating the individual items from the separate financial statements, eliminating intragroup transactions, considering the parent company's investments in subsidiaries, including the equity belonging to the parent company in subsidiaries, and recognizing goodwill as per IFRS 3.

The example below illustrates the complex consolidation procedure of a multinational group. The parent company is based in Germany and holds 100% of the shares of two subsidiaries: one in the United States of America and another in the United Kingdom.

Each legal entity maintains its accounting records in its respective local currency and prepares statutory financial statements according to local GAAP standards. However, this diversity in accounting practices and currencies creates a nonuniform foundation for commencing the consolidation process.

Figure 7: Starting Point: Individual Financial Statements



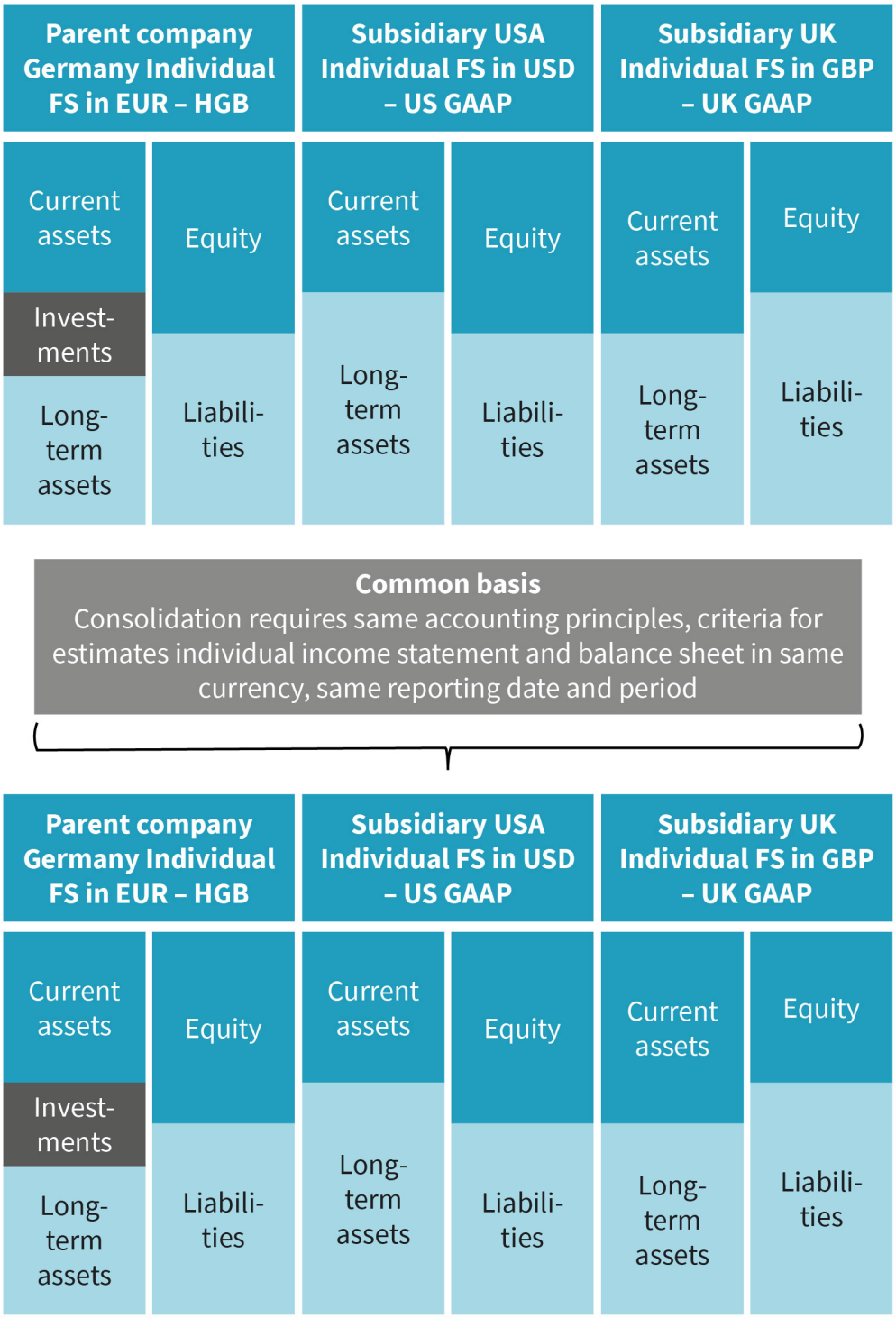
Source: Sandra Oller, 2022.

Establish common group reporting policies

This is essential to ensure a minimum quality of consolidated financial statements. It entails following the same accounting principles (i.e., IFRS as the parent is based in Germany) and setting common accounting policies as well as criteria for estimates for all group companies. This is usually established by headquarters in coordination with subsidiaries that need to implement the group guidelines.

The reporting date and period of all the reporting entities should be the same as well. At the beginning of the consolidation process, the translation from local currency to the consolidated entity currency (euros in this case, as the parent is based in Germany) is needed as well.

Figure 8: Common Group Reporting Basis

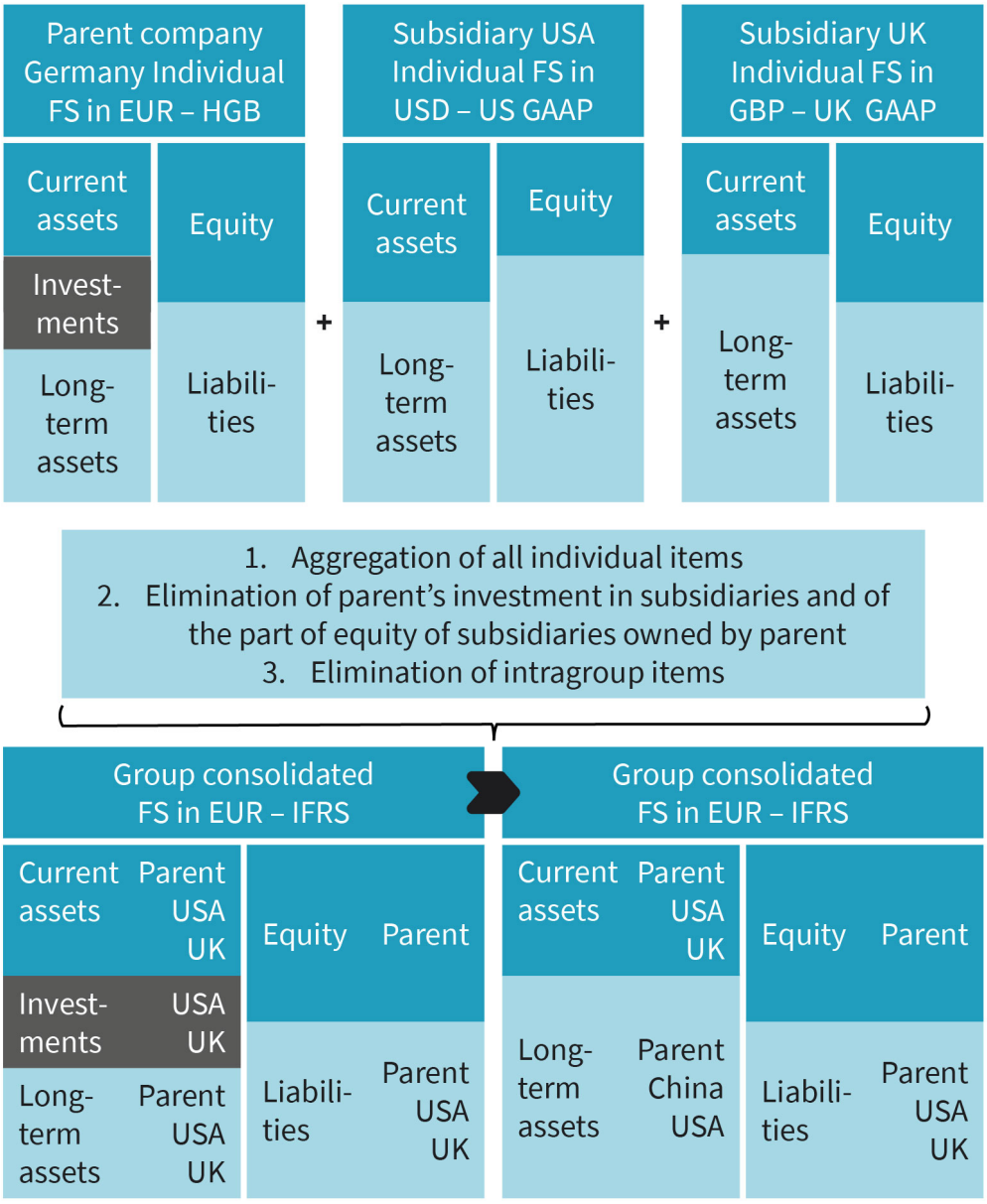


Source: Sandra Oller, 2022.

Addition of individual items and eliminations

Once all individual income statements and balance sheets have the same basis and currency, there is an addition of the individual items of the parent companies and the subsidiaries. Afterward, all intragroup transactions are removed, along with the parent company's investment in subsidiaries and the subsidiaries' equity held by the parent company, as reflected on the balance sheet. As per IFRS 3, if goodwill arises, it needs to be recognized. In this example, the only investments of the parent company are the two subsidiaries. As the parent owns 100% of their shares, all equity of the subsidiaries and all the investments of the parent need to be eliminated.

Figure 9: Consolidation Process



Source: Sandra Oller, 2022.

Please note that this is a simplified example to clarify the process. Actual cases are more complex because often the parent does not own 100% of the shares (i.e., incurring non-controlling interests), or there are multiple entities within the consolidation perimeter that have different percentages of shares of other entities within the group.

Parent to subsidiary sales

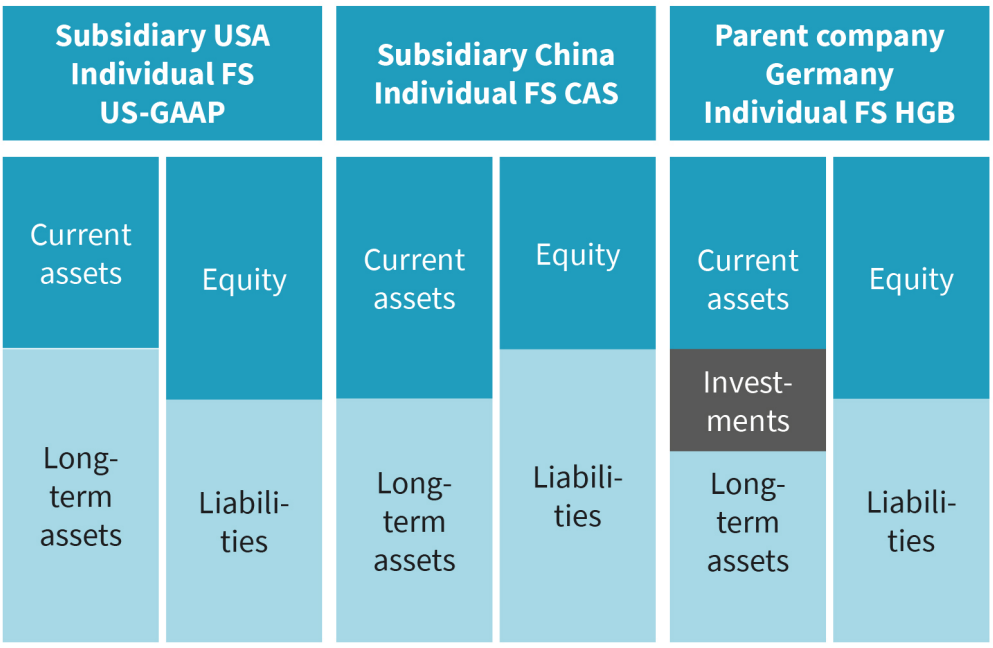
When a parent company transfers inventory to its subsidiary, the transaction is referred to as a downstream sale. Any gross profits generated from sales between companies within the consolidated entity must be deferred until the inventory is sold to an outside third party. Similarly, when a subsidiary company transfers inventory to the parent company, the sale is referred to as an upstream sale. This deferral process for intra-entity gross profit recognition is the same for both downstream and upstream sales.

During the consolidation process, gross profit must be deferred until said inventory is sold to an outside party, which may never occur. COGS must be adjusted accordingly. An additional complication is that in subsequent periods, any intra-entity gross profit must be subtracted from the beginning balance of COGS and from the beginning balance of retained earnings.

Figure 10: Starting Point

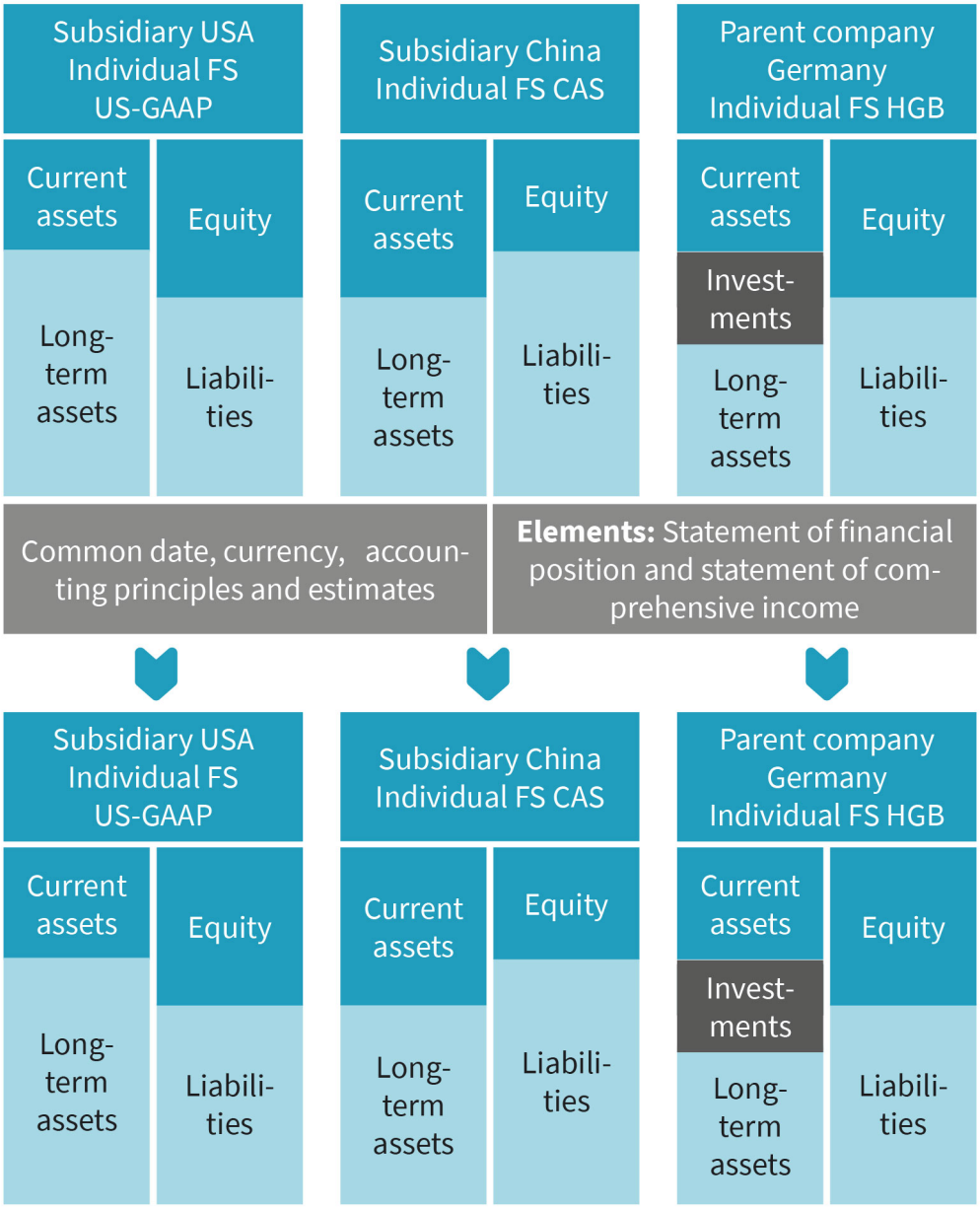
Starting point

- individual financial statements of parent and subsidiaries in accordance with the local GAAP
- elements:
  - statement of financial position
  - statement of comprehensive income
  - notes
  - additional information, i.e., cash flow



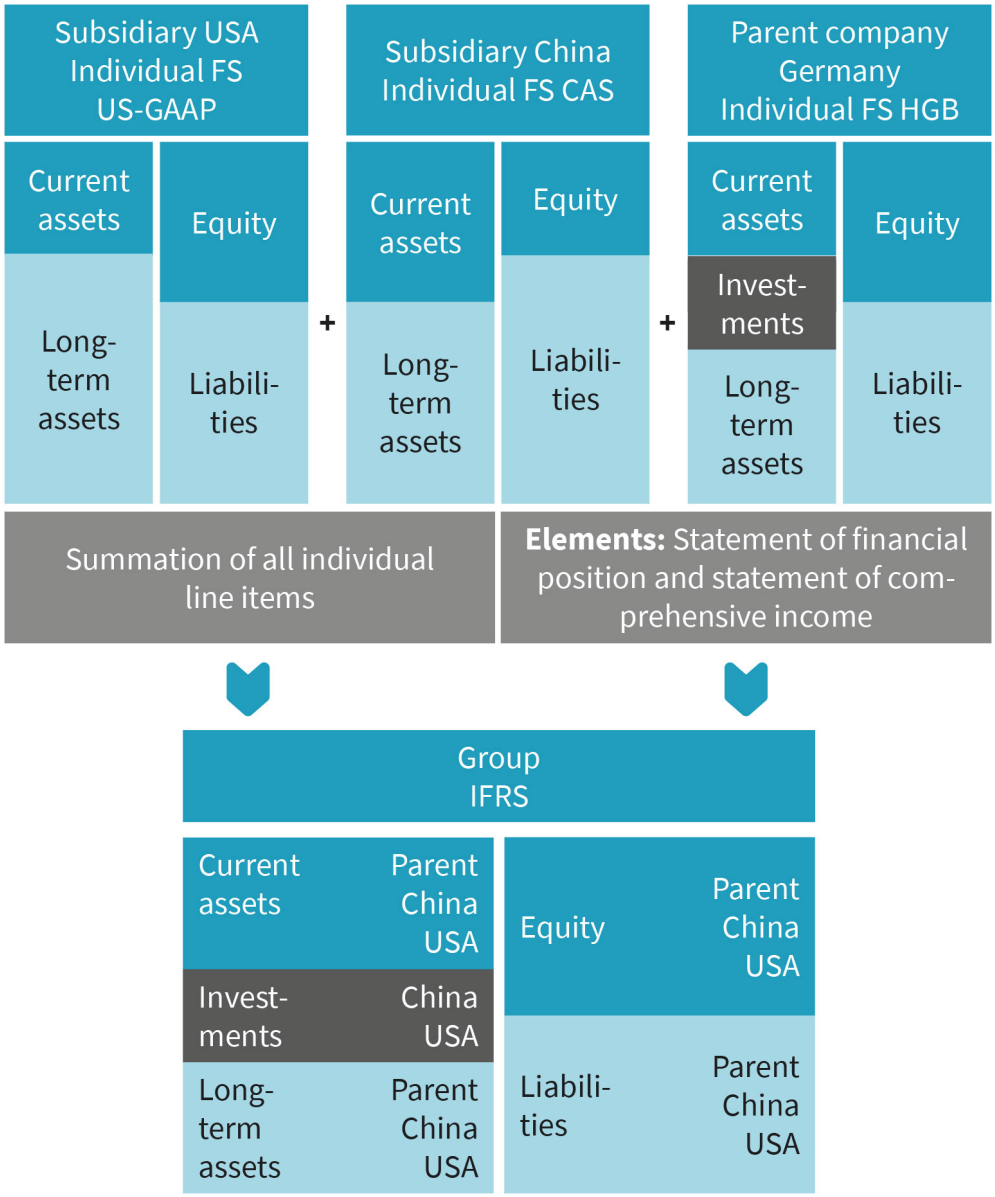
Source: Sandra Oller, 2022.

Figure 11: Establishment of Common Group Reporting I



Source: Sandra Oller, 2022.

Figure 12: Establishment of Common Group Reporting II



Source: Sandra Oller, 2022.

Journal Entries

The following journal entries are a critical aspect of the consolidation process, since two or more companies' financials are being combined and must reflect the total versus individual companies' account balances. The most common journal entries frequently encompass sales transactions between companies, asset transfers among them, and the elimination of intercompany profits resulting from sales and capital stock combinations. Only after a sale to an outside third party will the consolidated company be able to recognize certain transactions, such as sales of assets.

In the example below, which is part of the information provided with LVMH consolidated financial statements for 2021, elimination of intercompany sales can be observed.

Table 49: LVMH Example: Intercompany Sales Elimination I

Fiscal year 2021

(EUR millions)	**Wines and Spirits**	**Fashion and Leather Goods**	**Perfumes and Cosmetics**	**Watches and Jewelry**
Sales outside the group	5,965	30,844	5,711	8,872
Intra-group sales	9	52	897	92
Total revenue	**5,974**	**30,896**	**6,608**	**8,964**
Profit from recurring operations	1,863	12,842	684	1,679
Other operating income and expenses	(26)	(47)	(17)	(4)
Depreciation, amortization and impairment expenses	(228)	(2,142)	(443)	(860)
Of which: Right-of-use assets	*(32)*	*(1,291)*	*(149)*	*(410)*
Other	*(196)*	*(851)*	*(294)*	*(449)*
Intangible asstes and goodwill	10,688	13,510	1,417	19,726
Right-of-use assets	153	6,755	556	1,922
Property, plant and equipment	3,450	4,569	752	1,730
Inventories and work in progress	6,278	3,374	831	3,949
Other operating asstes	1,597	2,807	1,281	1,409
Total assets	**22,167**	**31,016**	**4,838**	**28,737**
Equity	-	-	-	-
Lease liabilities	164	6,894	594	1,985
Other liabilities	1,843	6,800	2,770	2,471
Total liabilities and equity	**2,007**	**13,694**	**3,364**	**4,456**

Fiscal year 2021

(EUR millions)	Wines and Spirits	Fashion and Leather Goods	Perfumes and Cosmetics	Watches and Jewelry
Operating investments	(328)	(1,131)	(290)	(458)

Source: LVMH, 2022.

Table 50: LVMH Example: Intercompany Sales Elimination II

Fiscal year 2021

(EUR millions)	Selective Retailing	Other and holding companies	Eliminations and not allocated	Total
Sales outside the group	11,680	1,142	-	64,215
Intra-group sales	74	27	(1,150)	-
Total revenue	**11,754**	**1,169**	**(1,150)**	**64,215**
Profit from recurring operations	534	(436)	(15)	17,151
Other operating income and expenses	(53)	151	-	4
Depreciation, amortization and impairment expenses	(1,399)	(294)	113	(5,253)
Of which: Right-of-use assets	*(836)*	*(89)*	*110*	*(2,698)*
Other	*(563)*	*(205)*	*3*	*(2,555)*
Intangible asstes and goodwill	3,348	1,766	-	50,455
Right-of-use assets	4,142	841	(665)	13,705
Property, plant and equipment	1,667	8,032	(8)	20,193
Inventories and work in progress	2,410	41	(335)	16,549
Other operating asstes	747	1,060	15,508	24,409
Total assets	**12,313**	**11,741**	**14,500**	**125,311**

Fiscal year 2021

(EUR millions)	**Selective Retailing**	**Other and holding companies**	**Eliminations and not allocated**	**Total**
Equity	-	-	48,909	48,909
Lease liabilities	4,362	931	(656)	14,275
Other liabilities	3,050	1,992	43,202	62,128
Total liabilities and equity	**7,412**	**2,923**	**91,454**	**125,311**
Operating investments	(370)	(89)	1	(2,664)

Source: LVMH, 2022.

Income Statement

The consolidated income statement of two companies should only reflect transactions with external entities, not transactions between the parent and its subsidiaries. For example, if ABC Company sells all inventories to NEW Company, revenue of the parent (ABC Company) earned from sales to the subsidiary (NEW Company) are not recognized. However, when ABC Company sells them to BIT Company, an entity outside of the consolidated group, the revenue will be recognized. Under this same accounting approach, only purchases for raw materials from external entities will be recognized.

Example

XYZ Company is the parent company of a group.

A) The parent company exclusively sells to its subsidiaries, which then sell all the inventories they acquire to third parties. Intercompany transactions during the reporting period:

- XYZ Company sold merchandise for €200,000 to Subsidiary 1 and for €100,000 to Subsidiary 2. XYZ Company makes a 60% gross profit on the sales (the same one as on sales to third parties). Assume these were the only sales of the period.
- Both, Subsidiary 1 and Subsidiary 2 have loans with the parent company which finances them. Each of them had financial expenses of €5,000 and XYZ Company a financial income of €10,000.
- Both, Subsidiary 1 and Subsidiary 2 sold all the inventories purchased from XYZ Company to third parties.

In this example we are assuming that cost of sales equals COGS.

Table 51: Journal Entries of Sales of the Parent Company to Subsidiaries (I)

Interco sales to Subs. 1		DR.	CR.

	Cash	200,000	
	Sales		200,000
	COGS	80,000	
	Inventories		80,000

Source: Sandra Oller, 2022.

Table 52: Journal Entries of Sales of the Parent Company to Subsidiaries (II)

Interco sales to Subs. 2		DR.	CR.
	Cash	100,000	
	Sales		100,000
	COGS	40,000	
	Inventories		40,000

Source: Sandra Oller, 2022.

Figure 13: Consolidated Income Statement, Parent Sells Only to Subsidiaries

In thousand euros	XYZ parent company	Subsidiary 1	Subsidiary 2	Aggregation	Eliminations	Consolidated income statement
Net sales	300	400	200	900	–300	600
COGS	120	200	100	420	–300	120
Gross profit	180	200	100	480	0	480
Marketing and sales expenses	250	150	120	520		520
General and administration expenses	150	20	15	185		185
Other operating income/expense	50			50		50
Operating profit	–270	30	-35	–275	0	–275
Financial income	10			10	–10	0
Financial expense	5	5	5	15	–10	5
Profit before taxes	–265	25	–40	–280	0	–280

Source: Sandra Oller, 2022.

The consolidated income statement would result after the sum of the individual statements and the intercompany eliminations. Regarding sales and COGS, the internal sale of €300,000 must be eliminated, being the resulting gross profit of the sales to third parties (€400,000 + €200,000 sales of Subsidiaries 1 and 2) minus the original COGS (i.e., 120). The journal entry is as follows:

Table 53: Elimination Journal Entry

	DR.	CR.
Sales	300,000	

COGS		300,000

Source: Sandra Oller, 2022.

B) As all the inventories purchased internally have been sold to third parties, there is no unrealized profit of the intercompany sale, and the gross profit before and after the elimination is the same. However, it is important to eliminate sales and COGS to provide a faithful view of the operations of the consolidated entity. For example, its sales level was not €900,000 but €600,000. The financial income and expense must be eliminated as well.

C) In a more realistic scenario, XYZ Company sells to both its subsidiaries and third parties. The intercompany operations remain consistent, as do the subsidiary sales, which encompass all inventories purchased from the parent company. Consequently, the eliminations would remain unchanged.

Figure 14: Consolidated Income Statement, Parent Sells to Subsidiaries and Third Parties

In thousand euros	XYZ parent company	Subsidiary 1	Subsidiary 2	Aggregation	Eliminations	Consolidated income statement
Net sales	1,000	400	200	1,600	–300	1,300
COGS	400	200	100	700	–300	400
Gross profit	600	200	100	900	0	900
Marketing and sales expenses	250	150	120	520		520
General and administration expenses	150	20	15	185		185
Other operating income/expense	50			50		50
Operating profit	150	30	–35	145	0	145
Financial income	10			10	–10	0
Financial expense	5	5	5	15	–10	5
Profit before taxes	155	25	–40	140	0	140

Source: Sandra Oller, 2022.

D) In a different scenario, the inventories sold by XYZ Company to its subsidiaries remained in their stocks and were not yet sold to any third party. Instead, they sold existing inventories that they had produced themselves. In this case, the profit generated by the intercompany sale must be eliminated entirely from the consolidated entity.

Figure 15: Consolidated Income Statement, Subsidiaries do not Sell the Inventories Acquired

In thousand euros	XYZ parent company	Subsidiary 1	Subsidiary 2	Aggregation	Eliminations	Consolidated income statement
Net sales	1,000	400	200	1,600	–300	1,300
COGS	400	200	100	700	–120	580
Gross profit	600	200	100	900	–180	720
Marketing and sales expenses	250	150	120	520		520
General and administration expenses	150	20	15	185		185
Other operating income/expense	50			50		50
Operating profit	150	30	–35	145	–180	–35
Financial income	10			10	–10	0
Financial expense	5	5	5	15	–10	5
Profit before taxes	155	25	–40	140	–180	–40

Source: Sandra Oller, 2022.

€300,000 is the internal sale amount, and €120,000 is the COGS of this intercompany sale, thus the net elimination of €180,000 corresponds to the profit generated. As these inventories were not sold to third parties, this profit has not been realized for the consolidated entity (it is just a transfer of inventories from one entity to another within the consolidation perimeter). The value of the inventories on the balance sheet needs to be adjusted to their internal cost as well. This shows the importance of eliminating unrealized profit: the €140,000 of profit resulting from the addition of the individual financial statement includes €180,000 of profit due to a transfer of inventories between entities, so the real result of the group is a loss of €40,000.

Table 54: Elimination Journal Entry of the Internal Sale

	DR.	CR.
Sales	300,000	
COGS		120,000
Inventories		180,000

Source: Sandra Oller, 2022.

Value of inventories after the internal purchase: €300,000

Value of inventories after the elimination: $€\,300,000 - €\,180,000 = €\,120,000$, which is the cost of these inventories for the consolidated entity.

Balance Sheet

The consolidated balance sheet presents the financial position of the consolidated group. An important elimination during the consolidation process involves the asset that represents the investment of the parent company on the investee, recorded in the individual balance sheet of the parent company. The equity on the investee's balance sheet that corresponds to the parent company stake needs to be eliminated as well.

In a basic scenario, if the parent company has total assets worth €2 million and the subsidiary (the acquired company) has assets at €650,000, then the combined assets are €2,650,000. The removal of the parent company's investment in the investee, which is part of the €2 million, needs to be done, along with the corresponding stake of the parent company from shareholders' equity and other intercompany eliminations.

Elimination of internal margins from the consolidated inventories is important as well because otherwise they would be artificially overvalued. Other accounts related to intercompany transactions, such as trade receivables and payables arising from an internal sale, must be eliminated.

In consolidated balance sheets, often goodwill is present, as when acquisitions take place. In many cases the consideration is higher than the net value of all assets minus liabilities once all the assets and liabilities are measured at fair value. Value is assigned to all the individual assets, even if they were not recognized in the acquiree financial statement.

Equity Method

According to IAS 28, when an investor exerts significant influence over another entity, the latter is classified as an associate (IASB, 2017b). The concept of significant influence refers to the participation capacity of the investor company in decisions regarding operating and financial policies without having control. It is presumed to occur when the investor has at least 20% of the voting power. This stake in the investee can be direct or through other

entities controlled by the investor (IASB, 2017b). As in the case of control, the percentage of shares is an indicator; evidence of influence will prevail over a specific percentage of ownership of shares.

Investments in joint ventures (with some exceptions) must follow the equity method: "A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement" (IASB, 2017b).

The investor company's investment in the investee must initially be recognized at cost. As the investee generates profits or losses in the subsequent reporting periods, the carrying amount of the investment must be updated accordingly. This is increased based on the corresponding share of profits and decreased based on the investor's share of losses. The investor's share in the investee's profit or loss will be recognized in the income statement of the investor.

The distribution of dividends of the investee will require adjustment on the carrying value of the investment, which will consequently decrease. Additional adjustments will be required as a consequence of variation in other comprehensive income, such as revaluation of PPE (IASB, 2017b).

Example

As of January 1, 2022, UVW Company acquired 30% of the shares of LMN Company for €100,000 paid in cash. On December 31, 2022, LMN company reports a net profit of €50,000. A month later, on January 31, 2023, LMN company distributes a cash dividend of €20,000 to its shareholders.

1. Initial recognition of the investment:

Table 55: Journal Entry Equity Method Initial Recognition of Investment

January 1, 2022		DR.	CR.
	Investments in associates	100,000	
	Cash		100,000

Source: Sandra Oller, 2022.

2. Carrying value to be increased or decreased according to the investee result and profit or loss to be recognized on the income statement: As net income of the investee for 2022 is €50,000, its share needs to be calculated that corresponds to the investor company. This is 30% of €50,000, i.e., €15,000.

Table 56: Journal Entry Carrying Value Equity Method

December 31, 2022		DR.	CR.

	Investments in associates	15,000	
	Investment revenue (profit and loss)		15,00

Source: Sandra Oller, 2022.

The carrying amount of the investment on December 31, 2022 is €115,000.

3. Adjustment to the carrying value due to a dividend distribution: As the total dividend distributed is €20,000, its share needs to be calculated that corresponds to the investor company. This is 30% of €20,000, i.e., €6,000.

Table 57: Journal Entry Distribution of Dividend Equity Method

January 31, 2023		DR.	CR.
	Cash	6,000	
	Investments in associates		6,000

Source: Sandra Oller, 2022.

Disclosures

Stakeholders must be provided with enough information regarding the business combination they are analyzing to ensure they recognize its nature and economic substance.

The disclosures required include the following:

- acquisition costs
- major classes of assets and liabilities
- bargain purchase information
- information regarding incremental combinations (if applicable)

SUMMARY

Mergers and acquisitions have become increasingly common in today's global economy, and accounting rules must reflect the economic substance of these business combinations. There are several types of business combinations, and IFRS 3 specifies the rational approach to accounting for these combinations. Control of one company over another is a critical component for a business combination to exist. When one company exerts control over at least another, the preparation of consolidated financial statements for the economic entity or group becomes mandatory.

In scenarios where a company acquires all or part of another entity, the acquiring company, which exercises control over the acquired entity, is termed the parent company, while the acquired entity is referred to as the subsidiary company. Often, the parent acquires less than 100% of the subsidiary, in which case noncontrolling interest arises. Goodwill is often a result of an acquisition or other business combinations. Currently, goodwill is tested annually for impairment versus being amortized as an expense.

During the consolidation process, journal entries must be completed so that the financials of the economic entity are shown as a unified whole rather than as separate entities. This typically involves inventory transfers and revenue earned. In cases where there is no control but substantial influence, the equity method must be employed to integrate the investee's value into the financial statements.