Ca' Foscari
University
of Venice

Master's Degree programme
in Business Administration
(Second Cycle D.M 270/2004)

Financial Reporting and Management Accounting: can Management Accounting provide support and value for a high quality Financial Reporting?

An analysis on how such relationship is embedded in IAS 36 and IFRS 8.

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Academic Year
2018 / 2019

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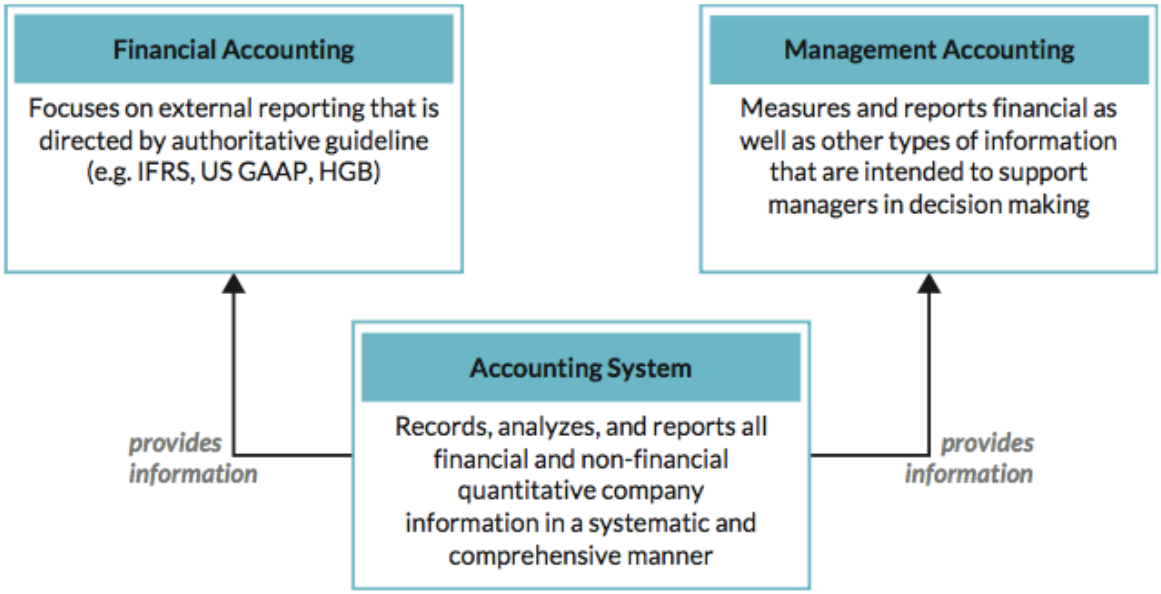
1. Introduction

In modern financial systems economic-financial information to the market is assuming an essential role in increasing market efficiency and in satisfying the investors' and institutions' information need. Actually, financial information is the essential foundation of financial market operating mechanism since the role of such communication allows the reinforcement of relations between the enterprises and the financial system, through a faithful representation of business capabilities in terms of value creation. It is the internal basic accounting system that keeps track of all the business activities. It is divided into two main specialized branches that share a common information base and process the basic accounting data in order to generate financial statements, reports, analysis or forecasts required by decision makers.

Fig.1 The two-different kind of information provided by the Accounting System: Financial accounting and management accounting.



SOURCE: ***Management and Cost Accounting: Tools and Concepts in a Central European Context*****, Chapter 1, page 7, A. Taschner, M. Charifzdadeh, 2016.**

Accounting information, which can be divided in two main streams, Financial Accounting (FA) and Management Accounting (MA), serves different purposes and is used by audiences with different needs.

This work focuses on the relationship between FA and MA and on how there has been substantial convergence in the last years between these two areas of activities performed by enterprise organizations.

Particularly for some international accounting principles, it can be noticed how the accounting information and analysis techniques of MA can be useful or, in some cases, necessary for the purpose of providing informative elements for the correct application of the IFRS:

- IAS 36 – *Impairment of Assets.*
- IFRS 8 – *Operating segments.*

This research allows to observe how, in the financial disclosures relating to IFRS 8 and IAS 36, a good deal of information provided by the above accounting standards has either a forward-looking perspective, making reference to managerial estimations of the future cash flows relating to the assets under evaluation, or a business segment perspective.

With financial statements prepared according to applicable accounting standards, the management communicates the firm's financial position and the performance achieved to the market. Market operators recognize that a higher quality financial communication can be pursued through an integration of the different types of report, provided by Financial Accounting, prepared according to International Financial Reporting Standards and based on FA systems, and Managerial Accounting, represented by scientific and statistical methods aimed at supporting decision-making and based on MA systems (PWC, *Financial Communication*, 2014).

FA is the field of accounting that involves summary, analysis and reporting of financial transactions related to a business. It is usually mandatory and concerns the preparation of financial statements for public audiences such as stockholders, suppliers, banks, employees, government agencies, other business owners and stakeholders. It is regulated by IFRS for the European Union listed companies and by U.S. GAAP for the US companies. These rules are a set of accounting standards that indicates how particular types of events and transactions involving the reporting enterprise should be treated and reported in financial statements, following principles of consistency and faithful representation of the economic-financial situation of the reporting entity. According to the IASB's conceptual framework for Financial Reporting, financial accounting objective is "*to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity*".

MA is the main information source for whoever, inside the enterprise or the reporting entity, has a need for accounting information in order to fulfil a certain task. Usually, for advanced and well-structured organizations, MA is the essential monitor system for key persons such as project managers, key account managers and product managers. MA quantifies and reports financial and non-financial information, processes accounting data to provide users an effective base for decision-making, in a way that is possible to achieve an efficient use of available resources. MA is not mandatory, it is not commonly regulated so the MA system is free to process and to be implemented and structured in line with managers information needs. The main role of a MA system can be seen in furnishing essential financial and non-financial data systematically developed to support management decision. In this regard, in order to understand MA purposes, it is interesting to refer to the definition of "management accountant" provided by the Institute of Management

Accountants. According to the IMA definition (2008): *"management accounting is a profession that involves partnering in management decision making, devising planning and performance management systems, and providing expertise in financial reporting and control to assist management in the formulation and implementation of an organization's strategy".*

Several researchers conducted empirical studies and surveys on sample of firms in different countries (Weißenberger and Angelkort, 2007, Ikäheimo and Taipaleenmäki, 2009, et al.) with a focus on the relation between FA and MA systems and on their integration within the same accounting system. On the basis of empirical observations, it has been pointed out that the integration between FA and MA through the adoption of the same financial language and information system would increase consistency of information provided to the market and to the enterprise management and boost not only the quality of the business communication to external stakeholders, but also the quality of the output attributed to controller's services. Thanks to this research, the importance of the link between FA and MA as a single wide interrelated accounting system, rather than a separate one, has already been widely analysed and confronted among different countries. This work focuses on relationships and differences between the two types of accounting, FA and MA, by comparing their purposes and their structure as well as analysing the current trend towards a stronger convergence and integration between them. Notwithstanding this trend, FA and MA differ to each other in several ways. While shareholders, creditors and regulators use publicly reported financial accountancy information, only managers within the organization use the normally confidential MA information. MA is mostly focused on the future and characterized by a stronger presence of prospective information, while FA information are historical and provided on the base of applicable accounting principles. But how FA and MA developed over time and how this development

influenced the relationship between them? There are some researches (Ikäheimo and Taipaleenmäki, 2009, et al.) which adopt a long-term backward perspective to analyse the development of accounting, concentrating on the institution's long-term historical changes, from the mechanisation era to the digital era; these researches have identified some institutional pressures, of normative and economic nature, that led to changes in the accounting processes and methods, accounting information systems, concepts or data processing and to the development of FA and MA; they also analyse how these two accounting systems were initially diverged and then converged over time, thanks also to the latest IT technologies that allow a higher degree of integration between them.

The contemporary digital era, based on new technologies for data processing, storing and transfer, provides new means to satisfy different customer needs and to allow new and flexible methods to run business operations through collaboration and networks. On this regard this work contains a section focused on how IT technologies influenced and enabled convergence and integration of FA and MA.

The importance of a well-structured MA system in order to accomplish a high-quality FA information, is of the utmost evidence when IAS 36 and IFRS 8 are taken into consideration. According to IAS 36, entities are required to adopt a future perspective in the determination of the value in use when a tangible or an intangible asset has to be subject to the impairment test. The value in use is the sum of the discounted net cash flows deriving from an investment, calculated on the basis of the relative asset useful life and managerial expectations and forecasts. It goes without saying that a functional and strong interrelation between FA and MA is required, and that this implies a high degree of consistency and accuracy for a high-quality FA information.

As far as IFRS 8 is concerned, it requires to the entities preparing the financial statements to disclose detailed information about the business segments in the geographical areas in which the company is operating, as well as its products, services and major customers. The information to be reported, required by the standard, involves internal managerial considerations relating to the segments' business activities.

In the last part of the work, a sample of four Italian listed companies, RCS MediaGroup SpA, Autogrill SpA, De Longhi SpA and Fincantieri SpA is analysed in order to study the informative quality of their financial statements disclosures in the light of the requirements provided by the above accounting standards. In this empirical analysis, a particular attention is paid to the contribution of management accounting information to financial disclosures and a benchmarking exercise is developed by comparing the set of information provided by the four Italian listed companies.

2. Relationships between Financial Accounting and Management Accounting

2.1 General definition of Financial Accounting and Management Accounting

One of the basic assumptions for an effective decision-making process and for the economic improvement is the availability of high quality information. The most part of this information comes from accounting system and, therefore, from FA and MA. Decision making process requires financial information and non-financial information and the role of the latter can be often substantial. Nevertheless, accounting system represents a fundamental function of support to management, being a system that allows processing and gathering raw data and converting it into relevant and pertinent information to be used in decision-making

process. Business administration practice has developed two types of accounting, in order to provide the necessary information to external users and to internal users. The first, FA, guarantees information needed to prepare financial statements for external users while the second, MA, ensures relevant information for internal users, i.e. the company management.

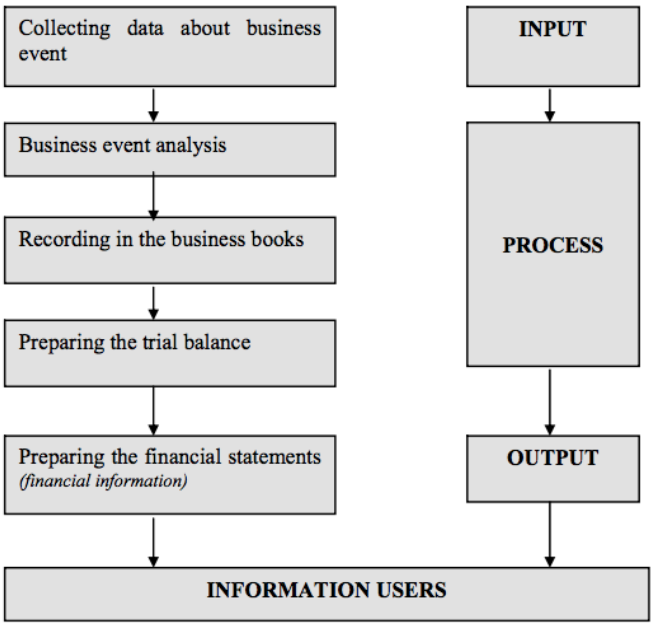
Notwithstanding, it should be noticed that also FA often serves internal information purposes in the context of measuring business and management performance.

2.2. Objectives and structure of Financial Accounting

2.2.1 Structure of Financial Accounting process

The core features of the financial accounting system are gathering, processing and presenting financial information related to the company's business. Pieces of information, representing the output of accounting system, are directed towards different audiences, with different needs.

Fig.2 Accounting process



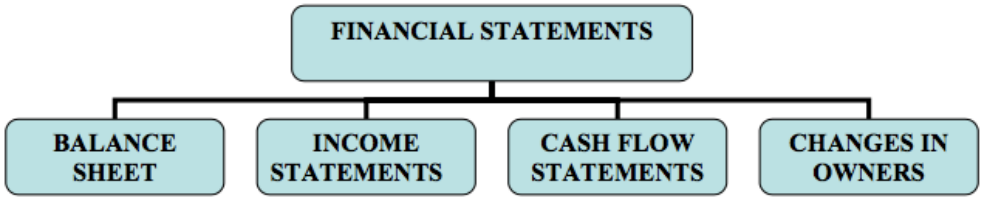
SOURCE: ***The role of Financial Information in Decision Making Process*****, Special**

Edition in Customer Satisfaction – Global Perspective, page 36, K. & L. Zager, 2006.

The diagram above depicts the process of financial accounting that starts with collecting information and ends with preparing financial statements.

As far as the output of FA is concerned, i.e. financial reporting, financial accounting practices consider as the most relevant financial statements, when looking at the business performance, the *balance sheet*, the *income statement*, the *cash flow statement* and the *changes in owner's equity*. In this work, we will take into consideration how financial statements are ruled by the two-main set of standards adopted worldwide, i.e. IAS/IFRS and US GAAP.

Fig.3 Financial statements



SOURCE: ***The role of Financial Information in Decision Making Process*****, Special Edition in Customer Satisfaction – Global Perspective, page 36, K. & L. Zager, 2006.**

The *balance sheet* is the fundamental financial statement that describes company's financial position and is the basis for evaluating the financial position of the business. The structure of assets, liabilities and equity and their interrelation are very important in the context of evaluating business viability, business efficiency or the ability of the enterprise of achieving specific goals. The *income statement* concernes revenues and expenses incurred by the company in a given period of time and, through the comparison of revenues and costs aggregates and related margins, it allows to analyse company performance. The *cash flow statement,* which measures how well a company manages its cash position, or how well

the company generates cash to pay its debt obligations and fund its operating expenses, and the *changes in owner's equity,* which reports the events that increased or decreased stockholder's equity over the course of the accounting period, are also fundamental for the users when measuring performance of the business.

2.2.2 Importance of accounting standards for Financial Accounting

In order to make financial statements understandable and useful for external users, it is of the utmost importance the function of accounting standards, the set of rules governing the preparation of financial statements in the current worldwide economic context. Globalisation has led to a progressive and increasing integration of markets for goods and services, and capital markets. As a consequence, companies that formerly relied almost exclusively on their domestic market now have access to markets abroad. On this regard, it is important to examine the factors that encouraged the development and the consequent spread of global accounting standards. The two worldwide most adopted set of accounting standards are the IAS/IFRS issued by the IASB, International Accounting Standards Board, and the US GAAP, issued by the FASB, Financial Accounting Standards Board. Generally speaking, US GAAP are the set of accounting standards which listed companies in the U.S. have mandatorily to adopt for the preparation of their financial statements. IAS/IFRS are the set of accounting standards required in the European Union for the preparation of listed company financial statements, and permitted in some cases for non-listed companies. IAS/IFRS are now required by most of the world's more important capital markets for the preparation of financial statements of listed entities. The remaining major capital markets without an IFRS mandate are (PWC, *IFRS and US GAAP: Similarities and differences, 2018):*

- The United States with no current plans to allow the use of IFRS for

domestic registrants (full IFRS allowed for non-US filers);

- Japan, where voluntary adoption of IFRS is allowed, but no mandatory transition date has been established;

- China, which has continued to amend Chinese Accounting Standards, so that its principles are generally consistent with IFRS.

US GAAP are considered the most full and well-developed set of accounting standards in the world (Deloitte, *International Financial Reporting Standards,* 2015), even though they have been subject to several criticisms for being too long and complex and for their rules-based nature. The SEC, the U.S. Securities and Exchange Commission, the independent federal government agency responsible for protecting investors, has recommended that the future accounting standards should not be rules-based but principle-based, as the IAS/IFRS are. The process to accomplish this change could be done through an approach of standard setting based on a consistently applied conceptual framework. The development of a principle-based and homogenous set of standards should result in a higher quality of financial statements worldwide by increasing the relevance and faithful representation of the information provided. The IASB and the FASB have developed a joint project for the realisation of a common conceptual framework in order to help standard setters to achieve this purpose (IFRS, *A roadmap for convergence between IFRSs and US GAAP,* 2006-2008).

The primary objective of developing global accounting standards is to enhance the functionalities of capital markets through the elimination of obstacles to cross-border acquisitions and divestitures, so improving capital inflow from international investors. The spread of those standards would allow the progress of investment options for investors participating in the markets regardless to the fact if they are individuals, entities or other types of organisations. On this regard, it is worth to underline the

important goal of improving the comparability of financial information across different jurisdictions, as well as increasing the quality. The use of a single set of accounting standards would eliminate the need to tailor financial statements prepared under different standards for comparability, significantly facilitating the job of financial analysts and the information-gathering of other stakeholders. Additionally, the development of a single set of accepted accounting standards would reduce the costs for reprocessing and preparing the accounting information and reconciling the effect of standards of different jurisdictions. As a consequence, the risks for investors and stakeholders would be reduced thanks to the increased comparability.

2.2.3 The Convergence between IAS/IFRS and US GAAP

The process of convergence between IFRS and US GAAP began when the collaboration between IASB and FASB was established. The relationship between the two standards setter bodies has then strengthened over time thanks to some agreements, such as the Norwalk agreement in 2002. In this agreement, the two standard setter bodies recognised their commitment to develop high quality accounting standards to be used for domestic and international purposes. It is worth to point out the significant differences between the two families of accounting standards, the principle-based IFRS compared to the rule-based US GAAP. According to academic and professional opinions (Deloitte, *International Financial Reporting Standards,* 2015), a combination of the two would be advisable, if not necessary, to design a single set of high quality accounting standards. In fact, in order to achieve compatibility between financial reporting standards, the Boards originally focused on removing the differences between the two set of standards through the development of future work programs. With the Memorandum of Understanding published in 2006, they agreed on the need to issue new accounting standards. One of the most important event for

accounting standards convergence was announced by the SEC in 2007, when it came up with the proposal of IFRS adoption instead of US GAAP for foreign companies registered with the SEC. Nevertheless, the feasibility of IFRS acceptance would result in various complications, such as the necessity for U.S. financial statements users to be able to interpret both US GAAP and IFRS. Under pressure of U.S. issuers, SEC published a concept release focusing the attention on the possible effects of the coexistence of financial statements prepared in accordance to two different set of standards, on the effect of such a choice on the cost of capital and on potential incentives for U.S. companies for the preparation of financial statements under the IFRS. The SEC identified the substantial need for a homogeneous single set of accounting standards and recognised the global and gradual transition towards this goal, through the convergence of IFRS and US GAAP.

As above mentioned, the standards governing financial reporting at a worldwide level are IAS/IFRS and US GAAP. Financial statements are prepared by many companies around the world for external users as provided by the relevant jurisdictions. Even though such financial statements may look similar when prepared according to different set of standards, there are differences due to social, economic and legal circumstances reflected in the applicable rules and legislation. The same circumstances have led to significant differences, for example in the definition of elements of financial statements such as assets, liabilities, equity, income and costs and have also led to different criteria for the recognition and measurement of items in the financial statements. The IASB as well as the FASB, in their roles of standard setters, are committed to eliminate as much as possible the above differences by harmonizing regulations, standards, and procedures relating to the preparation and presentation of financial statements (IFRS, *A roadmap for convergence between IFRSs and US GAAP,* 2006-2008).

A particular function in this process is the one of the conceptual framework that both IASB and FASB have developed in order to set out the concepts that underlie the preparation and presentation of financial statements for the purposes of external users. The function of the conceptual framework is to assist the respective boards, IASB and FASB, in the development and review of future standards and procedures for the presentation of financial statements, as well as providing a basis for reducing the number of alternative accounting treatments. Conceptual frameworks have also the function to assist preparers of financial statements in correctly applying the standards. Therefore, it has a fundamental function in defining the purposes, characteristics and elements of financial statements, as well as recognition, measurement and disclosure concepts. Consequently, a thorough analysis of financial reporting requirements and objectives needs to start from an overview of the conceptual framework relating to IFRS and US GAAP.

2.2.4 Objectives of financial reporting according to IASB: Conceptual Framework

The IFRS Conceptual Framework was issued by the IASB in a 1989 and 2010 version and a new document has been published on March 29th 2018. Some IAS and IFRS include references to the 1989 and 2010 versions of the Conceptual Framework. The IASB has published a document named *"updating references to the Conceptual Framework"* which include amendments to affected standards, so that they refer to the new 2018 Framework. These amendments are effective for annual periods beginning on or after January 1st 2020, with earlier application permitted (Deloitte, *IFRS in focus,* 2018*)*. With reference to the Conceptual Framework 2010, it is composed of 3 main parts. The first is the *Aim of financial statements* whose purpose is to provide information about the company, useful to existing and potential investors, lenders and other creditors in making decisions about buying, selling or holding equity

and debt instruments, giving or disposing loans and other forms of credit. The returns that investors expect from the investments, in the form of dividends, interest payments or share price increases, depend entirely on their forecasts and assessment of the amount and timing of future net cash inflows; therefore, they do have the need to get information about the resources available to the company to estimate the possible future net cash inflows coming from the investments. The IASB, in the process of setting financial reporting standards, seeks to provide information that will meet the needs of the wider number of users (Deloitte, *International Financial Reporting Standards,* 2015). The Framework states that the general objective of financial reports is to provide information about the current financial position of the company and the effects of transactions that cause a change in the company's economic resources, so helping users to identify its financial strengths and weaknesses as well as its liquidity, solvency and the potential need for additional financing. Information about financial performance during a period supports users to assess the uncertainty of future cash flows and to comprehend the company's past and future ability of producing returns on its economic resources and indicates how well management has accomplished its role of making an efficient and effective use of them.

The second part of the 2010 Conceptual Framework involves the *Qualitative characteristics of useful financial information* and identifies the most useful types of information to investors, lenders and other creditors for making decisions about the company (Deloitte, *International Financial Reporting Standards,* 2015). The fundamental qualitative characteristics are *relevance* and *faithful representation*. Relevant financial information is able to make a difference in the decisions taken by users if it has both predictive value, so it can be used as an input in processes by users to forecast future outcomes, and confirmatory value, if it provides feedback about anterior evaluations. To be useful, financial information must faithfully represent relevant events in words and numbers, and give a

complete, neutral and free from error representation, in the financial statements, of the economic consequences of such events. For example, a complete outline of a group of assets would include a description of the nature of the assets and of the number of all the assets available in the group; a neutral description is without bias, so not purposely emphasised or manipulated with the aim of increasing the probability of users' positive reactions; free from errors means the information is lacking of errors and omissions in describing the events, even though it is not always accurate. For example, an estimate can be considered faithful if it is conveniently indicated as being an estimate and if nature and limitations of the estimating process are explained.

Besides the fundamental qualitative characteristics there are the enhancing qualitative characteristics, which are *comparability, verifiability, timeliness, understandability* and *materiality*. *Comparability* is necessary for users to choose between alternatives, such as selling or holding an investment, so information about a company to be useful must be able to be compared with analogue information about other companies and with similar information about the same company but referred to another period or date. *Verifiability* ensures users that information disclosed in the financial statements faithfully represents the events occurred along the financial year. It allows different and independent observers to agree that a particular illustration is a faithful representation, even though it may be possible not to be able to verify some perspective financial information. *Timeliness* means having timely information available to decision-makers when this information is capable of influencing their decisions. *Understandability* refers to the clarity of information that makes financial reports understandable for users with a reasonable knowledge of business and economic activities. Such information can be intrinsically complex and not easy to understand because related to complex events. As far as *materiality* is concerned, reporting financial information imposes costs that must be justified by the

benefits coming from the disclosure of those information. On the other hand, if needed information is not provided, users have to bear further costs to get information elsewhere and, therefore, the Board considers costs and benefits in relation to overall financial reporting and not just to individual reporting entities. When assessing whether information is relevant to the needs of audiences, financial statements preparers need to take into account the materiality of the information embedded that is considered to be material if, omitting it, it could determine an influence on the investment decisions of users.

The third part of the 2010 IASB Conceptual Framework is defined *Recognition, Measurement and Disclosure Concepts.* The *Recognition* of the elements of financial statements is the process of compiling the balance sheet and the income statement and involves the depiction of the items that satisfy the recognition criteria in words and by a monetary amount, in the balance sheet or in the income statement. An item is recognised as an element if it is likely to determine any future economic benefit that will flow to or from the company and if it has a cost or value that can be reliably measured. *Measurement* of the elements of financial statements is the process of assessing the monetary amount at which items are to be recognised. A number of different measurement bases are involved in the measurement process: *Historical cost*, assets are recorded at the amount of cash paid at the time of their acquisition while liabilities are recorded at the amount of proceeds received in exchange for the obligation; *Current cost*, assets are carried at the amount of cash that would have to be paid if an equivalent asset would be acquired currently while liabilities are carried at the undiscounted amount of cash that would be required to settle the obligation currently. Other configurations of measurement basis are *"Realisable value", "Present value"* and *"Fair value"*. According to IFRS 13 – *Fair Value Measurement,* fair value is "*the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants*

at the measurement date".

In summary, compared to the 2010 Framework, the new Conceptual Framework issued in 2018 (DELOITTE, *IFRS in focus,* 2018):

- reintroduces the terms "stewardship" and "prudence", with regard to general purpose of financial reporting and management responsibilities;

- introduces a new asset definition focused on rights and a new liability definition, which can be considered broader than the replaced definition. The distinction between a liability and an equity instrument does not change;

- eliminates from the asset and liability definitions the reference to the expected flow of economic benefit and, as a consequence, make it easier identifying the existence of an asset or liability. Furthermore, more emphasis is given to the needs of reflecting uncertainty in measurement;

- considers historical cost and current value measures and provides guidance on how the IASB has to select a measurement basis for a particular asset or liability;

- states that the primary measure of financial performance is profit or loss, and that only in exceptional circumstances the IASB will have to use other comprehensive income;

- discusses uncertainty, de-recognition, unit of account, the concept of reporting entity and combined financial statements.

2.2.5 IFRS presentation of financial statements

IAS 1 – *Presentation of Financial Statements* specifies the basis for

presentation of financial statements to ensure comparability, both with the previous company's financial statements and with the financial statements of other companies. This standard lays out general requirements for the presentation of financial statements, guidelines for the structure and other requirements for their content. IAS 1 represents the relationship between the framework and the standards, in fact it defines central notions and provides deeper information about financial statements structure, content, periodicity. Furthermore, it requires the verification of the so called "going concern" assumption. According to IAS 1, in determining if the assumption of going concern is appropriate, management considers all available perspective information. The standard also specifies that information disclosed relating to the going concern assumption should cover at least twelve months from the end of the reporting period but not be limited to that period. When an entity has a successful background of profitable operations and easy access to financial resources, the appropriateness of the going concern basis can be reached without the need of a detailed analyses. By contrast, for companies with losses or low profitability, management may need to take into account a wider number of factors relating to profitability, debt solvency schedules and other opportunities of financing before being sure that the going concern basis is pertinent. It should be noticed that on this specific regard, MA information are of fundamental importance, since it is the main source of perspective financial information.

In accordance to IAS 1, a complete set of financial statements has to be composed of: a *statement of financial position* (also called Balance Sheet) at the end of the period; a *statement of comprehensive income* (also defined Income Statement) for the same period; *a statement of changes in equity* for the period; a *statement of cash flows* for the period; *notes*, comprising a summary of significant accounting policies and other explanatory information. Apart from when the standards permit or require otherwise, comparative information should be presented for the previous

period for all the amounts included in the financial statements. As a consequence, two statements of financial position and two of each of the other statements, accompanied by the related notes, are requested to be presented in the same financial statements by the IASB.

The purpose of financial statements is to provide information about the financial position, financial performance and cash flows of an entity that is relevant for decision making process. Coherently, the objective of IAS 7 – *Statement of Cash Flows* is to require information about historical changes in cash and cash equivalents of a company, through a statement of cash flows that classifies cash flows during the period, arisen from operating, investing or financing activities. The cash flow statement has to be prepared verifying that its redaction is, in terms of form and contents, coherent if compared to the past, as well as for the other financial statements.

IFRSs requirements apply to the financial statements of an individual entity as well as to consolidated financial statements for a group of entities. IFRSs identify three types of financial statements, the 'individual' financial statements, prepared by companies with no subsidiary, the 'consolidated' financial statements, prepared according to IFRS 10 – *Consolidated Financial Statements,* and 'separate' financial statements, in which the company subject to requirements of IAS 27 – *Consolidated and Separate Financial Statements* has to account for its investments in subsidiaries, joint operations and associates, either at cost or in conformity with IAS 39 – *Financial instruments: Recognition and Measurement*, using the equity method.

As far as the statement of financial position presentation is concerned, it is important to notice that IAS 1 does not require a unique form, neither a mandatory sequence in the presentation of accounts. Nevertheless, it defines the minimum content of information to be presented and requires a mandatory distinction between current and non-current accounts.

The following table lists the items of assets and liabilities and equity for the Statement of financial position (or balance sheet):

Fig.4 Assets and liabilities items

Assets	*Liabilities and Equity*
- Property, plant and equipment - Investment property - Intangible assets - Financial assets - Investments accounted for using the equity method - Biological assets - Inventories - Trade and other receivables - Cash and cash equivalents - The total of assets classified as held for sale in accordance with IFRS 5	- Trade and other payables - Provisions - Financial liabilities - Liabilities and assets for current tax - Deferred tax liabilities and deferred tax assets - Liabilities included in disposal groups classified as held for sale according to IFRS 5 - Non-controlling interests. presented within equity - Issued capital and reserves attributable to owners of the parent

SOURCE: ***International Financial Reporting Standards – Accounting and Financial Reporting using IFRS, Chapter 2, page 84, A. Marra, A. Pettinicchio, M. Semprini, 2015.***

An asset / liability, to be classified as current in the statement of financial position, has to satisfy one of the following criteria:

- It is expected to be realised /settled, sold or consumed in the normal cycle of operating activities, or

- It is held primarily for trading activities, or

- It is expected to be realised/settled within twelve months after the beginning of the reporting period.

If none of the above requirements is satisfied, the asset / liability is recorded as non-current. It is important to notice that liabilities are classified as current when the company does not have the right to defer

settlement of the liability for at least 12 months after the end of the period.

Coming to the income statement, it should be noticed that an entity shall present all items of income and expense of a period through a single statement of comprehensive income, or in two statements, the first displaying all components of profit and loss (separate income statement) and the second all those components of other comprehensive income, also called OCI (statement of Other Comprehensive Income). OCI, introduced in 2009 as result of the revised version of IAS 1, includes items of income and expenses not recognised in profit or loss, and contains:

- Adjustments to revaluation surplus, when revaluations occur for property, plant and equipment or for intangible assets (IAS 16 – *Property, Plant and Equipment* and IAS 38 – *Intangible assets*);

- Changes in gains/losses of defined benefit plans (IAS 19 – *Employee Benefits*);

- Adjustments to fair value of financial activities classified as "available for sale" (IAS 39 – *Financial Instruments: Recognition and Measurement*);

- Gains and losses coming from translating the financial statements of a foreign operation (IAS 21 – *The Effects of Changes in Foreign Exchange Rates*);

- Effective portion of gains and losses on hedging instruments in a cash flow hedge (IAS 39 – *Financial instruments: Recognition and Measurement*);

No other component can be included in the other comprehensive income statement. IAS 1 does not impose a specific form, nor a mandatory sequence in the representation of accounts, but defines the content of information to be disclosed. The statement of comprehensive income

includes the following items:

- Revenue;

- Finance costs;

- Share of the profit or loss if associates and joint ventures are accounted for using the equity method;

- Tax expense;

- A single amount including the total amount of the post-tax profit or loss of discontinued operations and the post-tax gain or loss recognised on the measurement of fair value less costs to sell or on the disposal of the assets or disposal group(s);

- Profit or loss;

- Each component of other comprehensive income classified by nature;

- Share of the other comprehensive income of associates and joint ventures accounted for using the equity method;

- Total comprehensive income.

It is worth to underline that a company can decide to make a classification of expenses recognised in profit or loss on the basis of their nature or their function within the entity, whichever provides information reliable and more material. The choice between the function and nature of expense method relies mainly upon the nature of the company. However, each method of presentation has different benefits for different types of entities, so IAS 1 – *Presentation of Financial Statements* requires management to choose the presentation that is more relevant and reliable. It goes without saying that the choice of management on this aspect should also take into consideration management reporting and

management accounting system structure. The Standard does not allow the company to present any item of income or expense of extraordinary nature in this statement or in the notes.

Besides the statement of financial position and income statement, other two important financial statements are required by IAS 1, the statement of changes in equity and the statement of cash flows. The statement of changes in equity includes information related to:

- total comprehensive income for the period, with a separate representation of the amounts attributable to non-controlling interests;

- for each component of equity, a settlement between the carrying amount at the start and at the end of the period, reporting changes due to profit or loss, other comprehensive income and transactions with owners.

The statement of cash flows, in accordance with what indicated in IAS 7, gives users of financial statements a basis to determine the company ability to raise cash and cash equivalent and the need to use the cash flow produced in the period. A statement of cash flows, if considered together with the other three financial statements, provides relevant information that enables users to analyse and evaluate changes in the net assets of the company as well as its financial structure, including its liquidity and solvency.

An entity can choose between two different methods in reporting cash flows from operating activities: the direct method, whereby major classes of gross cash receipts and gross cash payments are disclosed, and the indirect method, whereby profit or loss is adjusted for the effects of transaction of a non-cash nature. According to the latter, which is the most used in practice, the net cash flow from operating activities is determined through adjustments to profit or loss of the period attributable

to:

- changes in inventories and operating receivables and payables occurred in the period;

- non-cash items such as depreciation, provisions, deferred taxes, unrealised foreign currency gains and losses, undistributed profits of associates;

- other items, the cash effects of which is of investing or financing nature.

Given that not all relevant financial information can be communicated through the amounts shown in the above mentioned financial statements, IAS 1 – *Presentation of Financial Statements* requires that a complete set of financial statements has to include notes, presented in an appropriate manner. Notes have to provide users the information about the basis on which financial statements are prepared, as well as an evidence of the specific accounting policies used and disclose information required by IFRS that is not presented elsewhere in the financial statements.

The general rule is to apply the standards without any modification. Notwithstanding, there are extremely rare situations in which management concludes that the compliance with one or more of the IFRS requirements would lead to a misleading situation, in conflict with the objective of financial statements defined by the Conceptual Framework. In such a case, the company shall overlook that specific requirement if allowed, or otherwise not prohibited, by the relevant regulatory framework. In the notes, each company should disclose information about major sources of estimation uncertainty that have a material risk of turning out in relevant adjustments to the carrying amount of assets and liabilities, within the next financial year.

2.2.6 Objectives of financial reporting according to FASB: Conceptual Framework and financial statements

As already pointed out in this thesis, the FASB and the IASB are committed to develop a joint conceptual framework as a necessary step to help standard setters to achieve the objective of the full convergence between the two set of standards. As far as FASB is concerned, a first phase of this process culminated with the issuing of FASB *Statement of Financial Accounting Concept, n. 8.*

The FASB Conceptual Framework is developed on the basis of concepts and correlated objectives. It provides a logical structure and a rational direction to financial reporting (Cengage Learning, *Financial Reporting: its Conceptual Framework*, 2018*).* The Conceptual Framework is expected to serve as:

- guide for FASB in establishing accounting standards;

- frame of reference for the resolution of accounting issues in situations for which there is no standard;

- basis in assessing the limits for judgement in the preparation of financial statements;

- reference for users in understanding the financial reporting;

- a way of increasing comparability among financial statements of different companies.

The FASB expects that the Conceptual Framework will stimulate entities to provide information that is useful for an efficient allocation of resources in the capital market. In FASB *Statements of Concepts N.8,* it's stated that *"The objective of general-purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders, and other creditors in making decisions*

about providing resources to the entity. These decisions involve buying, selling, or holding equity or debt instruments and providing or settling loans and other forms of credit".

The objective mentioned above relates to financial reporting as a whole and includes the entity's financial statements. The aim is to encourage companies in the efficient allocation of resources in the capital market, so as to assist the efficient functioning of the economies. Financial reporting is general-purpose because is meant to satisfy the information needs of a very wide variety of external users, who do not have the authority to get all the financial information they need from a company and, as such, must rely on the information provided in the financial reports. Capital providers of a company, such as investors, lenders and other creditors with other information needs, are those who have the most crucial and immediate need for accounting information about the available economic resources of the company, they are the primary external user group of general-purpose financial information which allow them to evaluate the amounts, timing and uncertainty about future cash flow.

The FASB Conceptual Framework also outlines the fundamental qualitative characteristics of financial reports, that are *Relevance* and *Faithful Representation*, and the enhancing qualitative characteristics, that are *Comparability, Verifiability, Timeliness* and *Understandability*. The components of *Faithful Representation* are *Completeness, Neutrality* and *Freedom from error*. Regarding *Relevance*, it can make a significant difference in the decisions made by external users so, on this regard, it is worth to briefly analyse its components, that are *Predictive Value, Confirmatory Value* (or *Feedback Value*) and *Materiality*.

Financial information has predictive value when it does helps capital providers in making expectations about the future. For example, the future amounts of straight-line depreciation can be predicted but may not be useful, on its own, in predicting a company's future cash flows; it has

confirmatory value if it confirms or changes capital provider's expectations, increasing the likelihood that future outcomes will be as expected or, respectively, changing previous expectations so as to affect the probabilities of future results. Regarding *Materiality*, it is a company-specific aspect of *Relevance* and refers to the possible effects of a misstatement of financial information which would influence the decision-making process of external users. Namely, if the amount of an omission of financial information was large enough to determine an influence on the judgement of a decision maker, then the information would be considered to be relevant, while it would not if it did not affect a user's decision.

US GAAP are the guidelines and practices that a company subject to these standards is required to apply in recording and reporting the accounting information that will be embedded in its financial statements. In summary, the FASB identifies four specific financial statements, the *balance sheet,* the *income statement,* the *statement of cash flows* and, as a major financial statement for many companies (or in a note), the *statement of changes in equity.*

The financial statements provided by the two set of standards, IFRS and US GAAP, are therefore substantially the same with reference to the components. As far as the most significant differences between IFRS and US GAAP financial statements, in summary, it should be noticed that US GAAP provide that:

- listed entities must present in each statement the comparative amounts for three years, except for the balance sheet, where only two years are sufficient;

- the entities can present either a classified or a non-classified balance sheet. Balance sheet items are generally presented in descending order of liquidity;

- the income statement may be presented in either (a) a single-step format, where all expenses are classified by function (the classification by nature is not allowed) and then deducted from total income to arrive at income before tax, or (b) a multiple step format separating operating and non-operating activities before presenting income before tax.

- in the cash flows statements, the classification of changes in cash due to each of the operating, investing and financing activity section is similar to IFRS. Bank overdrafts are not included in cash and cash equivalents, therefore, changes in the balance of bank overdrafts are classified as financing cash flows.

2.3 Objectives and structure of Management Accounting

2.3.1 Objectives of Management Accounting

Information has become one of the most important resources in modern business. In contemporary business environment, rational decisions would be practically unfeasible without the access to information, therefore entities employ a good deal of efforts, time and money on ensuring that right and useful information is available to the right users so as to take the right decisions and undertake the right actions. Information is required for many different tasks, among these there are planning, decision making, performance evaluation, monitoring and feedback.

Planning involves anticipating potential future events as well as future consequences of today's decisions and actions. The outcomes of this process, i.e. the plans, are uncertain by nature since nobody can anticipate future events with total certainty, but they can be made more reliable when based on historical data and information and when they consider what is already certain and known about future trends. As a result, management seeks to develop plans on a solid base of information about past accomplishments and potential prospective developments.

Decision making implies a choice between existing alternatives of following diverse courses of actions. A rational decision maker is oriented to take the right decision that is choosing the alternative which promises the best reward. Hence, decision makers will force themselves to identify the alternative that gives the highest probability of achieving the goal in question. To do so, there must be an availability of information about future consequences of each alternative as well as the conditions for each alternative to be actualized.

Performance evaluation can involve the analysis of the profitability of individual products and product lines, or in other cases assessing the relative contribution of different managers and different contingencies of the company.

As far as monitoring and feedback are concerned, companies want to be sure that things evolve in a controllable manner, so goals are selected with the purpose of achieving them, projects are launched to be completed in accordance with plans and rules are set on the basis of expectations about their supposed observation. Therefore, planning and decision making necessarily involve an element of control that wouldn't be possible without information about goals and actual achievements.

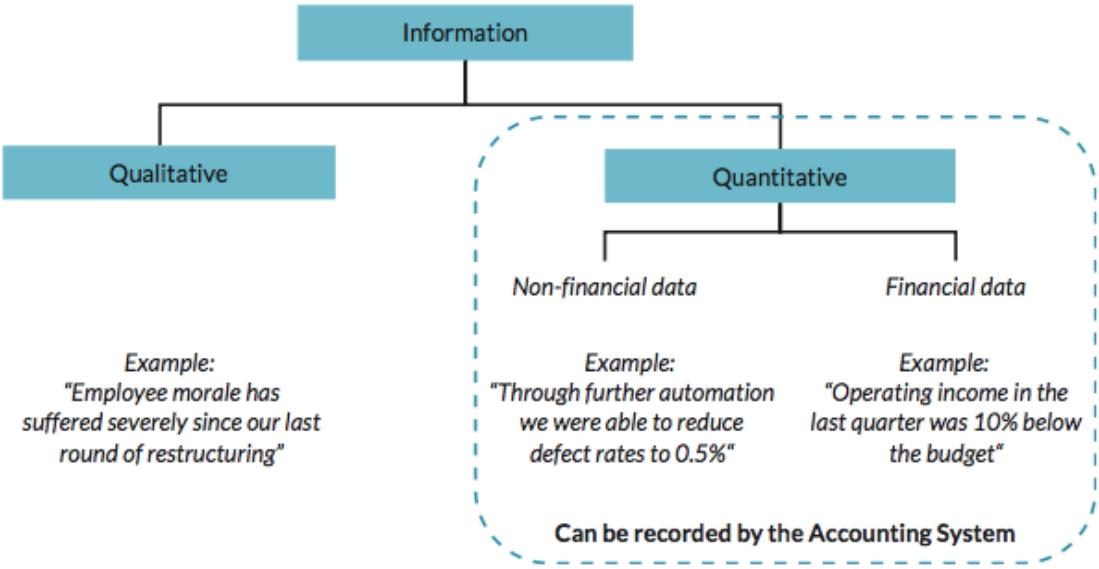
It goes without saying that information of various kinds is necessary to act in a business environment. Users of financial and managerial information have different positions and interests, depending on if they are external or internal to the company. The most important internal information user is top management and company divisions management, so account managers, product managers, project managers, etc. have all a different primary objective and are all involved in performing management tasks. Depending upon their role within the business, they have needs of information on different subjects and with different grade of detail, but they all must take decisions, plan forward and monitor the goals achievement.

Company employees with management functions are not the only audience of information, in fact, even though not covering a management position or an operational role, other employees could still have an interest on information about a company's activities. With such a diversity of information users and needs, it is important to notice that MA system and related management reporting can assume various structures since they require to be tailored to the needs of managers and the specific nature and characteristics of the company. This implies that it is not possible to make reference to a standard pattern of MA system and that is necessary to design an internal MA system adjusted to the information needs of managers.

A significant amount of the information required by the internal users refers to company's activities, so it does needs tools to track, for instance, all the orders of raw materials from suppliers, the hiring of new staff, the planning of the factory program, the delivering orders to customers, etc. The stream of activities that characterises modern business involves a huge amount of information that can be collected through a great variety of tools and system that keep track of it.

Furthermore, some events and developments are better expressed in terms of qualitative information that can be in verbal or textual form, such as researches on competitors, complaints by clients, changes in the product demands and so on. This kind of information is valuable for users and is best expressed in qualitative form, while other events, such as inventory levels, monthly sales revenues, number of staff in a department can all be expressed in quantitative form and documented through information processed in a numerical format. The most of information in a business belongs to this latter case and is constantly recorded within a company, thanks to the set-up of a specific MA system. In the following graph, the two kinds of information are logically interrelated:

Fig.5 Types of business information



SOURCE: ***Management and Cost Accounting: Tools and Concepts in a Central European Context, Chapter 1, page 5, A. Taschner, M. Charifzdadeh, 2016.***

The management accounting systems consists in tools (accounting software, hardware like computers, pads and smart phones) used by managers and accountants who follow defined procedures and processes to elaborate and produce information both of qualitative and quantitative nature. Information is recorded in systems such as customer databases, quality management tools and production planning systems, which in the modern ERP systems are managed by an integrated information system.

As above mentioned the most important group of internal decision makers is management, which has to take decisions influencing the business operations, set goals as well as motivate their subordinates to work for achieving these goals, plan ahead and monitor whether plans have been achieved. Management tasks can be assigned to different hierarchical levels within a company, in fact, project managers and key account managers all have a need for accounting information in order to accomplish their role, and main information source is MA that processes

the accounting data, in order to prepare information that is of use to internal decision makers.

Provided that many management decisions have to avoid excessive consumption of resources and to reach an efficient use of available resources, information about costs incurred by the company, i.e. cost accounting, is probably the core of management accounting system. Cost accounting is the system which gathers, processes and reports cost information throughout the company. In this sense, cost accounting can be considered one of the central element of management accounting. It allows, for instance, to give an appropriate answer to the fundamental question whether to accept or not an order at the price demanded by the customer. At the same time, the annual review on customer satisfaction will be based on a different set of information, not provided by cost accounting. So, the variety of information demanded by managers is so high that it must be targeted towards specific management tasks and fit manager needs.

MA is hardly regulated and not mandatory, in fact managers are free to process information as needed, to compile individual reports and analyses and to choose the level of detail and frequency that are most appropriate for a given situation. The mechanical process of collecting and processing information as well as aggregating information in order to measure, report, analyse and allocate costs to product, services, customers and sub-units represents a relevant challenge for many large organisations. MA is used by different sector of activities, by *businesses, not-for-profit organisations* and *governments* (D. Caplan, *Management Accounting Concepts and Techniques, 2*006):

- *Businesses* can be classified by the sector of the economy in which they operate, so manufacturing firms, merchandising firms, service sector companies, or by their legal structure, so corporation and partnership, or by their size.

- *Not-for-profit organisations* such as charitable organisations, health care providers, credit unions and institutions of higher education.

- *Government* includes Federal, state and local governments and governmental agencies.

It goes without saying that the different accounting data are very hard to compare across different sectors, type of industries and companies. Furthermore, since structure and interpretation of MA information is of difficult assessment for an outsider, also given the lack of legal regulation, so company managers are the only users who have a full understanding of MA information.

MA and FA display often a significant degree of integration, they share the organisation basic accounting data as a common information basis and are both focused on company performance, measuring company efficiency by netting value generated and consumed, but at the same time differ in the scope of activities and under other aspects.

2.3.2 Structure of Management Accounting

Management accounting collects and provides data as well as economic and statistical information at various levels to support managers in efficiently performing their functions, throughout various accounting, statistical and mathematical techniques, such as budgetary control, standard costing, break-even analysis, funds and cash flow analysis, etc. It is mainly forward-looking and involves the development of several methods of recording and analysis, interpretation and presentation, and is aimed at making costing and other data active and effective in the performance of managerial tasks. The Institute of Management Accountants (IMA, *CMA certification,* Lesson 1): defines MA as "*the process of identification, measurement, accumulation, analysis, preparation, interpretation and communication of financial information*

used by management to plan, evaluate and control within an organisation and to assure appropriate use of and accountability for its resources". Jan Bell et al. (2004) defined MA as a "*system of measuring and providing operational and financial information that guides managerial action, motivate behaviours and supports and creates the cultural values necessary to achieve an organisation's strategic objectives".*

The main purpose of MA systems is therefore to assist managers in fulfilling tasks efficiently and involves several aspects of the business, like production, selling, distribution, research and finance, and enables effective comparisons to be made between the past and current performance and forecasts. The main objectives can be summarised as follows (IMA, *CMA certification,* Lesson 1):

- to formulate planning and policy, or forecasting and setting goals, assessing alternative and accessible courses of action, enabling the preparation of financial reports in the light of past results and of estimations for the future;

- to assist managers in decision-making process through modern techniques that allow to analyse figures relating to costs, prices, profits and savings for each of the feasible alternatives, as a basis for evaluating the effect of alternative proposals and for taking reasonable decisions;

- to support in control, MA tools such as Activity Based Costing and budgetary control help in keeping managers performance under control;

- to provide report, orienting management towards quick and reasonable decisions and assessing performance of various organisational levels that has to be communicated to top management, so ensuring the coordination of various segments;

- to facilitate coordination of operations, thanks to IT devices and tools that allow an overall control of operations documenting files that are repository of vast quantities of data about the progress of the organisation.

As far as MA techniques and tools are concerned, the CIMA, Chartered Institute of Management Accountants, in 2006 developed a survey, titled *Management accounting tools for today and tomorrow,* that asked about current and intended usage of more than 100 management accounting tools. The survey was completed by 439 respondents in July 2009 and allowed to gather interesting information from management accountants of worldwide companies both about their current use of tools and their intentions to drop or adopt tools. The research also allowed to draw conclusions about the extent to which respondents have settled on their range of tools, or are looking for more effective solutions.

The following table summarises the most used management accounting tools and the percentage of respondents using a specific MA tool:

Fig.6 Most used Management tools and percentage of respondents

MA tool	*% Respondent*	*Tool type*
Financial year forecasting	86%	Budgeting tool
Profit before tax	82%	Key P&L reporting line
Cash forecasting	78%	Budgeting tool
Variance analysis	73%	Performance measurement tool
Strategic planning	72%	Strategic tool
Gross margin	69%	Performance measurement tool
Overhead allocation	67%	Budgeting tool
Rolling forecast	66%	Budgeting tool
SWOT analysis	65%	Strategic tool
Net profit margin	64%	Performance measurement tool

SOURCE: ***Management accounting tools for today and tomorrow, page 6, CIMA, 2009.***

It is interesting to point out, regarding the above table, that a good deal of the most used management tools displays a strong connection with

financial accounting. In detail, the MA tool included in the table for which we can identify a significant connection between MA and FA are Financial year forecasting, Profit before tax, Gross margin and Net profit margin. This circumstance witnesses the synergy existing, in practice, between the two systems of accounting.

A specialised branch of management accounting is cost accounting, a set of techniques that involve principles and rules which govern the procedure of ascertaining cost of products or services. The CIMA (IMA, *CMA certification,* Lesson 1) defines cost accounting as "*The establishment of budgets, standard costs and actual costs of operations, processes, activities or products, and the analysis of variances, profitability or the social use of funds*". Cost accounting aims at systematically recording data and generating information related to money, in order to control operations and maximise profits and efficiency and to ascertain the cost of each product manufactured or service rendered by a company. The main objectives of cost accounting are:

- to classify all expenditures with reference to the cost of products and operations;

- to define the cost of production of each unit, job, operation, process, department, etc. and to develop standard costs;

- to report management any inefficiencies raising from various form of waste, related to materials, time, expenses, or due to the use of machinery, equipment and other tools;

- to provide at frequent intervals data for periodical profit and loss accounts and balance sheets (weekly, monthly or quarterly), not only related to the business as a whole, since managers, departments or individual products may need more detailed information to explain the reasons for profit or loss;

- to allow a comparison between standard costs and actual costs so as to analyse the variances on the which performance measurements are based.

According to the IFAC (International Federation of Accountants, *Evaluating and Improving Costing in Organisations,* 2009*) "Costing contributes to an understanding on how profits and value are created, and how efficiently and effectively operational processes transform input into output. Costing information can be used to provide feedback on past performance, and to motivate and change future performance. Costing is, thus, an essential tool in creating shareholder and stakeholder value".*

2.4 Differences and relationships between Financial Accounting and Management Accounting

As already outlined in the course of this thesis, FA is concerned with communicating information to external parties, while MA aims at generating accounting information for managers to assist them in performing their tasks. FA is subject to extensive regulation, both at a national and international level. Statutory provisions and international guidelines like IFRS and US GAAP determine which financial information must be made available, their periodicity, and the ways the information must be generated in order to meet external users' needs. However, companies are often unwilling to provide too much information about their operations and business transactions so, considering that public information is accessible to everybody, including competitors, financial reports are not so detailed to provide operational sensitive information and are instead based on the company as a whole. FA therefore provides very limited information on the company's individual products, customers or projects. On the other hand, external users have a strong interest in receiving complete information and any omissions might bias their decisions, so FA, according to applicable rules, must report events and transactions considered relevant in order to influence entity's situation.

FA information is mostly retrospective, due to applicable rules and because companies would not be willing to provide information about future business plans and goals to the general public. Moreover, external users is oriented to rely most on information dealing with the past that provides a faithful picture of the company's performance, given the fact that information about the future is uncertain and even harder to analyse without access to detailed data. The following table summarises the main differences between the two accounting systems:

Fig.7 FA and MA purposes

FA	MA
Users of information	
It provides information to external users like investors, creditors, government and tax authorities	It provides information to internal users that is all management functions within the company
Purpose	
It supports decision-making for investors and others	It helps managers plan and control business operations
Information perspective	
It focuses on the past as well as on reliability and objectivity	It focuses on the future
Obligation for preparation	
Mandatory	Not mandatory
Applicable standards	
It is regulated by IASB or FASB	It is tailored to specific internal needs and is not restricted by any standard setter
Type of reporting structure	
Content and format of accounting information is highly standardised	It is not standardised and presents individual contents and formats
External audit	
Annual indipendent audit by certified public accountants	No indipendent audit
Degree of detail	
It provides mainly reports on the company as a whole	It provides detailed more detailed reports on parts of the company, like products, customers, market divisions
Frequency of reporting	
Reports are usually presented on an annual basis	Reports are presented on a weekly or monthly basis

SOURCE: ***The dualism of the accounting activity of the company, page 97-98, A.T.***

Ciuhureanu, 2012.

The differences pointed out in the table are quite general but indicate relevant attributes of FA that are driven by the purpose of providing, according to the applicable accounting standards, reliable and consistent information about the overall company to investors and regulators. In other words, the main objective of FA is to provide a well-structured overview of the company's past and current financial performance and it is up to external users to reach any conclusions about the future, on the basis of information provided. At the same time, MA objectives are necessarily highly dependent upon managerial needs, forward-looking and aligned with business strategies. Differences and relationships between MA and FA can be further pointed out from a financial statements item standpoint as evidenced in the following table:

Fig.8 FA and MA focus by financial statements item

Financial and Managerial accounting viewpoint		
Item	***FA focus***	***MA focus***
Cash and banks	Bank reconciliation, Petty cash control, Cash flow	Cash budgeting, Alternative uses of cash
Accounts receivables	Recording of collections, estimation of bad debts	Analyses of credit terms, Analysis of bad debt factors
Inventory	Inventory cost methods, Inventory evaluation	Cost accounting and cost control (standard vs actual)
Fixed assets	Acquisition and sales accounting, Depreciation methods	Capacity requirements, Capital budgeting, Replacement of equipment
Short-term debt	Recognition of liabilities	Cost of capital, Debt/Equity Ratios, Cash budgeting
Long-term debt	Recognition of liabilities	Cost of capital, Debt/Equity Ratios
Sales	Recognition of sales transactions	Sales forecasting, Product pricing
Expenses	Recognition of purchases transactions	Cost budgeting, Actual cost analysis

By analysing the table above, which provides the main focus of FA and MA from the perspective of financial statement items, it can be noticed that, in many cases, they share different but very interrelated tasks with reference to the same asset (e.g. Inventory evaluation for FA purposes needs to be supported by a reliable cost accounting provided by MA), liability or economic transactions within the organisation.

Coming to the relationships between FA and MA, it should be noticed that, in practice, in order to design and implement within a company the FA and the MA systems, there are two fundamental options (B.E. Weißenberger, H. Angelkort, 2011):

a) financial accounting records constitute for a good part the same database on which management accounting is based. This is typically the accounting system defined as integrated. Thanks to this integrated solution, MA information can be made available at low incremental cost. Moreover, financial information and internal performance measures can be easily analysed and reconciled within the various levels of the company organisation, so providing to the management and to the external users information with consistent figures on company performance. The last aspect is particularly important for the companies operating with the capital market, in fact, for them, it is of great importance that MA information displays a clear link with FA information and with investors' targets. FA data do not provide all the pieces of information necessary for management control purposes, and, even in an integrated accounting system, needs to be enriched and supported by supplementary data in order to properly fit to internal decision-making needs;

b) MA can be based on a separate database beside the financial accounting records. A separate MA system can facilitate the use of non-GAAP measures for internal planning and performance measurement and can result more flexible in supporting the decision-making and control

issues. For example, some accruals may be costs recognised on a completely different basis compared to the financial accounting, such as depreciation or cost of material, which for a more meaningful MA report could be based on replacement values instead of historical values.

2.5 The convergence of Financial Accounting and Management Accounting and the influence of IT systems integration

According to many researches, the convergence between FA and MA in European countries had a significant impulse thanks to the introduction of the IFRS by the EU in 2005 (S. Ikäheimo and J. Taipaleenmäki, 2010), since IFRS significantly changed the traditional view of applicable standards, based on historical costs, to a view not only retrospective but also based on prospective information and fair value. In this context, MA information is necessary to give adequate support to financial reporting and, since financial reporting under the influence of IFRS has become more prospective-oriented and focused on the needs of investors, the assumptions regarding budgeting and operational planning have become a shared input even for FA evaluations and estimates. This trend has given a strong impulse for the convergence of FA and MA, even at a technological level, with reference to the information technology systems used by enterprises.

In order to gather a wider view of the process of convergence of FA and MA, it can be interesting to consider the most important researches regarding this matter. One of the first empirical study on the relations between MA and FA was carried out by Joseph et al. (1996) whose research highlighted that, in the analysed companies operating in the UK, a strong tendency could be noticed towards their integration in a single accounting system. Johnson and Kaplan (1987) had already performed a significant research on the relations between FA and MA, arguing that MA had undergone a crisis and that in US corporations it had become

subordinate to the requirements of FA, so its information was too late, aggregated and distorted by FA influence to be useful for management planning and decision-making. Therefore, companies continued to use MA information strongly influenced by financial reporting requirements that did not properly support the firm strategy since they were mandatory and imposed by external reporting regulations.

Weißenberger and Angelkort (2007) described the process of convergence of accounting in Austrian companies presenting the traditional relation between FA and MA as two completely divided subsystems, with FA reporting to the CFO and MA reporting to the CEO. After the survey on more than 150 Austrian companies, they observed that for most of them the integration of FA and MA was not yet achieved, but they predicted an increase in the level of co-dependence in the following years.

This matter was also described by Hoffjan, Nevries and Stienemannem (2009), who identified as the main driver of the co-dependence the ever-increasing use of IFRS or US GAAP in financial reporting by German companies. They think that the trend of convergence between FA and MA is due to the nature of modern accounting standards, which makes the information collected for financial reports relevant also for management objectives.

Hemmer and Labro (2007) developed a research aimed at gaining a better insight of the relationship between specific managerial accounting practices and the quality of information reported. They examined the link, through a specific economic model, between properties and reliability of regulated financial reporting systems and the quality of non-regulated management accounting systems, assuming that information is useful both for control and decision-making. The model adopted for the analysis allowed to identify a conjectural link among financial reporting regulation regime, the optimal properties of managerial accounting systems and the

quality of economic decision-making process within the companies. As a result, the research of Hemmer and Labro provides an understanding of the effects of financial reporting requirements by way of their effect on the quality of management accounting systems.

Ikäheimo and Taipaleenmäki (2009) performed an analysis of causes and consequences of convergence of FA and MA accounting systems from a technical, i.e. based on IT tools, and organisational point of view. The Finnish researchers identified some common factors and signs of the trend of convergence of FA and MA among companies in Germany, Finland and USA, subject to the analysis:

- integration of IT systems for data collecting and processing;
- synchronisation of FA and MA processes;
- accountants performing both managerial and financial accounting tasks.

They also pointed out that the process of convergence of FA and MA is expected to continue and that, in a not too distant future, it is likely to happen a full integration of these two areas of accounting.

Weißenberger and Angelkort (2011) also investigated the impact of integration of FA and MA systems on the efficiency of controlling function in German companies. In summary, at the conclusion of their research, the authors pointed out that, in the analysed companies, the higher was the level of integration of FA and MA accounting systems (particularly due to the influence of IFRS), the stronger was the effectiveness of the controlling function within a company.

Kabalski and Zarzycka (2018) created a survey questionnaire based on the study of Weißenberger and Angelkort (2011) in order to measure the level of convergence of FA and MA in areas like planning and budgeting,

reporting, performance measurement, IT systems and organisation of the accounting system. On this regard, it is interesting to examine the questions (directed to companies using IFRS in Poland), in order to better understand, in practical terms, the relevant aspects on which the convergence index has been measured in both the mentioned researches. The following table summarises the most relevant questions included in the questionnaire, classified by area of interest:

Fig.9 Questions posed to companies for the convergence study in the area of reporting

Budgeting and Planning
A) Is planning and budgeting based on methods of valuation compliant with the accounting standards?
Reporting
B) Are financial reporting and management reporting dates harmonised?
C) Are alternative costs and income used for management reporting purposes?
D) Can a given item of management report be reconciled with corresponding item of financial report?
E) Is the financial result in the management report consistent with the financial result in the financial report?
Performance measurement
F) Do remuneration of managers depend on indicators calculated on the base of financial reports?
IT systems and organisation of the accounting system
G) Does your company have an integrated IT system (ERP) in place that provides data both to the controlling / management accounting department and the financial accounting department?
H) Does your company have a database that contains current and planned data used both by the controlling/management accounting department and by the financial accounting department?
I) Do financial accountants and controlling specialists report to the same manager?

SOURCE: ***The convergence of financial and management accounting in Poland, page 14-17, P. Kabalski and E. Zarzycka, 2018.***

Regarding the above table, it is worth to underline that, according to the results gathered in the survey performed by Weißenberger and Angelkort (2011), which covered 149 surveyed companies from German top 1500

firms, and in the survey of Kabalski and Zarzycka (2018), which covered 40 Poland companies, the questions evidencing the higher level of integration have been the ones corresponding to the letters D) and G). In particular, it should be noticed that the surveys proposed a six-degree scale, from 0 to 5 points, ranging from very low convergence to very high convergence, and that the average scores of questions D) and G) were respectively 3.8 and 3.9. This indicates rather a high level of integration between FA and MA particularly under the aspect of the ERP systems utilisation which makes possible, as a consequence, an easy reconciliation between FA and MA reports thanks to the sharing of the same database.

The need for an integration of FA and MA in a single system of accounting, according to many researches on the matter (A.J. Richardson, 2017), has deep roots. In equity-focused economies, managers must act in the best interest of shareholders focusing decisions on maximising the market value of the company, and financial reports allow shareholders to monitor management and be aware of its financial position. It has been subject of debate that shareholders should also be able to have access to managerial information so as to evaluate the quality of outcomes as well as decisions taken by management. This suggests that the MA information system should be more detailed and under certain aspects real time version of the information actually provided to shareholders. At the same time, with reference to FA, according to Hemmer and Labro conclusions it represents a challenge for standard setters to move from being “arbitrary” to be more “value relevant” (T. Hemmer and E. Labro, 2008).

Many researches on the subject of integration indicate that the merger of FA and MA is most likely in publicly listed companies operating under jurisdictions characterised by a strong defence of shareholders rights (Alan J. Richardson, 2017). The development of IT systems that allow

prompt availability of information, real time data collection and report creation could potentially eliminate the need for separate systems for management purposes. According to Ikäheimo and Taipaleenmäki, the move to market-based information under IFRS and US GAAP weakens the requirement that financial statements be based on transaction data and opens up the possibility that the “opportunity cost”, information useful for managerial decision-making, could be congruent with the information reported in the financial statements (S. Ikäheimo and J. Taipaleenmäki 2009).

The global convergence of FA and MA, particularly in publicly quoted companies, had an acceleration during the so called digital era. The IAS/IFRS set of standards, first adopted on a voluntary basis, was later based on legislations as in European Union countries, and is currently converging with the US GAAP. As a result, financial reporting will be more and more harmonized across countries in the upcoming year. Furthermore, even management accounting practices are currently converging and companies are ever more harmonising their external and internal financial reporting conventions, also thanks to the adoption of fair value-based principles that require the use of internal perspective information for external reporting purposes. In the last years, along with the significant investments in information technology, companies are increasingly adopting very homogenised MA methodologies, technologies and practices, as well as IT systems and software packages. Consequently, less distinctive characteristics and an increased importance of interlinkages between FA and MA are expected to be observed among the countries in the near future. In conclusion, to get an insight of which could be the optimal level of integration between FA and MA, together with contingencies and any other event influencing the level of integration, it should be taken into consideration that in the context of the severe competition of global markets, companies with low integration level would result less competitive and may, therefore, face

viability issues in the long-term (S. Ikäheimo and J. Taipaleenmäki, 2009).

3. Analysis of IAS 36 and relevance of Management Accounting information

The following analysis of IAS 36 – *Impairment of Assets* is focused on identifying the aspects where MA information has to be carefully considered by entities preparing financial statements in order to fully comply with the standard requirements so as to provide financial reporting users with high quality information. Therefore, the purpose of this chapter is not to furnish a complete and detailed analysis of IAS 36 requirements and contents.

The current economic environment, characterised by rapid evolutions, both at a global level and in specific regions, as in Italy, has determined an increased likelihood that assets can be subject to impairment loss. According to the requirements of IAS 36, when an asset's or a group of assets' carrying amount is greater than its recoverable amount, which largely depends on the economic perspectives of the companies, an impairment loss has to be recognised. IAS 36 was first issued in 1998 and subsequently revised in 2004 and 2008 as part of the IASB work on the business combinations project. After 2008, only minor amendments have been made. IAS 36 establishes requirements for impairment which cover a range of assets and groups of assets, named cash-generating units (CGUs). The Standard is mainly applicable to some assets, as property, plant and equipment, intangible assets and goodwill, while a determined list of other assets are out from its scope, like financial instruments and inventories, since these have to be treated under the provisions of different standards.

According to several researches (F. Mazzi, G. Liberatore and I. Tsalavoutas, 2016), even though IAS 36 requirements can be considered well known by financial statements preparers, the impairment test remains challenging in practice, since IAS 36 is considered complex in some areas. To correctly apply IAS 36 implies that entities' management perform long-term estimates regarding uncertain future performance, as well as the valuation of assets for which reliable market prices are often not available. Furthermore, the impairment test became more difficult due to the effects of the recent financial crisis. In this context, financial statements users, regulators and accounting bodies continue to point out issues about the correctness of companies' impairment test approach and, in particular, about the reliability of underlying assumptions and the completeness and correctness of related disclosures. Due to the high degree of subjective interpretations involved in the impairment testing process, it should be considered of great importance for the correctness and reliability of projections used in the impairment test that a well-structured MA system provides all the information that management needs in order to achieve a higher quality of financial reporting. Assumptions underlying expected results used for the test must be reasonable and supportable, based on external evidence as well as on reasonable and well-structured MA information.

3.1 Objectives and scope of IAS 36

The objective of IAS 36 – *Impairment of Assets* is to define the procedures that an entity preparing its financial statements has to follow to ensure that assets' carrying amount are not recorded above their recoverable amounts, which is the amount that can be recovered through the use or the sale of the assets. To achieve this objective, IAS 36 provides guidelines on:

- the level, or the unit of account, at which impairment test has to be done, i.e. individual asset level or CGU level;

- when an impairment test is required, providing basis for indicators of impairment for certain assets;

- how to perform the impairment test by estimating the asset's, or CGU's, recoverable amount;

- how to recognise an impairment loss;

- specific situations under which an impairment loss must be reversed;

- disclosure requirements.

By applying this accounting standard, the preparer of financial statements is required to recognise an impairment loss when the carrying amount exceeds the higher value between the value in use, given by the sum of the discounted future cash flows, and the fair value, the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date. The Standard also specifies, under certain circumstances, when an entity should reverse an impairment loss and requires to indicate the reasons of the loss through related disclosures.

IAS 36 applies to all kind of assets, apart from the assets specified by IAS 36 paragraph 2, to which other standards are applicable. These assets are inventories (IAS 2 – *Inventories)*, assets arising from construction contracts (IAS 11 – *Construction Contracts)*, deferred tax assets (IAS 12 – *Income Taxes)*, assets arising from employee benefits (IAS 19 – *Employee Benefits*), assets included in a disposal group classified as held for sale (IFRS 5 – *Non-current Assets Held for Sale and Discontinued Operations*).

Moreover, according to the same paragraph 2, IAS 36 has not to be applied to financial assets within the scope of IAS 39 – *Financial instruments: Recognition and Measurement,* investment property

measured at fair value according to IAS 40 – *Investment Property,* or biological assets related to agricultural activity measured at fair value less costs to sell (IAS 41 – *Agriculture*), deferred acquisition costs and intangible assets related to insurance contracts (IFRS 4 – *Insurance Contracts*).

Consequently, IAS 36 is applicable for:

- land and buildings carried at cost or revalued amounts;
- machinery and equipment carried at cost or revalued amounts;
- intangible assets carried at cost or revalued amounts;
- investment property carried at cost;
- goodwill;
- investments in subsidiaries, associates and joint ventures presented in the separate financial statements of companies.

From a practical standpoint, according to Grant Thornton (*Impairment of Assets – A guide to applying IAS 36 in practice,* 2014), the impairment review methodology can be divided into two phases, an assessment phase and a testing phase.

In the assessment phase, the entity's management:

- determines the assets subject to the scope of IAS 36;
- identifies the assets for which an impairment test is required. Regarding goodwill, indefinite useful life intangible assets and intangible assets not yet ready for use, these are tested at least annually, whether or not there is an indication they might be impaired. Other assets are tested only when management identifies a “trigger event” for potential impairment;

- assesses the “structure” of the impairment review, or which assets will be tested independently and which instead as part of a CGU or group of CGUs, and identifies the CGUs to which assets belong. It is often not feasible to assess the recoverable amount for an asset stand-alone, so, in this case, management must identify the CGU (or groups of CGUs) to which the asset that must be tested relates. In addition, in accordance with the requirements of IAS 36, management shall allocate goodwill and corporate assets to a CGU (or groups of CGUs).

The testing phase requires managers to:

- estimate the recoverable amount for the assets and CGUs, as the higher value between value in use and fair value less costs of disposal;

- compare the recoverable amount to the carrying amount;

- account for any impairment loss related to the individual asset or allocated among different assets in a same CGUs, accordingly to IAS 36’s guidance.

3.2 When performing an impairment test

With reference to the frequency of management review for the purposes of impairment test, IAS 36, paragraphs 9 and 10 state the following:

- *An entity shall assess at the end of each reporting period whether there is an indication that an asset may be impaired. If any such indication exists, the entity shall estimate the recoverable amount of the asset;*
- *irrespective of whether there is any indication of impairment, an entity shall also:*
- *test an intangible asset with an indefinite useful life or an intangible asset not yet available for use for impairment annually by comparing its carrying amount with its recoverable amount. This impairment test*

may be performed at any time during an annual period, provided it is performed at the same time every year. Different intangible assets may be tested for impairment at different times. However, if such an intangible asset was initially recognised during the current annual period, that intangible asset shall be tested for impairment before the end of the current annual period;

- test goodwill acquired in a business combination for impairment annually in accordance with paragraphs 80-99.

In other words, according to IAS 36 two asset groups can be identified with different requirements in order to perform an impairment test:

a) assets on which the impairment test has to be performed only if the entity has identified events or factors that could indicate that the value of the asset might be impaired. In this case, there is no obligation to perform, on an annual basis, the impairment test;

b) assets on which the impairment test has to be performed at least annually.

Therefore, the company is required to determine, at the end of each financial period, the presence of one or more indicators, the so called “trigger events”, that could result in an impairment in the future. Even though the identification of a “trigger event” for potential impairment is under management discretion, according to IAS 36 the company is required to take into account those “trigger events” which may give a signal of the need for an impairment test upon an asset.

The indications for impairment need considered by entity's management are provided by external or internal sources. Examples of external sources, according to IAS 36, are:

- a decline of asset’s market value during the reporting period, higher than expected as a result of the normal usage over time;

- significant changes in the technological, market, economic or legal environment in which the company operates, causing a negative effect on the company during the period;

- increase of market interest rates or other market rates of return on investments during the period, so that the discount rate used in calculating the value in use of an asset is affected (as well as its recoverable amount);

- the value of the net asset's carrying amount is higher than its market capitalisation.

Examples of internal sources are:

- evidence of obsolescence or physical damage of an asset;

- undesirable changes with negative effect on the company have occurred during the period or are expected to take place in the near future, such as plans for restructuration or disposal of an asset before the expected date, reassessment of the useful life of an asset as finite rather than indefinite or the asset becoming obsolete;

- indications arising from the internal reporting that the performance of an asset is being worse than expected.

As provided by IAS 36, internal reporting of the company, and therefore the information provided by MA should be carefully considered on this regard, could indicate that an asset may be impaired when:

a) cash flows for obtaining, operating and maintaining an asset are higher than those resulting from budget;

b) actual net cash flows or operating profit or loss flowing from the asset are considerably worse than those indicated in the budget;

c) there is a decline in budgeted net cash flows or operating profit or

significant increase in budgeted loss;

d) there is evidence of operating losses or net cash outflows for the asset, considering current period amounts aggregated with budgeted amounts for the future.

However, a company may identify other kind of indications that an asset may be impaired for which the determination of its recoverable amount, in order to perform an impairment test, is required. If there is an indication that an asset may be impaired, this may also indicate that the remaining useful life, the amortisation method and the residual values for the asset needs to be reviewed and adjusted, even if no impairment loss is recognised yet.

On this regard, it is worth to point out once again how MA information can be of great importance in order to detect indication that an asset or a group of assets may be impaired (e.g. a poor performance of a business unit resulting from management reporting could indicate the opportunity of operating a restructuring of the business unit together with the need of adequately testing the business unit assets for a possible impairment loss).

3.3 Recoverable amount of assets and the unit of account

IAS 36, paragraph 18, defines the recoverable amount as the "*higher of an asset's or cash-generating unit's fair value less costs to sell and its value in use",* and in paragraph 19-57 provides the requirements for measuring recoverable amounts.

When performing an impairment test, the recoverable amount estimation has to be referred to the individual asset, but it is often not feasible to estimate its recoverable amount if it does not generate cash inflows that are largely independent of those coming from the other assets which are

part of the same CGU. The unit of account on which an impairment test should be performed is defined by IAS 36, as well as the concept of CGU, crucial for an appropriate disclosure in the financial statements.

As indicated by IAS 36, paragraph 6, an asset's CGU is *"the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets".* Paragraph 68, furthermore, states the following: *"identification of an asset's CGU involves judgement. If recoverable amount cannot be determined for an individual asset, an entity identifies the lowest aggregation of assets that generate largely independent cash inflows".*

In order to identify whether positive cash flows from an asset, or group of assets, are largely independent of those from other assets, or group of assets, an entity has to consider several factors, including how management monitor the operations (by product lines, businesses, productive segments or regional areas) and how management makes decision about continuing or disposing of the company's assets and operations. In general, if an active market exists for the output produced by an asset or a group of assets, even though some or all of the output is used internally, such asset group of assets should be defined as CGU.

When cash flows generated by an asset or CGU are affected by internal transfer pricing methods, market prices rather than internal transfer prices should be adopted when estimating the CGU's recoverable amount consistently with the concept and definition of CGU.

The nature and structure of CGUs varies from entity to entity and is mainly determined by entities' specific factors. In practice, according to BDO (*IFRS in practice, IAS 36 impairment of assets,* 2013) a CGU could be:

- an entire entity (parent or subsidiary entities within a group)

- department or business units within an entity;

- production departments within an entity;

- production lines within a department or within an entity;

-group of items of property, plant and equipment within a production line, within a department or within an entity.

Furthermore, in order to reduce management judgement, IAS 36 states that CGUs have to be identified consistently, from period to period, for the same asset or group of assets, unless a change is justified. If a company assesses that an asset belongs to a CGU that is different from the one that was part of in earlier periods, or that there has been a change on the types of assets aggregated for the asset's CGU, specific disclosures are required under the Standard provisions.

3.4 CGU's carrying amount

According to IAS 36, paragraph 75, *"The carrying amount of a cash-generating unit shall be determined on a basis consistent with the way the recoverable amount is determined"*. It is worth to specify that it includes the carrying amount of those assets that are directly attributable, or consistently allocated, to the CGU and will generate perspective cash inflows used in the calculation of its value in use. It does not include the carrying amount of any recognised liability, unless the CGU's recoverable amount cannot be calculated without taking into account this liability. However, there are some situations in which it may be appropriate to include a particular liability in the carrying amount and recoverable amount of a CGU, i.e. when a CGU could not be sold without the assumption of the related liability by the buyer. In such a case, the fair value less costs of disposal of the CGU is equal to the price to sell the assets and the liability together, minus disposal costs. In order to be consistent and comparable, the carrying amount of the liability should be deducted in assessing both the value in use and the carrying amount of

the CGU.

It is worth noticing that liabilities relating to the CGU's financing activities (i.e. interest-bearing debt) are excluded from the carrying amount of the CGU. This is due to the fact (BDO, *IFRS in practice IAS 36 impairment of assets,* 2013) that cash flows related to such activities (i.e. interest) are specifically excluded from value in use calculations because the effect of financing activities is incorporated in the determination of the discount rate.

3.5 Impairment test and measurement of recoverable amount

To perform a full impairment test, entity's management has to compare the carrying amount of a monitored asset or CGU to its recoverable amount, to assess whether it is impaired or not and, if it has to be impaired, calculate the amount of impairment loss attributable to the asset or CGU.

The impairment test is a process that involves significant judgements and estimations about the future and this task requires a deep consistency, from period to period, of management evaluations supported by the information produced by an appropriate MA system. In order to reduce the subjectivity of entities' management in performing the impairment test, IAS 36 provides a guidance that defines the CGU as a systematic set of assets that, with its organisational and managerial synergy, generates positive cash flows that are largely independent from other assets or CGU.

As above pointed out, for goodwill and certain intangible assets the impairment test is required to be carried out at least annually, while, in the rest of the cases, it has to be performed only when it is clear that the asset carrying amount is impaired or if a "trigger event" has occurred along the reporting period. In both cases, annual test or test on the basis

of trigger events, the availability of appropriate MA information can be considered crucial. A timely identification of some trigger events requires updated and reliable MA data as well as the same information is necessary to correctly determine the value in use and, sometimes, even the fair value less costs of disposal. Extensive disclosures are required in the notes to indicate methodologies and assumptions used by the entity management in the calculation of the recoverable amount, as well as in the calculation of possible impairment loss and release of impairment loss. It is worth underlining that also for an appropriate disclosure, compliant with the provision of IAS 36, the availability of well-structured MA information, coherent with the key assumption used for the impairment test, have to be considered of great importance.

As already mentioned, the recoverable amount is defined by IAS 36 as the highest of an asset or CGU's fair value less costs of disposal and value in use. When one of the two comparative terms, asset's fair value less costs of disposal and its value in use, exceed the asset's carrying amount, the asset is not impaired so there is no need to do any further exercise in order to calculate and allocate to the single assets or the assets composing the CGU the impairment loss.

Excluding the exceptions outlined by IAS 36, i.e. goodwill and intangible assets with indefinite useful life and intangible assets not yet available for use, for which the impairment test should be performed annually, the concept of materiality applies in identifying whether the recoverable amount of an asset needs to be estimated. On this regard, if no events have occurred during the period and previous tests show that an asset's recoverable amount is significantly higher than its carrying amount, there is no need to re-estimate the asset's recoverable amount.

3.5.1 Fair value less cost of disposal

The basis for fair value measurement reflects the price that would be paid

to the holder of the assets by a third party, in a hypothetical and orderly exchange transaction between market participants and under current market conditions at the measurement date.

When the price for an asset cannot be observed directly, it has to be assessed using a valuation technique, for instance using quoted prices in an active market for equivalent assets, while in other cases a wider number of judgements and estimations are required, so it is more suitable to use more complex valuation techniques. IFRS 13 – *Fair Value Measurement* defines three widely adopted valuation techniques:

- the "market approach", it uses quoted prices for an identical asset in an active market as well as important information generated by market transactions of comparable assets, adjusted for incremental costs attributable to the disposal of the asset, e.g. legal costs and transactions taxes;

- the "cost approach", it bases the fair value of the asset on how costly would be, for a market participant buyer, to acquire or build a substitute asset of comparable utility, adjusted for obsolescence;

- the "income approach", it is based on converting future expected amounts coming from the asset, or cash inflows, to a current and discounted amount.

By using the income approach, the fair value obtained by the evaluation differs from value in use since the latter reflects the effect of factors specific to the entity and not applicable to entities in general. Fair value reflects the expectations of market participants which could not include information available to the entity's management, such as synergies between the asset being evaluated and other assets (in this case, it could be very important the availability of appropriate MA information) legal rights or legal restrictions related to the assets, etc.

3.5.2 Value in use

Value in use is defined, by IAS 36, paragraph 6, as *"the present value of the future cash inflows expected to be derived from an asset or CGU"*. It can be calculated as the sum of all single discounted cash flows generated by the use of an asset or CGU. IAS 36, *Appendix A,* states that, in the calculation of an asset's, or CGU's, value in use, the following elements have to be taken into account:

- " an estimate of future cash flow, or in more complex cases, series of future cash flows the entity expects to derive from the asset;

- expectations about possible variations in the amount or timing of those cash flows;

- the time value of money, represented by the current market risk-free rate of interest;

- the price for bearing the uncertainty inherent in the asset;

- other, sometimes unidentifiable, factors (such as illiquidity) that market participants would reflect in pricing the future cash flows of the entity".

From a mathematical standpoint, the value in use can be calculated with the following formula:

$$\text{Value in use} = \Sigma(n=1, N)\ [CFt / (1+r)\ ^\wedge\ t] + [TV / (1+r)^\wedge N$$

where CFt is the cash flow in the "explicit period" t (period covered by budget/business plan data), r is the discount rate (WACC), t is the reporting period included in the "explicit period" and N is the time span of the explicit period.

Estimating the value in use of an asset involves the main steps of estimating the future positive or negative cash flows deriving from the

continuing use of the asset and from its ultimate disposal and applying the appropriate discount rate to those expected cash flows.

Therefore, a high degree of judgement and subjectivity of entity's management is involved in the preparation of the impairment test, since it is mainly based on budget and business plan data from which are derived the cash flows forecast concerning the assets, as well as in the choice of the appropriate measures of discount rate and time span considered for calculating the discounted cash flow.

3.5.3 Cash flows projections

In the calculation of value in use, entity's management should:

a) base cash flows projections on reasonable assumptions that reflect management's best estimates, in accordance with the economic conditions over the remaining useful life of the asset or CGU. Managers, in order to properly perform this step of the process, should examine the causes of differences between past cash flow projections and actual cash flows and assess the reasonableness of the assumptions on which cash flows projections are based, making sure they are consistent with past actual outcomes (i.e. a 20% growth in revenue expected each year, when in the past revenue grew on average by 5% and no significant events are expected to occur in the market, may be considered a non-reliable assumption).

b) Base cash flows projections on the most recent financial budgets or business plans approved by the board of directors, excluding any estimated future positive or negative cash flows expected to arise from future operations of restructuring of the asset or CGU, even if estimates of future cash flows include future cash outflows necessary to maintain and preserve the economic benefits expected to arise from the asset in its current condition. Cash flows projections shall cover a maximum

period of five years (in practice, financial budget of future cash flows for periods longer than 5 years is not usually available), even though management may also base its projections on financial budget over a longer period if they are confident they are reliable and can demonstrate their ability, based on past experience, to forecast cash flows faithfully over that longer period. When a CGU is composed of assets with different estimated useful life, all of them essential for the ongoing operation of the unit, the replacement of assets with shorter life is considered to be part of the day-to-day servicing of the unit when estimating the future cash flows associated with the unit.

c) Estimate cash flow projections beyond the period covered by the most recent business plan by extrapolating these projections for subsequent years.

In order not to count twice the effect of some assumptions, estimated prospective cash flows should reflect assumptions consistent with the way the discount rate is determined and shall not include cash inflows or outflows from financing activities, because the time value of money is considered by discounting the estimated future cash flows, or income tax receipts or payments, because the discount rate is determined on a pre-tax basis. Lastly, as defined by IAS 36, paragraph 40, *"estimates of future cash flows and the discount rate reflect consistent assumptions about price increases due to general inflation, therefore, if the discount rate includes the effect of price increases attributable to general inflation, future cash flows are estimated in nominal terms"*.

As above outlined, estimated future cash flows has to be based on appropriately detailed underlying assumptions. This should include also changes in working capital items forecasted for the explicit period as well as capital expenditure. Given the importance of budgets and business plan as basis for the impairment test process, it is of the utmost importance that such forecasts are formerly approved by management

and, therefore, that they are consistent with all the data prepared for MA purposes. Nevertheless, some adjustments could be required to MA information in order to be suitable for the requirements of IAS 36; e.g., adjustments to represent the pre-tax amounts of future cash flows would be required.

There are certain cash flows items that are specifically excluded by IAS 36 from the value in use calculation. These include cash flows relating to a future restructuring to which an entity is not yet committed and improving or enhancing the asset's performance.

Future cash flows have to be projected on the basis of an asset or CGU in its current condition at the impairment test date. Cash outflows that are necessaries to keep the asset in its current condition, such as day-to-day serving, maintenance or repairing costs, have to be included in the cash flow projections. However, cost savings from efficiency improvements can be included in the cash flow projections. Therefore, once again, a significant degree of judgement is required to distinguish between an efficiency improvement, which should not change an entity's business model significantly, and a restructuring intervention and, once more, the MA information can be considered crucial on this regard.

3.5.4 Terminal value

The period covered by management forecasts and consequential cash flow projections is called "explicit period", and, at the end of it, a further estimate of the "terminal value" is required, in order to capture the value at the end of the time span (or reference time frame). The following is a list of the most used methods to estimate the terminal value:

- liquidation value, most useful when the assets are separable and marketable;

- multiple approach, the easiest approach that involves a higher degree

of subjectivity in the valuation;

- stable growth model, the soundest valuation model that requires judgements about the stable rate at which a company can sustain the growth forever.

According to the Stable growth model, when an entity's cash flows grow at a "constant" rate forever, the present value of those cash flows can be calculated using the following formula:

$$Terminal\ Value = CF(t+1) / (r-g)$$

Where $CF(t+1)$ is the cash flow in the next period after the "explicit period", r is the discount rate (WACC), g is the expected stable long-term growth rate.

In measuring the terminal value through the stable growth model, the entity aims at estimating cash flows beyond the period covered by the most recent business plan by extrapolating these projections using a steady or declining growth rate for subsequent years, unless an increasing rate is justified. This growth rate shall not exceed the long-term average growth rate for the products, industries, or countries in which the entity operates, or for the market in which the asset is used, unless a higher rate can be justified. In fact, even in presence of favourable conditions, competitors are likely to enter the market and restrict growth, so it results very complicated for a company to exceed the average historical growth rate over the long term for the products, industries or countries in which it operates, or for the market in which the asset is used.

3.5.5 Discount rate (WACC)

IAS 36 specifies, in paragraph 55, that the discount rate used should be a pre-tax rate and reflect current market assessment of the time value of

money and the risk specific to the asset for which the future cash flow estimates have not been adjusted. The discount rate that should be used is an estimate of the rate that the market would expect on an equally risky investment and, according to the Standard, can be estimated as:

- the rate implicit in current market transactions for similar assets; or

- the weighted average cost of capital (WACC) of a listed company that has a single asset (or portfolio of assets) similar in terms of service potential and risks to the asset under review.

In practice, the asset specific rates listed above are not always available, because of the unique nature of different transactions. Additionally, few listed companies are likely to offer a readily usable comparison since listed companies have a wider product or service basis, wider markets and lower risk profile. Therefore, entities usually calculate the discount rate as the WACC of the company itself determined using techniques such as the Capital Asset Pricing Model (CAPM), the company's incremental borrowing rate and other borrowing rate as a "starting point" for its estimation.

This WACC rate is then adjusted to reflect the way that the market would assess the specific risks associated with the asset's estimated cash flows (such as country risk, currency risk and price risk) and to exclude risks that are not significant to the asset's estimated cash flows or for which the estimated cash flows have been already adjusted. The adjusted WACC can be expressed with the following formula:

$$r = WACC + r' - r''$$

where r' is the additional risks and r'' represents risks not relevant.

A company normally uses a single discount rate for estimating an asset's value in use, even though it may be that a company uses separate

discount rates for different future periods when value in use is sensitive to a difference in risks for different periods.

WACC is calculated using the following formula:

$$WACC = [D / (D+E)] \times Kd\ (1 - tc) + [E / (D+E)] \times Ke$$

where Ke represents the cost of equity that is assessed through the CAPM; Kd is the cost of debt, computed considering the rate of a risk-free bond whose duration matches the term structure of the corporate debt structure, then adding the company's specific default premium. Since in most cases debt expense is a deductible expense, the cost of debt is computed as an after-tax cost; D is the market value of debt; E is the market value of equity and t is the tax rate.

CAPM allows to determine the cost of equity by using the following formula:

$$Ke = rf + ß\ (rm-rf) + C + S + \alpha$$

where r_f is the return on a "risk free" asset, usually the yield on a long-term government bond; $ß$ is the systematic risk of the business versus the market; (r_m-r_f) represents the equity market risk, or the excess return that an individual stock or the overall stock market provides over a risk-free rate, that is a compensation for investors for taking on the relatively higher risk of the equity market; C represents the country specific risk, since certain countries are more risky than others and so a greater rate of return is required; S is the small-size company risk, since evidences of empirical studies show that investors seek a greater return for small businesses, while in case of big-size companies it is equal to zero; α represents a further subjective adjustment made on value that may include a premium to reflect the probability of cash flow not being achieved in order to express a so called "execution risk".

As a matter of fact, it is usual for an entity to be composed by more than one CGU. It is also usual for different CGUs to be exposed to different risks, operating in different markets, industries, currencies, etc. IAS 36 requires a different discount rate for each individual CGU, provided that each CGU is exposed to specific risks. It is therefore not appropriate, in many cases, to apply a single discount rate across multiple CGUs since such rate does not express the specific risks related to each CGUs.

With reference to taxation, whose effect is usually included in the budget and business plan, it should be noticed that IAS 36 requires to use a pre-tax discount rate for the calculation of value in use. In practice, since budgets and business plan are usually prepared by management including tax effect, the discounted cash flows used as basis for calculating the value in use are usually prepared based on estimated future cash flows including taxes and using post-tax discount rates.

3.6 Measuring an impairment loss

When the recoverable amount of an asset or CGU is lower than its carrying amount, the asset or CGU is impaired, and the carrying amount shall be reduced to its recoverable amount. The impairment loss shall be recognised in profit or loss, except when the related asset amount has been revalued in which case the impairment loss shall be recognised in other comprehensive income for the part of the impairment loss that does not exceed the revaluation surplus of that asset. Allocating the impairment for individual assets implies direct reduction of the single asset carrying value, while when the impairment relates to a CGU, IAS 36 requires that the impairment loss is first allocated as a reduction of the carrying amount of goodwill. The remaining part of impairment loss shall be allocated to all other "impairable" assets within the CGU, based on their relative values.

If the amount estimated for an impairment loss is greater than the carrying

amount of the related asset, a liability for the excess is recognised only if that is required by an IFRS other than IAS 36.

3.6.1 Allocation of goodwill to a CGU

According to EFRAG (EFRAG Discussion Paper, 2017), accounting for goodwill and goodwill impairment is a complex and controversial topic. Goodwill arises when an entity purchases a business. It is recognised as an asset and measured as the difference between the purchase considerations and the value assigned to the identifiable assets and liabilities acquired. Before the introduction of IFRS 3, goodwill was subject to annual amortisation with rebuttable presumption that its useful life could not exceed 20 years. After the introduction of IFRS 3, goodwill is not amortised and is subject to an impairment test.

In IFRS there is not a specific reporting standard that addresses the accounting for goodwill and provisions relating the accounting treatment are fragmented throughout several standards (IFRS 3, IFRS 10, IFRS 8 and IAS 36). It should be pointed out that, as a matter of fact, goodwill can be generated internally by the company or acquired externally through a business combination; any internally generated goodwill is not recognised in the financial statements. For the purpose of impairment test, goodwill acquired in a business combination starting from the acquisition date should be allocated to a CGU, or groups of CGUs. In such a circumstance, as defined by IAS 36, paragraph 81, goodwill is treated as *"an asset representing future economic benefits arising from other assets acquired through the business combination that are not individually identified and separately recognised. Goodwill does not generate cash flows independently of other assets and often contributes to the cash flows of multiple CGUs, although sometimes it cannot be allocated on a non-arbitrary basis. As a result, the lowest level within the company at which the goodwill is monitored for internal management purposes comprises a number of CGUs to which the goodwill relates",*

given the difficulties and the risks of an arbitrary allocation.

The objective of IAS 36 is to require entities' management to allocate goodwill to the lowest possible level so excluding the need to develop new or additional reporting system to perform an impairment test. The IASB's approach is aimed at testing goodwill at a level characterised by a multiplicity of available information and data about ongoing operations and assets provided for managerial purposes.

In the case of a disposal by the company of an operation within a CGU, the goodwill associated with that operation shall be:

a) included in the carrying amount of the operation when assessing the gain or loss due to the disposal; and

b) measured on the basis of the relative values of the operation disposed, unless any other alternative measurement method is demonstrated to better reflects the goodwill associated with the operation disposed of.

If changes on the composition of one or more CGUs to which goodwill has been allocated occur, management should re-allocate the goodwill to the units that have been affected by the organisational change (IAS 36, paragraphs 86-87).

According to BDO (BDO; IFRS in practice, 2013) many of the complexity as regarding impairment testing relate in practice to goodwill. For the purposes of the allocation of goodwill, CGUs to which goodwill has to be allocated must:

- represent the lowest level within the entity at which the goodwill is monitored for internal management purposes, and

- not to be larger than an operating segment as defined by paragraph 5 of IFRS 8 – *Operating Segments* before aggregation.

In other words, goodwill shall be allocated separately to CGUs that should not be larger than individual operating segments before any operating segments are aggregated for the purposes of the segmental disclosures. It is worth mentioning that even though an entity may be not obliged to apply IFRS 8, because it is not listed on a public market, the references to operating segments as defined in IFRS 8, still apply for the purposes of the application of IAS 36.

3.6.2 Testing CGU with goodwill for impairment

As already indicated, according to IAS 36, a CGU to which goodwill has been allocated should be tested for impairment annually and whenever a "trigger event", which indicates that the unit may be impaired, is occurring. The test involves a comparison between the carrying amount of the unit, goodwill included, with its recoverable amount and, if the latter exceeds the carrying amount, no impairment loss will be recognised while, on the other hand, if the carrying amount exceeds the recoverable amount, the unit and the allocated goodwill shall be regarded as impaired. The annual impairment test for a CGU to which goodwill is allocated is performed at the same time every year, even though some CGUs may be tested at different times, e.g. because of the different nature of operations and assets involved.

3.6.3 Testing corporate assets for impairment

Corporate assets, in practice, include the assets of an entity that act as the support to the other entities' CGU. These assets, therefore, do not generate independent cash inflows. There is no specific guidance, in IAS 36, defining the exact content of corporate assets since the nature and form of corporate assets are quite different among entities, based on a number of factors, including the structure of an entity itself.

Examples of corporate assets are building of the company's

headquarters, an ERP or a research centre. It is the structure of a company that determines whether the standard's definition of corporate asset is met for a particular CGU. Distinct characteristics of corporate assets are that they do not generate cash inflows independently of other assets, or group of assets, and as a consequence their carrying amount cannot be fully attributed to a single CGU subject to the test. As indicated by IAS 36, paragraph 101, *"if there is an indication that a corporate asset may be impaired, recoverable amount is determined for the cash-generating unit or group of cash-generating units to which the corporate asset belongs, and is compared with the carrying amount of this cash-generating unit or group of cash-generating units".*

The Standard also underlines the importance of identifying all the corporate assets that are part of the CGU subject to the test and requires that they are normally allocated to CGUs on a reasonable and consistent basis for the purposes of impairment test.

3.6.4 Accounting of an impairment loss

An impairment loss, whose amount is given by the difference between an asset or CGU's book value and its determined recoverable amount, can be attributable to:

- a single asset;
- a CGU without goodwill;
- a CGU with goodwill.

As far as the case of a single asset, the impairment loss should be recognised immediately in the income statement, unless the asset is measured according to another standard, e.g. according to IAS 16, that provides the revaluation model. After the recognition of the impairment loss, the amortisation for the asset shall be adjusted in future periods to

allocate the revisited carrying amount of the asset (less its residual value, if any) through a consistent basis and over its remaining useful life.

In the case of a CGU at which no goodwill is allocated, the impairment loss is accounted for in the income statement with a proportional reduction of carrying amount of each single asset within the CGU. Nevertheless, a company should not reduce an asset's carrying amount below the highest of its fair value less costs of disposal, its value in use and zero.

An impairment loss of a CGU that includes goodwill, or a corporate asset, should be allocated, first, reducing the carrying amount of any goodwill allocated to the CGU, and then, to the other assets of the CGU pro rata, on the basis of the carrying amount of each assets in the CGU. In this case, in allocating an impairment loss, a company shall not reduce the asset's carrying amount below the highest of its fair value less costs to sell, its value in use and zero.

3.7 Reversing an impairment loss

As outlined by IAS 36, paragraph 110, *"an entity shall assess at the end of each reporting period whether there is any indication that an impairment loss recognised in prior periods for an asset other than goodwill may no longer exists or may have decreased".* External and internal sources of information, defined by the Standard, have to be considered for this purpose such as:

- significant increase in asset's market value occurred during the reporting period;

- favourable effects on the company due to important changes that have taken place during the period, or are expected in the near future, in the technological, market, economic or legal environment in which the company operates;

- decreases in market interest rates or other rates of return on investment during the period, that are likely to affect the discount rate used in determining the asset's value in use as well as increase the asset's recoverable amount materially;

- important changes resulting in favourable effects on the company took place during the reporting period, or expected to occur in the near future, such as costs to finance activities of enhancement of the asset's performance or restructuring the operation to which the asset belongs;

- evidences available from management reporting that point out an increase, not expected in the past, in the economic performance of the asset.

If such indications exist, the company should re-estimate the recoverable amount of the asset, by carrying out the necessary calculations. In fact, as defined by IAS 36, paragraph 114, *"an impairment loss recognised in prior periods for an asset other than goodwill shall be reversed if, and only if, there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognised".* In such a case, the book value of an asset has to be increased to its recoverable amount, to an extent equal to the impairment loss.

As a consequence, where assets or CGUs, other than goodwill, have been impaired in past periods, IAS 36 requires entity's management to determine, at the end of each reporting period, whether there is the presence of any indicator of reduction of a previous impairment loss. In this case, the entity is required to estimate the recoverable amount of that asset or CGU. A previous impairment, other than goodwill, is reversed also in the case of changes of the estimates used to assess the recoverable amount of an asset or CGU.

In any case, the amount of the reversal is equal to the amount that brings the asset, or CGU, to the current carrying amount that would have been assessed if no impairment loss was recognised for the asset, or CGU, in previous years. As far as goodwill is concerned, amounts allocated against the carrying amount of goodwill are never subject to reversal because it results complicated to assess if the increase in value results from elimination of the reason of the original impairment or subsequent internally developed goodwill (according to IFRS goodwill is never recognised as an asset).

3.8 Disclosures

3.8.1 Approach followed by management in the impairment test

Extensive disclosures are required by IAS 36 to the entity's management in order to give a complete explanation about impairment test structure and key assumptions, whether or not an impairment loss has been recognised by the entity in the financial statements.

When a CGU's recoverable amount is based on its value in use, as already pointed out, entity's management has to exercise substantial judgement and, as required by the Standard, detailed disclosures on estimates are needed to measure the recoverable amounts of CGUs to which goodwill or intangible assets with indefinite useful life have been allocated. The purpose of these requirements is evidently to support financial statements users in understanding the approach adopted by entity's management as well as to provide the users with fundamental information on the key assumptions relating to entity's perspectives and expectations. As indicated by BDO in the *ESMA's review of impairment of goodwill and other intangible assets* (2013), the ESMA (European Securities and Markets Authority), through a report issued in 2012, highlighted the need for detailed disclosures in the financial statements

focusing on:

- key assumptions used;
- periods over which cash flows are forecast;
- growth rates;
- discount rate applied;
- consistency of those assumptions with past experience.

3.8.2 Sensitivity analysis and disclosures per CGU

Entity's management is required by IAS 36 to provide in the financial statements disclosures about the sensitivity of the recoverable amounts to possible changes in key assumptions and when such changes could determine an impairment to be accounted for. In the current economic environment, in which the economic and financial crisis has been significantly worse than expected, these disclosures can be considered particularly significant. As a consequence, it could be appropriate to include sensitivity analysis related to the most important assumptions used in order to present the effect of possible changes in such assumptions, which may include:

- growth rates;
- discount rates and parameters included within the discount rate;
- revenues or volume of sales and impact on the operating margin.

The disclosures above indicated, together with other information such as the recoverable amount related to each CGU and the carrying amount of goodwill and other intangible assets with indefinite useful life are required to be presented in the notes detailed for each CGU with a significant

allocation of the entity's total goodwill. Entities preparing financial statements are also required to provide disclosures about circumstances and events that, if the case, determined the recognition of an impairment loss. This information has to be provided separately for each CGU to which goodwill has been allocated. It is worth mentioning that it cannot be considered appropriate not to provide these disclosures due to confidentiality reasons.

3.9 The importance of Management Accounting information for IAS 36

As pointed out at the beginning of this chapter, the above analysis of IAS 36 has been focused on identifying the aspects where MA information has to be considered necessary for the purpose to fully comply with the Standard requirements. The availability of well-structured and reliable MA information can furnish an adequate support for entities preparing financial statements in order to present consistent and useful information to external users. Furthermore, considering the high degree of subjective interpretation involved in the impairment testing process, it should be considered of great relevance for the correctness and reliability of projections used in the impairment testing that an adequate MA system provides management with all necessary information. Some aspects and requirements of IAS 36, in particular, require an appropriate support in terms of MA information availability:

- the indication for impairment testing need are provided, according to IAS 36, by external or internal sources defined "trigger events". MA can provide important pieces of information in order to detect indications (as in the case of internal reporting indicating performance of an asset worse than expected) that an asset, or a group of assets, may be impaired;

- the estimation of the value in use of an asset, or group of assets,

requires to determine the future cash flows deriving from the continuing use of the asset and from its ultimate disposal as well as calculating and applying an appropriate WACC to the expected cash flows. Consequently, a high degree of judgement and subjectivity of entities management is involved in the impairment test and it has to be mainly based on reliable budget and business plan data coming from MA;

- considering the importance of budgets and business plan data in the impairment test process, it is of the greatest importance that such forecasts, formerly approved by top management, are consistent with the data elaborated for MA objectives.

- in order to perform the impairment test, goodwill acquired in business combinations shall be allocated to a CGU or groups of CGUs. The approach of IAS 36 is to require entities' management to allocate goodwill at an appropriate level, characterised by a multiplicity of available information and data about ongoing operations so as to exclude the need to develop additional management reporting system to perform the impairment test;

- the provision of extensive and appropriate disclosures in the notes to indicate approach and methodology adopted by management in the calculation of the recoverable amount, in compliance with IAS 36, requires the availability of MA information consistent with the key assumptions used for elaborating the impairment test.

4. Analysis of IFRS 8 and relevance of Management Accounting information

As in the case of IAS 36, even for IFRS 8 – *Operating Segments* the aim of the thesis is not to illustrate and provide comments on the full content of these Standards with the objective to be exhaustive regarding their

prescriptions, but just to analyse the main contents in order to identify the aspects where MA information is of great relevance, and need to be carefully considered, in order, for the entities preparing financial statements, to accomplish a high quality financial reporting.

The information required by the IFRS 8 is strongly based on internal management reports since it regards the identification of operating segments and disclosure of segment information. The Standard outlines the requirements for companies whose debt or equity instruments are traded in a public market for disclosure of relevant information about their operating segments, products and services, the geographical areas in which they operate and their major customers.

4.1 Core principle and scope of IFRS 8

According to IFRS 8, paragraph 1, *"an entity shall disclose information to enable users of its financial statements to evaluate the nature and financial effects of the business activities in which it engages and the economic environments in which it operates".*

IFRS 8 applies to separate financial statements of a company and to the consolidated financial statements of a group with a parent (as provided by paragraph 2) whose debt or equity instruments are traded in a public market, or which is in the process of filing its financial statements for the purpose of issuing any class of instruments in a public market.

Paragraph 2 also states that *"for this purpose, a 'public market' is any domestic or foreign stock exchange, or an over-the-counter market, including local and regional markets".*

Paragraph 3 of the Standard specifies that companies which choose to disclose information about segments voluntarily, even though without triggering the need of complying wholly with IFRS 8, can do it but have not to qualify the information as a IFRS 8 segment information in the

context of their financial statements.

IFRS 8 is a standard that adopts a rigorous management approach to segment reporting since it requires an identification of operating segments, as well as a measure made on the same basis as financial information is reported internally, for the objective of an efficient allocation of resources among segments and for evaluating the related performance. In developing the Standard, IASB adopted an approach based on the importance of managerial information when defining segments, taking into account the structure of the company's internal organisation. This approach allows users to see the entity through "the eyes of management" (Deloitte, iGAAP 2018 – *A guide to IFRS reporting*), i.e. exactly from a management point of view, and enhance their ability in predicting actions undertaken by management that can be relevant and potentially affect the prospects for future cash flows. On the other hand, an additional objective of the approach adopted by the Standard is the reduction of costs of external reporting given that the information required is already generated for managers' purposes.

IFRS 8 does not provide any exemption for disclosures considered not to be in the interest of the company by the management. In fact, even when the directors of a listed company believe that disclosing certain segment information would be detrimental for the overall interest, e.g. because the entity's main competitor is not publicly traded and does not disclose similar information, the segment information cannot be omitted in IFRS financial statements.

4.2 Definition of operating segment and the chief operating decision maker

According to IFRS 8, paragraph 5, *"an operating segment is a component of an entity:*

- *that engages in business activities from which it may earn revenues*

and incur expenses (including revenues and expenses relating to transactions with other components of the same entity);

- whose operating results are regularly reviewed by the entity's chief operating decision maker to make decisions about resources to be allocated to the segment and assess its performance; and

- for which discrete financial information is available".

The term "*a component",* even though IFRS 8 does not provide a definition, refers to a division, a subsidiary or group of subsidiaries, and, if the requirement of paragraph 5 are satisfied, to an interest in an associate or a joint venture as well.

As indicated by IFRS 8, paragraph 7, the term "chief operating decision maker" relates to the function of allocating resources and determining the performance achieved by the operating segments of a company. The Standard also states that *"often the chief operating decision maker of an entity is its chief executive officer or chief operating officer but, for example, it may be a group of executive directors or others".* In 2017 the IASB published the ED/2017/2 – *Improvements to IFRS 8 (section 8),* a document including several proposals to help companies identifying the chief operating decision maker.

The management approach leans upon the structure of the company and internal MA reports, and is driven by the chief operating decision maker, who assesses the resources allocation, within the entity, as well as the operating segments performance. Usually the chief operating decision maker (E&Y, *IFRS 8 implementation guidance,* 2009) is the management individual of higher ranking within the company (or the consolidated entity), who takes the most important decisions, even though sometimes the function is performed by a group of individuals and, from an operational standpoint, the entity does not always identify the chief

operating decision maker. Such an individual could be the chief executive officer, an executive committee within the board of directors or the general manager, who may receive management reports prepared in a variety of different formats. The complexity of organisational and reporting structure often represents a difficulty in determining the chief operating decision maker, and it may be useful to take into account the financial information that is presented to the board of directors, i.e. the highest governance level where strategic decisions are usually taken, given that this information is indicative of how management views the company's activities. Therefore, an evaluation of such financial information is helpful in distinguishing the chief operating decision maker from different level of line management (e.g. segment management).

4.2.1 Matrix form of organisation and start-up operations

The characteristics defined by IFRS 8, paragraph 5, *"may apply to two or more overlapping sets of components for which managers are held responsible"* (IFRS 8, paragraph 10). In terms of entities' organisation, this kind of structure is sometimes referred to as a 'matrix' form of organisation, and can be identified in many large companies, where some managers are responsible for different segments worldwide (different product, customer, service lines) while other managers are responsible for definite geographical areas. The chief operating decision maker regularly monitors performance of all sets of components and, in such a situation, the entity shall determine which set meets the requirements outlined by the core principle of IFRS 8, paragraph 9.

Matrix organisational structures are typically adopted by large-size and complex organisations. However, it is worth to highlight that, when more than one set of segments are identified (product or services versus geography) the Standard specifies that the entity should not simply report information based either on product and services or the geographic dimension, given that it could not be consistent with the management

approach. On this regard, the Standard makes reference back to the core principle, requiring that the identification of operating segments be made in order to enable users of the financial statements *"to evaluate the nature and financial effects of the business activities in which (the entity) engages and the economic environments in which it operates".* Management will, therefore, be required to exercise judgement as to which of the basis of segmentation satisfies this objective (IFRS 8, BC27).

In the case of a component of a business not yet generating revenues, IFRS 8, paragraph 5, specifically refers to start-up operations, which could start performing business activities before generating revenues, and allows them to be classified as operating segments, provided that the other criteria are satisfied, even though they are still at that pre-operating stage.

When there is a change in the structure of a business, e.g. due to reorganisation or a new line of business, or in the way information is reported to the chief operating decision maker, or in the company's corporate governance structure so that a new chief operating decision maker is identified, it is significantly important to consider to what extent these changes might affect the identification of operating segments and the disclosures provided in accordance with IFRS 8.

4.3 Identification of reportable segments

Once the operating segments of a business have been identified, the entity must assess which of them are reportable, or those operating segments whose information is required by the Standard. According to IFRS 8, paragraph 1, entities must report separately information about each operating segment that:

- *"has been identified in accordance with IFRS 8, paragraph 5 to 10, or results from aggregating two or more of those segments in accordance with paragraph 12, and*

- exceeds the quantitative thresholds in paragraph 13".

In addition, IFRS 8 paragraph 14 to 19, specifies other situations in which information about an operating segment must be reported.

4.3.1 Limit of reportable segments and aggregation criteria

IFRS 8 does not indicate a specific limit on the number of operating segments for which information shall be disclosed. Nevertheless, it acknowledges that there could be practical limits to the number of reportable segments beyond which separately information on segments becomes too detailed. The Standard suggests that, in the case of a number of segments identified as reportable accordingly to IFRS 8 (paragraph 13 to 18) higher than 10, the company should evaluate if the information furnished in the financial statements needs to be reduced in terms of detail (IFRS 8, paragraph 19).

Once the number of operating segment for which information must be disclosed overtakes a reasonable amount, the criteria used by management for aggregation should be re-evaluated in order to determine if an appropriate aggregation of operating segments has been actually performed. Moreover, the presence of an unreasonably wide number of operating segments may represent a potential indicator that the chief operating decision maker has not been identified properly.

IFRS 8 points out that the operating segments often displays similar long-term financial performance (e.g. similar average gross margins) if they have similar economic characteristics. But, often, it can be a complex task to appropriately combine operating segments, which have similar financial characteristics, for the purpose of external reporting. IFRS 8, paragraph 12, specifies that two or more operating segments can be aggregated into a single operating segment if all of the following conditions are met:

- "aggregation is consistent with the core principle of this IFRS (section 2);

- the segments have similar economic characteristics; and

- the segments are similar in each of the following respects:

- *the nature of the products and services;*
- *the nature of the production processes;*
- *the type or class of customer for their products and services;*
- *the method used to distribute their products or provide their services; and*
- *if applicable, the nature of the regulatory environment, for example, banking, insurance or public utilities".*

The criteria for aggregation are stringent and, as a result, the aggregation is permitted only for quite homogeneous operations. It goes without saying that an appropriate analysis of the above requirements implies the cooperation within the reporting entity of FA and MA knowledge at an adequate level in order to identify the right approach.

4.3.2 Requirement for consistency with information reported elsewhere

The management approach adopted by IFRS 8 encourages consistent descriptions of a company's business in the annual report compared to business performance and description provided by the entity through other published information. Information reported in the operating segment note of the financial statements should be consistent with the information presented throughout a company's regulatory filings, in the annual report to shareholders, in the entity's websites, in financial analyst reports, interviews and other public statements made by management, or other public documents.

Commonly, while a company could look to the aggregation criteria and

conclude that it has only one reportable operating segment, such a case would be expected to be quite rare. The purpose of segment information required by IFRS 8 is to provide a wider number of significant and useful information about the different types of business activities in which an entity is involved and, therefore, to provide more helpful information to the users of financial statements.

4.3.3 Quantitative thresholds

Under IFRS 8, according to paragraph 13, entities are required to report separately information about an operating segment whose economic characteristics meet any of the following quantitative thresholds:

- "its reported revenue is 10 per cent or more of the combined revenue of all operating segments. For this purpose, revenue includes both sales to external customers and inter-segment sales or transfers; or

- the absolute amount of its reported profit or loss is 10 per cent or more than the greater, in absolute amount, of (i) the combined reported profit of all operating segments that did not report a loss, and (ii) the combined reported loss of all operating segments that reported a loss; or

- its assets are 10 per cent or more of the combined assets of all operating segments".

If segment information is reported to the chief operating decision maker after all the adjustments, eliminations and allocations of revenue, expenses and gain or losses, it would follow from IFRS 8 (paragraph 25) that, in applying the quantitative thresholds listed above for the objective of identifying reportable segments, the thresholds should be applied on this basis, i.e. after adjustments, eliminations and allocations.

The aggregation criteria defined by the Standard, paragraph 12, take

precedence over these quantitative thresholds. As a consequence, if two or more components of a business satisfy the aggregation criteria of IFRS 8, paragraph 12, they may be combined for external reporting objectives into an individual operating segment, despite that they exceed the quantitative thresholds.

4.4 Disclosure

As far as disclosure provisions are concerned the general principle set up by IFRS 8 is that entities have to disclose information useful for external users of their financial statements, so as to evaluate the quality of the business in which they are involved as well as the significant characteristics of the economic environment in which the companies are operating.

For each segment item, the amount to be reported under IFRS 8 is equal to the measure reported to the chief operating decision maker for the aims of taking decisions regarding resources allocation to the segments and determining its performance. As explained by the IFRS 8, paragraph 25, adjustments and eliminations made in preparing an entity's financial statements and allocations of revenues, expenses, and gains or losses should be included in determining reported segment profit or loss only if they are included in the measure of the segment's profit or loss that is used by the chief operating decision maker.

Since segment information has to be measured on the same basis as information is reported to the chief operating decision maker, this information, will not necessarily be prepared in line with IFRSs requirements. Moreover, due to the fact that this information is going to be reported externally, entities' management should consider carefully how they are reporting internally so as to align internal information with external information and, in light of the expected reaction of users to any difference from an IFRS basis, whether the internal reporting system is

adequately reliable for the purposes of external reporting.

To give effect to this overall principle, according to IFRS 8, companies are required to disclose the following information for each period for which a statement of comprehensive income is presented:

- general information;

- information relating to reported segment profit or loss, including specific revenue and expense items, segment assets and liabilities and the basis of measurement;

- reconciliations relating reported segment profit or loss, segment assets and liabilities as well as other significant segment items to which correspond company amounts.

4.4.1 General information

As far as general information is concerned, IFRS 8, paragraph 22, identifies among the general information that has to be disclosed the *"factors used to identify the entity's reportable segments, including the basis for organisation (for example, whether management has chosen to organise the entity around differences in products and services, geographical areas, regulatory environments, or a combination of factors and whether operating segments have been aggregated)" ,* and

"the judgements made by management in applying the aggregation criteria. This includes a brief description of the operating segments that have been aggregated in this way and the economic indicators that have been assessed in determining that the aggregated operating segments share similar economic characteristics", and *"types of products and services from which each reportable segment derives its revenues".*

4.4.2 Information about assets and liabilities, profit or loss

According to IFRS8, paragraph 23, companies must disclose specific items about each reportable segment if the specified amounts have been taken into account in the measure of segment profit or loss reviewed by the chief operating decision maker, or regularly provided to him. Entities are required to report total assets and total liabilities for each reportable segment. Regarding profit or loss, the main items are: revenues from customers, revenues from other operating sectors, interest revenue and interest expense, depreciation and amortisation, material items of income and expense, entity's interest in associates and joint ventures, income tax, material non-cash items.

Although the chief operating decision maker is provided with more exhaustive information about an operating segment (e.g. financial information about specific products) the Standard requires to present financial information related to the overall operating segment. However, disclosure of information related to single products can be required on an entity-wide basis.

4.4.3 Reconciliations

As regard reconciliations, IFRS 8, paragraph 21, also outlines that *"reconciliations of the amounts in the statement of financial position for reportable segments to the amounts in the entity's statement of financial position are required for each date at which a statement of financial position is presented".*

IFRS 8 (paragraph 28) outlines the reconciliations of reportable segments' items that must be provided in the disclosure, which regard:

- the total amount of segments' revenues to the company's revenue;

- the segment's profit or loss to the company's profit or loss before deducting tax expense, or tax income, as well as discontinued operations;

- the total amount of the segments' assets and liabilities to the company's assets and liabilities;

- the total amount, attributable to each reportable segment, of every other material item to the related amount for the company.

The same paragraph states that *"all material reconciling items shall be separately identified and described".*

4.4.4 Explanation of the measurement of segment information

IFRS 8, paragraph 27, requires companies to present an explanation of the measurements adopted in segment profit or loss, segment assets and liabilities for each segment. The disclosures must provide the following information which, for the most part, can be considered as accounting aspects based on MA data and assumptions:

- the accounting basis adopted for any transactions between different segments;

- the nature of any inconsistency in the measurements of the segments' profits or losses and the company's profit or loss, which may include policies for allocation of fixed costs to be considered for a good understanding of segment information reporting;

- the nature of any inconsistency in the measurements of the segments' assets (liabilities) and the company's assets (liabilities), that could include policies for allocation of assets (liabilities) used jointly to be necessarily considered for a good understanding of segment information disclosed;

- the nature of any changes, from previous periods, in the measurements aimed at assessing the segment profit or loss as well as the effect of changes; and

- the nature and effect, if any, of asymmetrical allocations to segments.

4.4.5 Entity-wide disclosures

Further to the disclosure requirements relating to individual segments, IFRS 8 provides some entity-wide disclosures requirements which regard all entities falling within its scope, including those entities which have a single reportable segment. Even though the identification of reportable segments and information to be disclosed under IFRS8 requirements are based on the management approach, entity-wide disclosure adopt a view more linked to financial statements figures and therefore standardise a portion of the segment disclosures between entities presenting financial reporting to external users. The amounts reported for the entity-wide disclosures should be based on the financial information used to produce IFRS financial statements and not to prepare the operating segment notes, unless they have the same structure.

4.4.5.1 Information about products and services

Entities are required to report the revenues from external customers for each product and service or each group of similar products and services, unless the necessary information is not available and the cost to gather or develop it would be excessive. When the entity determines its reportable segments on the basis of products and services and such information is already disclosed in the operating segment disclosure, this information does not need to be repeated in the entity-wide disclosure.

4.4.5.2 Information about geographical areas

The following geographical information is required by IFRS 8 unless the

information is not available to the entity and the cost to develop it would be excessive:

- revenues from customers of the entity's country domicile and total revenues from foreign customers;

- separate disclosure for foreign countries with material revenues;

- non-current assets other than financial instruments, located in the entity's country of domicile and located in all foreign countries in total;

- separate disclosures of non-current assets in foreign countries where they are material.

The Standard does not provide any particular method for allocating revenues to geographical areas, therefore an entity can choose to disclose this information based on the country of the customer or based on the location where the transaction occurred.

In the case the entity determines its reportable segments on a geographical basis and such information is disclosed in the operating segments disclosures, this information needs not to be repeated in the entity-wide disclosures.

4.4.5.3 Information about major customers

Concentration of revenues on a few number of customers represents a significant risk from a business perspective. Entities are therefore required by IFRS 8 to provide information about the extent of their reliance on major customers. If revenues from transactions from a single external customer amount to or exceed 10 per cent of an entity's revenues, the entity is required to disclose this circumstance and:

- the total amount of revenue from each such customer; and

- the segments reporting the revenues.

IFRS 8 explicitly states that it is not required to disclose the identity of a major customer as well as the amount of revenues that each segment includes for that customer. For the purpose of these requirements, a group of entities known by a reporting entity to be under common control should be considered as a single customer.

4.5 The importance of Management Accounting information for IFRS 8

Quantitative figures and disclosures required by IFRS 8 are essentially based on internal management reports since they regard the identification of entities operating segments and disclosures of segment information. Taking into account the wide array of MA information necessary to meet IFRS 8 requirements, it is of great importance the existence of an integrated MA system able to provide management with information related to all the operating segments that the entity is managing (identified in accordance with the definition of segment furnished by the Standard). IFRS 8 adopts a rigorous management approach to segment reporting by requiring an identification of operating segments exactly based on the internal structure of entities' management report. The purpose of the Standard is to offer to external user information available to the management substantially from the same point of view, so as to enhance their ability in evaluating the actions undertaken by management which can affect the prospects for future cash flows. The aspects where IFRS 8 mostly requires the support of MA information relate to the whole structure of the Standard's provisions and can be considered the following:

- definition of operating segments, in line with management reporting point of view;

- identification of the chief operating decision maker, which could identify either a function or a manager who supervises relevant MA

information;

- identification of the segment manager;

- identification of reportable segments, aggregation criteria and quantitative thresholds;

- disclosures to enable users to evaluate, with appropriate detail, the result of entity's operations and the economic environment in which it operates.

5. Empirical analysis on four listed Italian companies

5.1 Analysis of IAS 36 disclosures for RCS MediaGroup, Autogrill, De Longhi, Fincantieri

The rules set forth by IAS 36 have to be mandatorily applied by listed company in the European Union. As outlined in previous chapters of this work, the importance of MA information can be considered of the utmost relevance for the correctness, reliability and quality of financial reporting, since the impairment testing process required by IAS 36 involves the use of financial projections mainly coming from management accounting. Entities management is required by IAS 36 to give evidence, as fundamental information, of the key assumptions relating to the business perspectives and expectations.

In order to look more in depth and from a practice stand point how management accounting information are provided to financial statement users in the IAS 36 disclosures, an empirical analysis has been developed with reference to four Italian listed companies, i.e. RCS MediaGroup, Autogrill, De Longhi and Fincantieri, taking into

consideration their 2017 consolidated financial statements.

In order to perform the empirical analysis, exclusively based on the observation of the disclosures included in the consolidated financial statements, a check-list has been prepared by selecting the most significant requirements of IAS 36 for which MA information can be considered fundamental for disclosure purposes. For each step of the check-list, according to the analysis performed, a YES response has been indicated when the requirement is clearly met, a NO response when the requirement seems not to be met with sufficient evidence and a N/A response when, due to the nature of the business or other circumstances, the step can be considered not applicable.

The check-list has been developed by taking into consideration the following information categories for which MA information can be considered fundamental as already above pointed out:

1. significant goodwill or intangible assets with indefinite useful lives allocated to CGUs;
2. material impairment loss recognised or reversed;
3. effects of possible change in a key assumption (sensitivity analysis).

1. Significant goodwill or intangible assets with indefinite useful lives allocated to CGUs

An entity shall disclose the following information required by (a)-(f) for each cash-generating unit (group of units) for which the carrying amount of **goodwill or intangible assets with indefinite useful lives allocated** to that unit (group of units) is **significant** in comparison with the entity's total carrying amount of goodwill or intangible assets with indefinite useful lives (**IAS 36, p.134)**	**RCS**	**AG**	**DL**	**FC**
a) the carrying amount of goodwill allocated to the unit	YES	YES	YES	YES

b) the carrying amount of intangible assets with indefinite useful lives allocated to the unit (group of units)	YES	N/A	N/A	N/A
c) the basis on which the unit's (group of units') recoverable amount has been determined (i.e. value in use or fair value less costs to sell)	YES	YES	YES	YES
d) If the unit's (group of units') recoverable amount is based on value in use:	YES	YES	YES	YES
– a description of each key assumption on which management has based its cash flow projections for the period covered by the most recent budget/forecast	YES	YES	NO	YES
– a description of management's approach to determining the value(s) assigned to each key assumption, whether those value(s) reflect past experience or, if appropriate, are consistent with external sources of information, and, if not, how and why they differ from past experience or external sources of information.	YES	YES	YES	YES
– the period over which management has projected cash flows based on financial budgets/forecasts approved by management and, when a period greater than five years is used for cash-generating (group of units), an explanation of why that longer period is justified.	YES	YES	YES	YES
– the growth rate used to extrapolate cash flows projections beyond the period covered by the most recent budgets/forecasts, and the justification for using any growth rate that exceeds the long-term average growth for the products, industries, or country or countries in which the entity operates, or for the market to which the unit (group of units) is dedicated.	YES	YES	YES	YES
– the discount rate(s) applied to the cash flow projections	YES	YES	YES	YES

2. Material impairment loss recognised or reversed

An entity shall disclose the following for each **material impairment loss recognised or reversed** during the period for an individual asset, including goodwill, or a cash-generating unit (**IAS 36, p.130**) :	**RCS**	**AG**	**DL**	**FC**
a) the events and circumstances that led to the recognition or reversal of the impairment loss;	YES	N/A	N/A	N/A
b) the amount of the impairment loss recognised and reversed, and	YES	N/A	N/A	N/A
– the nature of the asset; or	YES	N/A	N/A	N/A

– a description of the cash-generating unit (such as whether it is a product line, a plant, a business operation, a geographical area, or a reportable segment as defined in IFRS 8)	YES	N/A	N/A	N/A

3. Effects of possible change in a key assumption (sensitivity analysis)

An entity shall disclose if a reasonably **possible change in a key assumption** on which management has based its determination of the unit's (group of units') recoverable amount would cause the unit's (group of units') carrying amount to exceed it recoverable amount (**IAS 36, P.134**):	**RCS**	**AG**	**DL**	**FC**
– the amount by which the unit's (group of units') recoverable amount exceeds its carrying amount	YES	NO	NO	NO
– the value assigned to the key assumption	YES	YES	YES	YES
– the amount by which the value assigned to the key assumption must change, after incorporating any consequential effects of that change on the other variables used to measure recoverable amount, in order for the unit's (group of units') recoverable amount to be equal to its carrying amount.	YES	YES	YES	YES

In order to summarise the analysis evidenced above, some general remarks can be done:

- Nearly all the IAS 36 requirements are met with full evidence in the disclosure, where management approach on which the cash flow projections has been based, the plan and the period covered are indicated, together with WACC and growth rate used.

- IAS 36 defines the CGU as the smallest identifiable group of assets that generates cash inflows that are largely independent from other CGUs. Nevertheless, in practice, probably due to disclosure clarity reasons, the listed entities observed in the analysis identify a reduced number of CGUs, ranging from 2 to 5 and, even in the case of Autogrill where a considerable number of point of sales are involved in business operations.

- the plans on which management of listed entities has projected the

cash flows in order to determine the value in use cover a period ranging from 3 to 5 years and are approved by the Board of Directors.

- the discount rate applied to the cash flow projections is, in all the cases observed for the listed companies of the sample, a post-tax discount rate applied to post-tax cash flows, since this method produces results similar to those obtained by discounting pre-tax cash flows at a pre-tax discount rate, as provided by IAS 36. As already pointed out in this thesis, the use of a post-tax discount rates is due to the fact that budget and business plan are usually prepared by management including tax effect.

- regarding the sensitivity analysis, it should be noticed that the requirement of IAS 36 to indicate the amount by which the CGU recoverable amount exceeds its carrying amount is often fulfilled by providing qualitative indications (e.g. value in use is significantly higher than carrying amount) instead of quantitative indications.

5.2 Analysis of IFRS 8 disclosures for RCS MediaGroup, Autogrill, De Longhi and Fincantieri

As in the case of IAS 36, even for IFRS 8 entities' management is required to disclose important information mainly based on management accounting, in fact, management is required to provide information that allows the users of financial statements to understand and evaluate the nature and financial results of business operations in which the entity operates and the economic environments.

An empirical analysis has been developed for IFRS 8 with reference to the same four Italian listed companies, i.e. RCS MediaGroup, Autogrill, De Longhi and Fincantieri, taking into consideration their 2017

consolidated financial statements. As for IAS 36, the check-list has been prepared by selecting the most significant requirements of IFRS 8 for which MA information can be considered fundamental for disclosure purposes. For each step of the check-list, according to the analysis performed, a YES response has been indicated when the requirement is clearly met, a NO response when the requirement seems not to be met with sufficient evidence and a N/A response when, due to the nature of the business or other circumstances, the step can be considered not applicable. The check-list has been developed by taking into consideration the following information categories for which MA information can be considered crucial as already above pointed out:

1) nature and financial effects of the business activities;

2) information for each reportable segment;

3) geographical information;

4) transactions with a single external customer.

1. Nature and financial effects of the business activities

An entity shall disclose information to enable users of its financial statements to evaluate the **nature and financial effects of the business activities** in which it engages and the economic environments in which it operates (**IFRS 8, p.20**):	**RCS**	**AG**	**DL**	**FC**
– factors used to identify the entity's reportable segments, including the basis of organisation (for example, whether management has chosen to organise the entity around differences in products and services, geographical areas, regulatory environments, or a combination of factors);	YES	YES	YES	YES
– types of products and services from which each reportable segment derives its revenues	YES	YES	YES	YES

– information about reported segment profit or loss, including specified revenues and expenses included in reported segment profit or loss, segment assets, segment liabilities and the basis of measurement, as described by IFRS 8 in paragraph 23-27;	NO	YES	YES	YES

2. Information for each reportable segment

An entity shall report the following **information for each reportable segment** (**IFRS 8, p.23**):	**RCS**	**AG**	**DL**	**FC**
– relating to the measure of profit or loss for each reportable segment.	YES	YES	YES	YES
– relating to the measure of total assets for each reportable segment.	NO	YES	YES	YES
– relating to the measure of total liabilities for each reportable segment.	NO	YES	YES	YES

3. Geographical information

An entity shall report the following **geographical information** (**IFRS 8, p.33**):	**RCS**	**AG**	**DL**	**FC**
– revenues from external customers attributed to the entity's country of domicile;	YES	YES	YES	YES
– revenues from external customers attributed to all foreign countries in total from which the entity derives revenues;	YES	YES	YES	YES

4. Transactions with a single external customer

If revenues from **transactions with a single external customer** amount to 10% or more of an entity's revenues, the entity shall disclose (**IFRS 8, p. 34**):	**RCS**	**AG**	**DL**	**FC**
– that fact;	NO	N.A.	N.A.	YES
– the total amount of revenues from each such customer; and	NO	N.A.	N.A.	YES
– identity of the segment or segments reporting the revenues.	NO	N.A.	N.A.	NO

In order to summarise the analysis evidenced above, some general

remarks can be done:

- disclosures required by IFRS 8 are strongly based on management view and therefore represent a summary of management reporting by identifying the higher level of operating segments aggregation;

- the number of reportable operating segments identified by listed entities analysed is included in a range from 3 to 5. This could mean that synthesis and clarity of disclosure are deemed by reporting entities as a priority even though, in some cases, management control and review in order to make decision about resources to be allocated are likely to be focused at a more granular level.

- there is a remarkable connection between CGUs identified and reportable segments. In particular, for RCS MediaGroup both CGUs and operating segments are identified on a business unit and five CGUs correspond to three operating segments, since one of these operating segments includes three CGUs. In the case of Autogrill, the disclosure identifies four CGUs and three operating segments, both at a geographical level, and four CGUs correspond to three operating segments including two CGUs in one of them.

- information required by IFRS 8 for reportable segments relating to segment assets and segment liabilities are, in some cases, missing. This could be due to the circumstance that assets and liabilities are not always attributable to specific operating segments without a highly discretional allocation.

6. Conclusions

The work underlying this thesis has been focused on the relationships between management accounting and financial reporting, whose objective is to provide external users of financial statements with mandatory and relevant information. A correct and thorough financial information reinforces the relationships between the enterprises and the financial system, when the representation of business capabilities in terms of value creation is effective and reliable. The accounting system that keeps track of all the business activities of an entity can be divided into two main specialized branches that often share a common information base and process the basic accounting data. Financial Accounting (FA) and Management Accounting (MA) satisfy different purposes and are used by audiences with different needs providing the basis for generating financial statements, reports, analysis or forecasts required by decision makers.

According to the work of many scholars there has been substantial interaction in the last years between these two areas of activities performed by enterprise organizations. Empirical studies and surveys on samples of firms in different countries, with a focus on the relation between FA and MA systems and on their integration within the same accounting system, pointed out that the integration between FA and MA through the adoption of the same financial language and information system would increase consistency of information provided to the market and to the entity's management and boost not only the quality of the business communication to external stakeholders, but also the quality of the output coming from the control function. The research work mentioned above has identified some institutional pressures, of normative and economic nature, that led to changes in the accounting

processes and methods, accounting information systems, concepts or data processing and to the development of FA and MA. The research also considered how these two accounting systems were initially diverged and then converged over time, thanks in particular to the latest information technologies that allow a higher degree of integration between them by sharing the same integrated information system, i.e. the so-called ERP, Enterprise Resource Systems.

Even market operators recognize that a higher quality financial communication can be pursued through an integration of the different types of report, prepared according to International Financial Reporting Standards and based on FA systems, and Managerial Accounting, represented by scientific and statistical methods aimed at supporting decision-making and based on MA systems.

The work supporting this thesis observed how the financial disclosures required by IAS 36 and IFRS 8 include a good deal of information relating to a forward-looking perspective, making reference to managerial estimations of the future cash flows deriving from the assets under evaluation, or a business segment perspective.

In conclusion of the above outlined work, some remarks can be done with reference to the most significant aspects of the analysis:

Relationships between Financial Accounting and Management Accounting

- FA communicates information to external parties, while MA generates accounting information for managers to assist them in performing their tasks. FA is regulated and is mostly retrospective. External users rely mostly on information dealing with the past able to provide a faithful picture of the company's performance, considering that information about the future is uncertain and difficult to analyse without access to detailed

data. At the same time, MA is forward-looking and aligned with business strategies.

- FA and MA share different but very linked tasks. Many entities use basic accounting information even for control purposes and as a support for decision making process. In practice, two main approaches can be identified for the implementation of FA and MA systems. In the first approach, FA records constitute the same database on which MA is based, therefore MA information can be made available at low incremental cost and provide to management and external users company performance information with consistent figures. In the second approach, MA is based on a separate database beside the FA records. A separate MA system can facilitate the use of non-GAAP measures for internal planning and performance measurement and provide more flexibility, but this solution exposes the entity to the risk of dealing with inconsistent figures between FA and MA.

- The interaction between FA and MA in European countries had a significant impulse following the introduction of the IFRS in 2005, since the new set of standards changed the traditional view of applicable standards, based on historical costs, to a view based also on prospective information and fair value measurements. Given that financial reporting under the influence of IFRS has become more perspective-oriented, MA information becomes necessary in the preparation of financial statements. The perspective orientation of IFRS has given a strong impulse for the interaction of FA and MA, also with reference to information technology systems used by companies.

- The interaction of FA and MA intensified during the digitalisation process that has interested business environment. The development of IT systems and the important investments on software technologies allowed timely availability of information and facilitated the creation of reports within the enterprises, making the adoption of a single integrated system

appropriate for monitoring performance and for assisting managers in decision-making, as well as for a high quality financial reporting.

IAS 36 and relevance of Management Accounting information

- The objective of IAS 36 is to define the procedures that an entity preparing its financial statements has to follow to ensure that assets' carrying amount are not recorded above their recoverable amounts, which is the amount that can be recovered through the use or the sale of the assets. According to IAS 36, entities are required to adopt a future perspective in the determination of the value in use when a tangible or an intangible asset has to be subject to the impairment test. The value in use is the sum of the discounted net cash flows deriving from an investment, calculated on the basis of the relative asset useful life and managerial expectations and forecasts. A functional and strong interrelation between FA and MA is required and this implies a high degree of consistency and accuracy for a high-quality FA information.

- Taking into account the perspective information required in the impairment test, a well-structured MA system is essential to provide the management with all the necessary information. The aspects of IAS 36 that most require the availability of MA information are:

- the identification of "trigger events" that requires entities' management to perform the impairment test, where MA can furnish significant pieces of information in order to detect if an asset may be impaired;

- the estimation of the value in use, which requires to assess the projections of expected cash flows deriving from the continuing use of the asset to which an appropriate WACC is applied as a discount rate. Management forecasts and estimations included in budget and

business plan have to be consistent with data elaborated for MA purposes;

- the allocation of goodwill arising from business combinations at an appropriate level, to CGUs or group of CGUs, which involves management's evaluations based on information and data about ongoing operations;

- the indication, through disclosure in the notes, of the methodology adopted by management in the calculation of the recoverable amount that requires the availability of MA information consistent with the key assumptions used.

IFRS 8 and relevance of Management Accounting information

- IFRS 8 requires to the entities preparing the financial statements to disclose detailed information about the business segments in the geographical areas in which the company is operating, as well as its products, services and major customers. The information required by the IFRS 8 is strongly based on internal management reports since, in developing the Standard, IASB adopted an approach based on the importance of managerial information when defining segments, taking into account the structure of the company's internal organisation. This approach should allow users to see the entity exactly from a management point of view, and enhance their ability in evaluating actions undertaken by management that can be relevant and potentially affect the prospects for future cash flows.

- Considering the significant amount of MA information necessary to meet IFRS 8 requirements, the availability of an integrated FA and MA system would be able to furnish management consistent and useful information on all the reportable segments in which the company is operating. The management approach adopted by IFRS 8 is based on the internal

structure of management reporting and should allow external users to evaluate performance, as well as the elements that can affect the prospects for future cash flows, from the same point of view of managers.

The aspects of IFRS 8 that most require the support of MA information are the following:

- definition of operating segments according to the internal structure of management reporting and identification of the chief operating decision maker;

- identification of reportable segments, aggregation methods and quantitative thresholds;

- disclosures useful for external users in evaluating company's operations and the economic context in which it is operating.

Empirical analysis on four listed Italian companies

The empirical analysis performed with reference to four Italian listed companies, RCS MediaGroup, Autogrill, De Longhi and Fincantieri, by taking into consideration their 2017 consolidated financial statements, has allowed to look more in depth and from a practical standpoint how information connected with management reporting are actually provided in the disclosures of financial statements according to IAS 36 and IFRS 8 requirements. The analysis, exclusively based on the observation of the disclosures included in the consolidated financial statements, has been developed on the basis of a check-list prepared by selecting the most significant requirements of IAS 36 and IFRS 8 for which MA information can be considered extremely supporting in order to provide to financial statement users an appropriate disclosure. Some interesting remarks arose from the empirical analysis with reference to IAS 36 disclosures:

- substantially all IAS 36 requirements referring to MA information are satisfied in the disclosures, where it is explained appropriately how cash flow projections have been determined based on approved business plan, the time span as well as WACC and the growth rate adopted;

- analysed entities identified quite a reduced number of CGUs, ranging from 2 to 5, probably due to disclosure's synthesis and clarity reasons rather than being based on a complete break-down of independent cash inflows consistent with MA;

- in all the cases of the sample, the discount rate applied to cash flow projections is a post-tax rate and is applied to post-tax cash flows. The adoption of post-tax discount rates, rather than a pre-tax rate as indicated by IAS 36, is due to the inclusion of tax effect in budget and business plan approved by the entities.

Some important final remarks can be also done regarding IFRS 8, based on the evidences arising from the analysis:

- disclosure required by IFRS 8 are based on management approach deployed by the entities in order to control the business; for all the entities included in the analysis, a very high level of reportable segments aggregation has been adopted;

- as in the case of CGUs identification, probably due to the need of synthesis and clarity of disclosure considered as a priority, the number of operating segments identified for all the four reporting entities of the sample is quite limited, in a range that goes from 3 to 5.

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