REPORTING NON-GAAP FINANCIAL MEASURES

A Theoretical and Empirical Analysis in Europe

EDITED BY

Nicola Moscariello and Michele Pizzo

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Introduction

In-Ki Joo*

The voluntary disclosure of alternative performance measures (APMs) (also known as 'non-GAAP', 'adjusted', 'pro-forma' or 'street' earnings) to supplement financial results based on the generally accepted accounting principles is a widespread phenomenon, showing an increasing trend over time and an ever-higher discrepancy with their GAAP equivalents. In 2017, 97% of the S&P 500 companies disclosed at least one non-GAAP financial metric in their annual report (Audit Analytics, *Long-Term Trends in Non-GAAP Disclosures: A Three-Year Overview*, 2018). In the same year, over 70% of a sample of 170 European issuers presented additional line items and headings (such as operating profits, EBIT, gross profit or EBITDA) over and above the requirements in IAS 1 (ESMA Report, *Enforcement and Regulatory Activities of Accounting Enforcers in 2017*, 2018).

This increased reliance on APMs recently triggered a strong debate among policy makers, regulators, corporate managers, and investors on the nature of these 'tailored' earnings and on the economic reasons behind them. Some stakeholders argue that the disclosure of APMs reflects managers' attempts to provide comparable operating results across reporting periods, reduce the reporting complexity imposed by certain accounting standards and offer useful information to predict companies' future sustainable cash-flows and earnings. According to this view, the use of non-GAAP indicators might represent the answer to an explicit demand for financial information to alleviate the *ex-ante* and *ex-post* information asymmetries between corporate controllers and capital providers (*information hypothesis*). An opposite viewpoint stresses the drawbacks of APMs and the potential opportunistic motives behind non-GAAP reporting. In fact, the non-standardized nature of these metrics negatively impacts the reliability and comparability of the financial results. Moreover, the corporate controller might use non-GAAP indicators to opportunistically meet or beat investor expectations and analyst forecasts,

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thus reducing the reliability and faithful representation of financial information (*opportunistic hypothesis*). Not surprisingly, these measures have often been subject to colourful descriptions connoting their potential misleading nature, such as '*everything but bad stuff* (*EBBS*)', '*phoney-baloney financial reports*', '*fantasy maths*', or '*accounting gimmicks*' (CFA Institute, *Investor Uses, Expectations, and Concerns on non-GAAP Financial Measures*, 2016).

Although regulators and standard setters acknowledge the information content of APMs and their valuable role in providing unique insights into a firm's core performance,

> Some non-GAAP reporting develops because investors request and help shape the information provided by companies. Changing GAAP in these situations can help develop a standardized approach that is more consistent with com-mon reporting practices that investors find useful. In other words, it would improve the credibility of financial reporting … (Golden R. G., Chairman of the FASB, 2016)

> We are also open to the idea of learning from the use of non-GAAP measures. Where the use of such measures is widespread and many companies are systematically adjusting the IFRS numbers, then maybe there is a vacuum in IFRS that we need to look at … (Hoogervorst H., Chairman of the IASB, 2015)

They have recently escalated their scrutiny of non-GAAP disclosure to ensure that investors are not misled by the presentation of non-GAAP metrics. Indeed, even if during the last years the number of comment letters issued by the SEC has dramatically decreased (from 15,646 at the end of 2010 to 4525 for 2017), the percentage of comment letters referencing non-GAAP measures has increased by about 20 points. At the same time, the European Securities and Markets Authority (ESMA) has published its final guidelines on APMs for listed issuers while the IASB has started its *Primary Financial Statements* project to tackle the widespread use of non-GAAP/IFRS (International Financial Reporting Standards) earnings.

In fact, the non-GAAP issue is likely to be of particular interest in an IFRS setting. The IFRS are principle-based by nature and allow companies a wide margin of discretion in the preparation and presentation of financial statements. In particular, IAS 1 does not provide an analytical scheme for the statement of the financial position and does not establish a precise order for items. Furthermore, it provides only a minimum content for the income statement, does not allow for the separate identification and presentation of items labelled as 'extraordinary' or 'non-recurring' and

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does not impose a particular criterion for the classification and presentation of costs. In this context, the dissemination of non-standardized performance indicators gives stakeholders the opportunity to obtain useful information and data to support their decision-making process. However, non-IFRS earnings can also generate significant negative consequences on the comparability and reliability of financial data, leaving ample room for opportunistic use of financial data outside the boundaries of the generally accepted accounting rules.

> There is another reason why the Board may have to do more in terms of formatting requirements of the income statement. There is growing evidence showing increasing use of non-GAAP measures, and of these measures becoming increasingly misleading […] We have to acknowledge that non-GAAP measures are also popular because we provide too little guidance in terms of formatting the income statement. The enormous flexibility under existing accounting standards is an open invitation for Non-GAAP to step in […] I believe the Board should try to provide more rigorous definitions of performance metrics above the bottom line. These could provide more reliable information to the investor than the sugar-coated realm of non-GAAP … (Hoogervorst H., Chairman of the IASB, 2016)

Some form of regulation on non-GAAP disclosure is therefore necessary, and academic research and studies may help regulators and standard setters find an effective and efficient equilibrium in their rules, limiting the opportunistic reasons behind non-GAAP metrics without reducing their information content. In fact, having in mind that there could be good reasons for companies to supplement GAAP information, overly prescriptive regulatory requirements concerning non-GAAP disclosure might reduce the usefulness of annual reports when their intention is to increase credibility and usefulness. In other words, research on non-GAAP should help regulators and standard setters separate ‘signals’ from ‘noise’.

However, most of the literature on non-GAAP disclosure focuses on US markets. For this reason, this book deals with the non-GAAP financial metrics in the European-IFRS setting. First, the book offers a detailed theoretical analysis on non-GAAP/IFRS performance indicators and presents an extensive literature review concerning the determinants and consequences of non-GAAP/IFRS disclosure including integrated reporting. In the second part, the book deals with the activities of regulators and standard setters and examines the opportunities and threats associated with non-GAAP/IFRS rules. Then, an analysis of the auditing process of the non-GAAP/IFRS metrics is carried out, drawing the boundaries of non-GAAP/IFRS disclosure auditing and presenting the Big 4’s view on this

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topic. Finally, the book includes several original empirical studies on non-GAAP/IFRS financial measures and disclosure in Europe, measuring the impact of APMs in an institutional setting, which has been only partially explored by the scientific literature so far.

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PART I –

NON-GAAP FINANCIAL MEASURES: A THEORETICAL FRAMEWORK

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CHAPTER 1

DEFINITIONS AND TRENDS IN NON-GAAP MEASURES AND DISCLOSURE

PIZZO M.*

1.1 Introduction

The use of alternative performance indicators (or non-GAAP performance measures, also known by the term alternative performance measures – APMs[1]) in addition to the financial results determined on the basis of generally accepted accounting principles is a widespread, and certainly not a recent, phenomenon. Indeed, already in 1973, the US Securities and Exchange Commission (SEC), with the issue of Release No. 142, highlighted the increasing popularity of non-GAAP parameters added to the financial statement data of US-listed companies, stressing the risks tied to the weak inter-firm and intra-firm comparability over time of the financial results and to a possible opportunistic use being made of this reported information.

> The unilateral development and presentation on an unaudited basis of various measures of performance by different companies which constitute departures from the generally understood accounting model has led to

* University of Campania – L. Vanvitelli

[1] As an alternative to non-GAAP performance indicators, many other expressions have been used to define financial parameters which go outside the bounds of generally accepted accounting principles: 'underlying earnings', 'normalized profit', 'pro-forma earnings', 'cash earnings', 'adjusted earnings' and 'earnings before non-recurring items' are just a few examples. Furthermore, the term 'street earnings' is used with reference to calculations put forward by financial analysts. In some cases, which implicitly express a negative judgement regarding these performance indicators and therefore suggest an opportunistic use of the same by the corporate controller, the non-GAAP performance indicators are described using particular expressions such as 'everything but bad stuff' (EBBS), 'phoney-baloney financial reports', and 'fantasy maths'.

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> conflicting results and confusion for investors. Additionally, it is not clear that simple omission of depreciation and other non-cash charges deducted in the computation of net income provides an appropriate alternative measure of performance for any industry either in theory or in practice.[2]

However, there is no doubt that the topic here analysed has risen to a significant level of importance, especially over the last twenty years, with a growing provision of non-GAAP measures by companies listed on different stock markets, as well as by financial analysts and other users of financial information (primarily as a result of the significant expansion of companies that have grown together with the technological innovation and digitalization process since the early 2000s).

It is therefore essential to frame this question with regard to both its *objects* (i.e. the financial metrics that can be identified as so-called non-GAAP performance indicators) and the *subjects* effectively involved in this practice (companies, financial analysts, data aggregators, regulators, investors). Therefore, this chapter will define the performance indicators identifiable as non-GAAP metrics and then describe the main trends on the supply side (periodic disclosures by companies) as well as on the demand side (information produced and used by financial analysts and investors) of these alternative performance measures.

This analysis will, in fact, be useful for understanding the subsequent parts of this book aiming at analysing the impact of non-GAAP disclosures on the markets and the reasons driving companies to provide such information (whether to report useful information to market participants, to draft efficient contracts between the different stakeholders or, instead, to opportunistically manipulate performance indicators to demonstrate the achievement of predetermined results) and, consequently, at understanding the role auditors and regulators play in the effective and efficient control of non-GAAP information.

1.2 A preliminary definition of non-GAAP financial measures

Non-GAAP performance indicators include measures pertaining to the statement of financial position, income statement and cash flow statement, concerning both historical and future data obtained through:

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[2] Security Exchange Commission, Accounting Series Release n. 142, *Reporting Cash Flow and Other Related Data*, 1973.

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- the presentation of margins or aggregate values not standardized by the financial statement models (for example, 'net financial position', EBITDA or 'free cash flow');
- the introduction of modifications in the process of determining GAAP indicators through the addition or subtraction of components not included or already included within them (thus leading to indicators such as 'adjusted EPS', 'adjusted EBIT' and 'net income adjusted for non-recurring items').

In this regard, the most detailed definition of alternative performance indicators is probably provided by the SEC regulations, which define non-GAAP parameters as

> a numerical measure of a registrant's historical or future financial performance, financial position or cash flows that: a) excludes amounts, or is subject to adjustments that have the effect of excluding amounts, that are included in the most directly comparable measure calculated and presented in accordance with GAAP in the statement of income, balance sheet or statement of cash flows (or equivalent statements) of the issuer; or b) includes amounts, or is subject to adjustments that have the effect of including amounts, that are excluded from the most directly comparable measure so calculated and presented. [3]

Thus defined, non-GAAP indicators certainly fall under the broad category of Key Performance Indicators (KPIs) while not overlapping perfectly with it. In fact, one cannot include among non-GAAP indicators: i) *ratios* calculated through standardized metrics (such as the *return on equity*); ii) non-financial data (such as the *customer retention rate* or the *number of subscribers*), and iii) performance metrics given by the relationship between GAAP metrics and non-monetary quantitative data (for example, *sales per square foot; same store sales; average revenue per customer*).[4]

---#

[3] Security Exchange Commission, Conditions for Use of Non-GAAP Financial Measures, Final Rule, 2003. A similar definition is given by the IOSCO in its Statement on Non-GAAP Financial Measures issued in 2016: "a non-GAAP financial measure is a numerical measure of an issuer's current, historical or future financial performance, financial position or cash flow that is not a GAAP measure. For example, a non-GAAP financial measure may exclude amounts that are included in, or include amounts that are excluded from, the most directly comparable GAAP measure calculated and presented in the issuer's financial statements. An operating or statistical measure that is not a financial measure (such as numbers of stores or number of units) is not within the scope for purposes of this Statement".

[4] "We do not intend the definition of "non-GAAP financial measures" to capture

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Examples of KPIs different from non-GAAP metrics

'Revenue per available room: rooms revenue divided by the number of room nights that are available'
'Global Revenue per Available Room Growth: indicates the increased value guests ascribe to our brands in the markets in which we operate and is a key measure widely used in our industry'
InterContinental Hotels Group PLC, Full year results presentation, 2018.

'*We aim to provide clients with the best possible solutions in today's rapidly-changing environment. We use the drivers of our Net Promoter Score (NPS) and continually engage with our clients so that we can better understand their wishes and challenges* […] *the NPS shows the extent to which customers would recommend ABN AMRO to other. The customer is regarded as a 'promoter' (score of 9 or 10), as 'passively satisfied' (score of 7 or 8) or as a 'detractor' (score of 0 to 6). The NPS is calculated by subtracting the percentage of 'detractors' from the percentage of 'promoters'. The score is expressed as an absolute number between -100 to +100'*
ABN AMRO Bank N.V., Annual Report, 2018.

'The growth in retail sales (including e-commerce) of 10.4% (8.5% in constant currency) exceeded the increase in average retail square footage of 5.9% to 410,190 sq ft (2017: 387,373 sq ft). Retail sales per square foot (excluding e-commerce) decreased 1.9% (decrease of 3.9% in constant currency) to £832 (2017: £848) demonstrating the changing customer behaviour with customers shopping both online and in store'
Ted Baker PLC, Annual Report, 2018.

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measures of operating performance or statistical measures that fall outside the scope of the definition set forth above. As such, non-GAAP financial measures do not include: a) operating and other statistical measures (such as unit sales, numbers of employees, numbers of subscribers, or numbers of advertisers); and b) ratios or statistical measures that are calculated using exclusively one or both of: b.1) financial measures calculated in accordance with GAAP; and b.2) operating measures or other measures that are not non-GAAP financial measures." Security Exchange Commission, Conditions for Use of Non-GAAP Financial Measures, Final Rule, 2003.

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The following table, exclusively by way of example, lists some of the most well-known non-GAAP indicators, describing their contents and the methods of calculation as they are usually described in the financial statements of manufacturing listed companies (Table 1).

Table 1: Non-GAAP metrics commonly used by manufacturing listed companies

Income statement measures	Definition
Adjusted "organic" revenues	revenues adjusted for the impact of incidentals (i.e. non-recurring transactions – such as acquisitions and divestitures – which are not directly related to day-to-day operational activities) or the effects of foreign currencies
Gross profit	intermediate measures equals total sales revenue minus the cost of goods sold (COGS)
Profit from operations	intermediate measures equals profit before income/expense from investments, finance income/expense and income tax
EBIT	intermediate measure derived from the net income but excludes taxes, financial income, financial expenses and the results from investments
EBIT adjusted	derived from the EBIT and excludes the amortization of intangible assets relative to assets recognized as a consequence of Business Combinations, as well as operational costs attributable to non-recurring and restructuring expenses
Return on capital employed	the ratio of underlying operating profit less taxation divided by average capital employed
EBITDA	equal to the EBIT, and excludes the amortization of intangible and depreciation of tangible assets
EBITDA adjusted	equal to the EBIT and excludes the amortization of intangible and depreciation of tangible assets as well as non-recurring and restructuring expenses
EBITDA adjusted without start-up costs	equal to the EBITDA adjusted but excludes the contribution of the start-up costs
EBITDAR	a variation of EBITDA whereby rent/restructuring costs are excluded
EBITDARM	a variation of EBITDA whereby both rent/restructuring costs and management fees are excluded
Net income (loss) related to continuing operations adjusted	calculated by adjusting the net income (loss) related to assets in operation for the following items: i) the amortization of intangible assets related to assets detected as a consequence of Business Combinations, and operational costs due to non-recurring and restructuring expenses; ii) non-recurring costs/income recognized under financial income and

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	expenses; iii) non-recurring costs/income recognized under taxes, as well as the tax impact related to the adjustments referred to in the previous points
Adjusted EPS	adjusted profit after tax divided by the weighted average diluted numbers of shares
Fixed charge cover	calculated as EBITDAR divided by the sum of rent expense and net finance cost, excluding net pension finance costs, exceptional items, capitalised interest and fair value remeasurements on financial instruments
Balance Sheet measures	**Definition**
Net working capital	non-interest-bearing current assets net of cash and cash equivalents less non-interest-bearing current liabilities
Like-for-like working capital to sales	the ratio of closing working capital (including provisions but excluding pension scheme obligations) to annualized sales (after adjusting for any acquisition and disposals in the current and prior year) on a constant currency basis
Net financial (liquidity)/debt position	represented by the gross financial debt less cash and cash equivalents as well as financial receivables
Net industrial (cash)/debt	is computed as debt plus derivative financial liabilities related to industrial activities less (i) cash and cash equivalents, (ii) certain current debt securities, (iii) current financial receivables and (iv) derivative financial assets and collateral deposits; therefore, debt, cash and cash equivalents and other financial assets/liabilities pertaining to financial services entities are excluded from the computation of net industrial cash/(debt)
Cash flow measures	**Definition**
Funds from operations	cash flow generated (used) by operations, net of the component represented by changes in the working capital
Industrial free cash flows	cash flows from operating activities less (i) cash flows from operating activities related to financial services, net of eliminations; (ii) investment in property, plant and equipment and intangible assets for industrial activities; and (iii) adjusted for discretionary pension contributions in excess of those required by the pension plans, net of tax
Free operating cash flows	cash generated by operating activities after payments for purchases of property, plant and equipment net of proceeds from sales of property, plant and equipment and including principal repayments of finance lease obligations

Source: Author’s elaboration

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Given that the above-mentioned indicators are not subject to any process of standardization, the definitions for each metric depend on the accounting environment of reference, the business model adopted by the specific companies and on the choices made by management to identify the most appropriate value drivers to describe the performance achieved by each company.

In particular, regarding the relationship between non-GAAP indicators and the accounting environment, it is evident that a clear delineation of the boundaries of the non-GAAP field can only be accomplished following a prior analysis of the performance indicators explicitly ruled by generally accepted accounting principles. In other words, the number and type of non-GAAP parameters depend on the choices made by the respective standard setters regarding the financial statement models and the items contained therein (for instance, one might consider the case of income statement models that include the determination of intermediate results related to specific management areas), and, therefore, must necessarily differ according to location (as a result of the different regulations adopted by the respective countries) and according to time (as a result of the evolution that characterizes accounting principles and standards).

For these reasons, the issue of non-GAAP performance indicators is particularly relevant in an IAS/IFRS accounting environment, which, as is well known, does not provide an analytical scheme for income statements and statements of financial position, and does not make any explicit reference to intermediate values. As was noted by the chairman of the IASB in a recent speech,

> Currently the IFRS income statement is relatively form-free. We define Revenue and Profit or Loss but not all that much in between. In practice, both preparers and investors like to use subtotals to better explain and understand performance. Our lack of guidance in this respect has had the unintended consequence of stimulating the use of self-defined subtotals, also known as non-GAAP measures. Non-GAAP measures can be useful to explain different aspects of the performance of a company and we do not intend to root them out. However, non-GAAP measures are often non-comparable. Subtotals like Operating Profit and EBITDA are very commonly used, but in practice companies define these subtotals in very different ways. Moreover, many non-GAAP measures tend to paint a very rosy picture of a company's performance, almost always showing a result that is better than the official IFRS numbers. This is the second reason why we decided it was important the IFRS Standards themselves provide more detail and structure.[5]

[5] Hans Hoogervorst, *The Primary Financial Statements Project – A Game Changer in Financial Reporting?,* Mexico City, March 2019.

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In this context, therefore, it is reasonable to expect a wide use of non-GAAP/Non-IFRS earnings, with a significant impact on the comparability and understandability of financial statements. This justifies the interest the present book takes in the alternative performance indicators disclosed by listed European companies, with a necessary in-depth examination into the reasons for their use, the impact on the markets and the possible actions by auditors and regulators.

1.3. Trends in the supply and demand of non-GAAP financial measures

As regards the subjects involved in the formulation and dissemination of non-GAAP financial measures (the supply side of non-GAAP measures), there is no doubt that it is primarily listed companies that play a key role. In particular, as mentioned before, an expansion of the phenomenon was seen at the beginning of the new century, with a frequent use of non-GAAP indicators especially on the part of the new 'dot-com' companies, whose business model required alternative performance metrics to those traditionally offered by standard setters. In this regard, the following table shows the widespread use of non-GAAP indicators by companies listed on the NASDAQ in 2001, and the significant deviation (always on an increasing trend) in terms of 'earnings per share' that the pro forma values showed when compared to GAAP data (Table 2).

Table 2: Adjusted EPS by NASDAQ firms

Company	Pro Forma	GAAP	Increase in Earnings/Share
JDS UNIPHASE	$ 0.14	$-1.13	$ 1.27
CHECKFREE	-0.04	-1.17	1.13
TERAYON	-0.43	-1.01	0.58
AMAZON.COM	-0.22	-0.66	0.44
PMC-SIERRA	0.02	-0.38	0.40
CORNING	0.29	0.14	0.15
QUALCOMM	0.29	0.18	0.11
CISCO SYSTEMS	0.18	0.12	0.06
EBAY	0.11	0.08	0.03
YAHOO!	0.01	-0.02	0.03

Source: "The Numbers Game", Business Week May 14, 2001

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Over the last decade, there has been a new increase in the use of alternative performance measures. However, by contrast with what has happened in the past (when the alternative performance measures were generally less common, more opaque, clustered in certain industries and unregulated), the spread of non-GAAP parameters:

- has shown greater prominence than in the past as it has extended significantly beyond the companies operating in the technology sector;
- has been characterized by the construction of increasingly specific indicators with respect to each individual company, with an increase in the number of indicators and a consequent weakening in terms of the degree of verifiability and comparability, both across space and time, of the values involved;
- has occurred despite the fact that during the same period, the major markets and securities regulators issued new rules with the intent to discipline their disclosure (which is thus evidence of the ineffectiveness of the avenues pursued by the regulators so far).[6]

In fact, there is a large amount of empirical evidence showing the growing trend in terms of non-GAAP indicators but with no significant differences found in terms of the sectors and markets involved.

A recent study most prominently highlighted the widespread and growing use of non-GAAP indicators by companies included in the S&P 500 index (Audit Analytics, 2018). Compared to 59% of such companies in 1996, during the course of 2016 up to 96% of reporting entities included at least one non-GAAP indicator in their financial statements (a percentage which rose to 97% at the end of 2017). A significant increase was also recorded in terms of the number of alternative performance indicators used by companies. While in 1996 each company communicated an average of 2.35 non-GAAP indicators, 20 years later the average number of non-GAAP indicators is equal to 7.45 (Figure 1).[7]

[6] "We find that the frequency of non-GAAP reporting has increased by 35% in recent years, a trend that we find in every sector […] Of particular interest is the increasing frequency in which firms exclude items that are not commonly excluded by other firms, indicating that more idiosyncratic definitions of non-GAAP earnings are emerging in the marketplace […] After an initial reduction in non-GAAP reporting following Reg G, the frequency of non-GAAP reporting has rebounded and is now at an all-time high." Black, Dirk E. , Christensen, Theodore E., Ciesielski, Jack T. , Whipple, Benjamin C. *Non-GAAP Earnings: A Consistency and Comparability Crisis*, 2018, Working paper.

[7] Audit Analytics, *Long-Term Trends in Non-GAAP Disclosures: A Three-Year*

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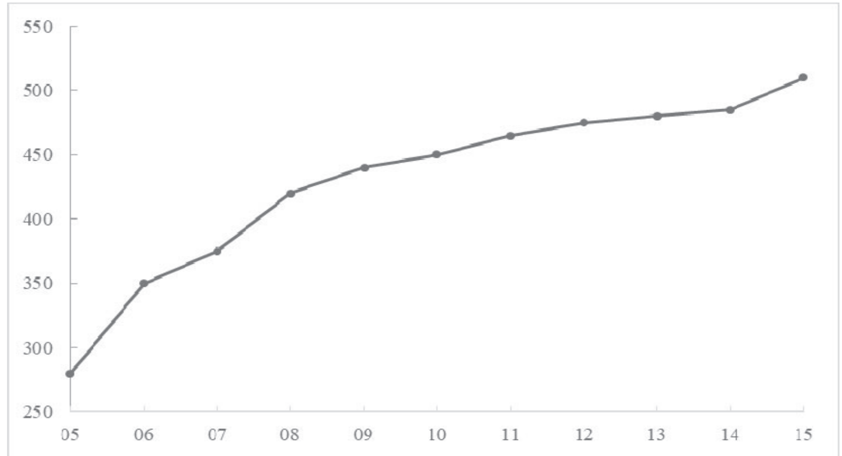
Figure 1: Percentage of S&P 500 companies disclosing non-GAAP metrics

Reporting Year	# of Companies Presenting Non-GAAP Metrics	# of Companies Not Presenting Non-GAAP Metrics	% of Filers Using Non-GAAP	# of Metrics Per Filing
1996	162	113	59%	2.35
2006	331	106	76%	3.47
2016	462	19	96%	7.45

Source: Audit Analytics, 2018.

Figure 2, which also uses a US-based sample, shows the steady increase in the number of modifications made to GAAP indicators to arrive at the respective alternative performance indicators.

Figure 2: Line items added back by NASDAQ 100 (2005-2015)



Source: CFA Institute, 2016 (based on Morgan Stanley, 2016)

The most common line item adjustments to calculate non-GAAP metrics involve both recurring and non-recurring voices such as: a) restructuring, acquisition and other business combination costs; b) legal costs; c) inventory write-downs and long-lived asset impairments; d) fair value remeasurements; e) pension and foreign currency remeasurements (CFA Institute, 2016).

\# *Overview*, October 2018.

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As a result of the modifications made to the main GAAP metrics, non-GAAP indicators show an average value that is significantly higher than the corresponding GAAP indicator. In 2018, the companies included in the S&P 500 index communicated 'adjusted EPS' values which were, on average, $19 higher than the relative GAAP value, and the value of this indicator, although still far from the results reported before a decisive intervention by the SEC at the end of the first decade up to 2010, showed a strong growth trend (Figure 3).

Figure 3 – Operating vs. GAAP earnings

Source: S&P Dow Jones Indices for S&P 500 companies

The academic literature confirms the trend noted in the reports mentioned above. Bentley et al. (2016) report that a non-GAAP EPS metric is available for approximately 60% of all firms in 2013. They also find that the managers' reporting of non-GAAP metrics has increased by 85%, from 26% of their sample in 2006 to 49% in 2013. Black et al. (2017) also recorded a steady growth in the percentage of US companies that decided to disclose non-GAAP indicators. Their study provides evidence that non-GAAP reporting among S&P 500 firms has increased from 53% in 2009 to 71% in 2014, without any relevant distinction regarding the sectors they

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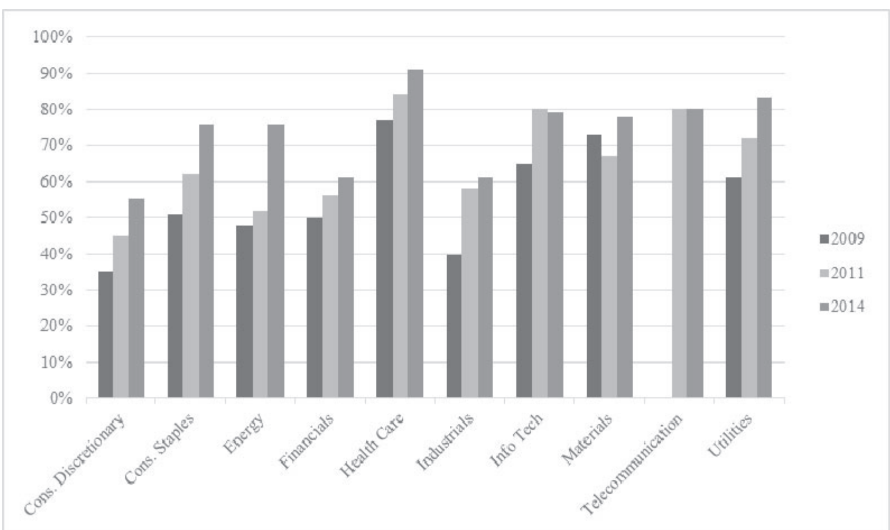
operate in. Therefore, although non-GAAP reporting is often viewed as being important to technology or pharmaceutical firms, evidence shows that it has become commonplace across all of their sampled sectors (Figure 4) (Black et al., 2017b).

Figure 4: Percentage of NYSE companies disclosing non-GAAP metrics



Source: Black et al., 2017.

Likewise, as regards the use of non-GAAP indicators, Entwistle et al. (2005) observed a widespread use of alternative performance indicators in financial documents for the 2001fiscal year, highlighting the use of non-GAAP indicators in 77% of the companies included in the US S&P 500 index. At the same time, the results published by Bhattacharya et al. (2004) showed a substantial increase in the disclosure of indicators that lie outside the US GAAP during the period 1998-2000. The trend of a continuous increase in the disclosure of non-GAAP parameters is also confirmed by Zhang and Zheng (2011) and Black et al. (2012).

These results regarding the use of alternative performance indicators do not change when one examines areas outside the United States, a fact which renders the expansion of the non-GAAP performance indicators a *de facto* global phenomenon. Entwistle et al. (2005) showed that alternative performance indicators were being applied by 42% of the companies listed on the S&P 300 of the Canadian market. Choi et al.

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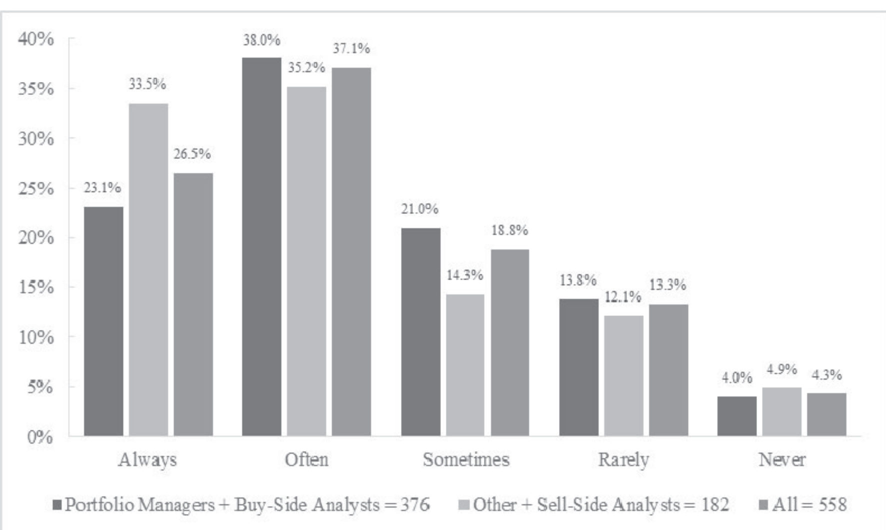
(2007) and Choi and Young (2015), focusing their attention on the 500 largest non-financial companies listed on the London Stock Exchange, reported an increasing use of the non-GAAP indicators relative to 'earnings per share'; furthermore, in 1994, 39% of the companies included in their sample reported their periodic financial results also in terms of 'adjusted EPS', a percentage which rose to 53% in 1996 and went up to 76% in 2001. In addition, Hitz (2010) and Rainsbury et al. (2013) respectively showed a marked increase in the use of non-GAAP indicators in Germany (86% of listed companies) and New Zealand (where the respective share of companies went from 10% to 40% in just seven years). Finally, looking at the 500 largest companies listed in Europe, Isidro and Marques (2015) likewise found a percentage of use of non-GAAP performance indicators that lies between a minimum of 55% and a maximum value of 67%.

The demonstrated growing supply of non-GAAP information shows a clear correspondence with the demand for information of this nature, as reported by professional investors and financial analysts ('street earnings') (Figure 5).

Figure 5: Percentage of financial analysists using non-GAAP metrics



Source: CFA Institute, 2016.

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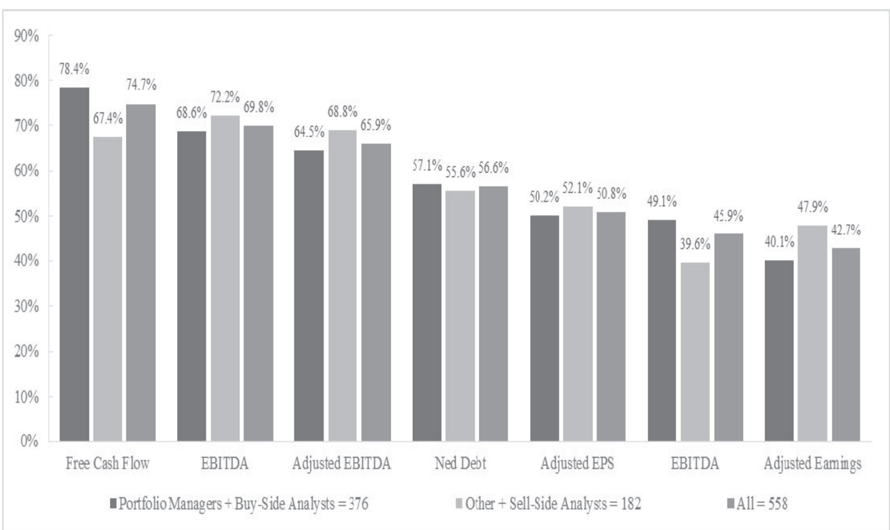
In fact, several studies have shown great interest on the part of investors in non-GAAP information. However, while early empirical evidence suggests that sophisticated investors are less likely than naive investors to rely on non-GAAP information (Frederickson and Miller, 2004; Elliott, 2006; Bhattacharya et al., 2007; Allee et al., 2007), subsequent research has found evidence that many different stakeholders (who are presumably 'sophisticated' investors) rely on non-GAAP performance metrics (Black et al., 2017b). Non-GAAP indicators, while introducing problems related to their effective verifiability and comparability, are often described by investors as measures that can better express a company's performance, favouring a more accurate prediction of future cash flows and a more realistic estimate of sustainable income. Unsurprisingly, when asked directly, professional investors and financial analysts state a clear preference for alternative performance indicators oriented mostly towards cash flows or of a financial nature, such as 'free cash flow', EBITDA and 'adjusted EBITDA'[8] (Figure 6).

Figure 6: Preferred non-GAAP metrics by financial analysts



Source: CFA Institute, 2016.

[8] "Revenue and EBITDA are considered the most relevant items. This is because they help users understand the business of the firm and assist in predicting future cash flows, respectively. It is interesting to note that EBITDA receives the highest positive score overall". EFRAG-ICAS, Professional investors and the decision usefulness of financial reporting, 2016.

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The widespread provision of non-GAAP indicators by listed companies, and the constant demand for alternative performance indicators by investors and financial analysts make it likely that both companies and investors will continue to desire non-GAAP disclosure in the foreseeable future. A deeper analysis of the issue is therefore needed and the next chapters of this book will provide important insights to market operators, regulators, standard setters and scholars concerning the threats and opportunities of non-GAAP financial measures and disclosure.

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CHAPTER 2

THE ECONOMICS OF NON-GAAP MEASURES AND REGULATION

MOSCARIELLO N.*

2.1 Introduction

In 2011, Groupon Inc. included in its IPO file a non-GAAP metric called *adjusted consolidated segment operating income* (Adjusted CSOI) by taking out important costs in its business model, including online marketing and acquisition-related costs. These costs amounted to $179.9 million in the first quarter of 2011, and taking them out helped turn a $117.1 million operating loss (the most comparable GAAP measure) into an $81.6 million gain.

	Year Ended December 31,			Three Months Ended March 31,	
	2008	**2009**	**2010**	**2010**	**2011**
			Thousands		
(Loss) Income from Operations	$ (1,632)	$ (1,077)	$ (420,344)	$ 8,571	$ (117,148)
Adjustements:					
Online Marketing	162	4,446	241,546	3,904	179,903
Stock-based Compensation	24	115	36,168	116	18,864
Acquisition-related	–	–	203,183	–	–
Total Adjustments	186	4,561	480,897	4,020	198,767
Adjusted CSOI	$ (1,446)	$ 3,484	$ 60,553	$ 12,591	$ 81,619

* University of Campania – L. Vanvitelli

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Adjusted Segment of Income					
North America	$ (1,446)	$ 3,484	$ 88,036)	$ 12,591	38,610
International	–	–	(27,483)	–	43,009
Adjusted CSOI	$ (1,446)	$ 3,484	$ 60,553	$ 12,591	$ 81,619

'*We use adjusted consolidated segment operating income, or Adjusted CSOI, as a key non-GAAP financial measure. Adjusted CSOI is the operating income of our two segments, North America and International, adjusted for online marketing expense, acquisition-related costs and stock-based compensation expense. Online marketing expense primarily represents the cost to acquire new subscribers and is dictated by the amount of growth we wish to pursue […]We believe that a relatively small portion of our current online marketing expense relates to existing subscribers […] Acquisition-related costs are non-recurring non-cash items related to certain of our acquisitions. Stock-based compensation expense is a non-cash item. We consider Adjusted CSOI to be an important measure of the performance of our business as it excludes expenses that are non-cash or otherwise not indicative of future operating expenses. We believe it is important to view Adjusted CSOI as a complement to our entire consolidated statements of operations*

Groupon Inc., Form S-1, 2011.

However, in a comment letter issued on June 29th 2011, the US Securities and Exchange Commission (SEC) requested Groupon to revise its non-GAAP metric as it excluded expenses that appeared to be normal, recurring operating cash expenditures, and therefore '*created a Non-GAAP measure that was potentially misleading to readers*' (SEC, 2011).

Eight years later, before going public, Uber Technologies Inc. measured its financial results using an alternative performance measure called *core platform contribution profit*. By excluding 'unallocated' costs such as research for self-driving cars from the operating results, this non-GAAP metric helped the company make $940 million versus a $3 billion operating loss.

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> *'We define Core Platform Contribution Profit (Loss) as Core Platform revenue less the following direct costs and expenses of our Core Platform: (i) cost of revenue, exclusive of depreciation and amortization; (ii) operations and support; (iii) sales and marketing; (iv) research and development; and (v) general and administrative. Core Platform Contribution Profit (Loss) also reflects any applicable exclusions from Adjusted EBITDA and excludes the impact of our 2018 Divested Operations.*
>
> Uber Technologies Inc., 8K Reports 1st Quarter, 2019.

The use of the non-GAAP metric was described by the company as a tool to provide '*meaningful supplemental information regarding the performance and liquidity by excluding certain items that may not be indicative of our recurring core business operating results*' (Uber Technologies Inc., 8K Reports 1st Quarter, 2019), but – again – several financial analysts and market commentators questioned the information usefulness of this measure and its potential misleading nature to investors (Schilit, 2019).

The above-mentioned cases represent some well-known examples shedding light on the widespread use of nonstandard metrics (non-GAAP measures) and on the increasing concerns that such measures may be misleading, more prominent than comparable GAAP measures, and inconsistently presented from period to period. At the same time, these cases also highlight how companies – especially those connected to the IT and ICT sectors – increasingly believe that non-GAAP financial measures play a critical role in their communication with investors. In fact, investors rely on a wide range of non-GAAP measures to evaluate companies' performance and liquidity as they represent customized financial measures that can help market operators to gain insights into financial performance beyond what can be gleaned from financial statements prepared in accordance with GAAP.

The aim of this chapter is therefore to analyse the economics of non-GAAP measures in order to provide a theoretical background useful to understand their '*apparent schizophrenic nature*' (Young, 2014) and the role they can play in both reducing *ex ante* and *ex-post* information asymmetry and reaching or beating predefined financial targets to the detriment of the unsophisticated investor groups.

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2.2 Non-GAAP disclosure to reduce *ex ante* information asymmetry

In imperfect and incomplete markets, financial reporting mainly plays the role of mitigating the information asymmetries existing between the corporate controller and capital providers, thus ensuring a better allocation of financial resources (Beaver and Demski, 1979). On one hand, in fact, periodic disclosure of financial results allows a more reliable estimation of the amount, the realization times and the degree of uncertainty of the cash flows associated with different investment programmes. A more careful estimate of the intrinsic value of the different projects will therefore be elaborated on to allow an informed choice of the possible projects to be carried out (*decision usefulness approach*). On the other hand, the implementation of developed accounting systems forces managers to constantly report on the operations they put in place during a year, favouring a more efficient negotiation process between the different categories of *stakeholders* (*stewardship approach*) (Beyer et al., 2010).

As regards the first of the two aforementioned purposes – referring to the contribution offered by financial reporting in directing resources towards efficient projects – it is easy to trace the role played by financial disclosure in the different *signalling* activities that the agent is motivated to carry out to alleviate pre-contractual opportunistic behaviours and thus reduce the costs associated with the consequent phenomenon of 'adverse selection' (Akerlof, 1970). Indeed, in the absence – or shortage – of specific and up-to-date information regarding the actual quality of the different production projects, the capital providers will be able to base their strategies solely on the inaccurate *a-priori* probabilities concerning the outcome of their investments. This risks leading to a partial levelling in the estimate of the risk/return parameters associated with each business activity, with a consequent overestimation of the worst-quality projects and an inevitable underestimation of the most profitable initiatives (Healy and Palepu, 2001).

The circumstances described above will therefore induce the directors of companies characterized by a higher return/risk ratio to signal the higher quality of their production projects to the markets. In this way, investors will be able to process the information obtained to refine – through a *Bayesian* process – the estimates made previously and thus arrive at a determination of *a posteriori* probabilities useful for a more efficient allocation of resources.

Naturally, in order for the agent's reporting process to be both effective and efficient, the financial information transmitted must be effectively

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useful for determining the *a posteriori* probabilities (i.e. with an incremental *information content* with respect to the information already available to the investors) and – while imposing costs for its production, dissemination and processing – guarantee positive net benefits in terms of higher liquidity of the markets and lower capital costs (*information value*). The predictive capacity of information, its timeliness and the degree of comparability with respect to that disclosed by other companies are, therefore, fundamental characteristics of business communication, so information, in respect of an adequate cost/benefit ratio, is reputedly useful in the investment choices of the various market operators.

Numerous empirical studies testify to the existence of a significant relationship between disclosure quality and market efficiency, the latter measured in terms of reduced risk perceived by investors, reduction of transaction costs and information asymmetries and, ultimately, to a reduction in the cost of the capital borne by companies (Botosan, 2006).

Important results, for example, show an inverse association between the quality of the disclosure and the volatility of securities in terms of a reduction in both the standard deviation of the returns of the shares and the *Beta* index (Dhaliwal et al., 1979; Prodham and Harris, 1989). Similarly, numerous studies have highlighted a strong relationship between the quality of financial information periodically disclosed by companies and market variables such as the *bid-ask spread* and *share turnover* (Greenstein and Sami, 1994; Welker, 1995; Healy et al., 1999; Leuz and Verrecchia, 2000). Finally, there is no lack of academic work aimed at demonstrating the direct influence exerted by the quality/quantity of financial information on the cost of capital (Botosan, 1997; Richardson and Welker, 2001; Hail, 2002; Botosan and Plumlee, 2002).

The quality of the disclosure also clearly influences the terms and conditions established for loan contracts. An inverse relationship between the quality of financial reporting and the cost of debt has, in fact, been widely documented in the literature. Similarly, the quality of the *disclosure* seems to be an important factor in defining other non-monetary loan conditions such as the collateral required and the maturity of the debt (Wu and Zhang, 2014; Florou and Kosi, 2015; Florou et al., 2017; Francis et al., 2005; Bharath et al., 2008).

The empirical evidence, therefore, supports the theoretical framework outlined above and confirms the important role played by financial information in highlighting the most profitable production projects for a more efficient allocation of both equity and loan resources. The corporate controller is therefore characterized by a strong incentive to voluntarily disclose financial information. A full disclosure will, in fact, allow more

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profitable firms to benefit from a lower cost of capital and to carry out net returns adequate to the risk profile of the investments undertaken.

In this perspective, a voluntary use of non-GAAP indicators – **that is, performance measures alternative to the results determined on the basis of generally accepted accounting principles (GAAP)** – **could represent an extremely effective tool to allow the corporate controller to adapt the disclosed performance metrics to company specifics in order to reduce information asymmetries and thus signal the company's greater ability to produce sustainable cash flows and income over time**.

When GAAP earnings become noise, managers can use non-GAAP performance to provide a clearer signal of performance to inform investors, alleviate information asymmetry resulting from a noisy GAAP metric and, in turn, reduce the cost of capital (Black et al., 2017).

The Combined Management Report and the consolidated financial statements of the Bayer Group are prepared according to the applicable financial reporting standards. In addition to the disclosures and metrics these require, Bayer publishes alternative performance measures (APMs) that are not defined or specified in these standards and for which there are no generally accepted reporting formats. Bayer calculates APMs to enable a comparison of performance indicators over time and against those of other companies in its industry sector. These APMs are calculated by making certain adjustments to items in the statement of financial position or the income statement prepared according to the applicable financial reporting standards. […] The APMs determined in this way apply to all periods and are used both internally for business management purposes and externally by analysts, investors and rating agencies to assess the company's performance.

Bayer, Annual Report, 2018.

In this sense, Bradshaw and Sloan (2002) – focusing on the adjusted EPS published by a sample of US companies during the period 1985-1997 and evaluating the usefulness of the information transmitted through the determination of the *earnings response coefficient* (ERC) – document the growing attention of the markets on non-GAAP indicators: Against the background of a modest change in the price of securities in the presence of earnings announcements based on GAAP values, share values show a significant sensitivity in relation to the disclosure of alternative performance

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indicators, thus showing clear evidence about the assumed usefulness of similar information for market operators.

Barton et al. (2010) instead developed a *value relevance* test on the various performance measurement parameters periodically published by a large sample of companies listed in 46 different countries during the period 1996-2005. Analysing eight different economic and financial parameters (operating cash flow, turnover, EBITDA, operating income, pre-tax income, income before extraordinary items or relating to discontinued operations, net income, comprehensive income), the authors highlight an inverted U-shaped relationship between the parameters mentioned and the value assumed by the shares, with significant importance assumed by the intermediate economic margins (EBITDA and operating income) against a weak relationship shown by the performance indicators placed at the ends of the scale examined (turnover, net income and comprehensive income). In other words, non-GAAP indicators show a higher degree of value relevance compared to parameters determined according to generally accepted standards.

A subsequent study published by Entwistle et al. (2010) compares the value relevance of the non-GAAP parameters disclosed by firms (*pro-forma earnings*) and those constructed specifically by financial analysts (*street earnings*) with the corresponding performance indicators determined on the basis of the generally accepted principles. In support of the information hypothesis underlying the disclosure of alternative performance indicators, Entwistle et al. (2010) show, for a sample of US companies, a greater association of both pro-forma earnings and street earnings with share values compared to GAAP result indicators.

Further confirmation of the role played by non-GAAP indicators in mitigating the *ex ante* information asymmetries and thus increasing efficiency in the allocation of resources is finally offered by Bhattacharya et al. (2003) and Curtis et al. (2014). The former, analysing a sample of US companies, show a greater predictive ability for the non-GAAP indicators compared to the GAAP parameters that are directly comparable to them. Curtis et al. (2014), again in the context of the US market, instead underline the frequent involvement in the non-GAAP metrics not only of non-recurring cost items, but also of revenues characterized by a weak persistence and, therefore, deemed not relevant for the prediction of future results. The choice of the corporate controller to purge the non-GAAP indicator of non-recurring values, regardless of the impact that such items exert on the net value of the alternative performance metric, is clearly a consequence of the will to offer the markets relevant and reliable financial

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data that are useful for predicting future results and therefore, concretely directing investment choices.[1]

2.3 Non-GAAP disclosure to reduce *ex-post* information asymmetry

As mentioned above, in addition to representing a necessary response to the risk of pre-contractual opportunistic behaviour and the consequent phenomenon of adverse selection, financial disclosure also plays a fundamental role in mitigating the possibility of post-contractual opportunism (*moral hazard*) implemented by the agent (corporate controller) once the resources have been received from the principal (capital provider) (Jensen and Meckling, 1976).

The awareness of the possibility of non-cooperative behaviour by the agent could lead, similarly to what we have already seen, to sub-optimal equilibrium situations: The probability that the corporate controller can improperly use the resources transferred by the capital provider leads the latter to price *ex ante* the risk of opportunistic behaviour undertaken by the agent – by demanding a higher remuneration on the capital granted or by rationing the resources which are actually invested – thus transferring the relative cost of the agency relationship to the most efficient and effective firms.

Therefore, for the markets to be efficient, it is essential to design a control system that allows the corporate controller to mitigate the risk of opportunistic choices, thus diverting resources towards better-quality investment projects. To this end, a direct observation of the behaviour of the corporate controller as excessively expensive and, in many ways, technically impracticable, the principal (shareholders and creditors) can use the financial results (connected, at least in part, to the actions carried out by the directors) to draw up contracts aimed at regulating the relationships between the various economic actors (*accounting-based contract*), thus favouring an alignment of interests between agent and principal for more efficient resource allocation.

In this sense, remuneration policies that link the level of directors' remuneration to the achievement of specific financial results or introduce contractual conditions that allow the lender to modify the terms of loan contracts when the borrower's liquidity/solvency ratios worsen (*debt covenant*) represent systems that are commonly used to partially solve

[1] See chapter 3 for a more thorough discussion of the consequences of non-GAAP disclosure.

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conflicts between agent and principal and thus increase collective well-being (Armstrong et al., 2010; Leftwich, 1983; Healy, 1985).

Regarding the role played by *accounting-based contracts* in aligning the interests of the *corporate controller* with those of the outside shareholder, the scientific literature has extensively investigated the contractual function of financial reporting, analysing the existence of an explicit (i.e. formally contracted) relationship between accounting *performance* and compensation paid to managers as well as a possible implicit link between them (Lambert, 2001).

Some papers have, in fact, first of all analysed the effective use of accounting metrics in the design of remuneration schemes proposed for directors, highlighting –regardless of the sector analysed, the geographic area observed and the time period examined – a widespread use of financial reporting data for the definition of the remuneration plans and a significant sensitivity of the remuneration paid with respect to the financial results (Murphy, 1999; Ittner et al., 1997). Other studies, on the other hand, regardless of the existence of formal remuneration contracts based on accounting data, witnessed a strong relationship between remuneration paid and performance achieved (*pay-to-performance sensitivity*), thus confirming an implicit use of financial reporting in the definition of remuneration contracts (Jensen and Murphy, 1990; Natarajan, 1996; Bushman et al., 1998).

Important empirical evidence has also been gathered from the literature regarding the use of financial statement data for *ongoing* monitoring by lenders of the investment choices made by corporate controllers and the consequences exercised by the latter on the degree of company solvency. In this sense, a fundamental role is certainly fulfilled by the contractual constraints imposed by the *accounting-based covenants*, whose presence is effective in mitigating potential conflicts between lenders and borrowers, to the direct advantage of the former (with the possibility of promptly renegotiating the contractual conditions and thus increasing the probability of an effective recovery of the amounts transferred and of the interests) and of the latter (through a significant reduction in the cost of capital) (Healy and Palepu, 1990; Billett et al., 2007).

Therefore, similar to the previous paragraph regarding the possible informative role of the alternative performance indicators, non-GAAP performance measures can be an effective and efficient tool in the drafting of *accounting-based contracts*, reducing *ex-post* information asymmetries and related agency costs for the benefit of both the lenders and the borrowers.

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> *At each reporting date, the calculation of the Group's debt covenants is assessed, both for that period and subsequent ones. These covenants are calculated based on the adjusted performance of the Group, in that they exclude exceptional items. The Group has been consistent with previous years in its treatments of these items [...] The Board's view is that the appropriate leverage ratio for Capita over the medium term should be between 1.0 and 2.0 times adjusted net debt to adjusted EBITDA (prior to the adoption of IFRS 16). At 31 December 2018, the Group's adjusted net debt to adjusted EBITDA covenant ratio was 1.2 times (2017: 2.2 times) and interest cover was 8.2 times (2017: 8.6 times).*
>
> Capita, Annual Report, 2018.

In this regard, Dechow et al. (1994) represents a first important article concerning the use of non-GAAP parameters to increase the efficiency of remuneration contracts. Analysing the indicators used for the assessment of managers and the consequent estimate of any bonuses to be paid to them in 91 US companies involved in corporate restructuring operations, the authors highlight the presence of profit margins that are not burdened by the inclusion of charges related to the same restructuring process. The absence of these operating costs from the parameters used in the remuneration contracts would induce the managers to undertake the necessary restructuring processes – whose charges, although negatively impacting the annual financial results, do not affect the remuneration to be paid to the directors – thus contributing to the creation of value for shareholders.

In line with what emerged in Dechow et al. (1994), subsequent research has documented, for the measurement of the performance of managers of US companies and the determination of their remuneration, the use of non-GAAP parameters determined before non-recurrent or extraordinary items (Gaver and Gaver, 1998), R&D expenses (Duru et al., 2002) and costs caused by exogenous events (for example, impairment of assets connected to macroeconomic reasons) (Potepa, 2014). The absence within the parameters of management evaluation of income components which – although negatively influencing the operating result – are characterised by a strategic nature for the survival and growth of the company (for example, R&D costs) or are not controlled by the managers (extraordinary charges linked, for example, to macroeconomic events) clearly testifies to the widespread use of non-GAAP indicators in the remuneration plans in order to increase the efficiency of the related

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contracts (of both an explicit and an implicit nature) and to align the interests of the directors with those of the shareholders. There is also no lack of research aimed at highlighting an indirect correlation between remuneration plans and non-GAAP parameters. Bansal et al. (2013) identify an association between remuneration schemes associated with firm performance and a higher frequency of non-GAAP indicators. Black et al. (2016) identify a similar association between the inclusion of bonuses in compensation plans and the disclosure of alternative performance measures.

Non-GAAP indicators then are widespread in lending contracts through their use within accounting-based covenants, proving – given the high flexibility in their determination – to be particularly effective in providing useful and timely information designed to protect lenders' interests and, therefore, to increase the overall efficiency of loan operations.

In particular, analysing the most commonly used metrics in the construction of covenants based on income and cash flows (the so-called *performance covenants*), Li (2010), Beatty et al. (2015) and Dyreng et al. (2017) show, in the US market, a frequent use of non-GAAP parameters characterised by the absence of components of a transitory nature; as these components are mainly represented by negative income elements, the authors testify to the use of non-GAAP indicators characterized by a low degree of conservatism. At the same time, Beatty et al. (2008) – analysing the nature of the non-GAAP indicators used for the construction of covenants based on assets/liabilities values (defined as *capital covenants*) – identify significant changes to the balance sheet values aimed at reducing the value of net wealth and, therefore, unlike what emerged on performance covenants, at making the metric adopted more conservative.

Finally, Christensen et al. (2015) analysed the impact of any breaches of the contractual terms defined in the debt covenants on the nature of the non-GAAP metrics disclosed by a sample of US companies. In such circumstances, the authors measure a reduction in the probability of publishing non-GAAP information; however, when disclosed by management, the non-GAAP metrics determined after failure to comply with the financial constraints established by the contracting parties show a less aggressive character and, above all, a higher quality as they are determined through the exclusion of items characterized by a truly transitory nature and, therefore, of little relevance in determining future financial results. Even in this circumstance, therefore, the non-GAAP information shows that it quickly adapts to the information needs of the contracting parties, representing a useful tool to increase the efficiency of loan contracts.

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2.4 Opportunistic motives for non-GAAP reporting

The analysis proposed so far, emphasising the benefits – in terms of greater liquidity of the markets and lower cost of capital – associated with full financial disclosure, has highlighted the fundamental role played by financial reporting (and, specifically, by non-GAAP performance indicators) in reducing costs associated with information asymmetry (both *ex ante* and *ex-post*) but it does not allow any conclusion to be drawn regarding the need for its regulation.

By disclosing a clear signal about the quality of existing production projects, in fact, the most profitable companies will be able to distinguish themselves from less efficient competitors, thus obtaining the resources necessary to carry out their investments. In the same way, a greater accountability aimed at effectively reporting the operations carried out by managers and their financial results will be intentionally pursued by the *corporate controller* whenever the costs associated with it (*bonding costs*) are lower than those otherwise imposed by outsiders (*monitoring costs*) to deal with possible opportunistic behaviour.

A *voluntary disclosure* regime, therefore, seems to guarantee the achievement of a balance between the conflicting interests of the various market operators (be they shareholders or creditors), favouring the maximization of the respective utility functions.

However, the thesis just proposed – known in the literature by the term *unraveiling argument* – requires the occurrence of very stringent hypotheses regarding the ability of outsiders to evaluate – without incurring excessive costs – the quantity and quality of the information transmitted by managers (Grossman and Hart, 1980; Milgrom and Roberts, 1986; Verrecchia, 1983). Pre and post-contractual opportunistic behaviours could, in fact, be avoided only if made immediately evident by the analysis of the financial statements carried out by the *capital providers*. However, the burdens connected to the process of re-elaboration of financial information and the cognitive limits that could distinguish certain categories included in the heterogeneous audience of investors mean that situations of information asymmetry are, in reality, never completely resolved. In other words, especially in the presence of unsophisticated investors, the *corporate controller* could be led to opportunistically use the discretion granted in an unregulated environment, transferring untruthful or unverifiable information, or postponing the disclosure of the data for the sole purpose of achieving personal goals. In this sense, a disclosure regulation process reduces the discretion of the directors and favours a subsequent review process of the financial

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statement data, with an immediate impact on the agency costs. Moreover, accounting standardization reduces the costs associated with information processing, introducing a common language that is immediately understandable and easily comparable (Zingales, 2009).

A regulatory intervention, therefore, appears necessary to make the disclosure of the companies effectively available to the various market operators (*level the playing field*) and thus reduce the phenomena of *adverse selection* or *moral hazard*.

With regards to non-GAAP performance indicators, it is easy to understand – with the support of strong empirical evidence – that the high discretion granted to managers in determining these metrics can lead the *corporate controller* to opportunistically use the information contained in them, clearing the economic margins from items described as 'unusual' and 'non-recurring' for the sole purpose of reaching or beating predefined result targets (*cherry picking*). Moreover, regardless of the desire to present a misleading financial condition, the absence of regulation reduces the effective comparability of non-GAAP information, making enforcement processes and, in particular, any attempt of internal and external revision of the financial data even more expensive.

'PepsiCo's net revenues for 2015 were $63 billion, 5.4% lower than the previous year [...] The revenue decline was at least partly attributable to the strength of the dollar in 2015, which prompted management to argue that "organic revenue growth" — a non-GAAP number that PepsiCo calculates from revenue growth adjusted for, among other things, the effects of foreign currencies and the impacts of acquisitions and divestitures — went up, not down [...] In her 2007 letter to shareholders, PepsiCo CEO Indra Nooyi pointed to the company's 12% sales growth based on official GAAP figures. However, that 12% included two percentage points of net revenue growth attributable to foreign exchange effects resulting from a weak U.S. dollar and three percentage points of growth from acquisitions. In other words, PepsiCo's non-GAAP "organic" revenues increased by only 7% rather than 12% in 2007. In short, the company's communications focused on GAAP revenues (in 2007) or non-GAAP revenues (in 2015), depending on which figure sent the more favorable message

Sherman D. H., Young D. S., *The Pitfalls of Non-GAAP Metrics*, MITSloan Management Review, November 2017.

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In other words, for non-GAAP financial measures to be useful they need to be credible and accurate. Otherwise, users of the financial information would simply discount or entirely disregard the non-GAAP disclosure (Black et al., 2017).

In this sense, scholars observe that the changes made for the determination of the alternative performance parameters are often incremental with respect to the GAAP values – eliminating from the latter not only cost items, which are considered 'non-recurring', but also some expenses that are probably relevant in determining future income and cash flows of the firm – thus denoting the willingness of the managers to implement window-dressing policies.

Barth et al. (2012), for example, document the frequent exclusion from adjusted parameters of not only unusual – irrelevant, therefore, for the purposes of determining the sustainable income of the firm – but also recurring expenses. In particular, the research highlights the failure to include costs linked to share-based remuneration plans within the main non-GAAP indicators and underlines that this choice has a negative influence on the ability of alternative performance measeures to predict future results. In line with Barth et al. (2012), Black and Christensen (2009) and Hsu and Kross (2011) extend the category of recurring costs excluded by the managers in order to achieve pre-set income benchmarks and gather evidence on the exclusion – not always clearly justified and documented – of costs that are related to R&D activities and the depreciation and amortization of tangible and intangible assets.

Bhattacharya et al. (2004) show, instead, a value of non-GAAP indicators that is systematically higher than the directly comparable GAAP parameters. First of all, the research shows that the non-GAAP parameters disclosed by a sample of US companies meet or even exceed financial analysts' forecasts with a frequency higher than 50% of cases compared to the GAAP results. The authors confirm, then, the opportunistic nature of the alternative performance indicators, testifying to the use of these parameters for the sole purpose of converting a loss into profit for the year (in 13% of cases), to contradict a negative variation in the financial results measured according to the accounting standards (in 35% of cases) or to beat the target set by financial analysts (in 41% of cases). Similarly, Choi et al. (2007), analysing financial statements prepared according to the British GAAP, show an increase of 54% in the adjusted EPS with respect to the values achieved following the generally accepted accounting principles. A similar result is also confirmed by a study carried out on companies listed in France (Aubert, 2010), with a 13% increase in average

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non-GAAP incomes compared to those obtained through the application of IAS/IFRS.

Indirect evidence of the improper use of non-GAAP performance indicators is also offered by Doyle et al. (2013) and Black et al. (2014). In fact, focusing attention on the US market, they show an inverse relationship between the use and the number of non-GAAP parameters and the adoption of accrual or real earnings management policies. In other words, in the presence of stringent constraints (endogenous to the accounting system or external to it) and high costs associated with the application of earning management techniques, the managers replace traditional income manipulation strategies with a wide disclosure of non-GAAP parameters whose values tend to guarantee the achievement of pre-established financial targets or predefined contractual conditions.

Finally, Frankel et al. (2011) and Brown et al. (2012) infer opportunistic behaviour associated with non-GAAP disclosure by identifying a clear relationship between the probability of the disclosure of alternative performance parameters and the costs associated with an opportunistic use of them. In particular, the former testify to an inverse relationship between the proportion of independent directors sitting on the board (whose monitoring role clearly increases the costs of possible opportunistic behaviour) and the frequency in the use of non-GAAP parameters. At the same time, Brown et al. (2012) – after recalling that as investor sentiment grows, the costs associated with untruthful disclosure are reduced (since, in the presence of optimistic forecasts which are not justified by rational analysis, an effective control of the truthfulness of the data weakens) – show a direct relationship between investor sentiment and the presence of non-GAAP indicators in the notes to the financial statements, thus reaching the conclusion that disclosure of alternative performance parameters is at least partly guided by opportunistic intentions.

These considerations justify the increased scrutiny by market supervisory authorities of non-GAAP financial measures. In fact, although over time the number of comment letters issued by the SEC has significantly decreased (from 15.646 at the end of 2010 to 4.525 for 2017), the percentage of letters issued by the US market authority addressing non-GAAP measures has grown (4.5% in 2010 Vs. 23.7% in 2017) (Audit Analytics, 2018). Therefore, a form of regulation of the information relating to alternative performance indicators is probably required not only by market supervisory authorities (through an intervention on supplementary information to be added to the disclosure of non-GAAP parameters) but also by the main standard setters which, obviously, can intervene not only in the non-GAAP disclosure but also in the contents of

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the income statement, balance sheet and cash flow statement (the so-called *primary financial statements*).

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CHAPTER 3

DETERMINANTS AND CONSEQUENCES OF NON-GAAP DISCLOSURE: A REVIEW OF THE LITERATURE

CATUOGNO S.* AND ARENA C.*

3.1 Theoretical background: Informativeness vs opportunism

Non-GAAP reporting has become popular in the capital market over the last two decades and has generated considerable concerns among external users of financial reports. Academics and practitioners have been questioning the usefulness of non-GAAP metrics since the 1990s.

Most of the studies on pro forma indicators advocate that managers are mainly driven by the desire to provide more precise information to stakeholders on core earnings, in particular on permanent earnings. However, other researchers find that opportunism might be the reason behind the voluntary disclosure of non-GAAP indicators, especially before regulatory intervention. Therefore, two opposing theoretical perspectives have emerged: informativeness and opportunism.

The informative perspective suggests that non-GAAP earnings tend to be more permanent than GAAP earnings (Bhattacharya et al. 2003) and are more useful in the prediction of future firm performance (Brown & Sivakumar, 2003). Other research places importance on the value relevance of non-GAAP earnings compared to GAAP results as they are strongly associated with stock price (Bhattacharya et al. 2003). Further studies highlight that companies which voluntarily disclose non-GAAP results present a lower quality of GAAP earnings, and the non-GAAP reporting serves the purpose of compensating for the lower informativeness of GAAP results (Lougee & Marquardt, 2004). Finally,

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more recent research has highlighted the positive link between non-GAAP disclosure and the reduction of information asymmetries (Huang & Skantz 2016; Charitou et al. 2018).

On the other hand, the opportunistic perspective assumes that non-GAAP disclosure serves the purpose of misleading users of the financial statements as it presents a higher business performance compared to that emerging from the use of GAAP metrics (Marques, 2006). Empirical evidence shows that managers disclose pro forma earnings to conceal losses, report positive earnings growth, meet or beat analysts' expectations and increase investor perceptions of earning credibility (Black et al. 2012; Barth et al. 2012).

Although most of the studies have examined the US setting, the phenomenon of non-GAAP earnings is not confined exclusively to the US.

Additional research has recently been conducted in Australia (Cameron et al. 2012, Malone et al. 2016), New Zealand (Rainsbury et al. 2015), Canada (Cormier et al. 2011), South Africa (Venter et al. 2014), and Europe (Choi & Young 2015). Studies in the European settings have shown that almost 80% of companies in the largest cities report at least one non-GAAP metric in their earning releases (Isidro & Marques, 2015). With reference to the UK setting, the percentage of companies that communicate non-GAAP earnings has increased from 40% in 1993 to 75% in 2001, reaching a peak of 90% after the transition to IFRS in the 2005. In spite of the relevance of non-GAAP earnings, there are several differences among countries related to both institutional and economic factors. For example, in the US context, the non-GAAP earnings are mainly reported by hi-tech companies while outside the US there is no sector specificity. Furthermore, European companies are more consistent in non-GAAP reporting policies than their US counterparts and are less prone to opportunistically exclude recurring items such as depreciation (Isidro & Marques, 2015).

Moving from the dual nature of non-GAAP reporting, this study provides a systematic review of the literature with the aim to identify the main empirical evidence supporting the informative or the opportunistic perspective, pointing out the areas that need further investigation by scholars and practitioners.

3.2 Research method

In order to identify the articles for our systematic literature review, we searched for scientific papers published in international journals in English. No time limits were set to take into consideration all the most significant contributions up to December 2018. The search was conducted

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by keywords, using the Social Sciences Citation Index database (SSCI) incorporated into the online library ISI Web of Science. Firstly, all the articles containing "non-GAAP*" and "alternative performance*" in the topic (title, abstract, keywords, main text) were searched. The research produced 95 articles. Secondly, we selected the articles relevant for the analysis according to the entire text of each paper. At the end of this process 39 articles were removed from the sample. Therefore, the study was conducted on a sample of 56 articles.

Three coders (two authors and a research assistant) independently codified the set of articles based on the following parameters: (i) theoretical/empirical papers, (ii) type of non-GAAP indicators, (iii) informative versus opportunistic perspective, (iv) time reference, (v) geographical setting, (vi) method and variables, (vii) research results.

The coding scheme was pre-tested on a sub-sample of 20 articles with the aim to identify the inconsistencies in the responses and reach an agreement about the final set of items to be used in the classification. The disagreements were then reconciled, an inter-rater reliability score was calculated and the percentage of agreement was above the acceptance threshold (Cohen, 1960). A review was then conducted on the whole set of articles.

Among the sample articles we found that 7 papers were theoretical research and 49 articles were empirical studies.

The articles were published in 31 international journals between 2003 and 2018. As shown in Figure 1, the publication trend appears to decrease up to 2014 then shows an increasing tendency from 2015 to 2018 in line with the growing attention of regulators, academics, professionals, standard setters, and the media for the topic.

Figure 1: Overview of articles over time

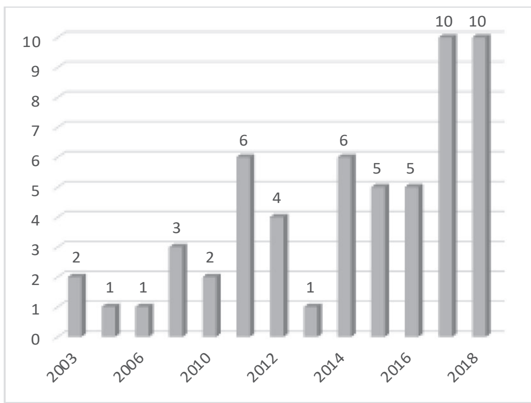

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Figure 2: Most prolific journals

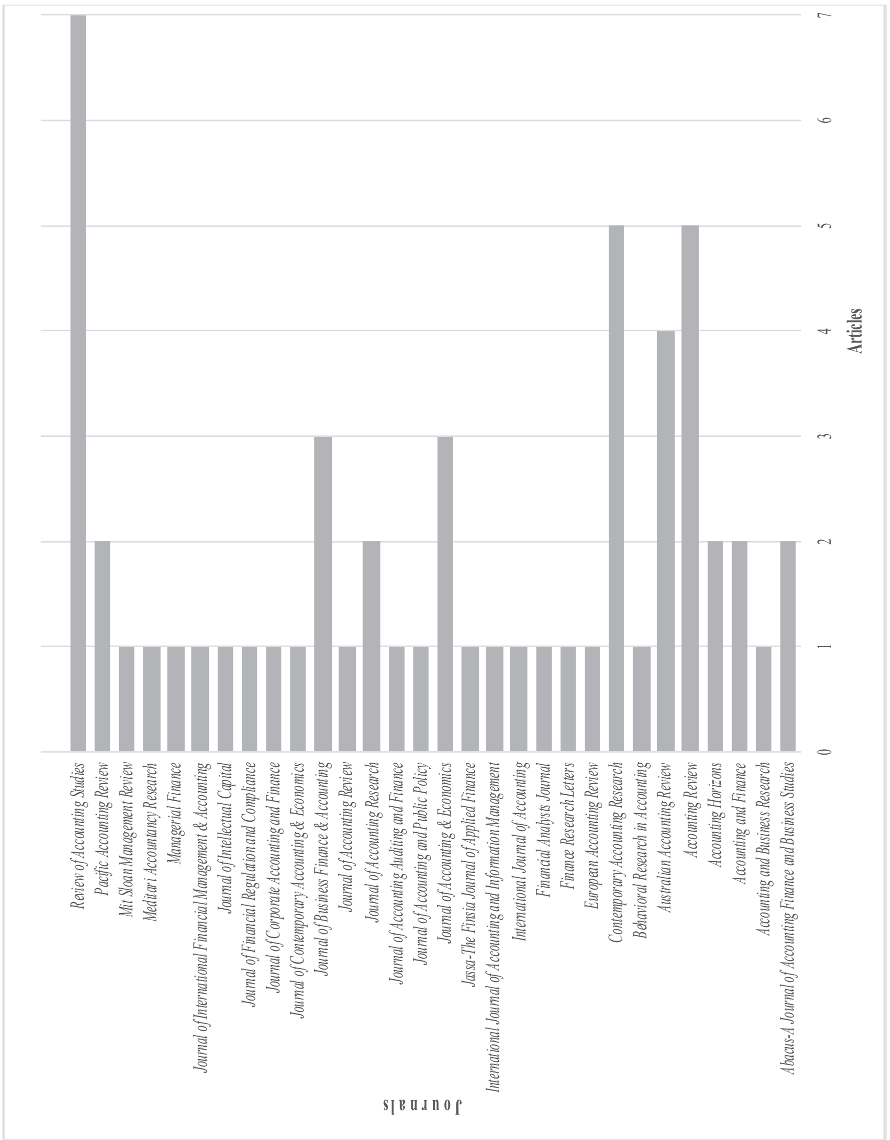

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Figure 2 shows that the most prolific journal is the American accounting journal *Review of Accounting Studies*, followed by the American *Accounting Review*, the Canadian *Contemporary Accounting Research* and the Australian *Accounting Review*.

Figure 3 provides a graphic representation of the publications according to the analysis setting. It shows that studies in Europe are still very limited (9.8%) compared to those conducted in the rest of the world. In particular, the US is the area with the most widespread empirical research (64.7%), followed by Australia (13.7%), New Zealand (5.8%), Canada (4%) and South Africa (2%).

Figure 3: Map chart, a detailed analysis of setting

3.3 Findings

The literature review reveals that the sample articles can be classified into two research lines: studies on the determinants and studies on the consequences of non-GAAP reporting. Among the studies on the determinants, the following research strands emerged: (1) regulation; (2) corporate governance; (3) other external determinants; (4) other internal determinants. Among the studies on the consequences, the following research strands emerged: (1) market; (2) accounting transparency; (3) managerial behaviour. In the following sections, we will discuss the distinctive characteristics of articles published in each strand.

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3.3.1 Studies on the determinants

Of the studies that analyse the managerial motivations to use non-GAAP performance metrics, most of the authors focused on a series of variables that affect the informative and opportunistic perspectives. In particular, it was shown that regulation by market authorities, corporate governance characteristics and a series of other exogenous and endogenous factors influence the quantity and quality of non-GAAP disclosure. Table 1 describes the most discussed topics in the strand of research on the determinants of non-GAAP reporting.

Table 1: Studies on the determinants of non-GAAP reporting

REGULATION	**SEC**	Marques (2006); Kolev, Marquardt, McVay (2008); Heflin & Hsu (2008); Chen (2010); Jennings & Marques (2011); Baumker, Biggs, McVay, Pierce (2014); Lee & Chu (2016); Shiah-Hou & Teng (2016); Bond, Czernkowski, Lee, Loyeung (2017).
	SOX	Chen, Krishnan, Pevzner (2012); Black, Christensen, Kiosse, Steffen (2017a).
	ASIC	Yang & Abeysekera (2018).
	FMA	Rainsbury (2017).
CORPORATE GOVERNANCE	**BOARD OF DIRECTORS**	Cormier, Lapointe-Antunes, Magnan (2011); Frankel, McVay, Soliman (2011); Jennings & Marques (2011); Xu, Bhuiyan, Rahman (2016); Charitou, Floropoulos, Karamanou, Loizides (2018); D'Angelo, El-Gazzar, Jacob (2018).
	AUDIT COMMITTEES	Seetharaman, Wang, Zhang (2014); D'Angelo El-Gazzar, Jacob (2018).
	MANAGERIAL INCENTIVES	Cormier, Lapointe-Antunes, Magnan (2011); Barth, Gow, Taylor (2012).

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OTHER EXTERNAL DETERMINANTS	**INDUSTRY/COUNTRY FACTORS**	Baik, Billings, Morton (2008); Isidro & Marques (2015).
	FINANCIAL CRISIS	Rainsbury, Hart, Buranavityawut (2015); Sinnewe, Harrison, Wijeweera (2017).
	IFRS ADOPTION	Sek & Taylor (2011); Solsma & Wilder (2015).
	MEDIA ATTENTION	Koning, Mertens, Roosenboom (2010).
OTHER INTERNAL DETERMINANTS	**FIRM SPECIFIC CHARACTERISTICS**	Badertscher (2011); Charitou, Floropoulos, Karamanou, Loizides (2018); D'Angelo, El-Gazzar, Jacob (2018).

Non-GAAP reporting and regulation

SEC/SOX Regulation

The United States was the first country to introduce regulation on the voluntary disclosure of non-GAAP indicators. In 2001, the Security and Exchange Commission (SEC) issued a series of rules, amendments, corrections and clarifications, which culminated with the adoption of the Compliance and Disclosure Interpretations (C&DIs) in 2016. Several studies have focused on understanding the impact of regulation on the reporting of non-GAAP indicators.

Marques (2006) examines non-GAAP reporting before and after the introduction of Cautionary Advice and Regulation G. She tests whether the frequency of non-GAAP reporting changes with the SEC intervention and whether the presence of non-GAAP indicators in earnings announcements is related to market reactions. Applying a logit model, she demonstrates that the level of non-GAAP disclosure remained stable between 2001 and 2002 but decreased in 2003 following the Regulation G. Furthermore, she finds an accelerated decline in the probability of disclosure of non-GAAP measures other than earnings after the first intervention by SEC. In the second part of the study, the author analyses the cumulative abnormal return (CAR) and reports that investors reacted more positively to non-GAAP disclosure after Regulation G but they reacted positively to the adjustments made by the I/B/E/S financial analysts and only negligibly to the additional adjustments made by the companies.

Kolev et al. (2008) empirically examine the effects of SEC regulation on the quality of non-GAAP earnings exclusions. The sample includes US companies in the period 1998-2004. Using future operating income,

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defined as the sum of future EPS as a measure of permanent earnings, the authors find a higher quality of exclusions in the period following the intervention of the SEC. They also observe that companies that stopped reporting non-GAAP earnings following the intervention present lower quality of exclusions in the pre-intervention period. This finding would be consistent with SEC intervention limiting the opportunistic behaviour of managers. However, they find that in the pre-intervention period the managers transformed a series of recurring items into special items to face the higher SEC scrutiny, suggesting that there may be unintended consequences from a tighter regulation of non-GAAP disclosures.

Heflin & Hsu (2008), analysing the impact of SEC regulation on a sample of US companies from 2003 to 2005, highlight a number of effects: a decline in the disclosure of non-GAAP earnings, a decrease in the magnitude attributed to non-GAAP compared to GAAP earnings, a reduction in the probability that companies report non-GAAP earnings to meet or beat analyst forecasts, and a weaker association between profitability and forecasting errors. Moreover, after separating the total exclusions into "other exclusions" and "special items", they find that both decrease and assume that the former is more opportunistic than the latter as it is more representative of future income. Therefore, the study highlights that the aim of regulators to reduce opportunistic disclosure was achieved. Finally, empirical evidence suggests that following the interventions by market authorities, the use of non-GAAP indicators decreases in favour of GAAP metrics.

Chen (2010) examines a sample of US companies during a period from 1992 to 2005, before and after Regulation G, in order to analyse whether the SEC intervention was effective in limiting the tendency of managers to exclude recurring items from street earnings to meet or beat analyst forecasts. The empirical results show that the meet or beat forecast exclusions were more persistent in the period prior to the implementation of Regulation G. These findings suggest that Regulation G constrains the practice of excluding recurring expenses from street earnings to meet or beat analyst forecasts, increasing the ability of analysts and investors to fully understand the persistence of items excluded from street earnings. Similarly, Jennings & Marques (2011) show that the SEC intervention was able to constrain the opportunistic use of non-GAAP disclosures to the detriment of investors.

Baumker et al. (2014) analyse the possibility that after the adoption of Regulation G by the SEC, managers report opportunistic non-GAAP earnings in the presence of transitory gains. Using a sample of companies from 2005 to 2007, the results clearly show that managers generally report

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the existence of transitory gains but are less prone to adopt a non-GAAP metric that excludes them. The tendency is instead to exclude only transitory losses to improve performance and provide a positive image of the firm, even in the post-Regulation G era.

Lee & Chu (2016) examine the motivation behind companies' decisions to discontinue non-GAAP disclosure subsequent to the increased transparency required after the introduction of Regulation G in a sample of US firms from 2002 to2010. They show that firms with a greater tendency to issue non-GAAP disclosure to mislead investors and firms deriving fewer benefits from non-GAAP reporting are more likely to stop non-GAAP reporting in the post-scrutiny period. They also find that firms receiving SEC comment letters questioning the use of non-GAAP disclosures are more likely to stop non-GAAP reporting. Finally, they examine whether those firms use other reporting mechanisms to substitute for non-GAAP reporting, and find that firms stopping non-GAAP disclosure tend to have poorer accrual quality after the stop date.

Shiah-Hou & Teng (2016) analyse the impact of Regulation G across the 2006-2011 period. They find that managers appear to manipulate non-GAAP earnings to exclude some recurring items in the reconciliation table required by Regulation G. Moreover, they show that CEOs who sell their holdings after the earnings announcement are more likely to disclose non-GAAP earnings, suggesting that managers disclose non-GAAP earnings to gain private benefits even after the SEC intervention.

Bond et al. (2017) examine the impact of Regulation G and C&DIs on the reporting of non-GAAP earnings. The results of the analysis show that after the issuance of Regulation G and C&DIs, the non-GAAP earnings exclusions are more transitory and have less predictive power for future operating earnings. Moreover, while Regulation G reduced the total positive exclusions made to meet or beat analyst forecasts, the C&DIs partially increased the number of exclusions. Finally, after Regulation G there is an increase in the earnings response coefficient (ERCs) while in the post-C&DIs period there is a decrease of ERCs.

Chen et al. (2012) investigate the relationship between the opportunistic disclosure of non-GAAP earnings, audit fees and auditor resignations in the post-regulation period. The authors find that prior to the introduction of the Sarbanes-Oxley Act (SOX), the opportunistic disclosure of non-GAAP earnings was associated with higher audit fees and a greater tendency of auditors to resign. Furthermore, additional analyses show that, also in the post-SOX period, auditors are more concerned about the implications of opportunistic reporting of the non-GAAP earnings disclosures.

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Black et al. (2017a) examine the influence of SOX and Regulation G, splitting the sample of firms reporting non-GAAP numbers into: (i) the pre- and post-SOX periods (continuer firms), (ii) only the pre-SOX period (stopper firms), (iii) only the post-SOX (starter firms) regulatory period. They find that managers generally exclude fewer recurring items upon which analysts disagree in the post-SOX regulatory period and that managers are also less likely to make recurring exclusions to meet strategic earnings targets. However, some firms continue to exclude recurring items in the post-SOX period. Overall, they conclude that although there is some evidence that the introduction of SOX and Regulation G achieved their intended purpose, a number of firms still appear to endorse aggressive non-GAAP exclusions.

ASIC Regulation Guide

Yang & Abeysekera (2018) study the effects of the regulation issued by the Australian Securities and Investments Commission (ASIC) in 2011 (Regulatory Guide 230: Non-IFRS Financial Information Disclosing) on underlying earnings for a sample of companies listed on the Australian Securities Exchange in the period 2011-2014. The sample is divided into ASIC-compliant and non-compliant firms. The authors conclude that companies that do not follow the ASIC guidelines are more prone to exclude recurring items in order to attribute a higher value to the underlying earnings than the GAAP earnings when they miss earnings benchmarks or make current losses. On the other hand, ASIC-compliant firms use non-GAAP metrics to provide additional information to shareholders. In addition, they demonstrate that the underlying earnings reported by non-compliant firms are less value-relevant than those reported by compliant firms.

FMA Guidance Note

Rainsbury (2017) focuses on the effects of the Guidance Note issued by the Financial Markets Authority (FMA) in New Zealand in 2012 on the relevance and quality of non-GAAP information. The sample includes all companies listed on the New Zealand Stock Exchange (NZX) in 2014, which announced the pro forma earnings from 2012 to 2014. The results show that despite their non-mandatory nature, the guidelines positively affect the behaviour of managers. The companies have improved both the quality of non-GAAP disclosure and the significance of non-GAAP earnings compared to GAAP earnings.

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Non-GAAP reporting and corporate governance

Many authors have questioned the influence that corporate governance characteristics exert on the reporting of pro forma earnings. The literature has mainly analysed the relationship between the use of alternative performance metrics and: (1) the composition of the board of directors; (2) the composition of the audit committees; (3) the managerial incentives.

Board of directors

Cormier et al. (2011) analyse a sample of Canadian companies belonging to the real estate investment trusts (REITs) from 2000 to 2005. They find that board ownership and board independence are related to the measurement and reporting of distributable cash, highlighting the relevance of this non-GAAP performance measure for investors to value income trusts.

Frankel et al. (2011) test the relationship between board independence and the characteristics of non-GAAP exclusions for a sample of US companies from 1998 to 2005. They hypothesize that if the board of directors mitigates opportunism, there will be a cross-sectional variation in the degree of persistence of non-GAAP exclusions. The authors demonstrate that when the board is composed of a small percentage of independent directors, the exclusions are negatively correlated to future earnings, thus suggesting that non-GAAP reporting reflects opportunism rather than the economics of the firm.

Jennings & Marques (2011) examine the joint effect of corporate governance and the SEC intervention on the disclosure of manager-adjusted non-GAAP earnings. Corporate governance is measured by the percentage of external board directors and the percentage of shares held by institutional investors. In the presence of strong corporate governance, Jennings & Marques find no evidence that non-GAAP adjustments mislead investors either before or after the SEC intervention. In contrast, they find that for firms with weak corporate governance investors are misled by non-GAAP adjustments only before the SEC intervention.

Xu et al. (2016) in New Zealand and Charitou et al. (2018) in the UK, using the independence of the board of directors as a measure of corporate governance quality, demonstrate that there is a negative association between the level of non-GAAP earnings disclosure and governance quality.

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Audit committees

Seetharaman et al. (2014) examine the association between the appointment of accounting experts within the audit committees, as required by the SEC, and the non-GAAP exclusions for a sample of US companies between 1998 and 2005. The authors recognize that the appointment of accounting experts in the control committees reduces the quantity and increases the quality of non-GAAP earnings exclusions, assuming that the non-recurring items are of a higher quality as they are not related to future income.

D'Angelo et al. (2018) examine the characteristics of US firms that voluntarily disclose GAAP-compliant statements of cash flow and balance sheets concurrently with their earnings announcements. In particular, they use a random sample of GAAP-compliant firms compared to a control sample identified as non-GAAP- compliant disclosing firms during the period 2009-2011. They find that firms with a higher percentage of outside directors, an accounting/finance expert member in the audit committee, and a separation of CEO and chairman of the board are more likely to concurrently disclose GAAP-compliant statements of cash flow and balance sheets with quarterly earnings releases.

Managerial incentives

In their analysis on the REIT industry, Cormier et al. (2011) show that stock option holdings granted to managers and directors affect the level of reported distributable cash, warning the accounting standard setters about the need to closely monitor the opportunistic use of such measures by boards and regulators.

Barth et al. (2012) examine how managers react to the mandatory recognition of the stock-based compensation expense required by SFAS 123R. They find that some managers exclude stock compensation from pro forma earnings in order to increase or smooth earnings and meet earnings benchmarks, thus indicating that opportunism is the primary explanation for these exclusions.

Non-GAAP reporting and external contingencies

Many of the reviewed studies identify a set of exogenous factors that can influence the disclosure of alternative performance measures.

Industry/country factors

Baik et al. (2008) study the effect that industry guidance plays on non-GAAP reporting practices. Focusing on the real estate industry and

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considering the metric of funds from operations, the authors find less discretion and greater uniformity in non-GAAP reporting after 1999, when the National Association of Real Estate Investment Trusts issued the *National Policy Bulletin* with the aim of increasing transparency. They also examine firms in other industries to assess alternative explanations for these results, such as SEC intervention. Collectively, they conclude that industry plays a critical role in monitoring such disclosure and curtailing the opportunistic reporting by managers.

Isidro & Marques (2015) study the influence of some country factors in terms of institutional and economic forces on non-GAAP reporting. In particular, they analyse the earnings announcements of firms belonging to the *Financial Times* classification of the 500 largest European companies during the period 2003-2007. They find that managers are more likely to use non-GAAP measures to meet or beat earnings benchmarks that GAAP earnings would miss in countries with efficient law and enforcement, strong investor protection, developed financial markets, and greater transparency of information. Furthermore, in these contexts – as required by all the main regulators – there is a greater tendency to exclude recurring expenses from non-GAAP numbers, such as R&D, depreciation, and stock-based compensation expenses.

Financial crisis

Rainsbury et al. (2015) examine the motivations for the reporting of GAAP-adjusted earnings for a sample of New Zealand companies. They find an increase in GAAP-adjusted earnings disclosed in the annual reports from 2004 to 2012, associated with a change in New Zealand tax law, the adoption of IFRS and the global financial crisis.

Sinnewe et al. (2017) examine the relationship between non-GAAP reporting and the predictive ability of future earnings for a sample of large Australian-listed companies over the period 2006 to 2011. They show a decreasing predictive capacity starting from the post-crisis period. Taking into account that valuation, non-recurring and below-the-line adjustments are negatively correlated with future operating cash flow, they conclude that the exclusion of these items in the post-crisis period has the potential to mislead investors.

IFRS adoption

The adoption of IFRSs may represent an additional external factor that influences non-GAAP disclosure. Sek & Taylor (2011) conduct a case study concerning the five largest Australian banks (the Australian and New Zealand Banking Group, the ANZ, the Commonwealth Bank, the

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National Australian Bank, Westpac) from 2003 to 2008. Findings reveal that after the transition to the Australian International Reporting Standards, there was an increase in the number of adjustments between GAAP and non-GAAP earnings (cash earnings). They interpret this result as evidence that directors and managers view the IFRS definition of GAAP earnings less representative of the underlying periodic performance than the corresponding pre-IFRS measure.

Solsma & Wilder (2015) study the pro forma disclosure of US cross-listed firms that prepare financial statements under IFRS. They conclude that the companies that adopt the IFRS report pro forma indicators more frequently than those disclosing under US GAAP but in a less opportunistic manner.

Media attention

Koning et al. (2010) examine the implications of negative media attention on the reporting of non-GAAP earnings and on the investors' reactions to non-GAAP results. The sample consists of the earnings announcements issued by companies listed on Euronext Amsterdam from 2002 to 2005. The results show that Dutch companies frequently report non-GAAP earnings, excluding a series of recurring items, with an opportunistic purpose. However, after the negative attention and public criticism received from the media peaked, the number of adjustments has greatly decreased. Investors seem to have taken the warnings in the media seriously and turned away from non-GAAP measures. The evidence suggests that companies' reporting choices may be influenced by factors such as media attention, even without regulatory changes.

Non-GAAP reporting and other internal determinants

Firm specific characteristics

With reference to stock market performance, Badertscher (2011) studies the link between the level and duration of the firm overvaluation and the non-GAAP earnings management. He finds that the longer a firm is overvalued, the more likely it is to engage in one of the most egregious forms of earnings management, non-GAAP earnings.

Charitou et al. (2018) examine whether the decision to disclose non-GAAP earnings on the face of the income statement is related to the firm's financial performance and the corporate governance characteristics for a sample of UK firms during the period 2006-2013. The variables used as proxies for financial performance are ROA, leverage and three widely used profitability benchmarks: missed analyst forecasts, missed prior

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earnings, GAAP loss. They show that firms with a weaker financial performance are more likely to disclose non-GAAP earnings.

D'Angelo et al. (2018) also study the impact of financial performance on non-GAAP reporting methods for a sample of companies listed on the London Stock Exchange from 2006 to 2013. The authors conclude that firms operating at a loss or with a high leverage or low profitability are those most likely to report non-GAAP results in the income statement.

3.3.2 Studies on the consequences

A different strand of research has focused on the consequences of non-GAAP disclosure on the efficient functioning of financial markets, the transparency of voluntary information, and managerial behaviour. Table 2 describes the most discussed topics in the strand of research on the consequences of non-GAAP reporting.

Table 2: Studies on the consequences of non-GAAP reporting

MARKET	**INVESTOR/ANALYST REACTION**	Frederickson & Miller (2004); Marques (2006); Hsu & Kross (2011); Barth, Gow, Taylor, (2012); Johnson, Percy, Stevenson-Clarke, Cameron (2014); Malone, Tarca, Wee (2016); Guillamon-Saorin, Isidro, Marques (2017); Hogan, Krishnamoorthy, Maroney (2017); Bradshaw, Christensen, Gee, Whipple (2018); Yang (2018).
	INFORMATION ASYMMETRY	Huang & Skantz (2016); Cormier, Demaria, Magnan (2017); Charitou, Floropoulos, Karamanou, Loizides (2018).
	STOCK RETURNS	Francis, Schipper, Vincent (2003).
	MARKET LIQUIDITY	Charitou, Floropoulos, Karamanou; Loizides (2018).

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ACCOUNTING TRANSPARENCY	**VALUE RELEVANCE**	Brown & Sivakumar (2003); Cormier, Lapointe-Antunes, Magnan (2011); Bonacchi, Kolev, Lev (2015); Venter, Emanuel, Cahan (2014); Rainsbury, Hart, Buranavityawut (2015); Xu, Bhuiyan, Rahman (2016); Cormier, Demaria, Magnan (2017).
	PREDICTIVE ABILITY	Barth, Gow, Taylor (2012); Bonacchi, Kolev, Lev (2015); Rainsbury, Hart, Buranavityawut (2015); Cormier, Demaria, Magnan (2017); Sinnewe, Harrison, Wijeweera (2017); Leung & Veenman (2018).
MANAGERIAL BEHAVIOUR	**MEET OR BEAT**	Doyle, Jennings, Soliman (2013); Curtis, McVay, Whipple (2014); Choi & Young (2015); Rainsbury, Hart, Buranavityawut (2015); Bradshaw, Christensen, Gee, Whipple (2018).
	EARNINGS MANIPULATION	Cameron, Percy, Stevenson-Clarke (2012); Lee & Chu (2016); Black, Christensen, Joo, Schmardebeck (2017b); Bentley, Christensen, Gee, Whipple (2018).

Non-GAAP reporting and market consequences

Investor/analyst reaction

In their study Frederickson & Miller (2004) examine the effects of pro forma disclosures on both sophisticated and non-sophisticated investors. To this aim they submit a questionnaire to two groups: (1) professional financial analysts that represent more sophisticated investors; and (2) MBA students that represent non-sophisticated investors. They find that professional investors have the same expectations on future earnings in both GAAP and pro forma disclosure, while MBA students in the pro forma condition developed earnings forecasts that were significantly higher than those in the GAAP condition. They conclude that more

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sophisticated investors can better interpret pro forma disclosures while less sophisticated investors can potentially be misled by non-GAAP reporting.

Hsu & Kross (2011) observe whether the stock market correctly prices special items conditional on their inclusion or exclusion from street earnings, i.e. the earnings construct that analysts track and forecast and that firms disclose in earnings announcements. They document that the market is more likely to overprice special items that are part of street earnings compared with special items that are excluded from street earnings.

Barth et al. (2012), in examining the reaction to SFAS 123R's request to recognize the stock-based compensation expense, find that analysts exclude the expense from earnings forecasts when exclusion increases earnings' predictive ability for future performance, suggesting that opportunism generally does not explain exclusion by analysts.

In the Australian setting, Johnson et al. (2014) conduct an experimental study to investigate the impact of reporting non-GAAP earnings in addition to GAAP earnings on non-sophisticated investors. Results suggest that there is a positive association between the prominent disclosure of non-GAAP earnings information and the reliance of non-sophisticated annual report users on non-GAAP rather than GAAP earnings.

Malone et al. (2016) examine the IFRS non-GAAP earnings adjustments for fair value remeasurements made by companies and analysts and the usefulness of these disclosures for analysts. The research is based on a sample of Australian companies listed in the period 2008-2010. They find that non-GAAP disclosing companies are more likely to have analyst adjustments and lower forecast errors and dispersions after non-GAAP earnings disclosure, suggesting usefulness rather than opportunism in the adjustments.

In the European setting, Guillamon-Saorin et al. (2017) analyse the reactions to non-GAAP disclosure accompanied by high levels of impression management. Results suggest that professional investors are able to recognize the opportunistic behaviour of managers and discount non-GAAP information that is accompanied by high impression management. Moreover, investors in more sophisticated markets penalize non-GAAP measures communicated with high impression management.

Hogan et al. (2017) conduct an experimental study in order to examine how investors' GAAP and non-GAAP earnings performance assessments affect their financial evaluations and investment decisions. They evaluate the investors' assessment based on both the presentation format of a full non-GAAP income statement (NGIS) and on a summary containing only the items that caused the difference between GAAP and non-GAAP

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measures, as required by Regulation G. The authors conclude that the NGIS summary format increases the weight given to non-GAAP earnings performance for the investors' decision-making process.

Using a sample of US companies from 2000 to 2015, Bradshaw et al. (2018) analyse investor preference for GAAP versus non-GAAP earnings. They report that investors view non-GAAP earnings as a more informative summary metric of firm performance and report a strong preference for non-GAAP metrics.

Yang (2018) confirms the positive association between aggressive non-GAAP disclosure and investors' reactions for a sample of Australian firms listed on the Australian Securities Exchange 200 from the 2009 to 2012. Their results suggest that pro forma earnings have greater incremental value-relevance information than statutory earnings.

Information asymmetry

Huang & Skantz (2016) study the impact of non-GAAP disclosure on the reduction of information asymmetries, measured by adverse selection costs following earnings announcements. Using a sample of firms traded on the NASDAQ exchange between 1999 and 2006, they document that information asymmetry in the preannouncement period is positively associated with the probability of non-GAAP earnings in the quarterly earnings announcement. Moreover, they find that the reduction in information asymmetry after earnings announcements is significantly more pronounced when analysts or managers issue non-GAAP earnings.

Cormier et al. (2017), analysing the data of Canadian companies for the years 2012-2013, show that the non-GAAP performance indicators play a fundamental role in reducing information asymmetries. In particular, they investigate how a firm's decision to disclose EBITDA affects analysts and investors, and find that the release of that non-GAAP metric relates with the stock market valuation as well as with the information asymmetry between management and financial analysts.

Analysing UK firms for the period 2006-2013, Charitou et al. (2018) show that non-GAAP disclosure is associated with increased levels of market liquidity and conclude that a firm's decision to disclose non-GAAP earnings is more consistent with the incentive to provide information than to mislead the market.

Stock returns

The study by Francis et al. (2003) examines the relevance of GAAP and non-GAAP metrics on the measurement of firm performance as well as the impact that non-GAAP measures have on stock returns during the

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period 1990-2000. They identify the following non-GAAP preferred metrics for three industries: revenue per passenger mile, cost per available seat mile, and load factor for the airline industry; value of new orders and value of order backlog for the homebuilding industry; and same-store sales for retail restaurants. They do not find evidence that the preferred non-GAAP metric dominates earnings in explaining security returns. However, with the exception of homebuilding, they find that preferred non-GAAP metrics have incremental explanatory power compared to GAAP metrics in explaining changes in stock returns.

Market liquidity

The study by Charitou et al. (2018) analyses the impact of non-GAAP earnings on the liquidity of financial instruments, as measured by bid-ask spread, price impact, zero returns percentage, and illiquidity index. The results show that companies that report non-GAAP earnings have higher market liquidity, supporting the informative perspective in the use of non-GAAP metrics in UK.

Non-GAAP reporting and accounting transparency

The transparency of non-GAAP disclosure is mainly investigated through different qualitative characteristics of earnings: value relevance and the predictive ability of non-GAAP earnings.

Brown & Sivakumar (2003), analysing a sample of US firms during the period 1989-1997, test the value relevance of two different types of operating income: operating income disclosed in a firm's earnings release, as measured by Thomson Financial I/B/E/S data, and the EPS from operations obtained from 10-Q and 10-K filings to the SEC. The results show the I/B/E/S operating income is more value- relevant than that obtained by the 10-Q and 10-K filings as it has fewer transitory components than the operating income obtainable from firms' financial statements. Similarly, Cormier et al. (2011), studying the impact of the disclosure relating to the distributable cash on market prices, find that it is value-relevant. In addition, Barth et al. (2012) document that the predictive ability of earnings is the primary explanation for the exclusion of expenses from street earnings.

Venter et al. (2014) examine the value relevance of earnings components in South Africa, where there is a mandatory requirement to report GAAP and non-GAAP earnings. The results show that non-GAAP earnings reported under a mandatory regime have higher value relevance than GAAP earnings.

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Bonacchi et al. (2015) analyse value relevance and the predictive ability of a particular non-GAAP non-financial metric, i.e. customer equity. The sample consists of a fast-growing group of subscription-based enterprises during the period 2002-2010. The authors highlight that the value of the customer equity measure is positively and significantly associated with the market value of the firm, as well as with future earnings. Hence, they conclude that the customer equity embeds important information pertaining to firm value.

Cormier et al. (2017) also find an enhancement in the positive relationship between earnings and stock prices as well as future cash flows for firms reporting EBITDA.

Leung & Veenman (2018) analyse the incremental information in the disclosures of non-GAAP earnings by loss firms for forecasting and valuation during the period 2006–2014. Evidence suggests that non-GAAP disclosures are particularly predictive of future performance and potentially less strategic for loss firms than for profit firms. They also find that for firms that exclude expenses to convert a GAAP loss into a non-GAAP profit, the so-called loss converters, the GAAP earnings are unrelated to future performance.

In New Zealand, Rainsbury et al. (2015) argue that GAAP-adjusted earnings have a higher correlation with stock prices and a superior predictive ability for future performance than GAAP earnings, as confirmed by Sinnewe et al. (2017) in the Australian setting. Conversely, Xu et al. (2016) find that relevance of underlying profit is lower for firms that extensively report underlying profit in their annual reports.

Non-GAAP reporting and managerial behaviour

A large number of studies have analysed the strategic use of non-GAAP disclosure aimed at meeting or beating analyst forecasts or manipulating accounting earnings.

Cameron et al. (2012) investigate the prominence of pro forma earnings disclosures and the reconciliation to GAAP earnings for a sample of Top 50 Australian public non-mining companies during the years 2007-2009. Their result suggests that managers engage in a form of manipulation by emphasising the earning measure that presents the company's financial performance in the best light.

Curtis et al. (2014) analyse non-GAAP disclosure in the presence of transitory gains, arguing that managers opportunistically exclude non-recurring expenses but include non-recurring revenue when this facilitates meeting earnings benchmarks. However, the analysis shows that 37.6% of

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the sample firms report non-GAAP earnings in the presence of either losses or revenues in order to provide additional information, while 27.7% report non-GAAP earnings in an opportunistic manner, 25.2% are "uninformative" (they do not report non-GAAP earnings or in the presence of transitory losses or transitional gains) and the remaining 9.9% are "conservative" (less inclined to report non-GAAP results in the presence of non-recurring losses).

Other studies have documented a strategic use of non-GAAP disclosure when traditional metrics do not allow the achievement of some earnings benchmarks (Choi & Young 2015; Rainsbury et al. 2015; Bradshaw et al. 2018).

Lee & Chu (2016), analysing the motivations that lead managers to interrupt non-GAAP disclosure, try to understand if it can be substituted by accruals and real earnings management. However, they do not find evidence to support this conclusion.

Black et al. (2017b) analyse the relationship between aggressive pro forma earnings reporting and earnings management practices, finding that managers are less likely to make recurring exclusions to meet strategic earnings targets.

Bentley et al. (2018), in their analysis on the usefulness of the traditional proxy for managers' non-GAAP disclosures available through analyst forecast data providers (FDPs), such as I/B/E/S, confirm the greater managerial propensity to exclude transitory losses and, in an aggressive manner, even the recurring items. Doyle et al. (2013) also underline the link between aggressive pro forma earnings reporting and the benchmark beaters.

3.4 Discussion and concluding remarks

The disclosure of pro forma indicators has been extensively debated in the academic and professional arenas and has attracted the attention of regulators and standard setters.

On the one hand, these measures can reduce information asymmetries and faithfully represent firms' financial performance. On the other hand, the discretion related to the use of non-GAAP metrics can undermine the reliability and comparability of financial statements to the detriment of the market participants.

The present literature review set the objective of understanding whether managers use non-GAAP performance indicators for informative or opportunistic purposes. A number of considerations stand out.

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Specifically, as far as the determinants are concerned, our results suggest that regulatory intervention has increased the quality and transparency of non-GAAP disclosure (Marques 2006, Bond et al. 2017). However, there is also some empirical evidence that companies engage in managerial opportunistic non-GAAP reporting after regulation was adopted (Baumker et al. 2014, Shiah-Hou Shin-Rong & Teng, 2016). Moreover, a strong corporate governance, in terms of board independence and accounting expertise in the audit committees, increases the quality of non-GAAP disclosure. Furthermore, a high level of leverage, low profitability and GAAP losses have been associated with concealing unfavourable business performance through an opportunistic use of non-GAAP reporting (D'Angelo et al. 2018). In addition, a series of other external contingencies affect the voluntary disclosure of pro forma earnings. In particular, negative media attention has contained the opportunistic use of non-GAAP reporting and the global financial crisis has led to a proliferation of non-GAAP earnings in the post-crisis era (Rainsbury et al. 2015) but with a low informativeness (Sinnewe et al. 2017). Conversely, developed capital markets and strong institutions have increased the use of non-GAAP measures to meet or beat earnings benchmarks (Isidro & Marques 2015).

With regard to the consequences, the reviewed studies reveal that non-GAAP measures can improve the value relevance of financial reporting, the predictability of cash flows or future income and can also reduce the information asymmetries among market participants (Brown & Sivakumar 2003; Huang & Skantz 2016; Leung & Veenman 2018). Nevertheless, in some cases, non-GAAP disclosure facilitates the need to present a better image of the company by providing non-sophisticated investors with misleading information (Frederickson & Miller 2004). Finally, the exclusion of recurring items and transitory losses has also been intended to meet or beat analyst forecasts and manipulate accounting earnings (Curtis et al. 2014).

Table 3 provides an overview of the research on non-GAAP reporting according to the informative (Panel A) and the opportunistic (Panel B) theoretical perspectives. It highlights that most of the studies on the determinants has supported the opportunistic hypothesis while research on the consequences of non-GAAP reporting have mainly advocated the informative perspective.

The review of the literature has highlighted a number of limitations that suggest avenues for future research.

First, most of the studies have focused on large listed US companies so future research could extend the investigation to other geographical,

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institutional, legal, and economic environments, taking into account small and private firms as well. Second, whilst the extant research has mainly employed multivariate regression models, it would be useful to analyse non-GAAP disclosure by relying on alternative research methods; for example, experimental approaches or case studies. Finally, future research efforts could be devoted towards the investigation of the effect of the standardization of non-GAAP reporting and the consideration of non-financial non-GAAP indicators. In this vein, attention could be directed to study the ethical implications of opportunistic non-GAAP reporting either on investors or the other stakeholders in the broader perspective of corporate social responsibility.

Table 3: Overview of non-GAAP reporting studies

PANEL A: RESEARCH ON THE INFORMATIVE PERSPECTIVE	
DETERMINANTS	**CONSEQUENCES**
Marques (2006) Cormier, Lapointe-Antunes, Magnan (2011) Seetharaman, Wang, Zhang (2014) Rainsbury, Hart, Buranavityawut (2015) Bond, Czernkowski, Lee, Loyeung (2017) Rainsbury (2017) Charitou, Floropoulos, Karamanou, Loizides (2018) Yang & Abeysekera (2018)	Brown & Sivakumar (2003) Francis, Schipper, Vincent (2003) Marques (2006) Cormier, Lapointe-Antunes, Magnan (2011) Johnson, Percy, Stevenson-Clarke, Cameron (2014) Barth, Gow, Taylor (2012) Curtis, McVay, Whipple (2014) Venter, Emanuel, Cahan (2014) Bonacchi, Kolev, Lev (2015) Rainsbury, Hart, Buranavityawut (2015) Huang & Skantz (2016) Malone, Tarca, Wee (2016) Cormier, Demaria, Magnan (2017) Guillamon-Saorin, Isidro, Marques (2017) Hogan, Krishnamoorthy, Maroney (2017) Sinnewe, Harrison, Wijeweera (2017) Charitou, Floropoulos, Karamanou, Loizides (2018) Leung & Veenman (2018) Yang (2018)

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PANEL B: RESEARCH ON THE OPPORTUNISTIC PERSPECTIVE	
DETERMINANTS	**CONSEQUENCES**
Baik, Billings, Morton (2008) Heflin & Hsu (2008) Kolev, Marquardt, Mcvay (2008) Chen (2010) Koning, Mertens, Roosenboom (2010) Badertscher (2011) Frankel, McVay, Soliman (2011) Jennings & Marques (2011) Sek & Taylor (2011) Barth, Gow, Taylor (2012) Chen, Krishnan, Pevzner (2012) Baumker, Biggs, McVay, Pierce (2014) Isidro & Marques (2015) Rainsbury, Hart, Buranavityawut (2015) Solsma & Wilder (2015) Lee & Chu (2016) Shiah-Hou & Teng (2016) Xu, Bhuiyan, Rahman (2016) Black, Christensen, Kiosse, Steffen (2017a) Bond, Czernkowski, Lee, Loyeung (2017) Sinnewe, Harrison, Wijeweera (2017) D'Angelo, El-Gazzar, Jacob (2018) Yang & Abeysekera (2018)	Frederickson & Miller (2004) Hsu & Kross (2011) Cameron, Percy, Stevenson-Clarke (2012) Doyle, Jennings, Soliman (2013) Choi & Young (2015) Rainsbury, Hart, Buranavityawut (2015) Xu, Bhuiyan, Rahman (2016) Black, Christensen, Joo, Schmardebeck (2017b) Bentley, Christensen, Gee, Whipple (2018) Bradshaw, Christensen, Gee, Whipple (2018) Lee & Chu (2016)

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PART II –

THE REGULATION OF THE NON-GAAP FINANCIAL MEASURES AND DISCLOSURE

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CHAPTER 4

SECURITY REGULATORS' REQUIREMENTS ON NON-GAAP DISCLOSURE[1]

DI FABIO C.* AND RONCAGLIOLO E.*

4.1 Regulation of Non-GAAP Reporting in USA

The widespread use of non-GAAP financial measures by public companies has drawn the attention of regulatory authorities concerned by the potential threats to investor protection and market efficiency. Regulatory concerns mostly relate to the diffusion of APMs providing an opportunistic and biased representation of company performance and substantially misleading the users of financial information.

In the US context, the opacity of measures diffused by companies triggered a growing commitment of the Securities and Exchange Commission (SEC) towards the regulation of non-GAAP financial indicators (Black et al., 2018). In particular, SEC interest in the matter arose specifically following accounting scandals in the early 2000s. The first regulatory move in this respect concerned *pro forma* financial information, which is not regulated by accounting standards but is highly employed by investors and analysts to assess companies' future profitability. Indeed, in December 2001, the Commission released *Cautionary Advice*[2], which warned companies

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[1] Although this chapter is the result of joint research, paragraphs 'Regulation of Non-GAAP reporting in USA' and 'The enforcement decisions on APMs in USA' can be attributed to Costanza Di Fabio while paragraphs 'Regulation of Non-GAAP reporting in Europe' and 'The enforcement decisions on APMs in Europe' can be attributed to Elisa Roncagliolo.

[2] "'Pro forma' financial information can serve useful purposes. Public companies may quite appropriately wish to focus investors' attention on critical components of quarterly or annual financial results in order to provide a meaningful comparison to results for the same period of prior years or to emphasize the results of core operations […]. Nonetheless, we are concerned that 'pro forma' financial information, under certain circumstances, can mislead investors if it obscures

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publicly releasing this kind of information about their obligations to disclose reliable measures. The nature of *pro forma* information departs from the traditional accounting conventions, making it extremely difficult for investors comparing such information across time and among issuers. Additionally, companies usually prepare *pro forma* information by selective editing information based on GAAP, so they might define non-GAAP indicators inconsistently and obscure GAAP financial results intentionally, eventually misleading users of *pro forma* information on the company's actual performance (IOSCO, 2002).

To discourage such opportunistic behaviour, the Advice required complementing non-GAAP disclosure with accurate descriptions of the underlying principles and calculation criteria, clearly identifying the items judged as unusual or nonrecurring and then omitted in non-GAAP measures. At a more general level, the Commission required clear disclosure of the deviations of non-GAAP information from GAAP and the amounts of such deviations, stressing the need to preserve the reliability of *pro forma* information by avoiding the omission of material information.

The second step undertaken by SEC followed the requirements of Section 401(b) of the Sarbanes-Oxley Act (SOX). SOX mandated the Commission to develop rules to ensure that information released publicly or included in filings with SEC: (i) did not encompass false information on material facts and omit information materially misleading users, and (2) reconciled non-GAAP financial indicators with the performance determined under GAAP. SEC then started a process of extensive regulation of non-GAAP disclosure, which foresaw the publication of the *Conditions for the use of Non-GAAP financial measures* as articulated into three distinct areas, namely the so-called *2003 Final Rules* (Moscariello, 2018). This new regulation package embraced a number of requirements delimiting the definition and the calculation of APMs and their presentation, aiming at strengthening the understandability, the comparability and the reliability of non-GAAP financial measures.

In the subsequent years, the Commission went further by developing detailed technical guidance on the matter and working through formal and informal channels to encourage the engagement of the financial community. In particular, SEC staff promoted official guidance on non-GAAP financial measures through various initiatives, such as the 33

GAAP results. […] Its use can make it hard for investors to compare an issuer's financial information with other reporting periods and with other companies" US Securities and Exchange Commission, *Cautionary Advice Regarding the Use of "Pro Forma" Financial Information in Earnings Releases*, December 2001.

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Frequently Asked Questions (hereafter '33 FAQs'), a variety of comments and communications with registrants in the scope of the SEC comment letter process, and the updates concerning the non-GAAP financial measures included in the SEC financial reporting manual. Additionally, staff and senior members were active through speeches, webcasts and panel discussions involving a variety of stakeholders[3].

Despite the regulatory efforts, many companies were reluctant to adopt non-GAAP indicators in their filed documents (Marques, 2006; Entwistle et al., 2006) given the Commission's emphasis on the restrictions in their use and the problematic interpretation of the requirements (Moscariello, 2018). Nevertheless, they continued to use them extensively in press releases and disclosures to the public (Black et al., 2012).

To encourage the use of non-GAAP measures in filings with SEC, the Commission sought to increase the flexibility of provisions and issued the Compliance and Disclosure Interpretations (C&DIs) in June 2010 – updated in July 2011 (Deloitte, 2017). At the same time, SEC staff continued to promote the constructive engagement of the financial community by questioning registrants about non-GAAP financial measures and, particularly, on clear labelling and descriptions of the measures and adjustments, non-boilerplate discussions of the managerial use of the indicators and their usefulness to investors. This activity led to a sharp rise in the use of non-GAAP financial measures and their undue prominence over information provided by financial statements. Concerned by inconsistent and opportunistic calculations of APMs, staff issued new and updated C&DIs to provide additional guidance on what the Commission expects from companies diffusing such indicators in May 2016 and updated them in October 2017.

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[3] During the 2009 AICPA Conference on Current SEC and PCAOB Developments, the Commission remarked on its commitment to discourage companies from manipulating indicators presented in *pro forma* information: "Transparency is also essential when reporting non-GAAP financial measures. (…) Investors can be tricked into believing that a downturn in GAAP earnings is temporary and not attributable to a company's core operations. In these circumstances, non-GAAP measures are used as a mechanism to obscure financial results rather than as a means to expound upon them" Flemmons, J. S *Remarks Before the 2009 AICPA National Conference on Current SEC and PCAOB Developments*, December 8, 2009. Available online at:
https://www.sec.gov/news/speech/2009/spch120809jsf.htm

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4.1.1 The 2003 Final Rules

As mandated by the 2002 Sarbanes-Oxley Act, SEC issued Release 33-8145 (the *Proposing release*) introducing a new set of rules disciplining financial information prepared *on the basis of methodologies other than in accordance with generally accepted accounting principles* designed to enhance the transparency of non-GAAP information. The new regulation package foresees three sets of rules, namely: (i) Regulation G under the Securities Act (Regulation G), (ii) the amendments to item 10(e) of Regulation S-K under the Securities Act (Regulation S-K) and Exchange Act Form 20-F, and (iii) amendments requiring registrants to furnish to SEC, on Exchange Act Form 8-K, earnings releases or similar announcements, with furnished press releases also having to comply with Item 10(e)(1)(i)[4].

i) Regulation G

Regulation G provides an official definition of the non-GAAP financial measure, conceived as a numerical measure of a company's performance (either historical or prospective) that satisfies two conditions. First, it does not encompass (either explicitly or through adjustments) the amounts typically included in the most directly comparable measure calculated and presented according to GAAP in the statement of income,

[4] Concerning the application, the Final Rules apply to registrants differently to how they apply to registered investment companies. However, while Regulation G applies whenever a company publicly discloses material information including a non-GAAP financial measure, Item 10(e) of Regulation S-K applies to US registrants, including non-GAAP financial measures in the documents filed with SEC. Moreover, the Rules also apply to foreign private issuers filing Form 20-F or registration statements under the Securities Act of 1933, but not to foreign issuers that file Form 40-F under the Multi-Jurisdictional Disclosure System.
Additionally, as Regulation G regulates all public disclosures by registrants that contain non-GAAP indicators, including oral speeches, it applies to earnings releases, webcasts, investor presentations and materials on the corporate website. When the non-GAAP financial measures are publicly disclosed orally, by telephone, by webcast, by broadcast, and through similar channels, reconciliation requirements are satisfied if the information (that is, the presentation and reconciliation) is provided on the website when the non-GAAP financial measure is made public.
Furthermore, since Regulation S-K, Item 10(e) applies to all the documents filed with SEC under the Securities Act and the Exchange Act, it also applies to registration statements, annual reports on Form 10-K, quarterly reports on Form 10-Q, free writing prospectuses (if they are included or incorporated by reference into a registration statement), proxy statements and current reports on Form 8-K.

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balance sheet or statement of cash flows (or equivalent statements) of the issuer. Secondly, the measure has been calculated by considering (either explicitly or through adjustments) amounts not included in the most directly comparable measure under GAAP.

The definition embraces, then, the measures different from those presented in the financial statements based on GAAP and the measures of liquidity different from those based on GAAP. Accordingly, measures meeting the definition are funds from operations[5]; EBIT / EBITDA / adjusted EBITDA[6]; adjusted revenues; broadcast cash flow; free cash flow[7]; core earnings; and measures presented on a constant-currency basis (e.g., revenues, operating expenses)[8].

Conversely, the definition does not include operating measures or statistical figures (for instance, a variety of operating metrics such as dollar revenue per square foot, the same-store sales, and the number of employees) as well as only financial information similar to the comparable GAAP measure. This is the case of financial measures required by GAAP, such as segment measures of profit or loss and total assets[9].

Moreover, the ratios and the statistical measures computed using exclusively financial measures calculated under GAAP do not meet the definition; this is, for example, the case in which the operating margin calculated by dividing GAAP operating income by GAAP revenues. Finally, the definition excludes the measures to be disclosed under GAAP, Commission rules and other regulations, the measures used in certain business combination transactions[10], and the disclosure concerning the amounts of expected indebtedness, repayments that have been planned or

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[5] Non-GAAP C&DI Questions 102.01 and 102.02.

[6] Non-GAAP C&DI Questions 102.09, 103.01 and 103.02.

[7] Non-GAAP C&DI Question 102.07.

[8] Non-GAAP C&DI Question 104.06.

[9] See Non-GAAP C&DI Questions 104.01 and 104.02. With specific reference to segment-related information, staff clarified, instead, a measure of segment profit/loss or liquidity not conforming to Accounting Standards Codification 280 falls under the definition of a non-GAAP financial measure. Staff pointed out that this could be the case of those segment measures that are adjusted to include "amounts excluded from, or to exclude amounts included in, the measure reported to the chief operating decision maker for purposes of making decisions about allocating resources to the segment and assessing its performance do not comply with Accounting Standards Codification 280" (Non-GAAP C&DI Question 104.03).

[10] Such as projections or forecast of the results of operations of a proposed business combination (Non-GAAP C&DI Questions 101.01 and 101.02).

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decided upon but not made yet, and estimated revenues or expenses of a new product line calculated under GAAP.

To emphasize the regulatory attention paid to the reliability of diffused financial information, Regulation G provides a general disclosure requirement prohibiting the disclosure of a non-GAAP financial measure that substantially misleads users on the company performance. It is noteworthy that the Commission reveals its awareness of the 'creative' behaviours of companies. Indeed, it underscores that the effect of misleading can be produced not only by the indicator itself but also by either the inclusion of an untrue statement of a material fact in the disclosure surrounding the measure or omission concerning facts and elements material to users.

To contrast managerial opportunism, Regulation G sets out two requirements. First, it requires public companies diffusing non-GAAP financial indicators to also disclose the most directly comparable financial measure calculated and presented following GAAP. Second, it requires companies to reconcile non-GAAP financial information with GAAP by presenting an easily understandable reconciliation of the differences between the non-GAAP financial measure and the most directly comparable financial measure based on GAAP. Overall, the Regulation reveals a definite preference for a quantitative reconciliation of non-GAAP financial measures but acknowledges that, for forward-looking measures, quantitative reconciliation can require unreasonable effort. In these cases, companies are allowed to provide qualitative reconciliation presented through a schedule or other system that details the differences between the forward-looking non-GAAP financial measure and the appropriate forward-looking GAAP financial measure. The requirement is still valid if the forward-looking GAAP measure is not available. In such cases, the issuer must disclose that fact, provide alternative reconciling information available by exerting a reasonable effort, and explain unavailable information, also highlighting its significance to reconciliation purposes.

ii) Amendments to Item 10(e) of Regulation S-K and Exchange Act Form 20-F

The amendments to Regulation S-K, Item 10(e) and Exchange Act Form 20-F and Regulation G build on the same definition of a non-GAAP financial measure, but the first two focus specifically on the regulation of non-GAAP disclosures that are included in SEC filings. In particular, the regulatory provisions foresee a further requirement for non-GAAP financial indicators included in these documents, which concerns the extent to which companies lay particular emphasis (namely, 'prominence')

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to the non-GAAP financial information compared to information under GAAP. The Commission requires, indeed, '*a presentation, with equal or greater prominence, of the most directly comparable financial measure or measures calculated and presented in accordance with GAAP'* to remark that companies must not give stronger emphasis to APMs compared to information following GAAP.

Staff further detailed the actual application of the prominence criterion in interpretation 102.10, illustrating many cases in which the company put undue stress on non-GAAP measures compared to GAAP ones[11]. In the documents filed with the Commission, companies also have to include (i) a detailed disclosure explaining the reasons why the management considers that the non-GAAP financial measures provide investors with useful information concerning the company performance, its financial condition and the results of operations, and (ii) a disclosure of the motivations underlying the management's choice of releasing non-GAAP financial measures.

In the scope of this regulation package, the Commission introduced specific limitations to discretion available to managers concerning the calculation and the presentation of non-GAAP measures. With reference to the calculation process, the management must not: (i) exclude from non-GAAP liquidity measures charges or liabilities to which a cash settlement

[11] The Commission indicated the following cases in which excessive emphasis is placed on non-GAAP information: "Presenting a full income statement of non-GAAP measures or presenting a full non-GAAP income statement when reconciling non-GAAP measures to the most directly comparable GAAP measures; Omitting comparable GAAP measures from an earnings release headline or caption that includes non-GAAP measures; Presenting a non-GAAP measure using a style of presentation (e.g., bold, larger font) that emphasizes the non-GAAP measure over the comparable GAAP measure; A non-GAAP measure that precedes the most directly comparable GAAP measure (including in an earnings release headline or caption); Describing a non-GAAP measure as, for example, "record performance" or "exceptional" without at least an equally prominent descriptive characterization of the comparable GAAP measure; Providing tabular disclosure of non-GAAP financial measures without preceding it with an equally prominent tabular disclosure of the comparable GAAP measures or including the comparable GAAP measures in the same table; Excluding a quantitative reconciliation with respect to a forward-looking non-GAAP measure in reliance on the "unreasonable efforts" exception in Item 10(e)(1)(i)(B) without disclosing that fact and identifying the information that is unavailable and its probable significance in a location of equal or greater prominence; and Providing discussion and analysis of a non-GAAP measure without a similar discussion and analysis of the comparable GAAP measure in a location with equal or greater prominence" (Non-GAAP C&DI Question 104.03).

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is associated; (ii) exclude or smooth the impact of items that, although considered nonrecurring, are likely to recur during the following two years or are similar to those that have occurred in the prior two years.

Concerning managerial choices on the presentation, the Commission recommended avoiding displaying non-GAAP financial measures on the face of the financial statements prepared based on GAAP or in the notes and on the face of any pro forma financial information prepared in compliance with Article 11 of Regulation S-X. Additionally, managers should not entitle or describe non-GAAP measures through wording that is substantially similar (or the same) as the wording used for GAAP financial measures.

iii) Amendments to Exchange Act Form 8-K

The Commission also disciplines the inclusion of non-GAAP financial measures not only in earnings releases and similar announcements furnished to SEC (thus implying the presentation of a Form 8-K), but also in presentations made orally, telephonically, by webcast, by broadcast or similarly (thus avoiding the presentation of a Form 8-K). In these cases, the inclusion of non-GAAP financial measures is regulated by provisions included in Item 2.02 of Exchange Act Form 8-K, named *Results of Operations and Financial Condition*.

Specifically, companies have to clarify the motivations behind their choice to exhibit a non-GAAP financial measure. The company must include a detailed statement disclosing the reasons the management believes that presentation of the non-GAAP financial measure provides useful information to investors regarding the registrant's financial condition and results of operations. Additionally, if the management uses the non-GAAP financial measure for additional purposes not otherwise disclosed and if such use is material to understand the function of the indicator, the company must include a statement disclosing the additional purposes[12].

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[12] It is noteworthy that, if the company discloses the non-GAAP measures through the aforementioned alternative channels (namely, orally, telephonically, by webcast, by broadcast or similarly), the Commission requires that all the information that has not been previously disclosed and contained in the presentation, jointly to the information eventually needed to comply with Regulation G, is available on the corporate website.

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4.1.2 The guidance on non-GAAP financial measures

As mentioned, SEC staff started to work on guidance on non-GAAP financial measures just a few months after the publication of the Final Rules by issuing 33 FAQs. These covered a variety of issues [13] and sought to introduce higher discipline in the company use of non-GAAP indicators in the scope of the documents filed with the Commission. Staff adopted a rigorous approach to many issues. For instance, it highlighted that managers must take into account the substantive nature of an item when they classify it as recurring or not in order to include/exclude it in the calculations of APMs. Overall, such a rigorous approach to guidance seemed to discourage companies from using non-GAAP financial measures in the Commission filings.

To encourage companies to also include non-GAAP financial measures in the filings with SEC, staff increased the flexibility of the new guide, namely, the C&DIs issued in 2010, which replaced the 33 FAQs. As a result, the newly issued 102.03 C&DIs indicate that the nonrecurring character of an item excluded by non-GAAP financial measures should be determined based on the description of the item rather than on the nature of the gain. Additionally, the staff clarified that "*the fact that a registrant cannot describe a charge or gain as non-recurring, infrequent or unusual, however, does not mean that the registrant cannot adjust for that charge or gain*". In other words, companies can adjust their indicators for items they believe appropriate even if they are not able to describe the nature of the item as nonrecurring.

The C&DIs were updated in July 2011 by adding Section 108, titled Compensation Discussion and Analysis/Proxy Statement. In particular, the answer to question 108.01 clarifies that, in cases where non-GAAP financial information [14] is included in the Compensation Discussion & Analysis or in other parts of the proxy statement, the required reconciliation to GAAP can be included in an annex to the proxy statement as long as the company provides a *prominent* cross-reference to this annex. If the non-GAAP financial indicators are the same as the measures included in Form 10-K incorporating by reference the proxy statement, the registrant can

[13] Issues concerned the implementation and the application of the regulations and focusing on a variety of issues comprising EBIT and EBITDA, the information on segments and business combinations and the applicability to foreign private issuers.

[14] Here intended as disclosure provided for purposes other than target levels' disclosure, as non-GAAP disclosure on target levels is not be subject to Regulation G and Item 10(e).

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provide such cross-reference by referring to the pages in Form 10-K, which contains the required reconciliation.

The higher flexibility introduced by the new guidance led to a sharp increase in the use of non-GAAP indicators as well as in the discretion employed by companies in calculating and presenting these measures. In June 2016, SEC chair Mary Jo White, speaking at the International Corporate Governance Network's Annual Conference in San Francisco, complained that

> *It is a good idea to provide companies with this flexibility and we do hear that investors want non-GAAP information. But recently I have had significant concerns about companies taking this flexibility too far and beyond what is intended and allowed by our rules. In too many cases, the non-GAAP information, which is meant to supplement the GAAP information, has become the key message to investors, crowding out and effectively supplanting the GAAP presentation [...]. And last month, the staff issued guidance addressing a number of troublesome practices which can make non-GAAP disclosures misleading [...]. I strongly urge companies to carefully consider this guidance and revisit their approach to non-GAAP disclosures.* (Mary Jo White, 2016)

Such renewed awareness launched a new wave of updates to the interpretive guidance (the so-called 'Updated C&DIs'). The new interpretations, ranging from 100.01 to 100.04, deal with the misleading use of non-GAAP financial information and state the inadmissibility of those adjustments that are not explicitly prohibited but finally produce a misleading measure not including normal, recurring, cash-operating expenses. The answer to question 100.02 clarifies that a non-GAAP measure would be considered misleading if presented inconsistently across time; for instance, by excluding a particular charge or gain that had been included in previous periods[15]. Additionally, staff remark on the inadmissibility of applying asymmetric policies (so that nonrecurring charges are not included in the measures while nonrecurring gains are systematically computed) to calculate non-GAAP financial measures.

Another restriction to company discretion is provided in the updated questions 102.05, 102.07 and 103.02, underscoring that companies should not present on a per share basis a non-GAAP financial measure intended as a measure of liquidity in the documents filed with or furnished to the Commission. The company cannot exhibit a non-GAAP measure on a per share basis if – based on its substance – it can be used as a liquidity

[15] In these cases, the company may have to restate the previous measures to make them comparable with the current ones.

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measure, even if the management indicates it as a measure of performance[16].

4.2 Regulation of non-GAAP reporting in Europe

The disclosure of non-GAAP performance measures have attracted the interest of security regulators around the globe, especially in recent years as their use in financial communication has become pervasive (Black et al., 2018).

From a theoretical point of view, non-GAAP financial measures could provide additional information to investors by adjusting for the effects of specific transactions, complementing IFRS measures, and providing the management's perspective on corporate performance. Nevertheless, empirical evidence suggests that the use of non-GAAP measures could create a relevant discrepancy with GAAP-based performance measures[17] and thus could provide misleading information to investors by presenting a confusing or too-optimistic description of financial performance. Therefore, security regulators released specific regulations on the calculation, presentation and disclosure of non-GAAP financial measures to assure the disclosure of

[16] The guidance on funds from operations and the tax effects associated with the adjustments to GAAP measures was also updated. Concerning funds from operations, typically used by real estate investment trusts, staff clarified that it can be presented on a per share basis when calculated following the definition provided by the National Association of Real Estate Investment Trusts. Conversely, when companies calculate funds from operations using other methodologies, these measures cannot be presented on a per share basis if have the nature of a liquidity measure. Concerning the effects of the adjustments to GAAP numbers, the Staff underscores the importance of presenting these effects clearly (as separate adjustments) and depending on the nature of the measures. Specifically, when disclosing a performance measure, the company should include existing and deferred income tax expense commensurate with the measure. When disclosing a liquidity measure including income taxes, an adjustment of the income taxes to show taxes paid in cash is admissible (Non-GAAP C&DI Questions 102.01 and 102.02).

[17] The New Zealand Financial Markets Authority provides evidence of this discrepancy by examining 23 listed issuers in 2013. In particular, the Authority highlights a 76% discrepancy between GAAP and non-GAAP profits, and the most of companies included in the sample reported a non-GAAP profit higher than the GAAP one (New Zealand Financial Markets Authority, 2013). The survey carried out by PwC on all of the FTSE 100 in the period 2014/2015 obtained similar results, suggesting 87% of issuer-reported non-GAAP measures greater than GAAP ones (PwC, 2016).

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unbiased performance measures to protect the interests of actual and potential investors.

Consistent with the regulatory activity provided by SEC in the US context, the European Securities and Markets Authority (hereafter ESMA) supported the need for specific guidance on the reporting and use of non-GAAP financial measures (Young, 2014; Marques, 2017)[18].

The ESMA decision to provide specific guidance on the reporting of alternative performance measures is consistent with Article 16 of the ESMA regulation[19] and relies on several premises. The requirements included in the ESMA guidelines, indeed, are consistent with objectives pursued by the Transparency Directive, the Market Abuse Directive and the Prospectus Directive.

In the light of the Transparency Directive's objectives, equivalent investor protection at the EU level has to be assured, providing a true and fair representation of corporate assets, liabilities, financial position, and economic performance. Thus, according to ESMA, a common approach to disclosures on APMs enables the consistent implementation of the Transparency Directive's objectives.

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[18] ESMA refers to non-GAAP measures as Alternative Performance Measures (APMs). In this regard, ESMA provides regulation on non-GAAP measures by qualifying them with the term Alternative Performance Measures (hereafter APMs) in all documents.

[19] Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC. Art. 16 of the ESMA Regulation establishes that:

"1. The Authority shall, with a view to establishing consistent, efficient and effective supervisory practices within the ESFS (the European System of Financial Supervision), and to ensuring the common, uniform and consistent application of Union law, issue Guidelines and recommendations addressed to competent authorities or financial market participants.

2. The Authority shall, where appropriate, conduct open public consultations regarding the Guidelines and recommendations and analyse the related potential costs and benefits. Such consultations and analyses shall be proportionate in relation to the scope, nature and impact of the Guidelines or recommendations. The Authority shall, where appropriate, also request opinions or advice from the Securities and Markets Stakeholder Group referred to in Article 37.

3. The competent authorities and financial market participants shall make every effort to comply with those Guidelines and recommendations. *[omissis]*"

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Also, the principle of comprehensibility included in the Prospectus Directive requires a specific regulation on APMs. All information included in a prospectus, indeed, should be provided in an easily analysable and comprehensible form and therefore, according to ESMA, APMs should be clearly presented and reconciled with accounting numbers included in the financial statements.

In view of the objectives mentioned above, in 2014 ESMA decided to review and replace the 2005 CESR Recommendation[20] on APMs. To this aim, on 13th February 2014 ESMA issued a Consultation Paper[21] on APMs and in 2015 published the current version of ESMA Guidelines on Alternative Performance Measures (ESMA, 2015b).

The primary objective of the ESMA guidance is to enhance the comparability, reliability and comprehensibility of APMs. In that sense, the ESMA initiative aims to propose good practices on the use of APMs in financial communication and it is addressed to both preparers and national competent authorities under the Transparency Directive, the Market Abuse Directive or the Prospectus Directive. In particular, according to paragraph 1 of APM guidelines, the ESMA requirements are addressed to:

(i) companies with securities admitted to trading on a regulated market and publish regulated information under the Transparency Directive;
(ii) persons responsible for the prospectus under the Prospectus Directive.

In light of the specific purpose of ESMA guidelines, the European Authority defines alternative performance measures as "*financial measures of historical or future financial performance, financial position, or cash flows, other than a financial measure defined or specified in the applicable financial reporting framework*" (paragraph 17 of the APM

[20] CESR was the Committee of European Securities Regulators, the ESMA's predecessor authority in the European context. In October 2005 CESR issued a Recommendation on Alternative Performance Measures to provide guidance on their presentation and definition. (see CESR/05-178b available at https://www.esma.europa.eu/sites/default/files/library/2015/11/05_178b.pdf). It seems significant to point out that requirements included in CESR recommendation are similar to current ESMA guidelines on APMs. A relevant difference is related to the scope because the CESR recommendation does not apply to performance measures included in the prospectus.

[21] The deadline to reply to the Consultation Paper was set on 14th May 2014. The ESMA Consultation Paper on APMs received 62 responses from different categories of stakeholders (ESMA, 2015a).

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Guidelines)[22]. According to the definition of APM provided in the ESMA guidelines, for example, measures labelled as "operating results" or "results of operating activities" are considered alternative performance measures because they are not defined or specified in the IFRS context (ESMA, 2017a: 12). Similarly, ESMA also considers as alternative performance measures segment measures of profitability calculated on a different accounting basis than the basis defined or specified in the applicable financial reporting framework (ESMA, 2017a: 13).

The definition of APMs provided by ESMA is consistent with the definition provided by SEC. However, as suggested by EFRAG, this definition could not work very well in the IFRS financial reporting context. The IFRS context, indeed, is principle-based and the broad definition of APMs would cover a large number of performance measures, increasing information costs for companies (Moscariello, 2018: 74).

Nevertheless, the main concerns relate to the scope of the guidelines because they apply to alternative performance indicators disclosed in regulated information and prospectuses. To this end, the scope of the guidelines is strictly linked to the definition of regulated information.

Consistent with the definition provided by ESMA, indeed, regulated information is intended in terms of any information required according to the Transparency Directive or the Market Abuse Directive. Therefore, the ESMA guidelines apply to APMs disclosed in narrative sections included in annual or half-yearly reports, such as strategic reports and chairman or chief executive statements. In particular, it seems interesting to point out that the ESMA guidelines do not apply to alternative performance measures included in financial statements[23]. ESMA excludes financial statements from the scope of the guidelines because the IASB is undertaking a

[22] ESMA specifies that the guidelines do not apply to performance measures defined by the applicable financial reporting framework – such as revenue or earnings per share – physical or non-financial measures, information on major shareholdings, acquisition or disposal of own shares, information useful to explain the compliance with the terms of an agreement or legislative requirement (paragraph 19 of the APMs Guidelines).

[23] The Q&A issued in 2017 provides explanations on the application of ESMA Guidelines to APMs simultaneously disclosed inside and outside financial statements. In particular, ESMA clarifies that performance measures, such as totals or subtotals not defined in the applicable financial reporting framework, should be reported according to the requirements of ESMA Guidelines on APMs even if these measures are included also in financial statements. Additionally, reconciliations are not mandatory for APMs directly identifiable from financial statements but presented outside financial statements. In this case, companies can use the compliance by reference principle, if applicable (ESMA, 2017a: 7).

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specific project devoted to improving the structure and content of the primary financial statements, especially as regards financial performance. Thus, issues on the opportunity to present APMs in financial statements will be addressed by the ongoing project of the IASB[24].

The ESMA guidelines apply to alternative performance indicators included in regulated information or prospectus issued on or after 3rd July 2016. After this date, the national competent authorities have to converge on the ESMA requirements, assuring their compliance to suggestions included in the published guidelines. In this regard, all national competent authorities informed ESMA that they complied or intended to comply with its guidelines on APMs[25]. Therefore, European enforcers adapted their supervisory procedure and, in order to enhance the use of a common supervisory approach in the application of requirements on alternative performance measures, ESMA also provided support for the interpretation of its guidelines by developing specific Q&As, released in 2017 (ESMA, 2017a).

The following table (Table 1) summarizes the main steps of the regulation on APMs in the European context.

Table 1: Milestones of the APMs regulation in the European context

Date	Description
2005, October	CESR issues Recommendation on APMs
2014, February	ESMA issues a Consultation Paper to propose draft Guidelines on APMs
2014, June	ESMA issues a Final Report on the Consultation Paper on APMs
2015, October	ESMA publishes Guidelines on APMs
2016, July	ESMA Guidelines on APMs comes into force
2017, October	ESMA released Q&As on APMs Guidelines

[24] In this regard, with amendments to IAS 1 – Presentation of Financial Statements effective for annual periods beginning on or after 1 January 2016, the IASB aimed at clarifying requirements on the use of subtotals, such as EBIT or EBITDA, in the income statement.

[25] ESMA confirmed that all national competent authorities complied immediately with the guidelines on APMs, with the exception of some member states that intended to comply at a different date: Denmark (by 1st July 2017), Croatia (by 31st December 2017), and Lichtenstein (by 1st January 2018) (ESMA, 2017b).

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The impulse coming from regulations provided by SEC in the US context provides explanations on the timing of the regulation of alternative performance measures in the European context. Additionally, the content of the main requirements included in the ESMA guidance is strictly linked to rules issued by SEC on this topic.

The ESMA requirements included in the guidelines published in 2015 are mainly addressed to enhancing the transparency of disclosure and the use of these performance indicators. In this regard, the requirements included in the ESMA guidelines deal with the following different principles:

(i) disclosure;
(ii) presentation;
(iii) reconciliations;
(iv) the explanation for the use of APMs;
(v) prominence;
(vi) consistency and comparatives;
(vii) compliance by reference.

As regards the disclosure principle, companies should provide detailed information on APMs and their components, specifying the basis for calculation adopted and any material hypotheses or assumption used to obtain that measure. Additionally, companies should disclose whether APMs or any of their components relate to the (expected) performance of the past or future reporting period.

Moreover, the presentation of APMs could create misleading information for users and, therefore, they need specific attention. In particular, ESMA requires that the definitions of all APMs are disclosed in a clear and readable way, giving meaningful labels that appropriately reflect the content of APMs and the basis for their calculation. In that sense, ESMA specifies that companies should avoid the use of too-optimistic labels for APMs or the use of labels and descriptions that could create confusion for users because they are too similar to labels and descriptions used for performance measures defined in the applicable financial reporting framework. Although ESMA does not specify which labels companies can or cannot use, it states that companies should avoid the use of labels that describe performance measures as "nonrecurring", "infrequent" or "unusual". Overall, ESMA suggests that labels should be meaningful, not be misleading, and reflect the content and basis of the calculation of the APMs (ESMA, 2017a).

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To improve the clarity of disclosure on APMs, the third principle requires that companies provide reconciliations of performance measures. Specifically, companies should provide a reconciliation of the APM to the most directly reconcilable line item, subtotal or total included in the financial statements of the same period. Additionally, companies have to provide a separate identification and explanation of the reconciling items. In the subsequent Q&As, ESMA clarifies that reconciliations cannot be intended as merely qualitative explanations of the reconciling items; a numeric reconciliation between APMs and financial statements items is required (ESMA, 2017a: 15).

Following a clear presentation and reconciliation of alternative performance measures, companies should also provide details on the use of these measures, explaining why they are relevant for users in order to understand the financial position, the cash flows or the financial performance of the company. Thus, companies should explain the specific purpose for which APMs are calculated and used.

Considering that the use of alternative performance measures could create a relevant discrepancy, with GAAP-based performance measures providing misleading information for investors, the ESMA guidelines suggest not displaying APMs with more prominence or emphasis than other performance measures directly stemming from financial statements. The ESMA guidelines do not provide a clear definition of the notion of prominence but the European Authority provides support in its interpretation through the subsequent Q&As. Particularly, ESMA specifies that the definition of prominence requires a personal judgement on a case-by-case basis, also in the light of the documents in which APMs are disclosed. Additionally, ESMA clarifies that companies should interpret this principle as a qualitative prominence rather than a merely quantitative comparison between the number of APMs and the number of performance measures directly stemming from financial statements[26].

Moreover, according to suggestions provided by ESMA, companies should assure the consistency of performance measures and include comparatives of APMs for the corresponding previous periods, or at least

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[26] "The following factors, among others, could help issuers when exercising their judgement:

- Attention paid to APMs in comparison with measures directly stemming from financial statements;
- Location of APMs within the document;
- Frequency of use;
- Use of bold letters, font size, italic;
- Length of analysis of APMs." (ESMA, 2017a: 10)

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with the last historical information available. In this regard, the definition and the calculation of APMs should be consistent over time so investors are not misled in the comparison of APMs calculated over different periods. When exceptional circumstances require a change in the definition of APMs, companies should provide information about the reasons for the change, the reasons by which the new APM is more reliable and relevant for users than the previous one, and provide restated comparative figures. Companies should also apply the consistency principle when they stop disclosing a specific APM and, therefore, they should explain why that APM is no longer relevant for users. In this sense, the rationale of this requirement is to prevent companies opportunistically changing the definition of APMs over time in order to present an improved financial performance.

Finally, the ESMA guidelines provide specific requirements about compliance by reference. Actually, suggestions included in the ESMA guidelines can be replaced by a direct reference to other documents previously published that include disclosure on APMs and are easily accessible to actual and potential investors[27]. In this situation, compliance with the ESMA guidelines is assessed by reading all the documents together.

4.3 The enforcement decisions on APM

The US and the European Authorities show a considerable commitment to the enforcement of APM disclosures, undertaking actions against companies not complying with regulatory provisions. Overall, their enforcement decisions mainly concern the lack of an adequate reconciliation of APMs with the comparable GAAP measures, a widespread disregard for the requisite of prominence with undue emphasis placed on APMs, and the reliability of these measures, whose underlying calculations and definitions are often opaque and misleading to users.

[27] ESMA specifies that "for the purpose of these guidelines, readily and easily access to the documents implies that investors will not need to register on websites, to pay fees to access this information or to search for these documents through a search facility or a succession of links" (paragraph 48 of Guidelines on APMs).

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4.3.1 The enforcement decisions on APMs in USA

In the US, SEC challenged the "troubling increase" in the opportunistic use of APMs[28] by paralleling the activity of disclosure regulation with that of enforcement as the actual implementation of rules is key to their effective application (Quagli et al., 2018)[29]. Indeed, they both represent cornerstones of capital markets (Sutton, 1997; Levitt, 1998) and the diffusion of non-standardized performance indicators has been seen as an actual threat market transparency, because

> *Transparency is also essential when reporting non-GAAP financial measures. (...) Investors can be tricked into believing that a downturn in GAAP earnings is temporary and not attributable to a company's core operations. In these circumstances, non-GAAP measures are used as a mechanism to obscure financial results rather than as a means to expound upon them*. (SEC Staff, 2009)

It is worth noting that the first SEC enforcement action concerning the violation of regulatory provisions on non-GAAP financial measures dates January 2002[30], before the issuance of the 2003 Final Rules. This first action already shows *in nuce* some of the key issues addressed by the subsequent regulations, namely, concerns about the reliability of the measures and their presentation, and identifies benchmark beating as a crucial motivation for companies to opportunistically manipulate the calculation of APMs (often implementing concurrently fraudulent schemes).

In 2002, the Commission alleged the misleading use of non-GAAP financial indicators by a company that presented an adjusted figure of the net income calculated by adopting an asymmetric criterion. Indeed, the company had excluded one-time losses and included a one-time gain of

[28] Schnurr, J. V., *Remarks before the 12thAnnual Life Sciences Accounting and Reporting Congress*, March 22, 2016. Available online at: https://www.sec.gov/news/speech/schnurr-remarks-12th-life-sciences-accounting-congress.html

[29] Concerning the liability for misusing non-GAAP financial measures, Regulation G, Rule 102, clarifies that companies or a person acting on their behalf continue to be subject to the anti-fraud provisions of the federal securities law. Additionally, as aforementioned, companies are also subject to the general disclosure requirement under Regulation G. In addition, section 3(b) of SOX provides that a violation of SOX or SEC's rules (as in the case of Regulation G) is treated as a violation of the Securities Exchange Act. Thus, any registrant/person acting on its behalf that fails to comply with such provisions could be subject to SEC enforcement action due to violations of Regulation G and, eventually, also rule 10b-5.

[30] Accounting and Auditing Enforcement Release No. 1499 / January 16, 2002.

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$17.2 million that had not even been disclosed. The Commission also emphasized that the misleading effect was enhanced by the comparison of the biased non-GAAP figure with analyst estimates and by the statements concerning the improvement of the company performance because, in absence of the one-time gain, the company would have failed to meet analyst expectations.

After the issuance of the Final Rules, in 2009 the Commission brought an enforcement action pursuant to Regulation G[31] against a company that, from the third quarter of 2004 through the second quarter of 2005, had engaged in a scheme aimed at meeting or beating quarterly earnings per share targets by employing improper accounting adjustments to calculate quarterly earnings per share. In particular, the company, by means of its officers, represented non-GAAP earnings misclassifying a significant amount of recurring, operating expenses and excluding them from the non-GAAP earnings results. As in the previous case, the scheme had been implemented to meet or beat quarterly earnings per share targets.

In 2016, the considerable increase in an opportunistic use of non-GAAP indicators and the reaction of the Division of Corporation Finance that revised the C&DIs paralleled the Commission's decision to focus enforcement resources on non-GAAP measures. This led to the enforcement division asking registrants to furnish the documents needed to ascertain whether they had violated Regulation G or Regulation S-K, Item 10(e)[32].

As a result, in autumn 2016, the Commission charged the former chief financial officer and chief accounting officer of a publicly traded real estate investment trust for having intentionally inflated a measure widely used by analysts, namely adjusted funds from operations (AFFO), and including it in the company 10-Q and 8-K filings. In particular, the company had set up a scheme to manipulate the calculation of AFFO and AFFO per share, deliberately ignoring the warnings from the accounting staff on the inappropriateness of the calculation methods[33].

Later, in January 2017, SEC announced a settlement for $1.5 million from a company charged with failing to disclose executive compensation and violating non-GAAP financial disclosure rules[34]. Indeed, the company had been violating the requirement of prominence for six quarters and, between mid-2012 and early-2014, it had not provided any reconciliation

[31] Accounting and Auditing Enforcement Release No. 3068 / November 12, 2009.
[32] White, M.J., *Focusing the Lens of Disclosure to Set the Path Forward on Board Diversity, Non-GAAP, and Sustainability,* June 27, 2016.
Available online at: https://www.sec.gov/news/speech/chair-white-icgnspeech.
[33] Accounting and Auditing Enforcement Release no.3920/ February 14, 2018.
[34] https://www.sec.gov/news/pressrelease/2017-21.html

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of the non-GAAP financial measure to the corresponding GAAP, thus violating Regulation G and Item 10(e) of Regulation S-K, as recalled by instruction 2 of Item 2.02 of Form 8-K[35]. It is interesting to note that the Division of Corporation Finance had even expressed its concerns to the company on its compliance to the requirements of Item 10(e) of Regulation S-K in a letter to the company in 2012. In response, the company had ensured its commitment to compliance but later went on deliberately ignoring the regulatory provisions[36].

The Commission dealt with a similar violation of Item 2.02 of Form 8-K in December 2018, entering a cease-and-desist order against a company putting excessive emphasis on a number of non-GAAP financial measures[37] in earnings releases for 2017 and the first quarter 2018. In contrast, the company had given far lower prominence to the corresponding GAAP, totally excluded from both the headlines and the bullet points in the "Highlights". It is worth remarking that, in this case, the penalty amount was not significant; the Commission's intent was to draw the attention of companies to its strict monitoring of compliance with the prominence requirement[38].

4.3.2 The enforcement decisions on APMs in Europe

Following the introduction of specific requirements on the disclosure and presentation of alternative performance measures, European enforcers aim at raising awareness on the implementation of the ESMA guidelines. In light of this objective, ESMA and European enforcers established common priorities in their supervisory activity in order to coordinate enforcement practices (Quagli and Ramassa, 2017). Since 2016, financial statements, indeed, common enforcement priorities, include the enforcement activities on the presentation of financial performance (ESMA, 2017c: 6).

In the public statement proposing the common enforcement priorities for 2018 financial reports (ESMA, 2018a), ESMA specifies the need to

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[35] Accounting and Auditing Enforcement Release No. 3849 / January 18, 2017

[36] In addition to its failure to comply with the prominence requirement, from July 30, 2012 through March 10, 2014, the company had also not complied with the disclosure requirements when disclosing the "organic revenue growth". The company presented the measure as calculated as growth in revenue, excluding the effects of two reconciling items, but from the second-quarter 2012 through year-end 2013 results, it also incorporated a third reconciling item that had been not disclosed at all.

[37] Specifically, adjusted EBITDA, adjusted net income, and free cash flow before special items.

[38] Accounting and Auditing Enforcement Release No. 4009 / December 26, 2018.

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assess the application of specific aspects of its guidelines on APMs, mainly focusing on the definition and the presentation of APMs as well as the interpretation of the prominence principle. Similarly, the 2019 Supervisory Convergence Work Programme confirms the relevance of common supervisory practices on APMs (ESMA, 2019). The attention to clear and reliable disclosure of alternative performance measures is relevant especially in light of the adoption of new accounting standards, namely IFRS 9 – "Financial Instruments", IFRS 15 – "Revenue from Contracts with Customers", and IFRS 16 – "Leases". ESMA highlights that the adoption of new accounting standards could change the basis for calculation of APMs and new APMs could replace previous measures. Therefore, along with the lines of the ESMA requirements, companies should provide disclosure to users and improve comparatives in order to understand the extent and the rationale of any change in the calculation and the presentation of APMs (ESMA, 2019).

Based on this premise, enforcement activities have been carried out in order to examine the reporting of alternative performance measures in the European context and their compliance with the ESMA guidelines. The report of ESMA enforcement activity in 2017 provides information on the implementation of its guidelines on APMs. Specifically, ESMA reviewed 170 2017 financial reports and found that around 75% of the companies used alternative performance measures outside the financial statements. This preliminary result confirms the relevance of this issue in the European context and the need to protect investors by providing them with unbiased measures. The review procedure identified many issues related to the implementation of the Guidelines on APMs. In particular, focusing on disclosure and presentation requirements, ESMA highlights that 15% of companies do not provide definitions for alternative performance measures and 6% of companies do not provide appropriate labels. Similarly, ESMA identifies many issues related to reconciliations and prominence in the presentation. As explained by the results, 20% of companies do not provide appropriate reconciliations between alternative performance measures and items included in the financial statements, and 10% of companies presented APMs with more prominence than performance measures directly stemming from financial statements.

These results confirm that in different cases the guidelines on alternative performance measures have not been adequately applied. Therefore, the European enforcers took enforcement actions against companies that did not comply with ESMA requirements. Particularly, the European enforcers took 35 enforcement actions requiring restatements in

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future financial reports and 2 enforcement actions requiring the publication of a corrective note (ESMA, 2018b: 13)[39].

Overall, the enforcement activities carried out on 2017 annual reports suggests that disclosures on APMs outside financial statements improved but the implementation of the ESMA guidelines needs further improvements in order to provide high-quality information to investors. Consistent with the ESMA objectives, other European national enforcers carried out thematic reviews on the implementation of the guidelines on alternative performance measures. In particular, the Financial Reporting Council conducted a thematic review on APMs in the 2016 reports of 20 UK companies (FRC, 2017)[40]. This review confirmed the importance of APMs in corporate financial communication since all companies used alternative performance measures. Specifically, all companies provided definitions and reconciliations for APMs even though not all APMs are defined or reconciled[41]. The review also paid specific attention to the position of definitions and found that the strategic report provides definitions for most of the APMs, especially in the financial review or similar section (around 60%). Other APMs were defined in the notes to the accounts (10%) or at the end of the report (30%) outside the audited financials.

As regards the required explanations for the use of APMs, FRC highlights an improvement for companies included in the sample. Results suggest that 85% of companies state that APMs are used by management in evaluating performance, but only 40% of companies state that APMs are used in determining management remuneration[42]. Nevertheless, the main concerns of this thematic review relate to the labels used to describe APMs, especially for the use of terms such as "nonrecurring" or "unusual" for restructuring costs and impairment charges. Overall, the Financial

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[39] For example, as stated in the annual report of enforcement activities, the Swedish enforcer (Nasdaq Stockholm AB) took a decision in 2017 because "the issuer presented performance measures such as adjusted EBITDA without presenting a definition of the noncomparable items that those measures were adjusted for, thus infringing the APM Guidelines" (Nasdaq Stockholm, 2017).

[40] The Financial Reporting Council carried out a previous review of a sample of 2016 interim reports and, in December 2016, it wrote to 20 companies included in the previous sample informing them that it would review disclosures on APMs in their next annual report (FRC, 2017: 5).

[41] According to the results of the review, reconciliations are omitted especially for ratios, such as return on capital, free cash flow and cash conversion (FRC, 2017: 14).

[42] In this regard, it seems necessary to underline that the review carried out by FRC does not cover remuneration committee reports, limiting the analysis of the use of APMs.

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Reporting Council found that disclosure improved on the previous year's annual reports and compliance with the ESMA guidelines was generally good for the sampled companies.

Similarly, the Irish Auditing and Accounting Supervisory Authority carried out a thematic review on the use and disclosures of APMs by examining the 2016/17 annual reports of 29 companies (IAASA, 2017). As suggested by the review, 90% of the examined companies use APMs, which enabled the identification of 126 different APMs. In this case, the disclosures raised many concerns. For example, around 54% of companies did not provide reconciliations for all the APMs included in the annual reports and 81% did not provide comparatives for all APMs. As a result, the IAASA reported raising issues relating to the compliance with the ESMA guidelines with seven companies.

In the light of the aforementioned results, the enforcement activities carried out in the European context so far suggest that disclosure practices on alternative performance measures had generally improved but many companies still need to achieve a more effective implementation of the ESMA Guidelines on APMs, especially as regards definitions provided and explanations of their use.

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CHAPTER 5

THE STANDARD SETTERS' APPROACH TO THE NON-GAAP MEASURES

BARONE E.* AND TEODORI C.†

5.1. Introduction

Better Communication in Financial Reporting is a wide initiative that includes a number of projects aimed at making financial information more useful and improving the way it is communicated to its users[1]. In some cases, it is difficult to identify the most useful information and ensure that the financial information is clear and effective.

This chapter deals with the following projects on financial statements[2]:

1. Primary Financial Statements[3];
2. Disclosure Initiative.

The Primary Financial Statements project examines the content and structure of primary financial statements with a particular focus on the statement(s) of financial performance. Within the Disclosure Initiative there are several projects, for one of which, The Principle of Disclosure, a discussion paper (DP) was published in March 2017. The project considers

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[1] "*Investors have told the Board that because financial statements can often be poorly presented, it can be difficult and time-consuming for them to identify useful information. The Board wants to contribute to making communication of information in companies' financial statements more effective*" https://www.ifrs.org/projects/better-communication/

[2] The other projects are connected to Management Commentary and IFRS Taxonomy.

[3] In September 2018, the Board decided to move the project to its standard-setting agenda.

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whether to develop new disclosure principles or improve/amend existing ones.

The boundaries between the projects are not very clear and overlaps are possible[4].

In this chapter, we pay close attention to the Standard Setters' approach to the non-GAAP issue, financial issue and disclosure.

The wide dissemination of non-GAAP indicators[5] is undisputed and they assume a strong importance in terms of transparency of information with a clear impact on market efficiency.

For this reason, the regulation of these parameters, albeit limited, can be traced back to the stock market control bodies, both international (IOSCO, ESMA) and national (CONSOB). In a very simple way, a management performance measure (MPM) is a measure that is not defined or considered by IFRS but is widely used by entities in their published financial statements.

The relevant issue here is to understand the role the international standard setter could play in this process of improving the quality of financial statement disclosures, in which MPMs are significant, considering the level of subjectivity in their determination and the current lack of complete disclosure on their function and definitions.

There are some aspects that affect this process, which are introduced below in the form of questions.

- Why should the IASB regulate these indicators? As they are mostly contained in the financial statements, they are directly related to the overall quality of the documents, with the frequent perception that they are also audited. For an external user, it is difficult to distinguish between GAAP and non-GAAP indicators within a financial statement as there is no clarity on how to identify them.
- Would they be effective if regulated? It is clear that, like any indicator, their use by an entity is consistent with a specific choice of communication: introducing elements of standardisation could reduce their informative value. However, many of these are

[4] At its March 2018 meeting, the Board decided that the following topics included in the Principles of Disclosure Discussion Paper are more relevant to the Primary Financial Statements project:
(a) roles of the primary financial statements and the notes;
(b) use of performance measures in the financial statements.

[5] Sometimes referred to as non-IFRS, Management Performance Measures (MPMs), Alternative Performance Measures (APMs). This chapter refers to all such performance measures as Management Performance Measures (MPMs).

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commonly used and, for this reason, could, at least theoretically, be defined in general terms.
- Is the method of determination or the related disclosure relevant? Requiring specific disclosure elements allows flexibility and, at the same time, will enable a better understanding of how they are calculated and linked to the IFRS indicators.
- Is comparability important? Comparability is very difficult, even if a regulatory process could certainly facilitate it. Comparability between different entities is not an automatic exercise but still requires a number of adjustments.
- Why are the non-GAAP indicators being developed? They have been developed because investors ask for them and this need should make the regulator aware of the role played by financial statements as a communication tool.

5.2. The IASB initiative

5.2.1 Disclosure initiative – Principle of disclosure

In March 2017 the International Accounting Standard Board published the DP *Disclosure initiative – Principle of disclosure*.

The main objective of this project is to identify disclosure issues and develop new, or clarify existing, disclosure principles in IFRS to address those issues and to:

(a) help entities apply better judgement and communicate information more effectively;
(b) improve the effectiveness of disclosures for the primary users of financial statements; and
(c) assist the Board to improve disclosure requirements in Standards (IN3)[6].

DP covers the following main aspects (IN9):

- Principles of effective communication
- Principles on where to disclose information (primary financial statements and notes)

[6] In brackets the reference number of DP.

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- Principles to address specific disclosure concerns expressed by users of financial statements (Use of performance measures; disclosure of accounting policies)
- Principles to improve disclosure objectives and requirements

The focus of this chapter is on the third aspect, the use of performance measures, with reference to the other items when closely related.

The starting point is the definition of *'performance measure'* given in par. 5.2: *any summary financial measure of an entity's financial performance, financial position or cash flows*.

The definition is very wide because it is impossible to identify specific performance measures, as there are so many, potentially infinite numbers, some of which are also linked to the specific characteristics of the sectors of activity: the common characteristic is that they are not specified in the IFRS. The IOSCO Statement defines a non-GAAP financial measure as "*a numerical measure of an issuer's current, historical or future financial performance, financial position or cash flow that is not a GAAP measure*".

The specific measure and the location are not the priority: the focus is on the general requirements for the fair presentation of performance measures in financial statements. Nevertheless, location is relevant for users and influences the communication policies of an entity. It is very different to present performance measures as subtotals in the primary financial statements (or very close to them) or in the notes: this could affect the user's perception. It is clear that a performance measure in the primary financial statements could more easily be interpreted as an IFRS measure because it is part of a regulated document. The situation is different when the location is the notes: The measure is more easily attributable to the communication choices of the preparer and thus highly subjective. Moreover, users pay more attention to MPMs presented in the primary financial statement rather than in the notes.

Coming back to the general topic, on the one hand, these measures provide additional information useful to better understanding the overall financial situation of an entity; on the other hand, there are some concerns about the reliability of this information without a suitable disclosure: usefulness is possible only with a greater transparency.

The attention of the Board is mainly addressed to the second point of view. Some users have expressed concerns that (par. 5.11):

"(a) it is difficult to understand how some performance measures are calculated because the calculations are not explained by the entity, or the performance measures are labelled unclearly;

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(b) it is not clear how some performance measures relate to other amounts in the financial statements;
(c) it is difficult to compare some performance measures across reporting periods because the entity does not calculate these measures consistently;
(d) it is difficult to compare some performance measures disclosed by different entities because such measures do not reflect standardised definitions – for example, the EBITDA calculation differs among entities;
(e) some performance measures are given more prominence than performance measures specified in IFRS Standards; and
(f) some performance measures are misleading because they do not present a neutral picture of the entity".

Whilst these concerns are different, they have a feature in common: the need for disclosure. The problem is not MPMs but having the necessary information to understand them. We have no doubt about their usefulness or importance but there are problems related to the lack of transparency, the quality of the disclosure and the audit.

Another concern is related to time series analysis (see point c above) and cross sectional analysis (point d). In these cases, standardised definitions can help comparisons but, at the same time, they reduce flexibility. It is a trade-off between comparison and usefulness.

The Board is more prudent when presenting the positive and negative aspects of a specific problem: more attention is addressed to the statement(s) of financial performance, in which users identify the greatest critical areas. A well-known problem comes to the fore: non-recurring, unusual or infrequently occurring items. "*Entities sometimes also use subtotals called 'normalised earnings', 'underlying earnings' or 'adjusted profit', which exclude such line items*" (par. 5.13).

Identifying these items is certainly useful for users; for instance, for forecasting future cash flows. Nevertheless, some concerns appear: definition, occurrence, frequency, disclosure.

After defining the issue, the next step of the Board is to propose a preliminary view about these topics.

Taking as its starting point the classification of performance measures[7], "*the Board suggests that a general disclosure standard should not prohibit*

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[7] The Board observes that there are three categories of information in financial statements:

(a) Category A – Information specifically required by IFRS Standards;

(b) Category B – additional information necessary to comply with IFRS Standards (see paragraph 4.26); and

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the use of specific types of performance measures, including those in Category C" (par. 5.15). Nevertheless, "*a general disclosure standard should include requirements that ensure all performance measures are fairly presented in the financial statements*" (par. 5.16).

As we have seen in the previous pages, there are two main problems:

- MPMs in the statement(s) of financial performance;
- MPMs in the financial statements.

The first one is closely related to the Primary Financial Statements project. This DP firstly deals with the topic of presentation of EBITDA and EBIT as subtotals in the statement(s) of financial performance. With reference to EBITDA presenting as a subtotal "*can provide a fair presentation if an entity presents an analysis of expenses on the basis of their nature* (par. 5.21)". On the other hand, "*EBIT is usually a subtotal that fits within both the nature of expense and the function of expense methods* (par. 5.21)". We agree with this position because EBITDA is inconsistent with the analysis of expenses on the basis of their function: In this case, the MPM could be presented in the notes. However, this position does not deal with the most critical question: what is the EBITDA and EBIT content? This is dealt with in the other project.

Secondly, the very controversial issue of unusual or infrequently occurring items is noted. The preliminary view of the Board is addressed to allow entities to present such items separately. However, "*the Board is also of the preliminary view that a general disclosure standard should explain when and how items can be presented in the statement(s) of financial performance an unusual and/or infrequently occurring*" (par. 5.25). Another problem is which denomination to use for these items[8] so they are not misleading just because of their names. In order to avoid this,

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(c) Category C – additional information that is not in Category A or Category B. This includes information that is inconsistent with IFRS Standards (see paragraph 4.39) and some non-financial information (par. 4.33).

[8] In its previous Financial Statement Presentation project (July 2010), paragraphs 155-156 were dedicated to unusual or infrequently occurring items. In Appendix A these terms are defined (and recalled in Discussion Paper Disclosure Initiative – Principles of Disclosure, par. 5.24):

(a) Unusual: Highly abnormal and only incidentally related to the ordinary and typical activities of an entity given the environment in which the entity operates;

(b) Infrequently occurring: Not reasonably expected to recur in the foreseeable future given the environment in which an entity operates.

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it is important to have high quality disclosure to explain the criteria used to consider the item unusual or infrequent[9].

The second problem concerns the general requirements for all performance measures in the financial statements. This point includes all the PMs other than subtotals: a very large number and different kinds. It is not important to identify these MPMs but to explain the requirements for a fair presentation. The Board, in par. 5.34, proposes some general requirements for MPMs:

(a) displayed with equal or less prominence than the line items, subtotals and totals in the primary financial statements required by IFRS Standards;
(b) reconciled to the most directly comparable measure specified in IFRS Standards to enable users of financial statements to see how the performance measure has been calculated;
(c) accompanied by an explanation in the notes to the financial statements of:
  (i) how the performance measure provides relevant information about an entity's financial position, financial performance or cash flows;
  (ii) why the adjustments to the most directly comparable measure specified in IFRS Standards in (b) have been made;
  (iii) if the reconciliation in (b) is not possible, why not;
  (iv) any other information necessary to aid understanding of the measure (i.e. the information should provide a complete depiction);
(d) neutral, free from error and clearly labelled so it is not misleading;
(e) accompanied by comparative information for all prior periods presented in the financial statements;
(f) classified, measured and presented consistently to enable comparisons to be made over time, except when IFRS Standards require a change in presentation, as stated in paragraph 45 of IAS 1; and

[9] "*because some terms, such as 'non-recurring' or 'special', are less helpful for users of financial statements if an entity does not also explain why items are classified that way (ie the term itself is unclear as to whether the items are unusual, or infrequent, or both). Furthermore, these terms might be interpreted in a similar way to the term 'extraordinary items', whose use is prohibited by paragraph 87 of IAS 1. In addition, terms like 'one-off' suggest that the items can never recur, which is difficult to substantiate*" (par. 5.27).

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(g) presented in a way that makes it clear whether the performance measure forms part of the financial statements and whether it has been audited[10].

5.2.2 Primary Financial Statements (PFS)[11]

In July 2014 the project was added to the research agenda and an exposure draft or DP is expected in 2019.

The objective of the project[12] is the improvement of the statements[13] with a specific focus on the statement of financial performance. After stakeholder feedback[14], some key project proposals were identified:

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[10] It is important to explain whether MPMs are audited or not, and clearly identify unaudited measures.

[11] Primary Financial Statements. Project overview, September 2018, IFRS Foundation.

[12] Companies use different performance measures in their financial statements, often without clarifying what information is included in or excluded from such measures. This means that investors and regulators cannot easily compare companies' financial performances, even within the same industry.
With an incomplete understanding of a company's performance, an investor may make poor investment decisions. Widespread inconsistency in companies' reporting can result in market-wide, faulty decision-making, which can affect national and global economies.
The International Accounting Standards Board (Board) is developing new presentation requirements for the statement(s) of financial performance.
The Board is also reducing presentation choices for items in the statement of financial performance and statement of cash flows to make it easier for investors to compare companies' performances and future prospects.
This project is part of the Board's plan to promote Better Communication in Financial Reporting. After further research, the Board expects to publish either an Exposure Draft or a Discussion Paper.
https://www.ifrs.org/projects/work-plan/primary-financial-statements/#about

[13] Statement of financial performance, Statement of financial position, Statement of cash flows, Statement of changes in equity.

[14] Some of those concerns include:
(a) lack of comparability between entities;
(b) lack of required line items and subtotals in the primary financial statements;
(c) insufficient and inconsistent disaggregation of information; and
(d) increased use of alternative performance measures that lack transparency.
Staff Paper, June 2018, par. 35.

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1. introduction of defined subtotals in the statement of financial performance;
2. proposal on management performance measures;
3. proposal to improve disaggregation.

With reference to the first point, the Board identifies three subtotals[15]:

– Business profit (Profit from consolidated entities, before investing, financing and income tax);
– Profit before investing, financing and income tax;
– Profit before financing and income tax.

These subtotals must be consistent with the presentation and definition of EBITDA and EBIT, which are key subtotals analysed by many users, starting with investors.

The second point is related to management performance measures: These non-GAAP indicators can provide useful information but a high level of transparency is required. To ensure flexibility, entities are allowed to present MPMs in the notes, without constraints on the calculation. To ensure the clarity of these indicators, complete disclosure needed, in particular, a reconciliation in the notes between the MPMs and the most directly comparable subtotal or total specified by IFRS; the reason why the MPMs provide management's view of performance; how they have been calculated; MPMs to be labelled in a clear and understandable way.

The example of reconciliation found in the staff paper is very simple but interesting because it proposes again a well-known problem: the role of unusual or infrequently occurring items that, in some cases, are interpreted by users (and preparers) as extraordinary items, even if this term is forbidden in form but exists in substance[16].

The third point is not completely relevant for the aim of this chapter but there is just one issue to highlight, which completes the previous point – the disclosure related to unusual or infrequent items, required for all entities irrespective of whether an entity chooses an MPM. It's very important to share definitions: the proposal is to develop principles-based guidance for identifying unusual and infrequent items.

[15] This proposal is changing; see next paragraph.

[16] In the example of reconciliation (in the notes), the adjustment concerns:
– restructuring expenses for the closure of factory A;
– litigation settlement related to court case B.

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In the next section, the current situation is explained, recalling some topics that we have already examined. The attention is on PFS project, due to this extension, after the choice taken in March 2018.

5.2.3 The current situation

Pending the Board's decision about the type of document to publish (Discussion Paper or Exposure Draft), the current situation is well summarised in the Staff Paper of April 2019[17].

In the paragraph on the MPMs, the Board tentatively decided three different points.

a) All entities shall identify a measure (or measures) of profit or comprehensive income that, in the view of management, communicates to users the financial performance of the entity. This measure will:

i. often only be a subtotal or total specified by paragraph 81A of IAS 1;

ii. sometimes be identified by management as a measure that is not a subtotal or total specified by paragraph 81A of IAS 1, but would complement those subtotals or totals. Such a measure is a management performance measure.

This is an introductory point. There is no reason to distinguish between entities (all entities) because they have the general problem in common.

This project takes into consideration only the statement(s) of financial performance[18]. This is a limitation of the project because it represents a partial approach. In fact:

- the statements are closely related;
- these MPMs are employed with other MPMs deriving from other statements (in particular, statement of financial position and statement of cash flows), i.e. for calculating ratio[19].

b) The following requirements apply to management performance measures described in paragraph a(ii):

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[17] Appendix: Summary of the Board's tentative decision to date in the project (PFS). We will comment on the single points.

[18] The statement of cash flows is also considered for introducing important changes independently of MPMs.

[19] For example, for using EBITDA/Net Debt ratio and to assure comparability, we need to define either items. Net debt or Net Financial Indebtedness are highly used in financial statements but a reconciliation with statement of financial position would be requested.

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i. a reconciliation would be provided in the notes between that measure and the most directly comparable subtotal or total specified by paragraph 81A of IAS 1

This point will be relevant only if the list of subtotals and totals is expanded. Now paragraph 81A only includes totals, which is insufficient to permit a useful reconciliation.

Another relevant aspect is the place where the reconciliation is provided, i.e. the notes. This choice will be examined in depth later but affects users' usefulness in different ways.

ii. that there should be no specific constraints on management performance measures

There are many advantages and disadvantages to defining constraints on MPMs[20]: the issue is the possibility to calculate MPMs using tailor-made accounting policies that introduce a problem linked to the auditing process[21]. The choice is not simple. On one hand, forbidding this approach, MPMs are calculated in accordance with requirements in IFRS; on the other hand, the main risk is preventing entities from calculating useful and specific measures.

Considering the nature, characteristics and purpose of MPMs, the introduction of constraints would not be recommended. However, to avoid every opportunistic behaviour and the disclosure of misleading measures, a detailed comment is necessary in the notes.

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[20] Staff paper, Primary Financial Statements, April 2019, par. 64-65. Staff think that the disadvantages outweigh the advantages (par. 66).

[21] The International Standards on Auditing (ISA) require auditors to evaluate whether additional information that is not required by the applicable financial reporting framework (e.g. IFRS) is clearly differentiated from the audited financial statements. If the additional information is not capable of being clearly differentiated, it is an integral part of the financial statements and, hence, it needs to be covered by the auditor's opinion (ISA 700 (Revised), Forming an Opinion and Reporting on Financial Statements, paragraph 53).
If the additional information is not considered an integral part of the audited financial statements, the auditor needs to evaluate whether such information is presented in a way that sufficiently and clearly differentiates it from the audited financial statements. If this is not the case, the auditor asks management to change how the unaudited additional information is presented (ISA 700 (Revised), paragraph 54).
We expect unaudited additional information to be clearly differentiated from the audited financial statements. This is typically accomplished by labelling it as "unaudited". EY, Alternative Performance Measure, October 2018, pp. 71-72.

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About this point, "*some regulators think the proposals could lead to a proliferation of non-GAAP measures, particularly if there are few constraints imposed on such measures*" (Staff paper, April 2019, par. 21 (d)).

There is not a direct correlation between the new regulation proposal and the number of MPMs. The opposite effect could even be obtained because of the new disclosure requirements. Entities do not waste time and money on MPMs if they are not necessary or useful. Moreover, the proposal in the project to increase subtotals in the statement(s) of financial performance could reduce the need for some of the current MPMs.

Moreover, the matter of prominence introduced by some regulators does not hold anymore. Most MPMs will be presented in the notes, due to the new expected content of the statement(s) of financial performance, with a potential greater number of new subtotals. In any case, this is the point where more attention should be paid because IFRS and non-IFRS measures coexist. MPMs should not be presented with more prominence or emphasis than the other measures.

Another point is to assess whether a measure can be considered an MPM only if entities use the same measure in their public communications with users outside the financial statements[22]: there are many doubts about this connection because financial statements are also a way to communicate with users[23].

iii. the measure would be labelled in a clear and understandable way so as not to mislead users

This request permits the reintroduction of the topic of misleading representation. The label is important to identify the content and the usefulness of MPMs but, at the same time, could mislead users. The utilization of the same label for different ratios or when the same ratio is

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[22] Staff paper, Primary Financial Statements, April 2019, par. 2.

[23] Entities use APMs outside their financial statements in a variety of ways. For example, APMs may be presented as part of:

- a prospectus prepared to support an IPO;
- the narrative commentary or MD&A included alongside interim financial statements;
- a profit warning;
- a preliminary announcement;
- an investor presentation;
- the 'front half' of the annual report;
- a press release;
- any other filing required to comply with local listing rules; and
- any other publication of regulated information.

Deloitte, Alternative performance measures. IFRS in focus – A practical guide, July 2016, pp. 4.

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identified with different labels is a well-known problem in financial analysis.

It is difficult and fruitless looking for a specific approach. If MPMs are in the financial statements, these measures must respect "*the general requirement for information in the financial statements to provide a faithful representation*": it doesn't make sense to propose a particular definition of what "clear and understandable" means.

iv. the following information is required to be disclosed:

1. a statement that the measure provides management's view of the entity's financial performance and is not necessarily comparable with measures provided by other entities

The statement is appropriate to draw attention to MPMs: it is very useful in general but in particular for specific and industry-based measures. The warning about cross sectional comparison is fundamental because there is no share method to calculate one measure, even for well-known ones.

In the Staff Paper (April 2019, par. 2.1), "*some regulators think IFRS financial statements should only include IFRS-specified measures which are comparable among entities*".

Comparability of MPMs between entities is very difficult to achieve because they depend on management view and communication objectives. For this reason, it is necessary to explain this impossibility and disclose more information about them. Are you sure that IFRS-specified subtotals are comparable in substance?

Comparability is a fundamental qualitative characteristic of useful financial information as a relevant and faithful representation. MPMs increase relevance because they can influence users' decisions. If they are accurately chosen and calculated, they can improve the faithful representation of the entity.

In addition, going back to comparability, this characteristic can be achieved with a high quality level of disclosure, and this is the crucial point.

If comparability among companies can be difficult, at the same time it must be ensured over time, like any other financial statement item.

2. a description of why the management performance measure provides management's view of performance, including an explanation of:

• how the management performance measure has been calculated and why; and

• how the measure provides useful information about an entity's financial performance; and

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3. sufficient explanation, if there is a change in how the management performance measure is calculated during the year, to help users understand the reasons for and effect of the change.

The second point has great importance in terms of financial communication since it defines the general meaning of every measure: why it is useful, why it is significant, how it is calculated. All requests are relevant but the last is the most significant. It is fundamental, for the previous reasons, to know the methodology used to calculated it and the reasons of eventual change over time. The change would be appropriate only in limited circumstances where the new version of MPM better achieves the objective of better representing the effects of management activities. The revised alternative performance measure (APM) should be reliable and more relevant.

c) That the reconciliation between the management performance measure and the most directly comparable subtotal or total specified by paragraph 81A of IAS 1 should be provided separately from the operating segment information disclosed in accordance with IFRS 8 Operating Segments. However, entities would not be prohibited from also including management performance measures within the operating segment information. Furthermore, the following information would be required to be disclosed:

i. an explanation of how the management performance measure differs from the total of the measures of profit or loss for the reportable segments; and

ii. if none of the management performance measures fits into the operating segment information, an explanation of why this is the case.

For the purposes of these proposals, paragraph 81A of IAS 1 would include the existing subtotals in that paragraph and the proposed new required subtotals developed as part of this project, for example, profit before financing and income tax. The Board tentatively decided to expand the list of subtotals and totals that would not be considered management performance measures to include the following: profit before tax, profit from continuing operations, gross profit, defined as revenue less cost of sales, and operating profit before depreciation and amortisation. The Board members advised caution in drafting to clearly distinguish these subtotals from those that are specifically required to be presented by all entities in paragraph 81A of IAS 1.

The tentative decision to extend the content of paragraph 81A is positive for users' needs: every subtotal or total explicitly inserted in the IAS 1 transforms MPMs into IFRS measures.

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Moreover, the introduction of new subtotals (IFRS indicators) facilitates the comparison between entities but the principal objective of this change must be clarified. If the comparison between entities prevails, this is the right way; if instead the best representation and communication of financial performance prevail, MPMs are the right instrument.

There are many difficulties in choosing the more suitable indicator. In the current situation, attention is addressed towards four common subtotals:

- profit before tax;
- profit from continuing operations;
- gross profit;
- operating profit before depreciation and amortisation.

In other documents, there are different subtotals proposed:

- operating profit;
- operating profit and share of profit of integral associated and joint venture;
- profit before financing and income tax.

Operating profit is used by many entities, users, investors, analysts, and so on. However, its definition, calculation and content varied between entities: today it is an MPM because it is not a specific result for operating activities[24]. Moreover, if an entity chooses to present this subtotal, it must ensure that it is "representative of activities that would normally be regarded as 'operating'" (IAS 1, BC 56).

With reference to the second and third subtotals, there are some problems to clarify:

- when is a joint venture or associate integral or non-integral?
- what items are excluded from profit before financing and income tax?

With this integration, the previous request for reconciliation between a measure and the directly comparable subtotal or total is satisfied. Furthermore, with this tentative decision, the need for new subtotals linked to statement(s) of financial performance will decrease. As soon as the

[24] The reason is that 'operating activities' have not been defined. Basis for Conclusions, IAS 1, paragraph 55.

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presentation of these subtotals is required by IFRS, they become IFRS indicators, changing their condition. In other words, the PFS project could reduce the number of MPMs.

In this paragraph we don't go into details about the choice of these subtotals rather than others because it's beyond the aim of the chapter, with the exception of a summary about EBITDA[25]. The attention is mainly focused on EBITDA because it is widely used by entities both inside and outside the financial statement and by a large number of users (i.e. investors, analysts, lenders) as a performance measure. EBITDA is used in many different application areas, from financial statement analysis to forecasting future cash flows.

Despite the wide diffusion, there is an evident diversity in the preparers' and users' definitions (and labelling), giving rise to confusion and rendering comparisons uncertain.

The principal objective is "*to eliminate the current diversity in how measures labelled 'EBITDA' are calculated in financial statements*[26]". Two approaches are discussed[27]:

(a) Approach A – adding 'operating profit before depreciation and amortisation' to the list of measures that are not considered to be management performance measures; and

(b) Approach B – describing EBITDA and adding EBITDA to the list of measures that are not considered to be management performance measures.

Staff recommendations address a description of EBITDA as "*operating profit before depreciation and amortisation*". In this case, it is not considered to be a management performance measure[28].

The Board also asked the staff to clarify by drafting that management performance measures provide additional information that complements the subtotals and totals specified by paragraph 81A of IAS, rather than provides a better view of financial performance.

MPMs are complementary to, not competitive with, IFRS measures. Together they must provide a better view of financial performance. It's not a question of priority but of accuracy and completeness of the information in the financial statements.

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[25] Another subtotal potentially developed as a part of the project is operating income.

[26] Staff Paper Primary Financial Statement, December 2018, par. 6(b).

[27] Staff Paper Primary Financial Statement, December 2018, par. 7. Approach B is preferable because it "*meets both objectives in paragraph 6*".

[28] Staff Paper Primary Financial Statement, December 2018, par. 2 (a) and (b).

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The above tentative decisions describe disclosure requirements for management performance measures in the notes only. Consequently, they do not affect the presentation of additional subtotals in the statement(s) of financial performance in accordance with paragraphs 85–85A of IAS 1.

The Board tentatively decided to require the reconciliation described in paragraph b(i) to be disclosed in the notes rather than be provided below the statement(s) of financial performance.

The Board tentatively decided to prohibit the use of columns to present information about management performance measures in the statement(s) of financial performance.

The Board's tentative decision requires disclosure about MPMs in the notes. The proposal has the advantage of defining a specific section in the notes in which all the information about MPMs is inserted, easing their identification and reducing the risk of confusion with IFRS measures, overcoming the matter of legitimacy raised by some regulators.

This is a false problem because it can be overcome with a clear disclosure and a separate position in the financial statements. MPMs and IFRS measures are not opposing but complementary information: the guideline must be usefulness, not legitimation. The disadvantage is the usability. MPMs are useful with IFRS measures to immediately understand the differences and the underlying reasons. The choice of using notes instead of placing the information below the statement(s) of financial performance makes the statement more prominent and neutral but less useful; furthermore, it could increase the efficiency of users' analysis.

In the same way, the use of separate columns has the advantage of easing the immediate comparability with IFRS data but at the same time, the disadvantage of reducing capacity to distinguish between IFRS and non-IFRS measures.

Finally, if an entity uses an MPM:

a. it will be required to disclose in the notes the effect of tax and non-controlling interests separately for each of the differences between the management performance measure and the most directly comparable subtotal or total in paragraph 81A in IAS 1;

b. it will not be required to disclose in the notes adjusted EPS calculated consistently with the management performance measure.

The Board also tentatively decided that

a. an entity would continue to be permitted to disclose adjusted EPS;

b. an entity would be prohibited from presenting adjusted EPS in the statement(s) of financial performance.

The most important novelty is the requirement to disclose the effects of tax and non-controlling interests for every MPM. With reference to tax,

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the real effects are very different among different country regulations or jurisdictions.

There is another point strictly connected with the MPMs: the treatment of unusual (or non-recurring or infrequently) items.

To adjust totals or subtotals for unusual items can permit the better evaluation of the financial performance and sustainability of an entity over time. Moreover, it can be helpful in making forecasts about future cash flows.

The Board proposes a tentative definition: "*Income or expenses with limited predictive value because it is reasonable to expect that similar items will not arise for several future annual reporting periods*", adding that "*Similar items are income or expenses that are similar in type and amount*".

This definition could be a guideline even if it is not included in the IFRS.

The definition differs from the old one of extraordinary items. IAS 8 defined these items as "*income or expenses that arise from events or transactions that are clearly distinct from the ordinary activities of the enterprise and therefore are not expected to recur frequently or regularly*".

However, there is a common element with the current definition, its temporal frequency. An extraordinary item is not expected to recur frequently whereas an unusual item will not arise for several future annual reporting periods.

The Board tentatively decided to:

a. require separate disclosure of information about unusual items regardless of whether an entity chooses to disclose a management performance measure;

b. require separate disclosure of unusual items in the notes to the financial statements and require that those items be attributed to line items in the statement(s) of financial performance.

There is a specific requirement about unusual items – separate disclosure in the notes. Separate presentation is not possible because those items are attributed to line items. Two considerations:

- unusual items are generally the main (but not only) reason for which entities calculate IFRS-adjusted indicators; the disclosure would be in the same section;
- if there is a definition of unusual items and a subtotal (par. 81 A, Ias 1) is adjusted using this item, the new measure is not an MPM because all the elements used are IFRS compliant.

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Other indications are:

a. state that gains and losses arising from the remeasurement of items required to be measured at current value (including fair value) generally should not be classified as unusual items;

b. require entities to attribute unusual expenses to categories of expense by nature, regardless of their method of analysis of expenses in the statement(s) of financial performance;

c. require entities to provide a narrative description of the transactions or other events that give rise to unusual items; and

d. does not require entities to provide information about income or expenses related to unusual income or expenses (unless those income or expenses themselves meet the definition of unusual items).

The Board tentatively decided not to provide guidance stating that:

a. information provided about unusual items should be neutral, noting that information in financial statements is expected to be neutral; and

b. entities may consider the past occurrence of similar items to assess whether it is reasonable to expect that similar items will arise in the future.

5.3. The EFRAG Position

In this chapter the aim is to summarise the EFRAG discussion on IASB's projects. There are three sources:

- Comment Letter on the IASB's Discussion Paper Disclosure initiative – Principle of disclosure, published in October 2017;
- the latest updated EFRAG, from September 2018 to date;
- papers prepared for discussion at a joint public meeting of the EFRAG Board and EFRAG TEG, even if they do not represent the official view of EFRAG.

There is a general agreement on the need to improve the structure and content of financial statements but this process should be subject to broad debate because mixed views exist. For this reason EFRAG suggests that the best way forward would be a DP rather than an exposure draft.

One of the most important innovations is the introduction of additional subtotals in the statement(s) of financial performance. EFRAG expresses

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support for the tentative IASB decision but highlights the need to consider the specific industry characteristics[29].

In the paper of November 2018 there are some critical positions about subtotals after expressing "*some support for the presentation of commonly used subtotals*".

In particular, the EFRAG secretary highlights that "*some EFRAG TEG-CFSS members have already noted that it will be challenging to define an "operating profit" subtotal and recalled that past standard-setting activities on the definition of operating profit had been unsuccessful*". Moreover, "*EFRAG Secretariat does not expect that the introduction of the subtotal 'operating profit' would be a significant change in practice or costly. However, we note that its calculation is likely to significantly change and entities would have to find another term to express a management performance measure related to operating profit*".

With reference to the other subtotals, the EFRAG secretary underlines that "*entities did not present a subtotal such as operating profit and share of profit from integral A&JV to separately present income and expenses from investing activities*" and, for this reason, "*the introduction of the subtotals operating profit and share of profit from integral A&JV and profit before financing and income tax would represent a significant change to current practice and may require one-off costs to change the reporting systems*".

The discussion about MPMs is more articulated, with many opinions. At present, entities use many different MPMs "*which often change over time, and highlighted the risks of disclosure overload and increased costs to preparers if the scope of the IASB's proposals was too wide*[30]". The main concerns are related to identifying and disclosing MPMs within the financial statement, to increase comparability between entities and to potentially highlight them compared to IFRS measures.

EFRAG sends the IASB a message of openness ("*general principles and guidance on the use of MPMs could bring more transparency and consistency on their use*") but not a green light.

With reference to unusual items, the EFRAG secretary points out it is a complex situation because entities use different labels and disclosure levels. Besides a general agreement ("*supports the IASB's decision to address users' requests for information about unusual and infrequent items*"), EFRAG expresses some comments about labels and classifications

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[29] However, members acknowledged the difficulties of applying some of the proposed additional subtotals to conglomerates and specific industries such as financial institutions (EFRAG Updated, November 2018).

[30] EFRAG Updated, November 2018.

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("*We note that practice varies, and that entities label such items in various ways, e.g. 'non-recurring', 'exceptional', 'special', or 'one-time'. There is no clear demarcation between items excluded for other reasons and unusual/infrequent items and some entities even combine such items into a single line item or group of 'other' items without describing the nature of the items included*").

However, in many situations entities could be affected by significant one-off events and the impact of these should be highlighted to investors.

Finally, the difficulties on this point are highlighted "*providing guidance on how to identify unusual or infrequent items on a consistent and comparable basis may prove to be challenging*".

The comment letter on the IASB's Discussion Paper Disclosure initiative covers many aspects that are summarised briefly below.

EFRAG considers the Disclosure Initiative one of the most important IASB active projects but identifies many limits.

The first one is the lack of progress in the development of "*a clear, effective, coherent and comprehensive but concise package of disclosure requirements. The review should, in particular, aim to identify and remove any disclosure requirements that are disproportionate or redundant*".

The second one is the absence of some important issues such as:

– "*the boundaries of the financial statements;*
– *the impact of technology on the presentation of financial statements and on disclosures;*
– *exploring a tiered approach to disclosure requirements*".

At the moment, EFRAG's position presents some signs of opening up but, at the same time, there are some critical considerations that need to be discussed in a DP.

5.4. Conclusion and policy implications

IASB's position on MPMs is one of substantial openness, very attentive to disclosure, with particular attention to direct interventions on financial statements. We are waiting to know whether IASB chooses to publish a DP or an Exposure Draft, even if the relevance of the issue warrants a DP.

Not all MPMs are the same. Two aspects with very different outlines and boundaries should be kept separated:

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- on the one hand, the MPMs deriving from adjustments to better express a subtotal generally recognised for its informative value (EBIT, EBITDA);
- on the other hand, MPMs deriving from the calculation of indicators using IFRS values (ratios, NFP, etc.).

In both cases, these measures can be considered non-GAAP financial measures, differentiating them from other indicators, i.e. non-financial or operational measures. The latter should be excluded from the regulation because they cannot be linked to financial statements. This connection should be considered fundamental given the object of analysis.

Today, there is a large number of MPMs in financial statements due to the different types of adjustments made, the different label used, and the various ratios presented. These measures are an indication that external users require more information and IFRS measures are not enough to satisfy all their needs. For this reason, MPMs can play an important role in the financial communication between an entity and its investors or general stakeholders.

That being said, it is more relevant to regulate the procedure through which MPMs are published, to ensure a fair presentation, than their content, with a few exceptions, i.e. related to the most used subtotals, like EBITDA or EBIT or operating income. This proposal stems from the consideration that there are many MPMs, potentially infinitive numbers, with significant differences among entities and industries. This regulation would solve a general (and simple) problem: to clearly distinguish IFRS measures from non-IFRS measure in the financial statements.

There are some important aspects that have been dealt with in this chapter, which are briefly reviewed here.

Location is relevant for users' perception. Presenting MPMs in the primary financial statements or highly close to them has a different impact than presenting them in the notes: the choice influences usability, identifiability and relevance.

A general concern is related to reliability and this can be overcome with a high level of transparency and disclosure.

Other relevant points are:

- definition and labelling of new subtotals. It would be desirable to reduce the diversity in practice and improve comparability of financial statements;
- reconciliation (in the notes) with the most directly comparable subtotal or total in the statements;

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- introduction of constraints on MPMs. This may reduce the usefulness of these measures so the choice made must be explained in detail. The definition used to describe MPMs should reflect their content and basis of calculation, as well as the relevance for management. Moreover, it is important to disclose any assumptions used and whether they relate to past or expected future performance and a comparative figure for previous financial period(s);
- risk of prominence of MPMs could be overcome if they are presented in the notes in a specific section. However, it is important not to forget that IFRS and non-IFRS measures must coexist; they are not competitive but complementary;
- fair representation: the label is important to identify the content and the usefulness of MPM but, at the same time, could mislead users;
- comparability is very difficult to reach for MPMs between entities because it depends on management view and communication objectives. It is preferable to increase relevance because they can influence users' decisions and improve faithful representation if accurately chosen and calculated[31].

Finally, it is essential to extend the project to all the statements because they are closely related.

Closely connected with the MPMs is the treatment of unusual items.

There seems to be a certain brake on tackling the issues underlying, above all, adjusted values, i.e. the non-recurrent items. In fact, it becomes difficult to differentiate, in certain aspects, these values from the extraordinary items. The definition differs but there is a common element with the current definition, temporal frequency.

The definition of an unusual item is essential to prevent opportunistic behaviour when an adjustment is made for the effect of events that are not unusual.

[31] For guidance on principles for developing and reporting supplementary financial measure and disclosure recommendations, see IFAC, International Good Practice Guidance, September 2014.

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CHAPTER 6

THE ROLE OF NON-FINANCIAL INFORMATION: CURRENT PERSPECTIVES OF INTEGRATED REPORTING

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6.1 New perspectives on disclosures

In business management, disclosures are used to improve transparency within relationships; increase credibility, trust and legitimacy in the work environment; and obtain the approval of stakeholders. These elements, in turn, contribute to improving a company's corporate image. Reputation management, therefore, can manifest critical issues even during the communication phase. The latter, to be effective, should consist of unifying convergent messages and must be consistent with the business strategy's vision, mission and contents. First, the coherence of the messages must consider a company's timeline objectives: if a long-term strategic goal is to establish a lasting relationship with stakeholders, the disclosure must focus on consolidating these relations and be managed in such a way as not to tarnish the trust of interlocutors over time. Second, an effective disclosure must be based on a defined corporate identity and clear business strategies; otherwise, the transmitted corporate image can be confusing and will not inspire confidence. Inconsistent communication of a company's values and contents of its business strategy is even more serious. Over time, conflicting messages will inevitably lead to the deterioration of a company's corporate image (and, consequently, its intangible assets) as the company's perceived identity, implicitly communicated through the implemented actions of its management activities, is almost always inferior to that explicitly expressed. This

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approach can be interpreted as a business's attempt to win stakeholders' good faith. Moreover, it represents a recognition that stakeholder relations are an increasingly important driver of value creation for the business itself.

In order to meet the information needs of stakeholders, cultivate transparent relations and improve credibility, trust and legitimacy, it is necessary to use non-traditional disclosure tools and models. Two interrelated aspects characterize these disclosure tools: a broadening of the categories of information recipients, on the one hand, and the scope and quality of the content transmitted on the other. Regarding the first aspect, effective stakeholder management implies the recognition of different information needs for a plurality of subjects, including but not limited to shareholders and investors, whose information needs are often elevated within the communication plan, especially in the context of traditional information (with particular reference to budgetary and financial documents). Concerning the second aspect, the expansion of information transmitted is due to the inability of traditional economic-financial communication tools to represent the business situation articulately and, therefore, satisfy the information needs of investors. It also stems from many stakeholders' desire for information concerning the social and environmental aspects of the company.

The increasing pressures exerted by stakeholders for more excellent quality and a greater quantity of information as well as competition for the acquisition of strategically significant resources are profoundly changing corporate disclosures. The traditional value placed on confidentiality is currently losing in importance compared to transparency; a company's profile, constructed on the information transmitted, is fundamental for obtaining approval from stakeholders and attracting critical management contributions. The degree of transparency in relationships has become a critical success factor for a company. According to this new perspective, disclosures play the integral function of supporting stakeholder engagement through the dissemination of information capable of satisfying their information needs more adequately.

The content of new forms of disclosure consists of data and information relevant to stakeholders that have not largely been included in financial reporting (non-financial disclosures) previously. In general, this new content includes information regarding the competitive logic and the dynamics of a business, sources of competitive advantages (with particular reference to intangible resources), future business prospects, specific risks associated with a company's activities, and social and environmental policies. The information transmitted in non-financial disclosures, however,

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does not have the same relevance for all categories of stakeholders. For example, investors and employees in the past have been most interested in future business prospects; customers and suppliers, especially those integrated into the supply or production chain, look at competitive logic and business dynamics; while the community has been most concerned with the external impact of the company, including social and environmental issues. It is clear, however, that all the information contributes to outlining the overall business situation, highlighting development capacities to which all stakeholders, in a more or less intense manner, are interested. For example, an ecological risk analysis is very relevant information for the community but it is also fundamental for shareholders as the value of their investments could be jeopardized by environmental scandals that could compromise the existence of the company itself. Similarly, information concerning the company's economic and competitive dynamics, in which shareholders are especially interested, is essential for the community as the spread of socio-economic well-being in the community depends on a company's success in the marketplace.

The effectiveness of the new disclosure tools depends on two factors: the credibility of the communicator and the quality of information transmitted. Concerning the first factor, a lack of trust in the company renders the disclosure almost entirely ineffective. Information transmitted by organizations deemed not very credible can have a minimal impact on the perception of transparency by stakeholders. This case primarily occurs when transparency is not incorporated into a company's strategic orientation and, moreover, when there are purely commercial motivations at the foundation of the disclosure, often connected to the emulation phenomenon (fashion effect). In such situations, communication alone rarely makes it possible to improve relations with stakeholders and to increase the degree of trust in and legitimacy of a company. While the construction of a highly credible profile can take a very long time to achieve, it can, unfortunately, deteriorate rapidly. As such, it is necessary to pay utmost attention to data collection, processing procedures and information dissemination.

Credibility is therefore linked to the second factor of effectiveness; the quality of the information transmitted. The constant dissemination of quality information increases the credibility of those who communicate. The quality of information is evaluated in terms of quantity, comprehensibility and preparedness of the content. Quantity refers to the amount of information disseminated; comprehensibility concerns the clarity of the information transmitted; preparedness relates to the delivery of a unified framework of information. Providing an enormous amount of

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data and information without making the links that form the base of a systematic representation of corporate and non-corporate phenomena explicit is the most significant risk of non-financial disclosure. This implies that the effectiveness of new disclosure models depends, ultimately, on a full internalization of the value of transparency. Only in the presence of this value can upper management manifest their real willingness to provide stakeholders with all the useful elements to adequately evaluate the phenomena and events that are the subject of communication.

The concept of disclosure is strengthened in a certain sense when it is referenced as a principle of accountability and understood as a duty to "report" to stakeholders, individuals with strong interests in the activities carried out by a company. These reports are comprised of a series of information regarding both the overall performance of the management as well as specific aspects that are critical for obtaining the stakeholders' approval. With regards to financial disclosures, the duty to inform derives from specific legislative provisions. With non-financial disclosures, on the other hand, the duty is above all moral or ethical, even if, from a strategic point of view, it is more a matter of necessity than a duty. That is, the company communicates its activities in a clear and transparent matter to nurture and consolidate the approval and trust of a company's stakeholders as well as obtain legitimacy in the surrounding environment. This paradox of "voluntary disclosure" that is increasingly necessary is further highlighted in an environment in which transparency becomes a critical factor in the competition to obtain contributions from stakeholders. This argument is particularly valid when it comes to the disclosure of multi-capital (sometimes called environmental, social and governance or ESG issues), which until now has seldom had binding obligations in international markets, unlike financial matters.

In line with the above-stated considerations, the behaviour of companies is easily understandable as they tend to provide ever-wider information that is not limited to financial matters (Dando and Swift, 2003; Chen and Bouvain, 2009).

The emerging approach is to combine multi-capital disclosure models with traditional financial disclosures in an attempt to bridge the limits of long-established forms of financial reporting that do not fully capture and highlight the multiple aspects of corporate governance.

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6.2 From non-financial disclosure to integrated reporting

6.2.1 The tendency towards integrated disclosure

Non-financial disclosures have always played a secondary role compared to financial disclosures, which have continuously been considered the most critical reporting tool for representing a company's dynamics. Despite this, social and environmental budgets are rooted in the distant past. Initially, non-financial information was marginal and included in financial reports. However, the growing importance of social, environmental and governance issues in the last 30 years has gradually led to the preparation of autonomous and independent non-financial reports. These reports have become increasingly more complex and articulate as they include a wide range of information aimed at satisfying the needs of various categories of stakeholders. At first the separation between financial and non-financial disclosures brought information benefits due to the expansion of the topics disclosed; subsequently, instead, it eliminated the well-structured requirements of the reporting system. In some cases, the social and environmental reports were not coherent not only with respect to the reporting system but also the business's strategy (and the related competitive and financial dynamics). The autonomy to disclose non-financial information compared to financial disclosure obligations can be considered a consequence – and in some cases a cause – of a multi-capital dimension not being included in the vision, mission and strategy of a business. On the contrary, from a managerial perspective, it is essential to consider a company's non-financial dimensions strategically (Vitolla, 2008) as this drives the need to integrate social and environmental aspects into a company's management strategy (Vitolla et al., 2017).

The success of a company in the medium and long term appears increasingly linked to its financial achievements as well as its social and environmental impacts. The ability of a company to achieve financial equilibrium and to obtain, expand and consolidate its competitive advantages depends, to an ever-greater extent, on the quality of its relationships with the different categories of stakeholders who can provide the necessary resources and contributions to perform the activities of operation. The impact on non-financial performance appears to be strictly interconnected to financial performance (the 'connectivity' of the six capitals of integrated reporting) as the achievement of the objectives of each dimension favours the achievement of positive results in the others. Consequently, financial objectives must be combined synergistically with socio-environmental objectives. In this way, profit becomes the expression of a superior ability to satisfy the expectations of all interlocutors, which,

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in turn, generates stakeholder approval, producing trust, cohesion and motivation and increased competitiveness, and, from a circular point of view, contributes to improved financial results.

6.2.2 Financial indicators within the logic of integrated disclosure

Financial indicators are almost always used by shareholders to measure the return on invested financial capital. Some financial indicators, however, can also provide valuable information about a company's ability to combine and integrate different dimensions of results (economic, social and environmental).

An essential financial KPI that integrates economic and socio-environmental perspectives is value added. From a microeconomic point of view, it represents the increase in wealth that a company generates through productive factors and distributes to subjects who recognize the stakeholder's quality. Value added can be viewed from two different perspectives: fulfilling production functions and remunerating the contributions made by stakeholders. It is calculated as the difference between the cost of the goods and services that a company purchases externally and the revenues of the products and services that the company receives from the market. This indicator, therefore, expresses a company's ability to generate value through its management activities; it is a broad concept of value creation not limited to shareholders, which underlie the economical functionality of a company, and the ability to satisfy the interests of a plurality of stakeholders. Value added can be understood both as value created and as value distributed to stakeholders (Aldama and Zicari, 2012; Haller and van Staden, 2014). Value added as wealth created is the difference between the value of production and external costs. Value added as distributed wealth is the value of remunerations paid to stakeholders: compensation for the employees, distributed profits for risk capital contributors, financial fees for borrowed capital, taxes for the public administration, donations and environmental expenses for the general public (Riahi-Belkaoui, 1999). Ultimately, value added is an integrated financial KPI that allows a joint assessment of economic and social dimensions. According to the first perspective, this KPI makes it possible to assess a company's ability to obtain good economic and competitive results; according to the other view, it enables the verification of the existence of a balanced relationship with different categories of stakeholders.

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Alternative financial indicators that integrate economic and non-economic valuation prospects are effort measures (Vitolla et al., 2017). According to a non-strictly economic perspective, the indicators of effort measure the commitment of a company to achieve social and environmental objectives; in particular, financial indicators of effort measure the level of resources invested (social and environmental investments) and utilized (social and environmental costs) in management activities.

These variables constitute a parameter for understanding the results achieved and are the basis of the values assumed by the outcome-oriented and process-oriented KPIs. It is clear that the actualized results depend on the ability to carry out management activities effectively and efficiently, and it is indisputable that without a sufficient stock of resources, results cannot be achieved. Ultimately, financial indicators of effort, while being of a commercial nature, also provide useful indications of the social and environmental orientation of the management, integrating different information perspectives (of a financial and non-financial nature).

6.2.3 Multidimensional models of disclosure and integrated reporting

Within this context, the need to integrate different types of information has become increasingly evident. The development of integrated disclosures in the strict sense was preceded by the creation of reporting tools that include more dimensions and more prospective analysis (Nixon and Burns, 2012; Giovannoni and Maraghini, 2013): balanced scorecard, triple bottom line, sustainability reporting. The balanced scorecard (Kaplan and Norton, 1996) is a multidimensional strategic control tool that includes financial and non-financial parameters to balance managerial objectives of effectiveness and efficiency in the short and long term. The use of financial indicators alone can result in the so-called "managerial myopia" phenomenon that leads to favouring short-term results (measured by financial variables) to the detriment of developing long-term prospects (which financial variables are not able to adequately measure and represent). This is represented in the four performance dimensions in the balance scorecard. The financial dimension relates to income and financial results; the customer perspective concerns a company's ability to formulate a value proposition that satisfies clients; the internal business processes are the operational abilities to meet customer objectives and create value. Finally, the learning and growth dimension identifies the technological and organizational infrastructure that a company must possess in order to carry out its processes effectively and efficiently as well as grow and improve in

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the medium to long term. The six capitals of integrated reporting add dimensions of the impact on a company's employees (human capital) and on its ideas, knowledge and intellectual capital. The outcome is not just short-term profitability in terms of financial capital but also on long-term value creation using a multi-capital perspective for the company, its investors and the wider society.

The triple bottom line is an accounting framework that goes beyond the traditional methods of evaluating a business solely according to its bottom line to include its social and environmental considerations (Elkington, 1997). Like the balanced scorecard, this measurement perspective also includes long-term impacts. Its three analysis dimensions are economic, social and environmental. The broadening of this measurement perspective is rooted in recognition of the multidimensional nature of organization management. An economic dimension refers to financial and competitive aspects, a social dimension concerns the relationships with the different categories of stakeholders, and an environmental dimension concerns the impacts on the physical environment. Like the triple bottom line, sustainability reporting is a framework that examines sustainability across the environmental and at least partially social dimensions of analysis (Vitolla et al., 2018b). Comprised of drafted principles and specific contents, the Global Reporting Initiative (GRI) is a reporting model that helps businesses understand and communicate their impacts and disclose their sustainability performance.

The increasing trend for reporting and disclosure (Hopwood et al., 2010; Dey and Burns, 2010) is to include information from different dimensions of analysis (economic, social, environmental and governance) as well as information of a different nature (financial and non-financial) in a single document. In 2010, the Prince's Accounting for Sustainability Project and the GRI founded, together with investors, companies, standard setters, auditors, and non-governmental organizations, the International Integrated Reporting Committee, from now on referred to as the International Integrated Reporting Council (IIRC). The purpose of the council was to create a framework (<IR> Framework) that favours the development of a new disclosure model related to the value creation process (IIRC, 2013). According to the framework, the purpose of integrated reporting is to improve the quality of information transmitted to stakeholders; promote an integrated approach to corporate reporting; strengthen accountability; and support integrated thinking and actions aimed at creating value in the short, medium and long term. This approach to integration is characterized by an emphasis on conciseness, an orientation towards the future, a sharp strategic vision, connectivity of

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information and the inclusion of integrated thinking in a company's vision, mission and corporate culture. A focus on integrated thinking must lead to considering, when drafting the report, the relationships between operating units and between the various functions of an organization; the interconnections between different types of capital; the links between actions aimed at creating value in the short, medium and long term; as well as the convergence of interests among key stakeholders.

Information connectivity is the primary element of innovation in integrated reporting compared to other disclosure tools. Integrated reporting must, therefore, represent the interrelations between the factors that affect an organization's ability to create value over time. Concerning its contents, integrated reporting connects information in order to provide a general representation of an organization, at the same time highlighting the dynamic and systemic interactions between its different activities. In particular, it provides information regarding the analysis of the resource allocation system and the way in which an organization combines and uses its resources to achieve results. It also presents the relationships between strategies, risks and opportunities; the links between business models and the external environment; and interdependencies and trade-offs between different forms of capital (financial, manufactured, intellectual, human, social, natural). Regarding a timeframe, integrated reporting connects the past, the present and the future. Past and present information provide useful indications for analysing current managerial capabilities and the overall quality of management.

At the same time, this information is viewed as a base from which to evaluate prospective information and opportunities. In terms of information type, integrated reporting connects quantitative and qualitative knowledge. To adequately represent an organization's ability to create value in an integrated report, both quantitative and qualitative information are essential as the quantitative information requires qualitative supporting information in order to be well understood. On the other hand, quantitative information can effectively summarize qualitative information. Finally, with regards to key performance indicators, integrated reporting shows links between financial and non-financial data. As such, it is a model that captures a business's performance by incorporating financial and non-financial indicators capable of directing, from different perspectives, the overall corporate governance. Therefore, a complex and structured system of indicators representing the business model is configured. At the foundation of the system, there is an explanation of the relationships between the strategic objectives, critical variables and relevant performance measures. Financial indicators represent the strategic impact on the

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company's economics in the short term. Non-financial indicators are used to monitor the many aspects that cannot be adequately expressed in monetary terms. As leading indicators, the non-financial indicators make it possible to assess the effects and results of a strategy more promptly and expeditiously recognize underlying pathologies. Finally, the use of non-monetary indicators makes it possible to link a strategy to operational management and, consequently, to orient the behaviour of those who work in a company more effectively. Ultimately, the construction of an integrated system of indicators, in which the interconnections between the various variables are highlighted, provides a more precise platform to evaluate the company's key impacts and a more articulated analysis of the company's critical success factors. From an economic, socio-environmental and competitive point of view, this framework increases the information effectiveness of the performance measurement system both in the short term and, above all, in the long term.

The International Integrated Reporting Council now reports that the Integrated Reporting <IR> Framework is used by more than 1,700 companies in 71 countries, having also been referenced or endorsed by the OECD Responsible Business Conduct Forum, the G20, the International Organisation of Securities Commissions (IOSCO), the ICGN Corporate Governance Principles, the European Union Non-Financial Reporting Directive and Target 12.6 of the Sustainable Development Goals of the United Nations.

In 2018, the International Integrated Reporting Council began a new strategic phase towards the global adoption of integrated reporting, transitioning from the Breakthrough Phase to the Momentum Phase, to reflect the growth in scale and pace of its practice. The IIRC also launched a two-year project with major financial and non-financial reporting frameworks through the Corporate Reporting Dialogue, to move towards aligning metrics with the ultimate goal of fully integrated reporting.

The spread of integrated reporting among companies has led academics to pay greater attention to this issue (Figure 1). In 2011, after the IIRC's publication of the Discussion Paper "Towards Integrated Reporting: Communicating Value in the 21st Century", scientific literature produced numerous contributions on integrated reporting (Vitolla et al., 2018a). At first the contributions were purely theoretical and concentrated on the benefits and limits of the instrument; subsequently, the scientific literature turned its focus on empirical analyses of the determinants and the effects of integrated reporting (Vitolla et al., 2019).

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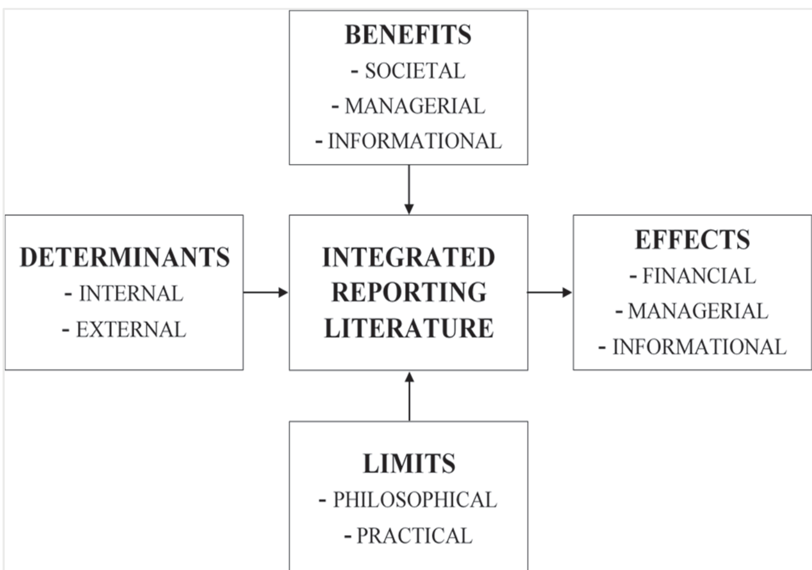
Figure 1: Integrated reporting literature



Source: Adapted from Vitolla et al., 2019

6.3 Benefits and limitations of integrated reporting

Scientific literature has highlighted, through a theoretical-normative perspective, a series of benefits connected to the adoption of integrated reporting.

First, the literature highlighted the benefits for society and the community as a whole. Viewed in this perspective, integrated reporting is a practice that contributes to the creation of a more sustainable society, which mitigates reputational risks (not only for the company but also for society in general), and which reduces the levels of regulation and contributes to financial stabilization (Krzus, 2011; Eccles and Saltzman, 2011; Eccles and Serafeim, 2011).

Moreover, scholars have highlighted the potential benefits to a company's values and corporate culture. Accordingly, the adoption of integrated reporting fosters the development of a long-term management philosophy as opposed to a short-sighted managerial approach focused on short-term results (Tweedie, 2014). It encourages a culture of sustainability and integrated thinking as an innovative strategic and cultural approach to business management (Roth, 2014).

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Finally, scholars have underlined the information benefits deriving from the adoption of integrated reporting for a company. Roth (2014) highlights how it gives upper management a better understanding of sustainability overall and favours a greater alignment between the contents of the report and the needs of investors. Haller and van Staden (2014) underline that the its function is to represent the value creation path and how it is distributed among the various stakeholders. Hughen et al. (2014) highlight the ability to integrate financial and non-financial information in a single report in order to adequately represent business strategies.

Scientific literature has also highlighted the main critical points and the potential limits of adopting and implementing integrated reporting.

From a philosophical perspective, the potential inconsistencies between integrated reporting and the principles of sustainability and accountability have been underlined, and they often appear to conflict with each other (Flower, 2015; Thomson, 2015). Brown and Dillard (2014) believe that integrated reporting does not necessarily lead to more sustainable behaviour on the part of management. Accordingly, literature has highlighted possible limits connected to this strategic orientation and legitimation gaps. Flower (2015) points out the existence of legitimation problems arising from the fact that integrated reporting is not able to fully satisfy the information needs of all categories of stakeholders; he also claims that it takes a less social-friendly and business-related perspective. Van Bommel (2014) underlines the problems that can arise in searching for a compromise between the information needs of different stakeholders that at times could lead to privileging one category of stakeholders over another. Stacchezzini et al. (2016) highlight the risks of window dressing that is often typical of narrative and descriptive disclosure forms. Viewed in this light, integrated reporting can become a mere marketing and management tool for a company’s public image.

From a more pragmatic point of view, some literature underlines the difficulties of assessing and fully understanding the real meaning of the various forms of capital as well as the assurance of the report (Cheng et al., 2014). Maniora (2017) underlines the absence of real benefits for companies in the transition from independent and autonomous reports (environmental, social and governance) to an integrated disclosure. Alexander and Blum (2016) highlight the operational difficulties related to the extended scope of integrated reporting.

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6.4 Determinants and effects of integrated reporting

Following the initial phase in which scientific literature focused on analysing the benefits and potential limits of implementing integrated reporting from a prevalently theoretical-normative viewpoint, scholars focused on empirical analyses aimed at identifying the drivers of integrated reporting practices and the effects of its implementation during the second phase.

Empirical contributions have highlighted the presence of numerous drivers, internal and external, that impact the adoption and implementation of integrated reporting. Size, financial performance, non-financial performance, ownership structure, level of education, market orientation, and board characteristics are the internal drivers identified in scientific literature. Among the external dimensions, scholars have identified the following: level of socio-economic development of the country, characteristics of the territory, legal traditions, laws, cultural context, and sector.

Most of the empirical contributions to the study of integration reporting determinants have theoretical backgrounds anchored on stakeholder theory and institutionalist theory.

Jensen and Berg (2012) focus on external determinants. Regarding legal factors, their study shows that the type of legal system (common law or civil law) does not influence the decision to implement the integrated reporting tool. On the contrary, the existence of specific laws that protect investors and workers is critical to the adoption of the report. Regarding the impact of social context factors on the practice of integrated reporting, the authors highlight the influence of a culture of social responsibility, national expenditure on education and training as well as the presence and strength of trade unions. Concerning economic context factors, the authors show a positive impact on the level of economic development of a nation. Finally, concerning a culture of governance and the management of territorial area determinants, there is a positive impact on non-concentrated ownership structures and market orientation. Frías-Aceituno et al. (2013a) and Turcu (2015) highlight the positive impact of localization in civil law countries and countries that adopt specific legislation that favours or imposes legislation to ensure socially responsible behaviour. Along the same perspective, Vaz et al. (2016) verify that localization in countries whose legislation is compliant with integrated reporting frameworks is a determining factor for the adoption of this practice. García-Sánchez et al. (2013), in the analysis of the relationship between national cultural variables and integrated reporting, demonstrate the positive impact of

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collectivism and feminist values. D'Este et al. (2012) demonstrate the positive impacts of some features of integrated reporting on the integrated disclosure processes. Lueg et al. (2016) show that pressure from stakeholders is a decisive factor that affects the adaptation of integrated reporting. Concerning the micro-environment, Frías-Aceituno et al. (2014) confirm the existence of a negative impact of industry concentration on the practices of integrated reporting. Gianfelici et al. (2016) demonstrate the existence of a relationship between the sector's and the stakeholders' perspectives of integrated reporting. The authors state that different pressures from stakeholders influence each sector, and these influences impact its implementation.

Other contributions have investigated the internal determinants. Some scholars have focused on the determinants of governance. Frías-Aceituno et al. (2013b) highlight that boards with directors from different backgrounds favour the implementation of integrated reporting as the coexistence of diverse values, skills and experiences facilitates the adoption of a multidimensional perspective to disclosure practices. Alfiero et al. (2018) show that larger boards and boards in which women have a significant presence favour the adoption of integrated reporting. On the contrary, the presence of foreign and elderly board members negatively affects integrated reporting practices. Regarding financial variables, Frías-Aceituno et al. (2014) underline the positive impact of size and profitability on the implementation of integrated reporting. With respect to the relationship between CSR practices and the adoption of integrated reporting, Lai et al. (2016) highlight the positive impact of ESG ratings, showing how sustainability-oriented companies are more inclined to implement integrated reporting and how the framework is not a make-up tool for companies that are not sustainability-oriented.

The effects of adopting integrated reporting can be financial, informational and managerial. Financial impacts refer to the firm's value, cash flow, cost of capital, stock liquidity, and long-term investments. Integrated reporting affects a company's financial variables as well as its value; these relationships are linked to intangibles, such as corporate image and brand reputation. It also has consequences for the company's informative profile, with particular reference to transparency and discrepancy. Finally, integrated reporting has managerial consequences. Its adoption can improve the quality of management because it supports integrated thinking as a managerial approach that is not only focused on financial aspects. Furthermore, it favours the improvement of control mechanisms through the construction of performance measurement systems that better reflect business models.

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Regarding the economic dimension, Churet and Eccles (2014) highlight the absence of a relationship between integrated reporting and financial performance. This result could be linked to the timeframe in which the practice of integrated reporting produces benefits; which is often long term from a financial point of view. Barth et al. (2017) instead demonstrate the positive effects of adopting integrated reporting on the firm's value, expected cash flows and stock liquidity. Lee and Yeo (2016) show that the quality of integrated reporting increases the value of a company and that the positive effects are amplified for complex organizations with high financial needs (that are generally covered by external funding sources). Arguelles et al. (2015) highlight the positive impact of integrated reporting on the market value of equity. García-Sánchez and Noguera-Gámez (2017a) and Zhou et al. (2017) show how integrated reporting implementation can reduce the cost of capital; this positive aspect is attributed to a company's increased ability to make comprehensive forecast analysis with the <IR> framework.

Regarding informational impacts, Bernardi and Stark (2018) highlight that the quality of information can be improved with integrated reporting due to the ability to make more reliable forecasts. Along the same perspective, Knauer and Serafeim (2014) underline the improvement of the level of transparency. García-Sánchez and Noguera-Gámez (2017b) demonstrate the reduction of information discrepancies following the adoption of integrated reporting. The authors link this effect to the mitigation of agency problems, improvements during the decision-making process and the expansion of information communicated to stakeholders. Vitolla and Raimo (2018) highlight the improvement in information flows.

In general, scientific literature has analysed the effects of implementing integrated reporting from an external perspective; contributions on the internal consequences are limited (De Villiers et al., 2016). However, some studies have analysed its impact on decision-making processes, managerial activities and information systems (Abeysekera, 2013; Adams, 2015; Montemari and Chiucchi, 2018). Other literature has looked at the impact of integrated thinking on corporate governance (Dumay and Dai, 2014) and on management control systems (De Villiers et al., 2016; Perego et al., 2016). From this viewpoint, the ability to better understand the process of creating value and to more appropriately structure performance measurement mechanisms through integrated reporting is highlighted (Stubbs and Higgins, 2014; Burke and Clark, 2016; Mio et al., 2016). The identification of the business model is, in fact, the basis of more effective performance measurement systems (Chiucchi et al., 2018). In this respect, the literature highlights the importance of non-financial

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indicators (Beck et al., 2017; Mio et al., 2016) to measure the effects of strategies and capital represented in integrated reporting (Montemari and Chiucchi, 2018). Steyn (2014) highlights the positive effects on the departments of administration, finance and control in terms of improving the quality of resources, skills and competencies.

6.5 Conclusions

The analysis conducted in this work provides managers considering the adoption and implementation of integrated reporting with some practical considerations. First of all, the importance of soft managerial skills such as corporate values and culture must be taken into account. The development of integrated thinking as an innovative strategic and cultural approach to business management can result from integrated reporting. This implies that managers must focus on spreading ethical, moral and entrepreneurial values that foster the creation and development of a sustainability-oriented corporate culture. Formal adoptions are to be avoided in order to prevent managerial behaviours that conflict with integrated management and focus solely on short-term financial results.

Second, in order to encourage the development of a corporate culture with an integrative thinking mindset that can achieve financial management objectives, top management should review the board's composition and favour the inclusion of women, young members and directors with different backgrounds. Diversified skills are often the foundation of integrated management that is not focused on specific aspects and specific interests of stakeholders.

Furthermore, managers should develop technical skills to improve the quality of the report and increase – through specific training courses – integrated management and disclosure capabilities.

Finally, managers should consider benefits deriving from the adoption and implementation of integrated reporting, particularly the positive impacts on financial variables, information quality and on the overall organizational management.

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PART III–

THE AUDITING PROCESS OF THE NON-GAAP METRICS

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CHAPTER 7

THE 'BIG FOUR'S LITERATURE ON THE NON-GAAP ISSUE

AIMINO P.*, ACUNZO G. A. *, VAVASSORI M.* AND ABATE E. *

7.1 Introduction

Although financial statements are essential to any entity's financial reporting, they represent only one of several reports used by entities to communicate decision-useful information to their users and other interested parties. Entities often find that key performance measures beyond the ones reported in the financial statements add value, in particular by enhancing the users' ability to predict future earnings. The user community generally applies alternative performance measures (APMs) actively in their analysis and, as such, APMs are an important aspect of how entities communicate with external parties.

The disclosure of APMs is currently the focus of much debate in Europe. In 2015, the European Securities and Markets Authority (ESMA) published guidelines on APMs, saying it wanted to encourage European issuers to publish transparent, unbiased and comparable information on their financial performance in order to provide users with a comprehensive understanding of their performance. In fact, the European Prospectus Directive, promoting the protection of actual and potential investors, sets out the principle that all information included in a prospectus should be presented in an easily analysable and comprehensible form: ESMA is of the view that where officials of issuers responsible for the prospectus

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* The authors are professionals of the Italian practice of EY. Special thanks go to Mr. Fabrizio Zazzi and Mr. Simone Scettri, who reviewed this work in view of the expertise they have gained over several years of practice. The content of this chapter has been prepared for general informational purposes only and is not intended to be relied upon as accounting, tax, or other professional advice. Please refer to your advisors for specific advice.

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decide to include APMs in a prospectus, this principle of comprehensibility dictates that they should be defined, provided with meaningful labels, and reconciled to financial statements; their relevance and reliability should also be explained. Adherence to the guidelines is expected to improve the comparability, reliability and/or comprehensibility of APMs. The International Organization of Securities Commissions (IOSCO) had previously issued its own guidance in 2014. Regulators want to obtain assurance that companies are not conveying information that could mislead investors, analysts and other important stakeholders. In this respect, regulators in Europe are asking questions to preparers of APMs. While a company must ascertain that its financial statements comply with the generally accepted accounting principles (GAAP) applicable in its own jurisdiction, disclosing APMs is optional and provides greater flexibility on how to tell its own story to the market. Regulators expect entities, with the involvement of their audit committees, to ensure that APMs are reported in a consistent, transparent way and are reconciled to the financial statements.

External auditors do not bear any responsibility for the accuracy of APM reporting, except when APM figures are included in the audited financial statements; however, audit committees and management may consider leveraging the external auditors' skills as a resource when evaluating APMs and address audit committees' concerns related to the broader use of APMs and to increase their trust and confidence in those measures given the perceived importance put on them by users. A description of the type of involvement of the external auditors on APMs is reported in the paragraph "*8.2 A role for the audit committee's and the external auditors*" while a few examples of the procedures that external auditors could perform on APMs are summarized in paragraph "*8.4 Example of procedures related to APMs that external auditors may be engaged to perform*".

Having acknowledged the increasing importance of APMs, the so-called 'Big Four' have analysed the topic based on their experience and background.

Generally, the Big Four concur on the value of APMs in communicating insights on companies' performance; however, there is still the risk of producing unclear or biased information with these measures. Even though, generally, the Big Four note improvements in the use of APMs and acknowledge that, following ESMA and SEC-focused comments, significant steps have been taken by issuers to achieve a more transparent and balanced communication, they recognise that expectations set out by regulators and other stakeholders in term of clarity have not yet been generally met and there is still room for further improvement. APMs do

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not always come across as neutral, comparable and understandable financial measures of performance; moreover they are still, unfortunately, perceived as marketing information aimed at putting a more favourable light on companies' results rather than better conveying information about GAAP results.

The following sections aim to dive deep into the main publications available on this topic and the Big Four's points of view.

7.2 EY

EY has published several contributions that deal with APMs and how companies are responding to regulators' requests and comment letters. The main topics covered by such publications relate to (a) advantages/disadvantages stemming from the use of APMs, and (b) comments issued by regulators on APMs and how users can avoid common pitfalls in disclosed APMs.

Regarding point (a) above, EY suggests[1] that understanding both the advantages and disadvantages in using APM is the key to ascertaining the quality of companies' reporting. Reporting on APMs is important, from a company perspective, because they:

- Offer valuable insight to analysts and investors – together with GAAP measures, APMs can provide a holistic view of the company and lessen the likelihood of share price volatility.
- Highlight key value drivers – APMs are a way for management to highlight the key value drivers within the business that may not be obvious in the financial statements. For example, organic company growth or heightened product demand.
- Provide a useful comparison – analysts and investors can find APMs a useful means to compare and contrast the prospects of different companies within the same sector.
- Set benchmark for corporate reporting – APMs can provide a useful link between financial results and non-financial performance, setting the scene for broader and more relevant integrated reporting.

According to EY, such advantages are, however, tempered by some threats to company communication:

[1] EY Publication "EY Center for Board Matters – The audit committee's role in reporting on alternative performance measures" dated May 2016.

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- Lack of comparability between peers – if the company does not report on APMs like its peers, the work of analysts and investors becomes more difficult, possibly to the detriment of the company's share price.
- Risk of management bias – management may report on measures that lead to favourable results. APM reporting is then being used as a marketing tool rather than as a means of improving transparency.
- Risk of disqualifying the financial statements – if APM reporting is not reconciled to the GAAP reporting, they might contradict each other, rendering the financial statements meaningless.
- Risk of share price volatility – market participants sometimes pay more attention to APMs than to GAAP measures. This increases the risk of share price volatility if management predictions are not met.
- Lack of external verification – since the data is not subject to the statutory audit process, it could be inaccurate and give a misleading impression of the company.

To capitalise on the advantages of reporting on APMs and reduce the perceived effects of the potential drawbacks, companies need to respond to the challenge of consistency over time. If there is a year-on-year variance in terms of which APMs are reported, their usefulness is hindered. There is also the risk of causing alarm among market participants if a performance measure that was previously reported on – for example, order volumes – is suddenly dropped. Market participants may interpret this as being a negative indicator for the company.

In regard to point (b) above, EY acknowledges[2] that enforcers conduct thematic reviews on the reporting of APMs and compliance with relevant guidelines and, even though these reviews generally report that entities have made improvements to their APM practices in recent years, suggested that there is room for further improvement. Further, EY performed an analysis that, moving from the findings of reviews on the use of APMs outside financial statements made by enforcers, provides useful suggestion on how to improve the quality of APMs in financial communication with reference to each required attribute of the APMs:

1. Neutrality. EY underlines that some enforcers have expressed concerns regarding the nature of adjustments made and whether these adjustments facilitate neutrality. EY reports that, for example, in recent

[2] EY Publication "Applying IFRS - Alternative Performance Measures", dated October 2018.

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comments, SEC has objected to the removal of normal cash operating expenses in APMs as well as the exclusion of non-recurring losses combined with inclusion of non-recurring gains. Such practices are reviewed and challenged with respect to the need of ensure unbiased adjustments of performance measures.

On the other hand, EY remarks that the requirement that APMs need to be unbiased does not preclude entities from making adjustments to measures presented in the financial statements. Entities need to distinguish between adjustments to GAAP numbers that present a meaningful alternative measure of an entity's performance and other type of adjustments: for example, adjusting for truly infrequently occurring items may be helpful in assessing recurring income; adjusting for items that do recur, such as impairment losses, may not. In other cases, for other purposes, it may make good sense to focus on earnings measures adjusted for interest expense and tax. Therefore, it is important that entities explain why a measure is useful and for what purpose, and that preparers are mindful to not only adjust for losses but also take into consideration the corresponding positive amounts.

2. **Prominence.** EY notes that enforcers highlighted the existing diversity in the presentation and disclosure of APMs with regard to the issue of prominence. While ESMA reports that prominence was an issue in 10% of the annual reports that were reviewed, the reports from the national enforcers range from no overall concern to issues being identified in one third of the report. Two of the reports highlighted that prominence often remains an issue in narrative parts of financial reports such as the chairperson's statement.

In order to avoid presentation of APMs with undue prominence, EY remarks that entities should consider the order and frequency in which APMs and GAAP measures are presented. The audit firm suggests that one way for entities to deal with the issue of prominence is to consistently present corresponding measures side by side in tables and figures. As mentioned, entities also need to consider the issue of prominence in narrative sections such as the one in press releases. The importance that users often attach to such sections only underpins the requirement to apply the guidelines in such sections as well. A useful technique, however, is to ground discussions in financial statement measures and use APMs to expand/elaborate on the issue at hand.

3. **Comparatives and consistency.** EY reports that ESMA does not comment on comparatives and consistency on an overall European level. On the one hand, two national enforcers report that all entities in their sample provided comparatives. On the other hand, another national

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enforcer reports that 78% of its sample did not. Most of these entities, however, provided comparatives in the section containing APM-related disclosures. Only one national enforcer comments on the issue of consistency, noting no changes in APMs used by the surveyed entities. This enforcer notes, however, that some entities have made changes to the labels used, suggesting that it would be consistent with the spirit of the ESMA guidelines, and helpful for users, if entities also clearly identified and explained such changes.

In regard to this aspect, EY suggests that entities should openly explain changes in the definition of APMs due, for instance, to discrete external events (like a fine-tuning of an APM due to the acceleration of inflation) or to refinement in the definition of how management assess its performance. In addition, EY notes that, although the regulations of certain jurisdictions do not specifically require comparative information to be presented for APMs, substantially all entities present comparative measures.

4. Labels. EY recognises that, while European enforcers report that most issuers generally label APMs appropriately, they also note that they continue to identify instances where this is not the case. Examples include instances where the labels failed to clearly identify whether a measure was an APM rather than an IFRS measure. In its research, EY identified that the UK FRC argues that it may be perceived as misleading to refer to an APM as “reported” unless it is reported in the IFRS financial statements. Furthermore, some European enforcers report that they continue to find APMs where entities refer to adjusting items as “non-recurring”, “one-offs” “non-operating”, or similar, despite these items having occurred in the past or seeming likely to occur in future periods (such comments are often related to, but not limited to, restructuring costs). EY also emphasises that the UK FRC recommends entities use labels that reflect the nature of the adjustment and do not imply that they are unlikely to recur in future periods. In the same vein, ESMA reminds issuers that “items that affected past periods and/or are expected to affect future periods can rarely be labelled or presented as non-recurring items such as most of the restructurings costs or impairment losses”.

On the basis of these comments, EY highlights that some entities choose to communicate the decision to no longer label certain items as “one-off”. Nonetheless, the concept of “adjustments”/“adjusted” measures is used as an alternative by some entities to refer specifically to the type of items for which they are adjusted (e.g. label an APM as “excluding restructuring charges” if the measures is adjusted for restructuring charges). EY suggests that, even if the APM is appropriately defined, there

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is a risk that the APM will be misinterpreted and incorrectly compared to APMs reported by other entities with the same label.

5. Definitions. EY comments that while the ESMA acknowledged that most issuers provide definitions of all APMs used, other European enforcers reported that entities did not provide definitions for all of the APMs used in their report. Missing definitions relate to various APMs, suggesting no apparent reason why some APMs are not defined (in some cases, however, an inconsistent use of labels may be an underlying explanation, being a definition only provided for one of the labels used). One enforcer noted that the lack of definitions may, in some cases, stem from entities not considering a measure to be an APM, i.e. the scope of the guidelines might not be clear to all. In addition, EY notes the concern that the definition of an APM may include components that are not defined on their own.

In this case, EY reminds that in a Q&A pertaining to organic growth, ESMA explained that "to the extent that any components presented are not defined or specified in the applicable financial reporting framework, the issuer shall also explain their nature and provide the definition of each item"[3]. Therefore, in the context of organic growth, one common component in need of a definition is currency effects. Without a clear definition, including the identification of adjusting elements, APMs may mislead the users of the financial statements. The risk of misleading users escalates if no or misleading definitions are combined with vague or misleading labelling.

6. Reconciliations. EY notes that European enforcers report that all or most entities provide reconciliations, but not always for all APMs. ESMA reports that 20% of the European sample entities did not provide reconciliations for all APMs; corresponding percentages observed in other reports appear to be higher.

Having reported that preparers have expressed concerns about providing reconciliations for all APMs on a recurring basis, as this may "overload" the financial reports, EY observes that by providing the disclosures in one location, this concern is less relevant. Therefore, a practice observed in some jurisdictions is to provide a reconciliation by presenting, alongside the definition, the numerical calculation.

7. Explanations. EY observes that the ESMA did not separately comment on the existence of explanations for the use of APMs. The Norwegian enforcer noted that explanations were missing in 45% of the sample, while the UK FRC identified explanations in all but one of the

[3] Questions and answers on ESMA Guidelines on APMs (ESMA32-51-479) [December 2016 and updated October 2017].

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reviewed reports. In addition, the Swedish enforcer noted "an increased use of boiler plate language, where issuers use an introductory paragraph to the list of definitions" intended to cover all APMs. The explanations are often phrased in terms of providing enhanced or additional insights into the financial development of the reporting entity or providing comparability between reporting periods and segments. Therefore, in the Swedish enforcer's view, it is questionable whether the requirements of the ESMA guidelines are met in many cases. Alongside high-level explanations of the use of APMs, many entities also present a "health warning", alerting users to the fact that the APMs are non-GAAP measures and are unlikely to be comparable to APMs used by other entities. Furthermore, EY reports that recent SEC comment letters to Foreign Private Issuers suggest that the lack of disclosures describing the usefulness of APMs compared to IFRS measures is a major concern of the SEC. For instance, a common performance measure is earnings before interest, taxes, depreciation, and amortisation (EBITDA) and the explanations provided for excluding the effect of depreciation and amortisation include that it is a common measure (comparability) and that it approximates the underlying operating cash flows. When entities provide the latter explanation, they are in effect comparing a performance measure with a liquidity measure and the US SEC's guidelines explicitly distinguish between the two.

EY observes that some entities use a number of APMs, sometimes more than 20, and in such cases management should carefully consider the reason for their use. It may be that one or more APMs are perceived as redundant and this may sometimes become evident when management is drafting the explanatory disclosures. If issuers cannot explain how an APM is useful for investors or other users of the financial report, then management needs to reconsider its use.

8. Location. EY states that, based on enforcers' reports on the location of APM-related disclosure, practices appear to be mixed, with some entities providing the information before and some after the financial statements. A large minority also provide APM-related disclosures in the financial statements.

EY acknowledges that providing transparent and clear definitions, reconciliations and explanations of APMs entails significant additional disclosures, and the amount of information increases with both the number and complexity of the APMs. Providing the information in an efficient and useful manner can be challenging. Users of financial reports may find it helpful to find definitions, explanations and reconciliations presented in the context where the APM is used but full APM disclosures may disrupt

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the flow of the overall narrative. While this would suggest relocating some disclosures, users may also find it useful if all APM-related disclosures are collated in one place. EY confirms that although many variations may be observed, most financial reports include a separate section with all, or most of the APM-related disclosures. This section typically includes, at a minimum, definitions, explanations and, sometimes, reconciliations. Otherwise, reconciliations may be found in management commentary sections and in the notes to the financial statements, often the note with segment-related information. Some entities provide reconciliations in a separate document published on the website.

In summary, while acknowledging that APMs may enhance financial communication, EY notes that the wide range of different APMs underlines the need for transparency in what they represent and the messages they are intended to convey. Therefore, for APMs to be useful, entities need to critically assess the purpose of disclosing them and clearly articulate the message conveyed by an APM in the communication in which it is reported.

7.3 Deloitte

Deloitte contributions focused on how APMs can be helpful, and in some cases essential, to investors and how companies, standard setters and regulators can help ensure that APMs enhance rather than detract from high-quality annual reports.

In this regard, Deloitte's preliminary notes[4] state that discussions of APMs are not always positive because of a general presumption that management report APMs to present their entity in a more favourable light than the GAAP information might convey. This perception is not completely fair and there are several reasons why entities present non-GAAP financial measures.

Deloitte notes that the most common APMs that attract attention are those that adjust for the effects of some activities to convey a core or underlying profit, and it suggests a parallel with economists when assessing inflation. Economists refer to “headline inflation”, “core inflation” or both. Headline inflation is a raw inflation number that captures total inflation whereas core inflation excludes items that are subject to sudden and temporary price fluctuations. Core inflation is a proxy for underlying inflation. It is used as the basis for some policy decisions or for

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[4] Deloitte publications “Thinking allowed – Non-GAAP and Alternative Performance Measures”, dated February 2017 and “IFRS in focus – A practical guide: Alternative Performance Measures”, dated July 2016

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determining inflation adjustments. Of course, if you are a consumer, you are affected by headline inflation. You do care about one-off changes in prices but you might also be relieved that they are less likely to be sustained changes. This audit firm suggests that the idea of disaggregating financial performance to help investors understand the different aspects of an entity's performance seems sensible, and it evidences that separating items such as those identified in IAS 1 (restructuring, gains or losses on disposal of assets, impairments and reversals and litigation settlements) can provide incremental information to help investors.

Deloitte comments that some disclosures observed in IFRS financial statements are a legacy of the GAAP that IFRS replaced, giving as an example net debt, which many UK and French-registered companies applying IFRS disclose presumably because they reported it when they applied their local GAAP. Furthermore, Deloitte suggests that some GAAP requirements are not fully developed for some sectors: for example, the IFRS requirements for insurance contracts and for the exploration and evaluation of mineral resources essentially allow entities to continue to apply their legacy GAAP for these activities, with some constraints. As the nature of risks and opportunities facing corporations change over time, many of the assets companies invest in are intangible rather than the physical assets that property, plant and equipment accounting standards were developed to address; hence, some information about intangible assets and risks and opportunities may generally best be captured by presenting supplementary measures. Even though from the Deloitte perspective many pieces of information could be non-financial, such as occupancy rates of leased properties, known reserves in extractive industries and handset churn rates, some measures use financial information in their calculations and this can become a concern to regulators if the financial data has been adjusted away from GAAP. In addition, Deloitte reminds that before the IASB amended IAS 41 Agriculture, several entities with agricultural activities adjusted earnings for the effect of the fair value measurements required by IAS 41 and the accompanying commentary made it clear that this is because they did not agree with the IFRS requirements. These situations can be a particular concern to regulators because APMs are then perceived as being biased or misleading.

The APM that probably attracts the most negative attention is core or underlying earnings. Even though Deloitte does not say unreservedly that all entities that present adjusted earnings numbers are trying to present what is core to them, it is reported that this is a reasonable assumption. These adjusted earnings measures are widely perceived to be biased due to the perception that APMs only ever adjust out expenses or losses while

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there are several surveys and reports that shows that non-GAAP profit is higher than GAAP profit. However, the appropriate question to ask, from Deloitte's perspective, is what one would expect the average adjustment to be. The likelihood of unanticipated negative outcomes is likely to outweigh the opportunity for positive outcomes: IAS 1.98 lists examples of activities that the IASB expects to lead to disaggregation from profit or loss, and they are more likely to be negative than positive. None of the research that Deloitte examined assessed the reported adjustments against expectations or whether there is bias within particular events, such as stripping out losses but not gains on disposal of property, plant and equipment, or reporting only increases in provisions but not decreases. The problem is not that all companies only ever adjust for bad news. The problem is that, although it is difficult to observe directly, some companies probably do only adjust for bad news and give that adjusted measure more prominence than the GAAP profit.

Deloitte's view on the future of APMS is that if the standard setters get it right, it will make the task of the regulators much easier: the IFRS, and US GAAP, requirements for how the performance statement must be structured are now limited. In IAS 1 there is an almost complete lack of guidance about how to structure the sections of an income statement between revenue and profit before tax. The performance-reporting projects the IASB and FASB are undertaking will be particularly important. Giving the income statement more structure, without undermining the ability of an entity to tell its story, could reduce the need for entities to report APMs.

7.4 KPMG

KPMG published some contributions to highlight the upsides and downsides of using APMs to enhance transparency in company communications. KPMG starts its assessment by considering that GAAP rarely tells the whole story of a company's performance[5]. To bridge the gap, companies and investors communicate through APMs alongside the GAAP numbers. The issue to be determined is when do APMs enhance GAAP by aiding communication with users, and when do they present a confusing or overly optimistic picture. Notwithstanding the varied regulatory approaches resulting in inconsistent requirements, KPMG remarks that a consensus now seems to be building globally. IOSCO, the international association of regulators, has issued a statement on APMs[6],

[5] KPMG publication "Non-GAAP measures – moving toward global transparency" dated June 2016.
[6] IOSCO Statement on Non-GAAP Financial Measures dated June 2016.

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which brings its approach further in line with the guidelines issued by ESMA, the European regulator, in terms of the scope and presentation of APMs, and such general alignment can be seen as a positive step towards global harmonisation. Furthermore, KPMG underlines that IOSCO's statement and ESMA's guidelines are broadly similar to the requirements on the presentation of subtotals introduced by the recent Disclosure Initiative –Amendments to IAS 1. As such, consistent disclosure principles will apply to APMs whether they are presented within or outside financial statements. In KPMG's view, further actions are needed from all stakeholders however:

- Investors should continue to contribute to the evolution of best practice: helping preparers, standard setters and regulators to understand and better address their needs; commenting on evolving practice and what more is needed.
- Preparers should focus on more effective communications with users by providing APMs that are clearly defined and presented in an unbiased and transparent way.
- National regulators might consider how their own guidance is impacted by the global guidelines.
- Executives and audit committees might ask whether APMs are subject to sufficiently robust systems and processes.
- Industry bodies could step up and deliver sector-specific definitions of key metrics to enhance consistency and comparability.
- Standard setters could consider how GAAP itself could change to deliver information that addresses investor demands, and provide information that is reliable and relevant. To this end, the IASB is working on a research project on Primary Financial Statements, focusing on the structure and content of the statement of profit or loss and OCI, including the possible requirements for a defined subtotal for operating profit and the use of APMs.

In addition, KPMG published a study on the way companies report APMs in the Swiss Leader Index (SLI)[7] because the SIX Swiss Exchange (SIX) recognized divergence on APM implementation and it consequently issued a directive on APMs, which has been aligned with the existing international regulations (primarily with ESMA and IOSCO). According to KPMG, the positive view on APMs is primarily driven by their additional and potentially valuable information content while their

[7] KPMG publication "Bridge the gaps: How to improve reporting Alternative Performance Measures".

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widespread use should be seen in a historic context. For instance, the revision of IAS 1 and IAS 8 in 2003 banished the use of extraordinary line items and made it impossible for companies to separately disclose certain one-off costs and communicate this accordingly to investors. This created a desire to report APMs. Another reason was the increased need for clarification of matters in times of market turbulence, which were hard to communicate with GAAP measures. GAAP measures were (and are) deemed to be rather inflexible. According to a study by the CFA Institute, many analysts welcome APMs as a helpful source to achieve a better understanding of the business models and the long-term economic performance of a company. Thus, they provide additional information for the forecasting of future cash flows and, in turn, the assumed company value. Despite the positive perception of the use of APMs, the resulting risks are repeatedly discussed controversially and, according to KPMG, the most obvious criticisms are specifically painting the company's performance as rosier than it is and the unclear origin of figures, communication and lack of comparability.

In fact, the KPMG study highlights that APMs are primarily used to improve results and this gives rise to the impression that costs are more likely to be adjusted than income in order to embellish the company's overall performance. This raises questions as to where the boundaries of the use of APMs need to be set regarding the eliminations. For instance, how to differentiate between actual one-off costs and expenses that are strategically motivated? For example, restructuring costs are often recurring operational costs caused by changing market environments, technological changes or intended efficiency gains. In such cases, an adjustment as a one-off cost would not adequately reflect the financial performance. The same is true for M&A-intensive companies, which label cost components related to acquisitions as one-off costs. Financial analysts and investors often question the legitimacy of such adjustments.

Secondly, a further criticism relates to the communication of APMs. The adjustments to performance figures should enable a long-term forecast as well as a comparison with industry peers. However, because of the frequent lack of transparency in the adjustments, this often becomes time consuming at best, if not impossible. Difficulty arises particularly regarding the composition of adjustments. Companies may sum up various items in just one adjustment position. This makes it hard to establish comparability across time and peers.

Finally, KPMG suggests that serious changes are coming in regard to communication for 2018 and 2019: Due to the revision of the standards on revenue recognition, financial instruments and leasing, IFRS and US

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GAAP users will have to make numerous adjustments to their financial statements. For many, it will be a significant challenge to be able to demonstrate the impact in a transparent and understandable manner. In any case, the sheer amount of information is increasing even more due to additional disclosure requirements. There is a risk that significant information is watered down accordingly. These are good reasons to give the future content of financial reports some serious thought. A good example of initiatives aiming to offer a solution for these issues is the Disclosure Initiative of the IASB, which may result in the reorientation and trimming of financial reports. Looking at it from a holistic view, integrated reporting is becoming more important and may offer an important impetus to start linking and organising all of the annual report’s content. A more transparent and understandable presentation of the business model and the strategic orientation may also be conducive for the comprehensibility of APMs.

7.5 PwC

PwC contributions focused on a description of APMs in practices[8] and show that APMs are widespread and companies use many different descriptions for them. While most companies try to explain APMs and reconcile these to GAAP measures, this reconciliation is not always easy to find. It is evident from PwC surveys that investors find APMs useful but call for more transparency over the information disclosed in the annual report. In addition, PwC, having performed a review of all of the FTSE 100 with year-ends from April 1, 2014 to March 31, 2015, analysed how widely APMs are used and what is being adjusted by companies. They report that:

- 95% of the FTSE 100 adjust their GAAP profit numbers.
- Adjustments almost always have a favourable impact on profit.
- Companies commonly adjust for acquired intangibles amortisation; asset impairment; interest, depreciation, amortization and tax.
- Descriptions of reconciling items are often too broad to understand what they relate to.
- Inconsistent approach to where and how reconciliations are presented.

With regards to the placement of the reconciliation, PwC noted that while 98% of the companies provided a reconciliation of the APM to GAAP, there was no consistency in where they were reported, and indeed

[8] PwC publication “An alternative picture of performance” dated January 2016.

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in some circumstances they were reported in more than one place (front half, face of the primary statements, notes to the financial statements, other sections). PwC commented that this is not a problem unless, as was the case with a few companies, there was little signposting to where the reconciliation could be found.

PwC also expects increasing regulatory scrutiny over the use and disclosure of APMs and that the ESMA Guidance will significantly impact the disclosures on APMs.

7.6 Other Firms

Among other firms, Mazars focused its effort[9] on executing a benchmark analysis on issuers belonging to the Eurostoxx 50, a sample of 20 issuers belonging to the Eurostoxx 200 and the large UK issuers present in the STOXX Europe 50 index. The analysis was conducted by Mazars on financial statements and press releases illustrating results for 2016 and dividing the population of entities into four segments: Industrial (66 entities); Banking (13 entities); Insurance (4 entities); and Real Estate (3 entities). Mazars highlighted the following keys findings in its research.

- Industrial. The non-adjusted APMs are, according to Mazars, usually quite compliant with ESMA's guidelines. As regards reconciliations for large industrials, reconciliations are always provided in the report but not always in press releases and investor presentations. Regarding small and mid-cap industrials, it was noted that only 80% of them provide reconciliation in their report.
- Banking. The overall definitions of APMs are presented and the disclosure provided is satisfactory, in Mazars' view, and many APMs are regulatorily defined. This reduces the need for detailed illustration and helps comparability. Nevertheless, they noted that different labels, such as "transitional" or "phased-in" regulatory ratios, are used to define the same indicator.
- Insurance. The comparatives for key APMs are generally presented based on Mazars' analysis. In terms of changes introduced to enhance the compliance with ESMA guidelines, Mazars observes that, three entities of the four examined had adjusted their reporting and one entity declared that specific amendments to the disclosures were made following ESMA guidance.

[9] Mazars publication "The use of Alternative Performance Measures in financial information current practice of European listed companies" dated June 2018.

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- Real estate. Even though none of the companies state compliance with ESMA’s guidelines, Mazars’ assessment notes that: (i) European Public Real Estate Association (EPRA) measures are clearly given with more prominence than IFRS measures as the latter are usually located in the appendices of the press release and investor presentation or of the financial statements, and EPRA measures are not presented together with the most reconcilable IFRS measures; (ii) only a general explanation of the use of EPRA measures is provided to cover all of the EPRA measures; (iii) all EPRA measures are presented in compliance with EPRA’s recommendations: comparatives are provided, as well as reconciliations to IFRS for those measures that are reconcilable. Calculations are generally provided and, if not, at least an explanation of the calculation is provided in the glossary.

Finally, it should be noted that Mazars remarks that (i) none of the entities comment on OCI in their management commentary, press release or presentation to the analysts and (ii) no APMs were presented with reference to components of OCI in the documents analysed.

7.7 Conclusion

Having completed the in-depth analysis of the publications available on this topic, it is worth attempting to summarize the main messages perceived across the Big Four’s publications on the topic.

The Big Four generally perceived that APMs are a powerful means of communication to users and there is widespread support for standard setters’ course of action in order to have more precise definitions of a few performance measures that could be included in the financial statements; however, there is still some reluctance to rely on them in all circumstances.

The next section explores how the external auditors could contribute to enhancing users’ confidence in APMs and how the IASB is considering this in its work plan.

What seems clear is that tackling all the concerns reported above in order to enhance entity communication would impair the relevance of financial communication.

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CHAPTER 8

INTERNAL CONTROLS PROCEDURES AND EXTERNAL AUDITOR INVOLVEMENT IN PRESENCE OF NON-GAAP MEASURES

AIMINO P.*, ACUNZO G. A.*, VAVASSORI M.* AND ABATE E.*

8.1 Introduction

SEC rules prohibit the presentation of non-GAAP measures in audited financial statements in which the auditor provides assurance. However, they are often included in other parts of annual and quarterly reports or filings, such as in management's discussion and analysis. European regulation does not set such a bright-line distinction. Nonetheless, APMs are generally also included in management reports and not in financial statements, the former not governed by IFRS or other GAAP. International Standard on Auditing (ISA) and Public Company Accounting Oversight Board (PCAOB) standards require auditors to read and consider other information included in documents that contain annual or interim financial statements. These standards refer to this additional information as "other information." According to current ISA and PCAOB standards, the auditor is required to read the other information for material inconsistency with the financial statements but is not required to perform any other procedures in situations where no inconsistencies are identified. Information about APMs is also presented in other sources of information (e.g. press releases,

* The authors are professionals of the Italian practice of EY. Special thanks go to Mr. Fabrizio Zazzi and Mr. Simone Scettri, who reviewed this work in view of the expertise they have accumulated over several years on the field. The content of this chapter has been prepared for general informational purposes only and is not intended to be relied upon as accounting, tax, or other professional advice. Please refer to your advisors for specific advice.

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earnings presentations) that are not filed under the SEC's guidance, and the auditor has no responsibility in this case. The auditor's role with company performance measures, including non-GAAP measures, under current PCAOB standards was a topic of conversation at the PCAOB's Standing Advisory Group (SAG) meeting in May 2016[1], but the same concern applies to auditors' roles under the current ISA. This discussion highlighted that some users may be under a misconception about the level of auditor involvement in non-GAAP measures.

8.2 A role for the audit committees and the external auditors

Auditors may perform specific procedures on non-GAAP measures[2] when the directors, the audit committees or other members of the management require them to do so. It appears that more and more companies are prioritising information outside of the financial statements in their communications with investors and other market participants. Some are emphasizing non-GAAP performance measures and other metrics either through press releases or in management's discussion and analysis. Others are highlighting changes in the number of new customers, new subscribers, same-store sales, or even "normalized" earnings. In addition, many companies may be making tailored adjustments to their GAAP financial measures. Some in the industry have termed this trend "earnings before bad stuff." By some indications, such as analyst coverage and press commentary, non-GAAP measures are used extensively and, in some instances, may be a source of confusion[3]. Recent articles report a growing difference between companies' advertized financial measures and what has been reported as performance measures under generally accepted accounting principles. A recent news article reported that companies in the S&P 500 had advertized earnings that were 25% higher than their earnings reported under generally accepted accounting principles[4]. The question is whether these supplemental measures and metrics are driving investment

[1] PCAOB Standing Advisory Group Meeting held on May 18-19, 2016: https://pcaobus.org/News/Events/Pages/SAG-meeting-May-2016.aspx.

[2] The Center for Audit Quality "Questions on Non-GAAP Measures. A tool for Audit Committees".

[3] Mary Jo White "Keynote Address at the 2015 AICPA National Conference: Maintaining High-Quality, Reliable Financial Reporting: A Shared and Weighty Responsibility", December 9, 2015.

[4] Justin LaHart, S&P 500 Earnings: Far Worse than Advertised, WALL ST J., February 24, 2016.

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decisions. They might be. One company recently disclosed an error in its previously advertized measure concerning growth in new customers. In response to an announcement that its growth from new customers was overstated, its stock price declined by 7 per cent. It appears that in this case investors were relying on this metric. This is a trend that needs to be considered. Clearly, the financial reporting model is evolving to accommodate the reporting of other measures and metrics that may be informative to investors. How is it affecting the auditor's role? How is the auditor's role evolving?[5]

While terms of reference vary by jurisdiction, it is typically the audit committee's responsibility to oversee a company's financial reporting process, which could include reporting on APMs. Therefore, it is recommended that audit committees question management on its selection of the reported APMs and their significance. The audit committee would then request assurance from management that the company has the right internal controls in place to ensure accurate and meaningful reporting. The audit committee can take several steps to make APM reporting effective[6], such as:

- Ask to see reconciliation schedules – to be effective, APM reporting should be aligned with GAAP reporting. The audit committee should ask management for reconciliation schedules that align the two.
- See that the company communicates clearly and regularly – audit committees should assess how the company communicates its decisions about APM reporting. For example, if the company wants to start or stop reporting on a specific APM, it should explain the reasons for this decision in order to avoid unsettling market participants. Furthermore, the regularity of APM reporting is important. If a company produces statutory financial information on a quarterly basis, it should also report on its APMs using the same time frame. While communication is important, regulators do not expect companies to make an increased volume of disclosures as a result of their APM reporting. The relevance of the disclosures continues to be more important.

[5] Kara M. Stein, Commissioner, SEC, Statement on the Commission's Consideration of the Public Company Accounting Oversight Board's Proposed 2016 Budget and Accounting Support Fee (Mar. 14, 2016).
[6] EY Publication "EY Center for Board Matters – The audit committee's role in reporting on alternative performance measures" dated May 2016.

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- Challenge the company's interaction with the press – audit committees should ask to see any proposed press releases associated with the company's financial or non-financial reporting. They should ensure that APMs are not given precedence over GAAP measures in any published information. Finally, they should review the press coverage of the company's reporting to check that journalists are not focusing on the company's APMs at the expense of its GAAP performance.

In this regard, during the 2018 AICPA Conference, SEC said that using non-GAAP financial measures can help management tell its story and encouraged companies to provide transparent and robust disclosures about why the measures are useful to investors. SEC also addressed how to evaluate whether non-GAAP financial measures involve individually tailored accounting principles that may be inappropriate under Regulation G[7]. Moreover, it emphasized the importance of having disclosure controls and procedures to make sure non-GAAP disclosures are not misleading[8].

External auditors do not bear any responsibility for the accuracy of APM reporting, except when APM figures are included in the audited financial statements. If APMs are included in the financial statements, although the GAAPs do not provide any guidance on how they have to be calculated and disclosed, they are covered by the auditors' audit opinion and therefore the external auditors should address the risk of being associated with such metrics and perform procedures to confirm their accuracy and fair presentation. However, if APMs are not included in the financial statements, auditors must anyway read the management report as well as any additional communications to shareholders in order to provide assurance on their consistency with the figures in the GAAP statements. In addition, even though external auditors do not audit APMs as part of the financial statement or internal control over financial reporting (ICFR) audits[9], audit committees and management may consider leveraging the

[7] As directed by the Sarbanes-Oxley Act of 2002, SEC adopted a new disclosure regulation, Regulation G, which requires that public companies disclosing or releasing such non-GAAP financial measures include, in that disclosure or release, a presentation of the most directly comparable GAAP financial measure and a reconciliation of the disclosed non-GAAP financial measure to the most directly comparable GAAP financial measure.

[8] EY Publication "2018 AICPA Conference on Current SEC and PCAOB Developments" dated December 16, 2018.

[9] The Sarbanes-Oxley Act of 2002 expanded requirements for all US public company boards, management and public accounting firms, mandating a set of internal procedures designed to ensure accurate financial disclosure and requiring

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external auditors as a resource when evaluating APMs[10]. Separate from the financial statement and ICFR audits, external auditors may be engaged to perform certain procedures related to APMs. Although the procedures the external auditor can perform for APMs are limited, they could include testing certain controls related to the preparation and disclosure of APMs in accordance with the company's policies, and reporting results to the audit committee: in this way, external auditors may be able to address audit committees' concerns related to APMs and increase their trust and confidence in those measures.

Further, in October 2017 the Investor Advisory Group (IAG) actually made the recommendation, with SEC chair Mary Jo White in the room, that non-GAAP metrics should be audited. We know why the auditors will never agree to that, at least not as part of the standard audit report. They won't get paid extra for it and they will incur additional liability. Even non-accountants know that doesn't add up. The IAG recommended two possible solutions[11]:

- Require disclosure and presentation of APMs in financial statements, which puts them under the auditors' responsibility. That would ensure they are consistently calculated and audited. Unfortunately, there are significant concerns about who would enforce this and whether this could ever be achieved; or
- the PCAOB/SEC could mandate inclusion of non-GAAP metrics in supplementary information and make them subject to AS 17, Auditing Supplementary Information Accompanying Audited Financial Statements.

8.3 Design and implement process for APM disclosure

Identifying APMs is a complex exercise where directors have to consider a myriad of facts and circumstances. Considering what was stated

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external auditors to issue an opinion on whether effective internal control over financial reporting was maintained in all material respects by management. This circumstance focused attention of US practices on internal controls matters, including those on APMs. However, conclusions and proposals developed with reference to US public companies can be relevant and appropriate also for other markets and contexts.

[10] The Center for Audit Quality "Non-GAAP measures – A roadmap for audit committees" dated March 2018.

[11] PCAOB Investor Advisory Group Meeting held on October 24, 2017, https://pcaobus.org/News/Events/Pages/2017-IAG-meeting.aspx.

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in the previous section, ensuring a robust process to produce this information is core.

At first glance, directors need to identify what their communication needs are. A method suggested by EY[12] is to use a twofold approach:

- Bottom-up approach: APMs should normally be consistent with internal performance measures used by management, which are based on the specific circumstances of an entity (e.g. its value chain, success factors, served market, type of clients). If a performance measure provides relevant information, it should be selected as a possible candidate for inclusion in the financial communication as an APM where GAAP measures do not convey the same information. The bottom-up approach is normally not sufficient on its own to identify a performance measure as an APM for external communication.
- Top-down approach: in assessing whether all candidates for APMs identified are sufficient and useful to users, an entity should interact with its analysts and investors and should be aware of any industry specific practices. This could be achieved by a review (perhaps via a survey) of what competitors are doing in the market or benchmarking peers or competitors.

This twofold approach has the merit of identifying what is useful internally and externally. However, it still does not answer the question of the appropriateness of using an APM in financial communication. APMs still need to be assessed in terms of consistency and compliance with the guidelines issued by the regulators. Entities may prepare a fit-gap analysis in terms of consistency with the regulated framework and best practices. In particular, the gap analysis should consider the applicable guidelines in order to ensure that the identified APMs:

- May be disclosed.
- Comply with existing requirements.
- Would not be better placed in other areas of the financial report (e.g. segment note in the financial statements).

Finally, the issuer should define an action plan to align all identified gaps. Only after passing these "gates" should directors use a performance measure as an APM. As part of its action plan, an issuer should design and

[12] EY Publication "Applying IFRS – Alternative Performance Measures", dated October 2018.

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implement the process to produce, on a timely basis, its identified APMs. Such a process is usually included in the financial statement closing process, which should be updated to include the following:

- Policies and procedures: internal policies must clearly identify the definition of APMs and the methodology to be used to calculate them. Also, policies should define the items to which selected APMs should be reconciled. The issuer should clearly identify those individuals in charge of the process and define specific tasks in the closing process, along with a timetable for their preparation.
- Reporting system: APM calculation and reconciliation must be supported by a proper reporting system, e.g. the system implemented for GAAP financial reporting purposes. An extensive use of spreadsheets and unstructured reporting systems typically prevent straightforward reconciliation, more frequently lead to mistakes, and make auditing the APMs, if applicable, more difficult, delaying the entire disclosure process. Data should be stored in a reporting system that allows the calculation to be reperformed or back-traced from the APM indicators to the source data.
- Internal control: since the APMs are part of the financial information, the internal control system must be updated; regulators are suggesting that entities evaluate whether their disclosure controls and procedures are robust to ensure the APMs are prepared consistently over periods, the measures are accurately calculated and transparent, and that the measures are adequately reviewed and monitored.

In this regard, it should be understood whether controls over APMs are related to disclosure controls and procedures (DCPs), internal control over financial reporting (ICFR), or both. ICFR, which is defined in both SEC and PCAOB rules, focuses on controls related to the “reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles”. DCPs, on the other hand, are more broadly defined and pertain to all information required to be disclosed by the company. Because the starting point for an APM is a GAAP measure, ICFR would be relevant to consider the point at which the GAAP measure that forms the basis of the APM measure has been determined. However, regarding controls over the adjustments to the GAAP measure and the related calculation of the APMs – including the oversight and monitoring of the APMs – it is reasonable to include such controls within the DCPs. In addition, a preliminary

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assessment of APMs based on data embedded in their calculation (audited or reviewed financial data, or other information) can facilitate the identification of necessary new controls overflows or data not otherwise required for the preparation of financial statements (but required for the use of APMs).

Further, several discussions between actors involved in the preparation of APMs highlighted some leading practices that several companies have set up to support the presentation of high-quality APMs (that is, those that represent a balanced view of the company's performance)[13]:

- Disclosure controls: there is a general consensus that APMs should be subject to robust disclosure controls. Establishing disclosure controls specific to APMs could enable companies to mitigate risks and support sound decision-making about their reporting. The disclosure controls should be documented and robust enough to facilitate testing of the controls.
- Non-GAAP policies: companies usually have established policies that provide a set of guidelines to follow when preparing and presenting APMs. These policies can help in making decisions on the treatment of new transactions or events within APMs measures that the company presents. Also, having policies in place can help promote consistency in the measures that are presented and the way they are calculated.
- Audit committee disclosure: given the current regulatory environment and the fact that APMs are important to investors and central to their decision-making, there could be benefits to an audit committee voluntarily disclosing that the company has APMs policies (but not necessarily the relevant details of those policies). Such disclosure could demonstrate to investors the importance of this information to the audit committee and that policies are in place to support the metrics being consistent, transparent and comparable.

Due to the significance of APMs in financial reporting and financial communications, issuers usually understand the importance of a reliable process; improper selection, presentation or computation of APMs can trigger comments from regulators or unclear communication with stakeholders. To achieve a proper process, issuers need to design robust controls to ensure:

[13] The Center for Audit Quality "Non-GAAP measures – A roadmap for audit committees" dated March 2018.

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i. The completeness and accuracy of data sourced from the issuer's databases.
ii. The appropriateness of the extractions used.
iii. The appropriateness of categorization and computations made during the production of the APMs.
iv. The accuracy and presentation of the output.

Some companies may find it helpful to use a disclosure committee to assist the CEO, CFO and audit committee in preparing and overseeing disclosures, including those related to APMs[14]. Disclosure committees are typically management committees, although some companies prefer that the disclosure committee function as a subcommittee of the board and audit committee. Disclosure committees can set parameters for and determine the appropriateness of disclosures related to APMs. In particular, the disclosure committee could review draft earnings releases to provide input and oversight by using the considerations outlined above. As part of its review, the disclosure committee can provide effective governance and play an integral role in the accuracy, completeness, timeliness, and fairness of a company's disclosures.

A regular and timely testing of these controls can confirm their operating effectiveness and, therefore, their sufficiency to address the assessed risks of misstatement. Deficiency or exceptions identified during this monitoring should be carefully considered before the communication of the APMs and they should be investigated in order to improve the reliability of the processes. Lastly, due to changes in industries and markets, entities should implement a regular review, with due emphasis at the top, to confirm the compliance of their APMs with existing guidelines and their ability to meet the needs of users.

8.4 Example of procedures related to APMs that external auditors may be engaged to perform

It has been clarified that, generally, external auditors do not bear any responsibility with respect to APM reporting (except when APM figures are included in the audited financial statements); however, they may be engaged to perform certain procedures related to APMs. In such circumstances the main auditing standards that can become relevant in designing and executing such procedures are the following:

[14] Deloitte publication "Heads up – Controls and non-GAAP measures" dated July 2016.

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- *ISRS 4400 – Engagements to perform agreed-upon procedures regarding financial information.* The objective of an agreed-upon procedures engagement is for the auditor to carry out procedures of an audit nature on which the auditor and the entity and any appropriate third parties have agreed and to report on factual findings. As the auditor simply provides a report of the factual findings of agreed-upon procedures, no assurance is expressed. Instead, users of the report assess for themselves the procedures and findings reported by the auditor and draw their own conclusions. The procedures applied in an engagement to perform agreed-upon procedures may include inquiry and analysis, recomputation, comparison and other clerical accuracy checks, observation, inspection and obtaining confirmations. In this type of engagement, the external auditors do not provide assurance about APMs; however, they execute procedures required by the engaging parties (management and/or audit committee) that will draw their own conclusions from the auditor's work.
- *ISAE 3000 (Revised) – Assurance engagements other than audits or reviews of historical financial information.* The objectives of the external auditors in this kind of assurance engagement are: (a) to obtain either reasonable assurance or limited assurance, as appropriate, about whether the subject matter (like APMs) is free from material misstatement; (b) to express a conclusion regarding the outcome of the measurement or evaluation of the underlying APMs through a written report that conveys either a reasonable assurance or a limited assurance conclusion and describes the basis for the conclusion. In order to establish whether the preconditions for an assurance engagement are present, the auditor shall, on the basis of a preliminary knowledge of the engagement circumstances and discussion with the management and/or audit committee, determine whether: (a) the roles and responsibilities of the appropriate parties are suitable in the circumstances; and (b) the engagement exhibits all of the following characteristics:

  (i) The APMs are appropriate;
  (ii) The criteria that the auditor expects to be applied in the preparation of the APMs are suitable for the engagement circumstances, including that they exhibit the following characteristics:
    a. Relevance: Relevant criteria result in APMs that assist decision-making by the intended users.

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b. Completeness: Criteria are complete when APMs prepared in accordance with them do not omit relevant factors that could reasonably be expected to affect decisions of the intended users made on the basis of that APMs. Complete criteria include, where relevant, benchmarks for presentation and disclosure.
c. Reliability: Reliable criteria allow reasonably consistent measurement or evaluation of the APMs including, where relevant, presentation and disclosure, when used in similar circumstances by different auditors.
d. Neutrality: Neutral criteria result in APMs free from bias as appropriate in the engagement circumstances.
e. Understandability: Understandable criteria result in APMs that can be understood by the intended users.

(iii) The criteria that the auditor expects to be applied in the preparation of the APMs will be available to the intended users;
(iv) The auditor expects to be able to obtain the evidence needed to support the auditor's conclusion;
(v) The auditor's conclusion, in the form appropriate to either a reasonable assurance engagement or a limited assurance engagement, is to be contained in a written report; and
(vi) A rational purpose, including, in the case of a limited assurance engagement, that the auditor expects to be able to obtain a meaningful level of assurance.

The auditor chooses a combination of procedures to obtain reasonable assurance or limited assurance, as appropriate. The procedures that may be used, for example, for planning or performing the engagement, depending on the context in which they are applied by the auditor are inspection, observation, confirmation, recalculation, reperformance, analytical procedures, and inquiry. The auditor may become aware of a matter that indicates that the APMs may be materially misstated. The following examples illustrate when additional procedures may be needed in such cases:

- When performing analytical procedures, the auditor may identify a fluctuation or relationship that is inconsistent with other relevant information or that differs significantly from expected amounts or ratios.
- The auditor may become aware of a potential material misstatement from reviewing external sources.

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- o If the applicable criteria permit a 10% error rate and, based on a particular test, the auditor discovered a 9% error rate, then additional procedures may be needed because the risk of a material misstatement may not be acceptable in the engagement circumstances.
- o If the results of analytical procedures are within expectations but are, nevertheless, close to exceeding the expected value, then additional procedures may be needed because the risk of a material misstatement may not be acceptable in the engagement circumstances.

In this type of engagement, the external auditors provide assurance (reasonable or limited) about APMs and they have the responsibility to design and execute procedures on the basis of their professional judgement. The engaging parties (management and/or audit committee) will receive a dedicated report about APMs that includes a description of, mainly, the procedures executed and the auditor's opinion or conclusion.

- *ISA 720 (Revised) – The auditor's responsibilities relating to other information.*[15] The objectives of the auditor, having read the other information, are: (a) to consider whether there is a material inconsistency between the other information (like APMs) and the financial statements; (b) to consider whether there is a material inconsistency between the other information and the auditor's knowledge obtained in the audit; (c) to respond appropriately when the auditor identifies that such material inconsistencies appear to exist, or when the auditor otherwise becomes aware that other information appears to be materially misstated; and (d) to report in accordance with this ISA. In evaluating the consistency of APMs with the financial

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[15] This auditing standard become relevant following the implementation of the (EU) Directive 2013/34/34, which Article 34 requires "*The statutory auditor(s) or audit firm(s) shall also:*

(a) express an opinion on: (i) whether the management report is consistent with the financial statements for the same financial year, and (ii) whether the management report has been prepared in accordance with the applicable legal requirements;

(b) state whether, in the light of the knowledge and understanding of the undertaking and its environment obtained in the course of the audit, he (she/it) has identified material misstatements in the management report, and shall give an indication of the nature of any such misstatements."

Even though implementation of such directives across the EU can potentially present differences, in the context of audit performed in accordance with International Standard on Auditing (ISA), the relevant professional standard is generally referred to ISA 720 (or its localized version).

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statements, the auditor is not required to compare all amounts or other items in the other information that are intended to be the same as, summarize, or provide greater detail about the amounts or other items in the financial statements, with such amounts or other items in the financial statements[16]. Selecting the amounts or other items to compare is a matter of professional judgement. Factors relevant to this judgement include:

- The significance of the amount or other item in the context in which it is presented, which may affect the importance that users would attach to the amount or other item (for example, a key ratio or amount).
- If quantitative, the relative size of the amount compared with accounts or items in the financial statements or the other information to which they relate.
- The sensitivity of the particular amount or other item in the other information; for example, share-based payments for senior management.

Determining the nature and extent of procedures to be performed in this engagement is a matter of professional judgement, recognising that the auditor's responsibilities under this ISA do not constitute an assurance engagement on the other information or impose an obligation to obtain assurance about the other information. Examples of such procedures include:

- For information that is intended to be the same as information in the financial statements, comparing the information to the financial statements.
- For information intended to convey the same meaning as disclosures in the financial statements, comparing the words used and considering the significance of differences in wording used and whether such differences imply different meanings.
- Obtaining a reconciliation between an amount in the other information and the financial statements from management.
- Comparing items in the reconciliation to the financial statements and the other information.
- Checking whether the calculations within the reconciliation are arithmetically accurate.

[16] This guideline is consistent with those included in "Informativa n. 463" issued by Assirevi (the Italian professional association of auditors) on January 31, 2019.

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In this type of engagement, the external auditors do not provide assurance about APMs; however, they report if a material inconsistency exists between APMs and the financial statements or the auditor's knowledge obtained in the audit.

8.5 Conclusion

Even though, as of today, there is no mandatory responsibility for external auditors for APMs, it appears that regulators and other stakeholders are calling for an increased involvement of auditors as far as APMs are concerned. The importance of such indicators in the companies' storytelling and the level of confidence that investors put on these metrics are pushing the topic into the spotlight and a certain level of "assurance" is emerging as a market need. As of today, this need is generally satisfied by the company implementing procedures and controls over APMs and engaging external auditors to perform certain procedures on them. However, this type of engagement is generally addressed only to meet management or audit committee requests and is not for general purposes. Providing a level of assurance to users of APMs at large is something that would require broader consensus and harmonization on how APMs are computed and presented. This need interacts with standard-setter agendas, like the IASB project "Primary Financial Statements", that could result in clear and generally accepted guidelines and consistent definitions of performance measures, at least in the IFRS Financial Statements.

The Primary Financial Statement project is part of the IASB better communication initiative and was added to the research pipeline with the aim to improve the comparability of financial statements between different entities. In its January and February 2018 meeting, the Board of the IASB (the 'Board') tentatively decided that "*all entities shall identify a measure (or measures) of profit or comprehensive income that, in view of management, better communicates the financial performance of an entity to users*". The tentative view of the Board is that these measures should often be a total or a subtotal as required by paragraph 81A of IAS 1, but sometimes management may identify measures – Management Performance Measures or "MPMs" – that complement the total or subtotal as required by IAS 1. MPMs may or may not be suitable to be presented as totals or subtotals in the statement of financial performance in the primary financial statements and the Board is discussing the introduction of required subtotals in the income statement. The labelling by the Board of defined subtotals would encourage entities to use the titles and the descriptions that the Board uses, hence increasing the overall comparability between

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companies. Furthermore, the labels defined by the Board can no longer be used by management with a different meaning to describe any other indicators defined as today as MPMs. The discussion, for instance, also included the use and the description of the labels EBIT and EBITDA, which are commonly used in the financial market and represent two of the most common alternative performance indicators. The Board will continue its discussion on MPMs and proposed subtotals and it has not yet decided if the output of the project will be an exposure draft or a discussion paper. The actual work plan included the publication of a document for the second half of 2019.

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CHAPTER 9

REGULATION OF NON-GAAP MEASURES: TO WHAT EXTENT SHOULD THEY BE AUDITED?

COLLIN S. Y.*

9.1 Introduction

Corporations must present an annual report, consisting of a financial report, where the report and the data it is based on are strongly regulated. In addition, there is a special corporate governance mechanism, the auditor, that inspects the creation of the information and the reporting to ensure to a certain extent the correctness of the reported information. The regulation is driven and influenced by different interests, such as supporting the investor with relevant information, distributing the wealth of the corporation and making management accountable. The regulated financial report is mostly an account of history, even if the future is presented through judgement of the accruals and 'fair value' in IFRS, containing approximations of market values.

The stakeholders as well as the management of the corporation have, however, the need to get and supply more information beyond the regulated financial reporting. The additional information that is created and distributed from the corporation is less regulated; for example, sustainability and governance reporting and voluntary information such as the CEO letter.

What this paper will pay attention to is a small but important part of the reporting that in most of the world belongs to voluntary reporting. This information is what is termed pro forma reporting, i.e. the financial measurements that are independent of the regulation and are therefore

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termed non-GAAP measurements (NGM). This information appears in annual reports where the regulated financial report is presented but also in other channels of communication such as the corporate home page, quarterly reports and media interviews of managers.

NGM are communicated by the corporation, which indicates that the reporting could be driven by the interest of the corporation and its management to give information to stakeholders. Other drivers of NGM are, however, conceivable, such as path dependency, i.e., that the corporation present what they have always presented, or institutional factors; for example, industry traditions, or a combination of them (Collin, Tagesson, Andersson, Cato & Hansson, 2009).

This paper focuses on the management interest and the two directions it can take: the informational interest and the opportunistic interest (Yutas, Rogers & Dillard, 2002; Black, Christensen, Kiosse & Steffen, 2017). NGM have the opportunity to add and complement the information by GAAP, supplying investors with valuable information. On the other hand, it can also be an instrument for the management to present the corporation in a light that is advantageous for the management. One way of keeping management opportunism in check is to subject the information to an audit, i.e. the opportunistic problem of NGM could be reduced by auditing them.

The aim of this chapter is to explore how the informational opportunities of the NGM can be used while tempering opportunism, with special attention to the question of whether NGM should be subject to the governance activity of audits.

The starting point is the idea that the problem is to adjust information between different parties, which is termed information modulation. Adjustment through modulation could be through governance, where different governance mechanisms influence the information, or through direct consideration of the stakeholders need for information. The aim of information modulation is to discipline opportunism while being able to use the information opportunities. The most obvious solution to the problem of distorted information is to focus on regulation modulation, using regulated information and use the corporate governance mechanisms that monitor regulated corporate information, i.e. the auditor. The auditor can perform their activities on different levels, which makes it possible to ask what kind of audit activities are the most appropriate to achieve the aim of information modulation.

However, auditor activity implies the risk of restricting the relevance of the information by auditor judgement since their judgement is constricted by their professional capacity. There are also some indications

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that auditor activities can be influenced by the NGM, thus running the risk of influencing the audit quality. An alternative to the auditor is to use other corporate mechanisms to regulate the NMG. An even more advanced solution could be to realize that governance mechanisms could be set up to influence the usage of NGM. Finally, at the end of the chapter, it will be claimed that the most promising solution is communicative action supported and stimulated by a specific formal regulation. Thus, the conclusion is that regulative modulation that asks the corporation to engage in conversation with the stakeholders using a language with one strict regulated reference point, GAAP, should stimulate stakeholder modulation.

9.2 The double-edged sword of the NGM, information and opportunism

NGM are situated in the tension between information and manager opportunism. The information interest implies that management want to give or signal information (Gu & Li, 2003; Frankel, McVay & Soliman, 2011; Dainelli, Bini & Giunta, 2013; Bini, Dainelli & Giunta 2017) about the firm that the regulated information cannot supply and will improve the stakeholders' capacity to make a correct judgement about the firm. The informational interest could be both supply-driven, in that the management wants the stakeholder to receive certain information, and demand-driven, in that stakeholders demand the information and management is reacting to the demand. Regulated accounting is burdened by deficiencies that NGM can compensate for (Merchant & Sandino, 2009); for example, disclose information that compensates for the problems of reporting intangibles (Wyatt, A. (2008). Management experiences a need to give additional information that more truly represents the corporation than GAAP. In this context, using the language of agency theory, NGM could be argued to represent the agency costs of bonding; i.e. that management through NGM promotes guidance and accountability towards stakeholders with a stake in the corporation.

Opportunistic interest arises when management use NGM to perform a marketing activity not in the interest of the principals but for management or other non-residual stakeholders, independent of the actual status of the corporation. NGM could be driven by an interest to meet or exceed analyst forecasts (Doyle, Jennings & Soliman, 2013) or when a corporation falls short of GAAP benchmarks (Marques, 2010). More narrowly, interest could be the wealth of the CEO, as indicated by Shiah-Hou & Teng (2016), who found that CEOs sold their shares after disclosure of NGM.

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NGM offer an opportunity for management to overcome the deficiencies of the regulated information and offer information that complements or adds to GAAP information, which will give a more complete image of the corporation. Simultaneously, however, it offers an opportunity to create an image that is more in the interest of management or other stakeholders than the investors. This double-edged sword begs the question of whether it is possible to keep the NGM advantage of free information but at the same time temper opportunistic opportunities.

If markets were perfectly efficient, opportunism would be impossible since the market would put a price on it. But since the best share markets are only semi-efficient, there are possibilities of mispricing due to NGM led by opportunistic interest.

One obvious possibility would be to forbid any information from the corporation that is not GAAP. This would, however, not reduce the problem of mispricing. On the contrary, it would elevate the mispricing due to the low level of presented information. It would put all information burden on reliable information and close the door to less reliable but more relevant information. Young (2014:447) summarizes the problem of NGM as “non-GAAP reporting embodies the perennial trade-off between relevance and reliability.”

A more reasonable solution to the problem of opportunistic information is to focus on other governance mechanisms than the stock market. This includes all mechanisms, from the internal mechanism of auditing to the external mechanism of regulation through rules. We therefore turn to an overall conception of governance.

9.3 Information modulation

There are several disseminators of information about corporations, such as the corporation itself, media, and some outside information producers such as analysts. Most of the qualified information is, however, produced by the corporation, especially through the financial report but also through other reports and voluntary information.

The information is subject to information modulation, i.e. to what extent the information given by the corporation is influenced by and attuned to external demands. We could distinguish between governance and stakeholder modulation. Governance modulation is the influence of different governance mechanisms on the corporate information. One part of governance modulation is regulative modulation, where disclosed information is directed by regulation through accounting standards and

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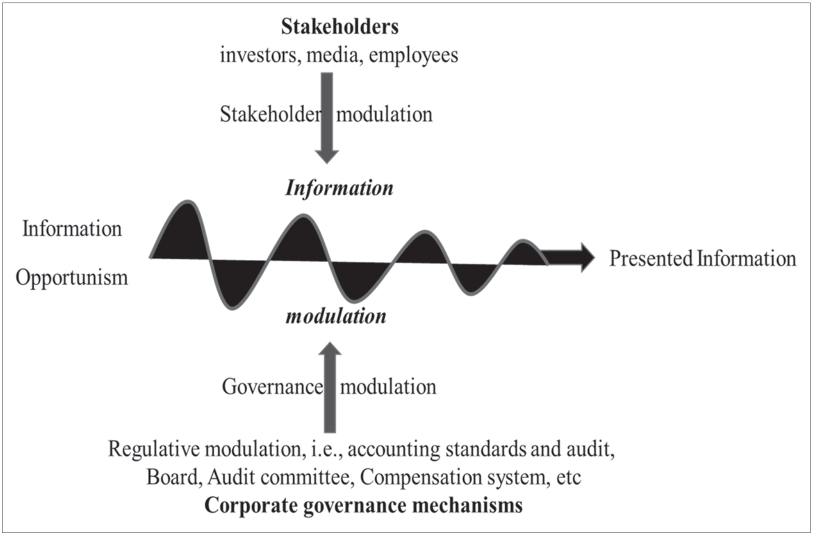
audits. Stakeholder modulation is the extent to which the information disclosed is attuned to the demands of the stakeholders.

Figure 1: Information modulation



Since the establishment of the shareholder orientation hegemony in western economies (Lazonick & O'Sullivan, 2000), beginning in the '70s, the main concern regarding information has been how, and if (Ball & Brown, 1968), it influences the investor, especially investors of equity. This investor orientation is expressed in the conceptual framework of the IFRS: "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" (Conceptual framework of IFRS, OB2).

The main regulative modulation is the regulated information creation through the IFRS. The reliability of the information is inspected, i.e. audited by auditors. Since NGM, according to definition, deviate from the regulated information, one could suggest that they should be subject to audit as both information activities of the corporation would then be subject to the same reliability test.

Regulative modulation through auditing can, however, be performed in different ways since an audit is a specific regulated activity but auditor

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activities are not. Auditor activities can include both the formally regulated activity of the audit and extended activities with auditing functions. I suggest three levels of auditor activities, where the second level has two different forms:

1. Audit according to regulations, which to a certain extent ensure the reliability of the information provided;
2. A judgemental inspection of the information given, ensuring that it does not deviate from the audited information, which is communicated:
   a) in formal documents, through formal channels, and made public
   b) informally, through informal channels, internally in the corporation;
3. A judgemental inspection of information, ensuring that the information is given.

With this conception of auditor activities, the question of auditing NGM is whether the measures should be subject to the regulated audit process (1), or judgemental inspection, to find out if they deviate from the GAAP information, and then communicated informally or formally (2), or only that the auditor concludes that they exist (3).

There are empirical indications (Black, Black & Christensen, 2014; Black & Christensen, 2018; Rashty & O'Shaughnessy, 2014) that the auditor performs the informal judgemental audit (2); for example, reads the press message from the corporation before it is communicated and judges whether it deviates from audited information.

The element of audit risk, including litigation risk, is present in the expanded auditor function, especially in the judgement activity where the auditor gives a formal statement (2a). Thus, auditors would be expected to be more hesitant about this auditor activity. With these three levels of audit, we can distinguish different levels of regulative modulation through auditor activity (Table 1).

Strong regulative modulation is achieved when there are compulsory standards for the creation of information, and where the fulfilment of the standards is subject to a regulated audit process by certified auditors using their processes of audit, including their judgement. One example of strong modulation is the audited financial report.

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Table 1: Levels of auditor activity

Regulative modulation	Standards	Audit	Auditor judgement	Example
Strong	Compulsory	Present	Present	Financial report
Moderate	Compulsory	Absent	Present	Sustainability report
Moderate	Voluntary	Present	Present	Audit of voluntary reports
Weak	Voluntary	Absent	Present	Assurance, Auditor inspect press release
Absent	Absent	Absent	Absent	Personal advice

NGM are not subject to strong regulative modulation, except in South Africa (Marques, 2017), where the corporations must present a reconciliation between the NGM and IFRS, which then is subject to audit. Another specific case is Finland and Sweden, where the Management Report is subject to audit. If NGM appear in this report, they will be included in the audit.

The moderate level of regulative modulation is achieved when there are compulsory standards but no regulative demands to audit the information, or when there are voluntary standards that direct the audit. The modulation becomes moderate since, for example, in sustainability reporting, there are compulsory standards, however of less stringency, than traditional financial accounting standards but they are not subject to a regulated audit process. The information is, however, probably subject to the judgement of the auditor through an audit review. Another case of moderate level is when the corporation decide to audit a voluntary report.

On the moderate level of modulation we find Regulation G (Reg G), which appears to have been inspired by the Cadbury report innovation of the principle of 'comply or explain'. Either the corporation complies with the standard rules or it deviates, but then it has to explain why. This forces the corporation to argue for deviation, which presumably creates more information. Reg G was part of the Sarbanes-Oxley Act 2002 in the USA, which constituted a moderate modulation since it did not regulate the actual measurements presented but demanded that the NGM be reconciled with the GAAP earnings through

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1. indicating the most comparable GAAP measure,
2. explaining the difference between them, and
3. arguing for the usefulness of the NGM.

Studies indicate an effect of the added regulation through reconciliation. Zhang & Zheng (2011) and Aubert & Grudnitski (2014) found indications that reconciliation quality reduced mispricing in the USA, and several studies found less aggressive and higher quality NGM reporting (Heflin & Hsu, 2008; Black, Christensen, Kiosse, & Steffen, 2017; Bond, Czernkowski, Lee, & Loyeung, 2017; Black, Christensen, Ciesielski, & Whipple, 2018). Reg G initially had a decreasing effect on NGM disclosure (Marques, 2006; Entwistle, Feltham & Mbagwu, 2006) but later the frequency of NGM reporting increased (Black, Black, Christensen, & Heninger, 2012; Brown, Christensen, Elliott, & Mergenthaler, 2012; Black & Christensen, 2018), which suggests a learning effect. Overall, it appears that Reg G has been effective in the sense of increasing the capacity to value the corporation.

Later, in 2010, SEC issued new Compliance and Disclosure Interpretations (C&DIs) (Parrino, 2016), which mainly eased Reg G's administrative burden (Bond, Czernkowski, Lee & Loyeung, 2017). The effect of Reg G plus C&DIs appears to be a reduced quality in reporting (Bond, Czernkowski, Lee, & Loyeung, 2017).

The reconciliation of NGM is not subject to audit. However, auditors, through their enlarged service, appear to inspect NGM and deliver their judgement, reporting, formally or informally, if they are in accordance with the audited information. Thus, auditors, and not the audit, could be assumed to influence NGM.

A weak level of regulative modularity is when there are voluntary standards for creation of the information, which can be followed or not, and there is no regulated audit process of the NGM but they can be subject to the auditor's judgement. This judgement can be formally presented, when the auditor inspects the numbers and writes a document that signifies that the numbers are in line with the GAAP information, or informally, when the auditor inspects and makes a judgement, but only communicates the judgement informally; for example, oral communication to the board about the quality of the measurement. This inspection can be due to regulation, for example, SAS 8 (Chen, Krishnan, & Pevzner, 2012), but auditors also are also motivated to make an inspection by consideration of their reputation (Black, Black & Christensen, 2014; Rashty & O'Shaughnessy, 2014; Black & Christensen, 2018). It has been found that more auditor engagement, through the indicator of higher audit costs,

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correlates with less misleading NGM (Black, Black & Christensen, 2014; Chen, Krishnan & Pevzner, 2012). Since auditors do not include NGM in their audit process, their influence is indirect, i.e. moderate or low level of modulation; they read the report and indicate the relationship of the NGM to the regulated reported information.

No regulative modulation is present when there is no regulation through standards, no audit and no involvement by the auditor executing the judgement of the auditor. This can be personal advice given to the entrepreneur of a firm considering management or family succession, i.e. what has been found to belong to a consigliere function (Collin, Ahlberg, Berg, Broberg, & Karlsson, 2017) where the auditor extends the service from audits and related activities to activities of advising, mediating and conveying.

It appears that audits are not applied to NGM but auditor activity takes place through their judgement. Reg G appears to be more important in that it implies reconciliation that creates additional information and presumably attracts the attention of the auditor.

However, there could be a reverse causality. Hallman, Schmidt & Thompson (2018) show that auditors can use NGM when deciding on the materiality threshold. Since NGM tend to give a higher income, the threshold becomes higher, i.e. a less conservative materiality threshold, which could negatively affect audit quality.

This trend is not only due to the auditor trying to reduce the audit by having fewer conservative thresholds. Hallman, Schmidt & Thompson (2018) found that when NGM exceed the auditor's use of threshold, i.e. the auditor is not influenced by the NGM, there will be auditor turnover. This implies that auditors have incentives to use NGM as signals from the managers to the auditor of proper thresholds.

While it is true that auditors are servants of regulations and the stakeholders in the economy, especially investors, they also serve and support the client through consigliere behaviour (Collin et al., 2017). Auditors are also profit maximisers through the partnership system of the audit firm (Tagesson & Collin, 2016) although within the limits of professional ethos. That motivates them to treat the client as a customer, with a customer orientation (Broberg, Umans, Skog & Theodorsson, 2018). The concern for profit implies not only interest in revenues through keeping the clients but also in keeping costs low, where the usage of NGM, as Hallman et al. (2017) have shown, is flexible and can reduce the workload of the audit and thereby keep down the costs. Thus, we find that auditors' inspections of NM could reduce opportunism, but, at the same time, the NGM could influence the audit and the audit quality. Thus,

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auditors' activities could solve the opportunism problem but could also be an active element in the process where the audit becomes less restrictive due to NGM.

It is not only auditors that use NGM and get influenced by them. Financial analysts, credit analysts, compensation committees, creditors, and short sellers all use NGM when making evaluations and decisions (Black, Christensen, Ciesielski & Whipple, 2018). They can be assumed to be well-informed decision makers and investors. Thus, these stakeholders are no argument for auditing NGM.

Less advanced investors could profit from NGM, as suggested by Elliot (2006). This is less true, however, when there is aggressive NGM reporting (Bhattacharya, Black, Christensen, & Mergenthaler, 2007; Allee, Bhattacharya, Black, & Christensen, 2007; Hitz, 2010; Seetharraman, Wang & Zhang, 2014). The results from aggressive NGM reporting indicate that the less advanced investors could be helped by, for example, the reliability of information from the audit of the information.

But an alternative to auditing NGM is to reduce the opportunity to make aggressive NGM. Black, Christensen, Ciesielski, & Whipple (2018) found that the difference between less advanced and advanced investors disappeared through the Reg G, probably because the most aggressive NGM could be performed when the corporation was required to give arguments and reconcile with GAAP. This indicates that Reg G disciplined the most deviant behaviour previously found in NGM reporting.

At this stage of the analysis it appears that auditing NGM is not a viable action since it would restrict their freedom while imposing strong discipline on their opportunistic side. Indeed, audits could even be influenced by NGM. We therefore turn to other means of disciplining the opportunistic side of NGM.

9.4 Information modulation

The audit is one corporate governance mechanism that could influence NGM, both directly and indirectly, but the governance of corporations is not a desert with audits as the only oasis. There are numerous other structures and processes that can influence the quality of NGM reporting, either through incentivising or monitoring. For example, compensation systems incentivize managers to report NGM. Black, Black & Christensen (2014) found that long-term compensation tends to reduce the level of misleading NGM. Boards composed of independent directors is positively associated with the quality of non-GAAP earnings, but interestingly enough, this association disappears with Reg G (Frankel, McVay &

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Soliman, 2011). This finding suggests that there could be a substitutional modulation relationship between the governance mechanism of board independence and a specific form of regulation.

Other mechanisms that have been found to influence the reporting of NGM are audit committees and their composition, especially the presence of accounting experts (Seetharraman, Wang & Zhang, 2014), CEO tenure, and market actors such as analysts, creditors, short sellers, and large block holders (Black, Christensen, Ciesielski, & Whipple, 2018; Black, Christensen, Ciesielski & Whipple, 2018; Marques, 2017).

It is not clear from empirical studies in what way other corporate governance mechanisms influence NGM. The effect may be supplementary, i.e. in interactions, the influence of a mechanism increases or decrease the quality of NGM. These interaction effects could be negative, as was found in the interaction between auditing and NGM, or complementary, as when adding to the effect on NGM together with another mechanism. A corporation with strong governance could be trusted to send signals through NGM, thus stressing their informative function, while disciplining the opportunistic element.

Another possible complementary effect can be found in the culture factor. Epping and Wilder (2011) found that the reporting behaviour of US firms was more aggressive than US-listed foreign firms. On the other hand, the US firms were as good or even better in terms of reconciliation to US GAAP. Firms operating in the same environment and facing the same regulation behaving differently could be explained in two different ways. One explanation is that US firms have higher competence in the rule-based regulation of US GAAP and can use its possibilities to a larger extent. Another explanation is that there is a cultural influence in that US firms have a higher level of exploitation of regulative opportunities in their culture. While the first explanation could be expected to disappear over time, when the corporations learn about the US environment, the other explanation is sustainable since it is based in the slow-changing cultural factor (Lubatkin, Lane, Collin, & Very, 2007). It could suggest that the need for regulative modulation differs between cultures and that NGM can be expected to differ between cultures.

Culture has also been found to make NGM a substitute for different forms of earnings management (Black, Christensen, Ciesielski, & Whipple, 2018; Doyle, Jennings & Soliman, 2013). This substitution effect is especially present in strong, rule-based institutional environments where it is harder to use EM (Isidro & Marques, 2015). This implies that NGM, in interaction with the institutional environment, influence a higher quality of regulated reporting since it will not be burdened by extensive earnings

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management. Thus, NGM could be used as a substitution for earnings management.

This leads to the final effect, the substitution effect, where one mechanism invalidates another mechanism's influence. We found this to be the case when Reg G appeared to invalidate the influence of board independence on NGM quality.

Overall, we see a myriad of effects – supplementary, complementary and substitution – when studying corporate governance influence on NGM. One could claim that the myriad complexity is created by inferior studies, using bad theories and bad data sets. Or that we have erroneous ontological assumptions.

9.5 Governance modulation through the configuration of corporate governance mechanisms

The theories and the empirical methods of analysing NGM follow the dominating paradigm where it is assumed independent factors are related to dependent factors, i.e. treat each mechanism independent of the others. It is extended in studies, as cited above, when considering the moderation, interaction and substitution effects. The empirical analytical technique is regression analysis, where the assumption of ceteris paribus is important, where we can analyse the variance of two factors, assuming they are constants.

It is, however, hardly reasonable to make an ontological assumption that reality contains independent factors and some interactions between them where variance can be studied separately. Ontologically it would be more realistic to assume that factors belong to a system, and even exist in a boundless system, with multiple interactions, and interactions between the interactions. Thus, one can assume that the world is configurational with equifinality, that different configurations of factors can produce the same outcome (von Bertalanffy, 1968). In corporate governance research, the configurational approach was introduced by Rediker & Seth (1995) but has become more established since then (e.g. Poppo and Zenger, 2002; Ward, Brown and Rodriguez, 2009; Wirtz, 2011; Azim, 2012; García-Castro, Aguilera and Ariño, 2013; Misangyi, Greckhamer, Furnari, Fiss, Crilly, & Aguilera, 2017).

With the ontological assumption of configurations of factors and equifinality, the governance modulation of NGM turns into what set ups of mechanisms are needed in order to govern NGM opportunism and at the same time stimulate their informative use. Empirical analytical techniques are developing and we now have, for example, inductive fuzzy set

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qualitative comparative analysis (Ragin, 2008), which has opened the door to empirical analysis with sets of variables (Greckhamer, Furnari, Fiss, & Aguilera, 2018) and with that, more advanced theory conception.

We are, however, not yet where we have a configurational governance theory predicting the set-up of corporate governance mechanisms that influence the governance modulation effects of NGM on stakeholders. Awaiting this development, we turn to the last resort of modulation, the stakeholder modulation.

9.6 Stakeholder modulation: Non-GAAP measures as communicative action

There is an intricate balance in governance to be achieved between disciplining and development. Governance tend to be unbalanced in the sense that it stresses disciplining behaviour through monitoring or incentives while it disregards the necessary autonomy of the agents. There could also be too much of discipline through monitoring and incentives that will reduce energy, engagement, motivation, and the freedom of action and thinking that are necessary for corporate development and ultimately for the survival of the corporation (Ponomareva, Shen & Umans, forthcoming).

The other part of governance modulation is the stakeholder modulation. While the governance modulation focuses on the disciplining part and the opportunistic interest in NGM, stakeholder modulation focuses on management autonomy and the enabling part of NGM. It stresses the need and opportunity of NGM to provide information to stakeholders that management senses is necessary in order to present a good image of the corporation.

It has been suggested that NGM constitute a practical critique of GAAP's deficient informational capacity and call for a reformation of GAAP (Young 2014). While that could be the case, reformation could be too dramatic a suggestion. Take the case of temperature. The temperature may be -2 degrees Celsius according to the thermometer but when higher humidity and some wind are added, we would feel as if it is -5 degrees. Thus, the thermometer gives a good value of reference, which is highly reliable but has less relevance. We need more information about the humidity and the wind before the actual understanding of the temperature can be reached. GAAP is a good thermometer, offering a good reference point, but more information is needed. By adding information outside GAAP, a more comprehensible understanding of the corporation can be reached. When we dress, we need more information than the thermometer

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gives us; likewise, in order to make an investment decision, we need more information than GAAP can give us.

GAAP gives the reference information and NGM give additional information. But in order to interpret the additional NGM, we need to know how the NGMs add information to GAAP. The additional information is what Reg G demands. In this regulation, further information has to be given through reconciliation that relates the NGM to GAAP. Studies have found that investors respond more to non-GAAP than to GAAP earnings after implementation of Reg G (Marques, 2006; Black & Christensen, 2018; Black, Christensen, Ciesielski, & Whipple, 2018). This suggests that investors receive information from NGM, especially from the reconciliation information that makes it possible for them to better evaluate the corporation. It is not the information in the GAAP or in the NGM but the information in the reconciliation that helps the investor. Thus, it is the explain component, the reconciliation part of the regulation that contributes to the efficiency of the market. It could be because the reconciliation limits opportunism, or it could be because the management give more information compared to NGM without demands of reconciliation.

Reg G is close to the governance idea of the corporate governance code, demanding the corporation either comply or explain. Either the corporation follows a strict regulation or it gives rational arguments for the deviation. While offering flexibility from regulation, it also offers a safe haven, to comply where no arguments are needed. But to comply is also a choice that should demand arguments. To follow the standards could be a way to hide and avoid giving information through arguments. Compliance give less information than diversion, since diversion demands additional information. In the case of NGM, the management can comply by not adding them. If they choose to add information through NGM, they run the risk that the investors interpret them as being driven by opportunism. By the use of reconciliation, creating a link between the GAAP and the NGM, further information is given, with the discipline of an argument of how the NGM are related to GAAP.

This indicates that modulation improves when regulation demands arguments since arguments produce increments of information. This argumentative approach could be described as an appeal to communicative action, where the communication is created in the context of GAAP standards and voluntary disclosure. NGM are free and unbound while the arguments are related to the NGM but bound to the standards. Thus, modulation is achieved in the interplay between the information interest and the discipline through the standards.

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Reconciliation is similar to communicative action (Habermas, 1984; 1987) where one party communicates with another party in order to establish a common understanding. Communicative action is simultaneously a process of mutual understanding and the formation of identity. It is inherently critical and it is not directed by self-interest, i.e. it is not opportunistic or strategic.

The concept of communicative action has been used when analysing annual reports in order to understand rhetoric that is not opportunistic (Patelli & Pedrini, 2014; Yutas, Rogers & Dillard, 2002). In a similar vein, it can be claimed that NGM, especially with reconciliation, could represent communicative action. NGM are used to create an understanding beyond GAAP and thereby are part of the creation of the identity of the corporation. In reconciliation NGM have to be related to GAAP, thus being tied to the understanding GAAP produces, but at the same time criticizing GAAP through the arguments for the reconciliation.

Thus, one essential part of communicative action, criticism, is fulfilled by the reconciliation. At the same time, the reference in communicative action to rationality is served through the argumentation the reconciliation implies.

We can compare this way of modulation with an audit or the audit activity of the auditor. However, these are not communicative actions since auditors do not engage in public argumentation, even if we now demand the auditors to be more communicative. The arguments of reconciliation, that is the essential, critical part of the creation of understanding and identity, are hidden for the stakeholders. Thus, the level of transparency and therefore communicative action will be higher when there is no audit but the method of reconciliation is performed. The auditor’s function, however, in this scenario could be to ensure that the arguments are related to the standards. Thus, the auditor inspects not the NGM but the arguments that tie them to GAAP.

Thus, we end our exploration by claiming that auditor activities can be a part of governance modulation when they concern NGM through inspecting the reconciliation, the communicative action of managers to the stakeholders.

9.7 Stakeholder modulation: Non-GAAP measures as communicative action

The auditors have an important function when it comes to the highly regulated information through GAAP but they risk reducing the needed autonomy of management and the stakeholder modulation of information

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by imposing too high demands on information if they audit NGM. The exception to this conclusion is auditors fulfilling a consigliere function, where the auditor oscillates between giving service to a customer and monitoring a client. In creating a balanced governance where discipline and enabling are both stressed on equal terms, the communicative action towards the stakeholders is ensured through a regulation in kind of Reg G, which promotes the diffusion of free information that is only regulated through being tied to a common base, the GAAP standards.

It should be noted that this conclusion is limited due to the fact that we are still captured by the ontological assumption of independent factors and ceteris paribus. It could very well be the case that our reasoning, which has been based on empirical studies, would be different when the whole corporate governance system is taken into account.

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PART IV –

ESSAYS ON NON-GAAP DISCLOSURES IN EUROPE

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Section A –

Non-GAAP reporting in Europe: Some empirical evidence

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ESSAY 1

REPORTING OF ALTERNATIVE PERFORMANCE MEASURES BY EUROPEAN FIRMS

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1.1 Introduction

Alternative performance measures (APM hereafter) are measures of performance created by managers that do not follow accounting standards or Generally Accepted Accounting Principles (GAAP). APM are also known as non-GAAP (as they do not follow GAAP), non-IFRS, pro forma measures or street numbers [1]. In this chapter we adopt the terminology of the European Securities and Markets Authority (ESMA) and use the term alternative performance measures (APM). IOSCO (International Organization of Securities Commissions, 2016) defines non-GAAP as "*a numerical measure of an issuer's current, historical or future financial performance, financial position or cash flow that is not an IFRS measure*". Similarly, ESMA defines APM as "*a financial measure of historical or future financial performance, financial position, or cash flows, other than a financial measure defined or specified in the applicable financial reporting framework*" (ESMA, 2015).

It is important to note that the definition of APM encompasses a wide variety of measures. Examples provided by ESMA include operating earnings, cash earnings, earnings before one-time charges, EBITDA (earnings before interest, taxes, depreciation and amortization), and net

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[1] Typically, non-GAAP measures are APM prepared by managers whereas street earnings are calculated by financial analysts. Non-GAAP and street earnings are also referred to as pro forma earnings (Bradshaw and Sloan, 2002).

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debt (ESMA, 2015). However, the academic literature typically focuses only on APM that can be directly compared to net income and earnings per share (e.g. Bhattacharya et al., 2003; Kyung et al., 2019)[2]. It is also relevant to note that some measures are more commonly used in certain countries. For example, in France, managers often disclose net profit before goodwill amortization (Aubert, 2010), whereas in Germany the most common APM are reconcilable to net income and operating income (Hitz, 2010).

1.2 What do we know about the transparency of alternative performance measures?

The focal point of the controversy is whether managers disclose APM to reduce information asymmetry and improve the usefulness of financial information, or to mislead financial statement users about firm performance (Jeanjean et al., 2018; Magli et al., 2017). While critics claim that managers use APM to portray an inflated image of firm performance, managers argue that APM are superior to accounting numbers for several reasons. APM provide a better understanding of recurrent earnings, and thus are more useful to investors in predicting future cash flows and earnings; APM facilitate internal comparison of the firm's performance to historical results and competitors' results; and APM show the business operating profitability without considering mergers, acquisitions and restructuring costs, and other transitory events[3]. The following examples illustrate the views of managers and critics.

> Elan's management uses EBITDA and Adjusted EBITDA to evaluate the operating performance of Elan and its business and these measures are among the factors considered as a basis for Elan's planning and forecasting for future periods. Elan believes EBITDA and Adjusted EBITDA are measures of performance used by some investors, equity analysts and others to make informed investment decisions.
> Elan earnings press release of 2008.

> NGFMs [non-GAAP financial measures] can paint a picture of performance that is too exuberant and at odds with both the economic reality and GAAP/IFRS representation of performance. Unsurprisingly, these measures have been subject to colourful descriptions connoting a misleading nature,

[2] Examples of studies analysing the disclosure of other non-earnings APM are Baik et al. (2008) and Marques (2006).

[3] In appendix 1, we provide examples of justifications for APM disclosure communicated by European firms in their earnings announcements.

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> such as "everything but bad stuff"; "phoney-baloney financial reports"; and "fantasy maths".
> CFA Institute, 2016.

For more than 20 years, academic literature has helped to understand the nature and role of APM.[4] The evidence suggests that APM are informative to capital markets participants beyond GAAP measures. For example, Bhattacharya et al. (2003) document the informativeness of APM for US investors, Guillamon-Saorin et al. (2017) show the value relevance of APM for European investors, and Choi et al. (2007) conclude the APM disclosed by UK firms reflect sustainable operating performance. These findings seem consistent with the desire to inform capital markets and are in line with the more recent results of Choi and Young (2015).

However, there is also evidence that in certain instances managers disclose APM in a way that might mislead investors, especially smaller, less sophisticated ones. Next, we discuss some of these instances.

1.2.1 Meeting or beating earnings benchmarks with alternative performance measures

A well-documented scenario of when APM can be used strategically by managers is when the GAAP earnings number misses analyst expectations but the APM meet or beat the benchmark (Doyle et al., 2013). This practice is potentially misleading because one suspects that, to calculate the APM, the manager adjusted the GAAP earnings number to avoid the capital markets penalty for missing the analysts' forecast (Degeorge et al., 1999; Doyle et al., 2013). But analyst-expected earnings is not the only earnings target that managers try to meet with APM. Isidro and Marques (2015) show that meeting the prior year's performance and avoiding negative earnings (i.e. a loss) are other benchmarks that motivate managers to use APM aggressively. That is, when accounting earnings fall below last years' accounting earnings or are negative, managers can calculate and disclose APM that are above these important benchmarks. Moreover, Walker and Louvari (2003) study the application of Financial Reporting Standard 3 in the UK and documents that UK firms are more likely to report APM when the FRS3 figure is a loss, potentially trying to divert attention from the negative performance.

Isidro and Marques (2015) analyse the firm characteristics that influence the use of APM to meet or beat earnings benchmarks in Europe.

[4] For detailed discussions of existing literature, please refer to Young (2014), Marques (2017) and Black et al. (2018).

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They find that larger firms, with more intangible assets, that do not follow IFRS and are cross-listed in US markets are more likely to use APM aggressively to beat benchmarks. They also show that the institutional setting of the country where the firm operates is important. In European countries where there is high pressure to meet short-term earnings targets, but earnings management is more difficult due to tight regulation and scrutiny, the use of APM to meet earnings benchmarks is more frequent. Isidro and Marques (2015) explain that in countries with strong legal enforcement and developed capital markets, managers face more pressure to achieve earnings targets. However, because scrutiny and monitoring are stronger in those countries, managers have less opportunity to manage accounting earnings. Consequently, they resort to APM, which are not audited and have little regulatory monitoring, to beat earnings benchmarks.

The obvious question to ask is whether investors and other users are misled by aggressive APM disclosure. Andersson and Hellman (2007) ran an experiment with Swedish financial analysts to investigate how sophisticated users react to the disclosures of a positive APM when the accounting income statement reports a loss. The experiment studies the cases where a loss is transformed into a profit via managers' adjustments. The authors find that this type of disclosure strategy can lead even sophisticated investors astray. Similarly, Aubert (2010) documents that in France, APM are higher than GAAP earnings in 75% of the cases, and interprets this practice as evidence of managers attempting to cosmetically improve financial performance and make the company more attractive to potential investors.

1.2.2 Communicating alternative performance measures using impression management

Firms often disclose APM in prominent documents, such as the earnings announcement press releases. The press releases are not regulated by accounting standards or audited, offering managers considerable discretion on presentation and format of information. A presentation tactic often coined as misleading is the disclosure of an APM at the top of the press release (in the title or headlines) while the comparable accounting measure is only included in the income statement, which is often presented at the end of the press release.

Managers disclose the APM in the headlines to create a good first impression, set the financial agenda and signal their achievements. Investors likely fixate on the headline and do not fully appreciate the difference that exists between the APM and GAAP values due to the

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difference in the prominence of the two measures in the press release. This difference in emphasis between the GAAP and APM can affect the judgements of investors about firm performance (Bowen et al., 2005). Research in psychology demonstrates that readers pay more attention to data presented earlier rather than later in a sequence (e.g. Lavie et al., 2004; Schlenker, 1980; Anderson, 1965; Anderson and Hubert, 1963). One particular line of literature focuses on the impact of changing the quality of information by presenting it in different formats. Evidence shows that individuals focus on salient information (Jarvenpaa, 1989, 1990).

Guillamon-Saorin et al. (2017) examine the use of impression management in APM disclosed by large European firms and consider the following techniques:

(i) *repetition*, i.e. repeating APM throughout the press releases to emphasize those specific repeated measures while including few accounting measures;
(ii) *emphasis*; i.e. placing APM at the title of top of the press release to draw the attention of the reader;
(iii) *reinforcement*, i.e. adding a qualifier to emphasize the connotation of the measure;
(iv) *positive tone*; i.e. using positive language to create a positive image of corporate results that would not be achieved using more neutral language; and
(v) *performance comparisons,* i.e. choosing benchmarks strategically to present positive rather than negative changes.

Guillamon-Saorin et al. (2017) suggest that managers use more impression management when APM are of lower quality. In particular, managers exclude recurring expenses from accounting earnings to persuade users that APM are a good representation of the firm's persistent profitability. Results of Guillamon-Saorin et al. (2017) also indicate that investors are able to see through managers' intentions and discount APM accompanied by high impression management.

An example of the use of positive tone in APM communications is

> LVMH's profit from recurring operations *increased* by 12% to 3,555 million Euros. At constant exchange rates, profit from recurring operations *grew* by 20%".
> LVMH earnings announcement 2007.

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The words “increase”’ and “grew” give a positive tone to the APM profit from recurring operations, and the comparison with past figures suggests a large positive change.

The following cases illustrate firms that give higher emphasis to APM than the accounting number:

- Deutche Telekom includes the following sentence in first line of the earnings announcement press release of 2011: “*Adjusted EBITDA of EUR 18.7 billion and free cash flow of EUR 6.4 billion including negative exchange rate effects”*. In the main body of the press release, Deutche Telekom informs that the net profit for the full financial year decreased to 0.6 billion euros.
- Anglo American earnings announcement for 2011 include two APM figures in the title of the press release as follows: “*Anglo American announces record EBITDA of $13.3 billion and 23% increase in underlying EPS*”. While Anglo American announces a record amount for EBITDA in the title of the press release, it includes the net profit figure (which amounts to 6 billion euros, representing a decrease of 6% in relation to the previous year) in the main body of the press release.

A contrasting example is Repsol. The company discloses the accounting number in the title of the press release for 2012, in bold and large font, as follows: *“Repsol posts net income of 2.060 billion Euros.”* The APM (EBITDA) is reported next to the financial statement at the end of the press release.

1.2.3 No reconciliation between alternative performance measures and accounting measures

Until recently, and contrary to what happens in the US, European firms were not required to provide a reconciliation between the accounting number and the APM disclosed. But the introduction of ESMA guidelines, applicable from 3 July 2016 onwards, has changed that requirement. ESMA guidelines define that firms listed on regulated markets in Europe disclosing APM in regulated documents and prospectuses must reconcile the APM to the most directly reconcilable line item, subtotal or total presented in the financial statements. However, the power to enforce the new rules lies with each of the European national regulators, not with ESMA.

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Reconciliations are important as they enable users to understand the calculation of the APM and compare them with accounting measures. Previous literature has established that reconciliations provide useful information for investors, and acknowledges the disclosure of a tabular reconciliation as an indication of transparent APM reporting (e.g. Aubert and Grudnitski, 2014; Elliott, 2006; Marques, 2010; Zhang and Zheng, 2011). Under ESMA guidelines, European firms can provide a reconciliation in the format of their preference. However, ESMA clarifies that providing the definition of the APM is not the same as providing a reconciliation. When the adjustments are not disclosed in the financial statements, firms are required to indicate their calculations (ESMA, 2015).

Some European firms choose to disclose a reconciliation in the most transparent format, i.e. a reconciliation table explaining the adjustments that justify the difference between GAAP measures and APM, but there are less transparent forms of disclosing a reconciliation, such as just providing written explanations about the nature and amounts, or even written explanations without amounts. For example, the RCS Media Group press release for 2007 presents only a written explanation of the adjustments without the amounts of the individual adjustments or the corresponding GAAP measure. Taking into consideration ESMA's indications, this type of presentation could be classified as a definition, not a reconciliation. Further, the RCS Media Group provides the explanation in a footnote rather than in the main text of the press release, diminishing the visibility of the information.

> EBITDA refers to the operating result before depreciation, amortization, and fixed assets write-offs.
> RCS Media Group, earnings announcement 2007 (in a footnote).

In contrast, the BT Group provides a tabular reconciliation between the APM and GAAP measure, and warns financial statement users that adjusted EBITDA is not an IFRS-based measure (BT Group earnings announcement, 2012).

> Reconciliation of earnings before interest, taxation, depreciation and amortization: earnings before interest, taxation, depreciation and amortization (EBITDA) is not a measure defined under IFRS, but is a key indicator used by management to assess operational performance. A reconciliation of reported profit before tax to adjusted EBITDA is provided below.

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Another form of transparent reconciliation is to provide a side-by-side comparison between APM and the GAAP measure. Dassault Systems (2008), Astra Zeneca (2010) and Enterprise Inns (2010) use this format of reconciliation. Elliott (2006) shows that the disclosure of a side-by-side reconciliation mitigates the distortion of firm performance caused by firms giving higher emphasis to APM than to GAAP measures. Marques (2010) finds that side-by-side reconciliations provide more information content to users' than explanations about adjustments.

However, the US Securities and Exchange Commission (SEC) views side-by-side reconciliations as a form of increasing the prominence of APM. In the May 2016 interpretation, SEC states that "*presenting a full non-GAAP income statement when reconciling non-GAAP measures to the most directly comparable GAAP measures is considered as a practice that gives more prominence to non-GAAP than GAAP earnings*" (paragraph 102.10). As a result, several firms listed in US markets have stopped using the side-by-side type of reconciliation. Capital markets reacted negatively to SEC's dismissal of side-by-side as they perceive it as loss of relevant information about APM. Gomez et al (2018) study SEC comment letters that focus on APM reporting and find that requiring firms to eliminate side-by-side reconciliations increases information asymmetry, decreases APM earnings informativeness, and increases analyst-forecast dispersion and error.

1.2.4 Excluding recurring income statement items

An important topic is whether managers exclude from the accounting numbers only items that are transitory or non-recurring. APM are informative if they strip from accounting earnings one-off expenses and gains that are unrelated to future cash flows and earnings. For example, a firm going through a restructuring plan is likely to have large restructuring expenses that are not expected to occur systematically in future periods. In that case, the exclusion of the restructuring cost will result in an APM that better portrays recurring performance than GAAP earnings, and hence it is more useful than accounting earnings for investors predicting the future cash flows of the business. However, managers sometimes adjust for income statement items that recur over periods of time such as depreciation and amortization expenses, tax-related expenses and compensation expenses. Such recurring adjustment distort users' perception about the firm's current and future profitability. The adjustments for recurring expenses are termed aggressive adjustments (Black et al., 2015), and are considered an indication of non-transparent APM reporting.

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Academic research shows that managers' adjustments are not purely transitory because they are correlated with future cash flows. In other words, the adjustments are persistent rather than transitory (Frankel et al., 2011; Jennings and Marques, 2011)). Guillamon-Saorin et al. (2017) document that managers use more impression management techniques when the adjustments are recurring, a finding that suggests that impression management may be used to mask the persistent or recurring nature of the adjustments.

Firms often describe and justify the items excluded in the calculation of APM as recurring.

> Non GAAP measures exclude the effect of certain cash and non-cash items that Shire's management believes are not related to the core performance…
> Shire, earnings announcement 2011.

> Other operating income and expense, net is generally not recurring, and the company does not expect to incur other operating income and expense, net as part of its normal business on a regular basis.
> Dassault Systems, earnings announcement 2008.

> Special items are those items of financial performance that the Group believes should be separately disclosed on the face of the income statement to assist in the understanding of the underlying financial performance achieved by the Group.
> Anglo American, earnings announcement 2011.

> Results before major restructuring is a measure used by management to assess the Group's financial performance and is presented after excluding restructuring charges relating to the Operational Excellence programme.
> GlaxoSmithKline, earnings announcement 2010.

The decision regarding the recurring nature of adjustments lies with managers and reflects their view about recurring profitability. While there is agreement that certain exclusions are transitory (i.e. restructuring charges), critics question the true intention of excluding items such as amortization, write-offs, etc. Black and Christensen (2009) study the nature of exclusions reported by US firms to meet strategic earnings targets and identify the following recurring exclusions: depreciation, research and development, stock-based compensation, interest-related items, tax-related items, and adjustments to arrive at funds from operations. Their analysis finds that the adjustments for depreciation and amortization costs are the most frequent, followed by stock-related charges such as preferred stock conversions and IPO expenses.

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1.3 Mechanisms that help control aggressive disclosure of alternative performance measures

In this section we present external and internal mechanisms that can reduce managers' aggressive APM reporting.

1.3.1 Corporate governance

Corporate governance plays a crucial role in monitoring and disciplining managers on behalf of shareholders. Academic studies document that strong governance can reduce management opportunistic behaviour (e.g. Garcia Osma and Guillamon-Saorin, 2011; Kanagaretnam et al., 2007). Frankel et al. (2011) and Jennings and Marques (2011) use US data to address the question of whether good governance can reduce the aggressive use of APM.

In the European context, Isidro and Marques (2013) analyse how board quality and director compensation affect APM disclosure. The authors find a positive association between the compensation incentives of board members and strategic APM reporting practices. For example, when the compensation of members of the board of directors is linked to performance metrics, firms engage in more aggressive practices such as excluding recurring items and not providing a reconciliation. The authors also show that the probability of presenting APM in the title of the press release increases when director compensation is linked to the firm's market performance. Conversely, the strategic disclosure of APM decreases as the quality of the board increases.

Grey et al. (2013) find a similar result in the UK setting. Executive remuneration linked to corporate performance exacerbates the use of APM in the UK's largest quoted firms. Grey et al. (2013) document that the link between remuneration and corporate performance is evident when the vesting of stock options is conditional on firm growth of earnings per share.

1.3.2 Regulatory interventions

Regulatory interventions are a strong mechanism capable of curbing aggressive (and potentially misleading) disclosure of APM. Regulators across the world recognize that APM can be informative to capital markets, but they can also be used opportunistically. The possibility of strategic disclosure led SEC to issue the first cautionary warning on APM

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disclosure in 2001.[5] In 2002, IOSCO issued a cautionary statement warning capital market participants that APM can be useful "*if properly used and presented*", but they can also mislead investors "*if such measures are used in such a way as to obscure the financial results determined according to GAAP or provide an incomplete description of true financial results*". Soon after these warnings, SEC issued the first APM regulation (Regulation G, effective in 2003).

These interventions influenced the Committee of European Securities Regulators (CESR), ESMA's predecessor, to set a series of recommendations in 2005. The goal of the recommendations was to encourage European-listed firms that choose to disclose APM to do it "*in a way that is appropriate and useful for investors' decision making*". The CESR recommends that "*issuers should define the terminology used and the basis of calculation adopted*" and, where possible, present APM in combination with accounting measures, explaining the differences between them. ESMA published new guidelines on APM in 2015. These guidelines are addressed to issuers, to persons responsible for a prospectus, and to the National Competent Authorities (NCA) responsible for supervizing the application of the guidelines and acting in case of infringements. If an issuer fails to comply with the guidelines, it may be asked to explain their non-compliance and provide evidence that, despite their efforts, compliance was not possible.

ESMA defines the following key guidelines: (i) issuers should define the APM disclosed, and explain how they were calculated; (ii) APM should be given meaningful labels reflecting their content and basis of calculation in order to avoid conveying misleading messages to users; (iii) the issuer should provide a reconciliation of the APM to the most directly reconcilable line item of the financial statements; (iv) the issuer should explain the reasons for using the APM; (v) APM should not be disclosed with more prominence than the comparable GAAP number; (vi) APM should be accompanied by comparatives for the corresponding previous periods, and (vii) definitions and calculations of APM should be consistent over time. Magli et al. (2017) analyse the use of APM by listed Italian companies and whether companies comply with ESMA guidelines. The study finds deficiencies in the use of APM, including inconsistent definitions, lack of explanations and unclear reconciliations.

In the UK, Financial Reporting Standard 3 (1993), in place until the adoption of IFRS in 2005, allowed firms to disclose additional earnings per share metrics. The standard required firms to: (i) present APM

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[5] SEC, 2001. Cautionary Advice Regarding the Use of "Pro Forma" Financial Information in Earnings Releases. December, 4th 2001)

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consistently across time; (ii) reconcile APM to a FRS3 measure; and (iii) give equal emphasis to APM and the GAAP figure.

The French market regulator, the Autorité des Marchés Financiers (AMF), issued guidelines on good APM reporting practices in 2003 and 2005. For the AMF, the basis of good practice is to report the reconciliation between the GAAP and the APM numbers. A reconciliation improves comparability and reduces the potential misleading effect of reporting an APM higher than the GAAP equivalent. In 2016, AMF passed the application of ESMA guidelines in France.

In 2012, the Irish Auditing and Accounting Supervisory Authority (IAASA) issued a set of recommendations for the disclosure of APM. Firms are "*strongly encouraged*" to ensure the appropriate selection, preparation and presentation of APM. One interesting recommendation refers to the location of APM. IAASA recommends that APM should be placed "*within a single location in the annual report*" to make it easier for users to assess performance measures as a whole. In 2015, IAASA issued a note calling firm's attentions to the existing recommendations. In 2017, following the issuance of ESMA (2015) guidelines, IAASA published a thematic survey on APM.

1.4 The disclosure of alternative performance measures in practice

In this section we describe detailed APM disclosure practices by European firms over the period 2003 to 2011. We include in the analysis industrial firms classified in the *Financial Times* 2006 list of the 500 largest European firms. This group of firms represents a considerable portion of European markets and offers sufficient variation in terms of industry and firm size. We do not include financial and utilities firms as these firms are subject to specific regulations, and we exclude cases where press releases are not available or are not written in English (to eliminate the possibility of incorrect translations). The analysis is of a sample of 2,564 firm-year observations for the period 2003 to 2011.

We study several dimensions of the disclosure of APM to give the reader a complete perspective of firms' practices. We report evidence on: (1) country and industry variation in APM disclosure, (2) time patterns of disclosure, (3) how reporting patterns are associated with IFRS adoption, (4) APM characteristics, and (5) firm incentives to report APM.

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1.4.1 Country and industry variation

Table 1 presents descriptive statistics of APM disclosure by country. The majority of European firms disclose at least one APM in their earnings announcement (71%). We distinguish between APM in general (following the ESMA definition of APM) and more specific APM referring to earnings measures (e.g. ignoring measures like free cash flow), shown in columns (1) and (2), respectively. While there is variation across countries, it is clear that firms disclose many more types of APM than just earnings types.

UK firms disclose APM of earnings more often than any other European firms (as 69% of earnings announcement press releases contain at least one APM), followed by firms in Ireland (56%) and the Netherlands (44%).

Table 1: APM disclosure across countries

Country	Obs	(1) % APM disclosure all measures	(2) % APM disclosure earnings measures
Austria	18	100.0	22.2
Belgium	62	87.1	38.7
Denmark	67	76.1	14.9
Finland	72	69.4	37.5
France	453	74.2	43.5
Germany	302	60.9	22.2
Greece	32	78.1	50.0
Hungary	14	92.9	7.1
Ireland	34	91.2	55.9
Italy	106	68.9	27.4
Luxembourg	9	100.0	0.0
Netherlands	143	69.2	44.1
Norway	53	75.5	43.4
Poland	15	26.7	6.7

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Portugal	25	96.0	8.0
Russia	81	61.7	11.3
Spain	135	67.4	23.7
Switzerland	162	77.8	30.2
Sweden	151	56.3	33.1
Turkey	12	75.0	8.3
United Kingdom	618	72.8	68.9
Total/Averages	2,564	71.1	41.0

Table 2 reports APM disclosure by industry. The first column (1) shows the percentage of APM disclosure considering all types of APM, and the second column (2) considers only the earnings measures of APM. In all sectors, the majority of firms disclose APM. The manufacturing sector reports the largest number of APM figures (81%), of which 54% are earnings-related. Firms in the sectors 'agriculture, mining and construction', 'machinery and electronics', and 'education, culture and other services' report APM measures more than 60% of the time. The retail sector discloses the largest percentage of earnings-based APM reporting (56%).

Table 2: APM disclosure by industry

Industry sector	**(1)** **% APM disclosure all measures**	**(2)** **% APM disclosure earnings measures**
Agriculture, mining and construction	65.7	40.3
Manufacturing	81.3	54.0
Machinery and electronics	64.5	28.1
Transportation and communication	73.4	26.4
Retail	70.5	56.2
Real estate	52.4	39.3
Services	72.2	54.1
Education, culture and other services	62.2	28.9

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1.4.2 Disclosure over time

Table 3 indicates a stable disclosure of APM over time. There is an observable increase around the financial crisis in 2006 and 2007, followed by a decrease in 2008 for both types of APM.

Table 3: APM disclosure over time

Year	(1) % APM disclosure all measures	(2) % APM disclosure earnings measures
2003	0.71	0.41
2004	0.75	0.43
2005	0.72	0.39
2006	0.80	0.45
2007	0.85	0.50
2008	0.66	0.41
2009	0.64	0.36
2010	0.63	0.35
2011	0.62	0.37

Table 4 shows how often European firms choose to disclose APM in the earnings announcement press release. The majority of firms (35%) disclose APM in all of the 11 years covered in the study (2003 to 2011). An additional 20% of firms disclose APM more than 75% of the time (about 8 out of 11 years). An important issue for future analysis is whether firms disclose the same APM throughout the years. ESMA guidelines establish that when a firm discloses an APM, it should provide comparatives from the previous periods. Moreover, ESMA states that firms should ensure that APM are consistent over time, and in case of changes, the firm is expected to: (i) explain the changes undertaken, (ii) give the reasons for those changes, and (iii) adjust the comparatives.

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Table 4: Frequency of APM disclosure over time

Firms disclosing APM	**%**
All years	35.4
More than 75% of the time	19.7
Between 50 and 75% of the time	25.9
Between 50 and 75% of the time	10.5
Less than 25% of the time	8.5

Practices of APM reporting before and after IFRS adoption in Europe are shown in Table 5. The use of APM to meet earnings targets increased after IFRS adoption (columns 1, 2 and 3). The proportion of firms giving higher emphasis to APM figures than accounting numbers (column 4), and the proportion of firms excluding recurring items to calculate APM (column 5) both increased after IFRS adoption. This descriptive analysis suggests an increase in aggressive APM reporting after IFRS implementation, perhaps associated with the increase in complexity of IFRS when compared to national accounting standards. Nevertheless, the proportion of firms providing some form of reconciliation between APM and a GAAP measure remains stable, at about 58%.

Table 5: APM reporting before and after IFRS adoption

IFRS	**(1) Meeting analyst forecasts (N° of cases)**	**(2) Meeting previous year earnings (N° of cases)**	**(3) Avoiding presenting a loss (N° of cases)**	**(4) APM higher emphasis**	**(5) Recurring items**	**(6) Reconciliation**
Before IFRS	186	160	18	0.80	0.46	0.58
After IFRS	380	561	40	0.85	0.62	0.57
Statistically different	Yes	Yes	No	Yes	Yes	No
P-value	*<0.001*	*<0.001*	*0.199*	*0.050*	*0.001*	*1.00*

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1.4.3 Characteristics of disclosure

Figure 1 presents the number of APM included in each earnings announcement press release. In most cases most press releases include only one APM (30% of cases) or two (25% of cases). However, in a few cases, firms disclose as many as ten APM in the same press release, a reporting practice that can potentially confuse information users' as the multitude of APM may provide different pictures of business performance.

Table 6 illustrates the denominations that firms use for the first APM reported in the press release. There is substantial variation in the denomination of APM across firms and years, thus the table does not reflect all the labels found in press releases. The labels are classified into the categories listed in Table 6, based on their similarity. The most common label is 'income from operations' (24%), followed by 'EBITDA' (earnings before interest, taxes, depreciation and amortization, 20%). It is important to note that the labels that firms use, such as EBIT, income from operations and EBITDA, do not necessarily represent the same metric across firms and years. There is considerable variation in the way firms calculate these measures although their label may be the same, which raises questions about the comparability of APM across time and across firms. As mentioned above, ESMA's guidelines tackle this issue.

Figure 1: Number of APM by press release

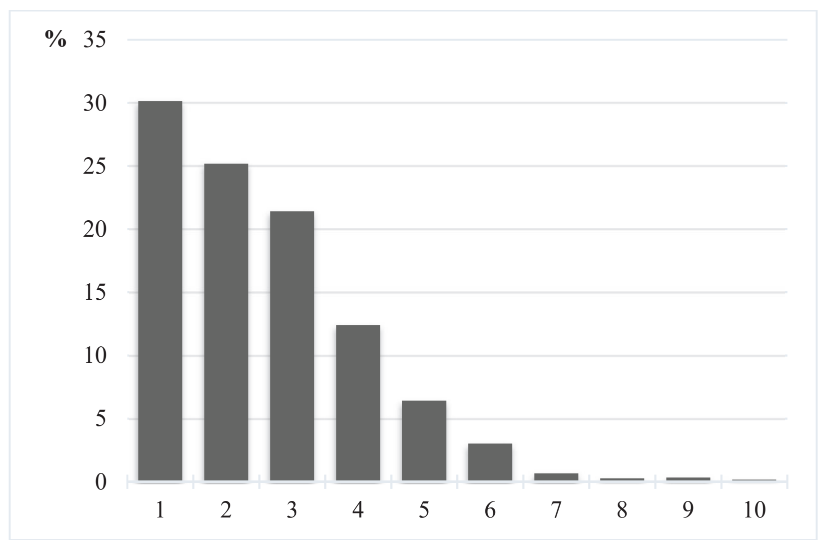

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Table 6: Common denominations of APM

Denominations:	**%**
Income from operations	24.2
EBITDA	19.7
Adjusted net income	17.3
Adjusted EBITDA	15.6
EBIT	7.4
Non-GAAP EPS	6.8
Non-GAAP EBIT	3.6
Non-GAAP free cash flows	2.7
Non-GAAP EPS net income continuing operations	2.2

Table 7 summarizes reporting practices often associated with poor transparency in APM disclosure by industry. Most firms give higher prominence to the APM than to the accounting measures in the press release (83%). The majority of firms exclude items that are viewed as recurring or non-transitory (56%). More than half of the firms (57%) disclose some form of reconciliation. However, the most common type of reconciliation is a written explanation about the nature of the exclusions sometimes but not always with the corresponding amounts.

Table 7: Transparency of APM disclosure by industry (%)

Industry sector	**(1) APM higher emphasis**	**(2) Recurring items**	**(3) Reconciliation**	**(4) Type of reconciliation**
Agriculture, mining and construction	0.77	0.59	0.61	(a)
Manufacturing	0.84	0.55	0.57	(a)
Machinery and electronics	0.82	0.53	0.41	(a)

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Transportation and communication	0.82	0.69	0.64	(a)
Retail	0.82	0.43	0.72	(c)
Real estate	0.94	0.80	0.57	(b)
Services	0.89	0.54	0.68	(a)
Education, culture and other services	0.75	0.64	0.76	(c)
Total	**0.83**	**0.56**	**0.57**	**(a)**

(a) Written explanation of nature and amount of adjustments
(b) Written explanation of nature of adjusts (no values)
(c) Reconciliation from APM to an accounting measure, but not always earnings

1.4.4 Firm characteristics

As explained earlier, firms may use APM aggressively to meet or beat earnings benchmarks such as analyst forecasts or prior year earnings, or even avoid reporting an accounting loss. Academic literature demonstrates that failing to meet these benchmarks results in strong market penalties in the form of lower firm valuations. Table 8 analyses the relationship between firm characteristics and the use of APM to meet the earnings benchmarks[6].

Larger firms (i.e. with a higher asset value) have more incentives than smaller firms to disclose APM in a way that suggests benchmark achievement. In about 60% of the times, large firms with accounting earnings below the analysts' forecasts of earnings report an APM higher than the analysts' forecast earnings. In contrast, small firms do that in only 40% of the times. The most striking case is when firms try to avoid showing a loss. Large firms report a positive APM (i.e. profit) when the accounting earnings is negative (i.e. loss) in about 62% of the cases. However, small firms use APM to report profit when they incur accounting losses in 38% of the cases. Regarding profitability, measured as return on assets (ROA), firms with poorer profitability make more use of APM to meet or beat the three earnings targets than firms with a better performance.

[6] To facilitate the interpretation, we split the observations into high and low groups, based on the sample median of the characteristic.

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Finally, firms with a high market value report APM that meet or beat analyst forecasts and prior year earnings when accounting earnings no more frequently than firms with a low market value. Overall, the results suggest that larger firms with poor financial performance are more likely to engage in more benchmark beating using APM.

Table 8: Firm characteristics and using APM to meet earnings benchmarks

Firm characteristics	**(1) Analyst forecasts**	**(2) Prior year earnings**	**(3) Avoid loss**
Firm size			
Small firms	40.1	41.7	37.9
Large firms	59.9	58.3	62.1
Profitability			
Low ROA	52.1	51.2	98.3
High ROA	47.9	48.8	1.7
Market capitalization			
Low market value	44.7	41.9	57.9
High market value	55.3	58.1	42.1

1.5 Conclusion

The disclosure of APM in earnings announcements is a common corporate practice around the world. Managers claim that alternative measures are useful to provide insights about the measures used internally to assess business performance. To do that, managers exclude income statement items they view as unrelated to ongoing business operations. Because most transitory items are income-decreasing (i.e. expenses), APM figures are, on average, higher than GAAP earnings, which critics point out as an indication of strategic disclosure. A number of studies have investigated whether the use of AMP figures is motivated by informative or strategic reasons, with findings consistent with both explanations (e.g. Bhattacharya et al., 2003; Black and Christensen, 2009; Frankel et al., 2011; Lougee and Marquardt, 2003; Lougee and Marquardt, 2004).

In this chapter we discuss APM disclosure practices that have been associated with aggressive disclosure and the mechanisms that can help

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curb that use. We provide real examples and large sample evidence of current practices of APM disclosure by listed European firms. We describe the AMP disclosure practices by European firms over time, before and after the IFRS implementation, and across industries and countries. We show the pervasiveness of the disclosure of these figures and the different labels managers use. We also describe manager incentives to disclose APM, particularly related to earnings benchmark beating.

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Appendix 1: Examples of definitions and justifications for APM disclosure by European firms

Firm (press release date)	Definition	Justification
Shire (2011)	These non-GAAP measures exclude the effect of certain cash and non-cash items that Shire's management believes are not related to the core performance of Shire's business.	These non-GAAP financial measures are used by Shire's management to make operating decisions because they facilitate internal comparisons of Shire's performance to historical results and to competitors' results. Shire's Remuneration Committee uses certain key non-GAAP measures when assessing the performance and compensation of employees, including Shire's executive directors. The non-GAAP measures are presented in this press release as Shire's management believe that they will provide investors with a means of evaluating, and an understanding of how Shire's management evaluates, Shire's performance and results on a comparable basis that is not otherwise apparent on a US GAAP basis, since many non-recurring, infrequent or non-cash items that Shire's management believe are not indicative of the core performance of the business may not be excluded when preparing financial measures under US GAAP."

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Dassault Systems (2008)	Other operating income and expense, net are generally not recurring, and the Company does not expect to incur other operating income and expense, net as part of its normal business on a regular basis."	The supplemental non-GAAP and non-IFRS financial information helps investors better understand the current trends in its operating performance. However, other operating income and expense, net are components of the Company's income and expenses for 2008 and by excluding them the supplemental non-GAAP and non-IFRS financial information understates the net impact to the Company's net income in 2008.
Anglo American (2011)	Special items are those items of financial performance that the Group believes should be separately disclosed on the face of the income statement to assist in the understanding of the underlying financial performance achieved by the Group. Non-operating special items include profits and losses on disposals of investments and businesses as well as certain adjustments relating to business combinations.	

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Morrison Wm (2009)		Underlying earnings is a measure we use to assess normal underlying business performance and trends. The Group's earnings are adjusted to remove highly volatile or one-off costs. A reconciliation of underlying earnings is provided in note 1 of the financial information. Underlying earnings per share is the EPS measure we use to remove the potential volatile impact of property gains and net pension interest income and consequently underlying EPS provides a better measure of normal underlying business.
PPR (2010)	Other non-recurring operating income and expenses" consists of unusual items, notably as concerns the nature or frequency, that could distort the assessment of Group entities' economic performance, as defined by French national accounting board (*Commission des Normes Comptables* – CNC) recommendation No. 2009.R.03.	Consequently, PPR monitors its operating performance using "recurring operating income", defined as the difference between total operating income and other non-recurring operating income and expenses.

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STMicroelectronics (2009)		These non-GAAP financial measures provide useful information for investors and management because they measure the Company's capacity to generate profitability from its business operations, excluding the effect of acquisitions and expenses related to the rationalizing of its activities and sites that it does not consider to be part of its ongoing operating results, thereby offering, when read in conjunction with the Company's GAAP financials, (i) the ability to make more meaningful period-to-period comparisons of the Company's ongoing operating results, (ii) the ability to better identify trends in the Company's business and perform related trend analysis, and (iii) an easier way to compare. The results of operations against investor and analyst financial models and valuations, which usually exclude these items.

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ESSAY 2

MISPRICING OF NON-GAAP EARNINGS DISCLOSURES BY EUROPEAN FIRMS: A FAMA AND FRENCH THREE-FACTOR MODEL APPROACH

AUBERT F.* AND GRUDNITSKI G.†

2.1 Introduction

In response to the growing prominence in Europe of non-GAAP (i.e. pro forma) earnings disclosures as alternative summary measures of financial performance, this chapter investigates what reconciliation information might be included in disclosures to limit market mispricing. Indeed, pro forma earnings, often called "street" earnings by the financial press (Bhattacharya et al., 2003), are alternative earnings measures to those proscribed by GAAP (Generally Accepted Accounting Principles). Increasingly, European companies disclose their pro forma earnings in the same press release as their GAAP earnings figure. A press release might also identify specific causes as to why these earnings numbers differ, such as what accounts contribute to the difference and their amounts. But what if a disclosure contains only non-GAAP earnings?

To answer this question we look to the financial markets. Specifically, what is the extent of market mispricing when disclosures contain only information on pro forma earnings? If market mispricing is found for this type of disclosure, can it be mitigated by providing information (i.e. accounts and amounts) on how pro forma numbers reconcile to GAAP earnings? Moreover, can the same market outcome be achieved by mentioning only a GAAP earnings number in a disclosure? And finally, is this minimal level of disclosure (i.e. just a GAAP earnings number) good

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enough to mitigate mispricing in cases of opportunistic pro forma reporting (e.g. pro forma numbers reversing an instance in which GAAP earnings fell short of analysts' earnings forecast)?

The above questions are addressed in this study by investigating the time-series properties of 532 annual pro forma press releases of EURO STOXX Fixed Index corporations during 2008 and 2009. Our analysis finds that when releases contain only pro forma earnings information, mispricing is detected. Conversely, when disclosures contain GAAP earnings reconciling information, no evidence of mispricing is found. Moreover, even for pro forma disclosures that could be motivated by a strategic or an opportunistic purpose, merely mentioning a GAAP earnings number seems good enough to mitigate mispricing. Further tests suggest that if reconciling information is limited only to GAAP earnings, it is enough to mitigate mispricing, not only in general but also when pro forma earnings serve an opportunistic purpose. From a policy perspective, an important implication of this chapter's findings is that investor interests could be served by enacting European supranational legislation requiring GAAP earnings to be part of a pro forma earnings disclosure.

We believe our research contributes to the literature in several ways. First, this chapter provides first-time evidence of market outcomes related to pro forma disclosures for companies trading on major European equity markets. Second, additional analyses suggest that market mispricing can be avoided by simply including GAAP earnings in the pro forma earnings press release. Third, we show that the effectiveness of including GAAP earnings in disclosures on market outcomes holds not only for general cases but also in situations where pro forma earnings serve an opportunistic purpose. We believe this combined evidence sends a clear message to policy makers that investor interests can be protected by requiring information on GAAP earnings to be part of a pro forma disclosure.

The remainder of the chapter proceeds as follows. In the next section, the background relevant to types, motivations, market outcomes, and regulations of pro forma disclosures is discussed. Section 3 describes our research design, and section 4 presents our sample. Section 5 reports the results pertaining to the ways this research contributes to the literature on pro forma disclosures. The concluding section summarizes the main findings, and suggests possible extensions for future research on pro forma earnings.

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2.2 Background

In this section types of pro forma earnings metrics are described, and the argument as to whether they add value is introduced. This is followed by a presentation of the antecedents of pro forma earnings reporting regulation, and a discussion of possible outcomes when the market does not fully understand the time-series properties of pro forma disclosures. The background section concludes with a description of the taxonomy employed to classify the reconciling information in pro forma disclosures.

2.2.1 Types of metrics and motivations for pro forma earnings disclosures

Pro forma numbers are voluntarily disclosed, are without formal definition and are not subject to mandatory audit. Pro forma earnings also represent either an adjusted-GAAP or a non-GAAP measure. The most common form of adjusted-GAAP earnings measures is the metric of "earnings before" or EB. EB metrics, such as EBIT (earnings before interest and taxes), typically appear as an income statement subtotal or can be determined by reference to the income statement and supplementary notes. In contrast to EB metrics, non-GAAP measures such as underlying earnings before special items, adjusted recurring earnings, permanent group profit, and organic net income do not lend themselves to GAAP reconciliation because they represent idiosyncratic adjustments to earnings based on management's access to private information.

The issue of whether pro forma earnings add value has two sides (Bradshaw and Sloan, 2002; Hirshleifer and Teoh, 2003). Proponents of the informative side of pro forma earnings claim that when items are excluded because they are unrelated to an entity's future economic prospects, a worthwhile purpose is served by improving earnings quality (Holthausen, 1990; Johnson and Schwartz, 2005). Sceptics of the informative side of pro forma earnings claim that adjusted earnings numbers often serve more of a strategic purpose; namely, to affect favourable market perceptions about a company (Bowen et al., 2005; Allee et al., 2007). For instance, the earnings management literature contends that a company may be highly motivated or have strong incentives to use pro forma numbers to portray its performance in an overly optimistic manner when, in fact, its GAAP earnings fall short of analyst forecasts of earnings (Dechow et al., 2003), or report an earnings loss (Burgstahler and Dicev, 1997; Jacob and Jorgensen, 2007).

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2.2.2 Antecedents of reconciliation in pro forma reporting

An important question pertaining to the use and usefulness of pro forma disclosures is whether regulation is necessary to protect investor interests. The United States answered this question by making Regulation G part of the Sarbanes-Oxley Act of 2002. Regulation G mandated the US Securities and Exchange Commission (SEC) to enact regulatory action requiring companies listed on US capital markets to reconcile their pro forma to GAAP earnings numbers effective March, 2003.

Coincident to the application of Regulation G in the United States, a release by the Technical Committee of IOSCO (International Organization of Securities Commission) suggested that European companies choosing to include an alternative earnings measure in their press release, periodic report or filing should provide additional information so investors could gain a better understanding of their financial performance over reporting periods and in comparison to other companies. The IOSCO release made the following statement about reconciliation of non-GAAP to GAAP earnings disclosures.

> Whenever financial performance indicators of a non-GAAP nature are published in press releases or speeches, etc., they should always be accompanied by the indication of the net consolidated income/loss figure for the same period calculated in accordance with GAAP.
> (IOSCO, 2002, p. 2)

In 2003 and 2005, the French market regulator, AMF – *Autorité des Marchés Financiers,* released a guide echoing IOSCO's recommendation about non-GAAP disclosures. This guide mandated French-listed companies to disclose pro forma earnings measures and net consolidated income group share for the same period in their financial reports[1].

In 2005 the Committee of European Securities Regulators (CESR) issued a document in support of IOSCO's release on the presentation of alternative performance measures. Among CESR's recommendations was the following statement.

> Where possible, issuers should present alternative performance measures only in combination with defined measures. Furthermore, issuers should explain the differences between both measures; this might be through a

[1] COB (*Commission des Opérations de Bourse*), "Issuers' Financial Reporting and Earnings Measures," March 12, 2003, and AMF (formerly COB), "Issuers' Financial Reporting and Earnings Measures," September 20, 2005.

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> reconciliation of figures to provide investors with enough information to fully understand the results and financial position of the company.
> (CESR, 2005, p. 6)

2.2.3 Market reaction and reconciling information

Prior research has shown that markets may fail to fully understand the time-series properties of pro forma disclosures and how these disclosures impact firm value. This lack of understanding is manifested by a company's stock being systematically overpriced. For example, Doyle et al. (2003) investigate the informational properties of large expense exclusions from pro forma earnings. They found that when investors fail to fully appreciate the cash flow implications of these exclusions at time of disclosure, large positive abnormal returns persist following the disclosure.

The study by Landsman et al. (2007) confirms Doyle et al.'s finding of mispricing when GAAP expenses are excluded from pro forma earnings. Additionally, when Lougee and Marquardt (2004) examine the ability of pro forma disclosures to predict future profitability and returns, they report that at the time of the press release investors fail to incorporate the information about future returns contained in the disclosure. This finding causes Lougee and Marquardt to conclude their results are only weakly consistent with the notion of the market mispricing pro forma earnings.

Pertinent to the issue of the relationship between reconciling information contained in, and market reaction to, pro forma disclosures is the research by Zhang and Zheng (2011). In the first part of their study they investigate mispricing during a period when reconciling information in pro forma disclosures was discretionary. In the second part of their study they shift their focus to the period after the enactment of Regulation G when complete reconciliation information of pro forma to GAAP numbers was mandated. The results of all tests confirm the important role played by reconciliation information in mitigating mispricing of pro forma disclosures.

2.2.4 A taxonomy of reconciling information

Related to pro forma disclosures containing sufficient detail to inform readers of how pro forma earnings adjustments relate to their companion GAAP earnings numbers, the studies by Bhattacharya et al. (2003), Zhang and Zheng (2011) and Hitz (2010) framed the process of creating a taxonomy to classify the reconciling information in a disclosure. This resulted in a taxonomy having four tiers or levels: complete, partial, GAAP earnings only, and no reconciling information.

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The Appendix provides an example of a press release from each tier. In the top tier of complete reconciling information is SAP's press release. It shows reconciling information for SAP's GAAP- and pro forma-based income statements, and is typical for a press release by a company cross-listed on the NYSE and therefore subject to Regulation G. In the next tier of partial reconciling information is EADS' press release. This press release gives the types but not the magnitudes of adjustments from GAAP earnings to pro forma numbers. If a press release had no account level disclosure but did disclose a GAAP earnings number, it falls into the tier of GAAP earnings only reconciling information. ACCIONA's press release, which mentions only "underlying" (pro forma) EBITDA, and "attributable" (GAAP) net profit earnings, is an example of this type of disclosure. In the lowest tier of the taxonomy are press releases that do not contain reconciling information. TELECOM ITALIA GROUP's press release is an example of disclosures in this tier because it focuses only on pro forma earnings, which in this case are named "group organic" EBITDA.

2.3 Research design

Market mispricing is defined as the extent to which future abnormal returns are systematically correlated with the information disclosed about pro forma earnings. Following Doyle et al. (2003) and Zhang and Zheng (2011), we expect that if the market misprices earnings numbers, abnormal market returns in the period immediately after disclosure should occur and be significantly positive.

Tests of mispricing are accomplished by running Fama and French's (1993) three-factor regressions to estimate the abnormal returns of portfolios:

$$R_{pt} - R_{ft} = a + b(R_{mt} - R_{ft}) + sSMB_t + hHML_t + \varepsilon_t \quad (1)$$

where R_{pt} is the equally weighted return of the portfolio of firms in calendar week t; R_{mt} is the return on the value-weighted index of EuroStoxx stocks in week t; R_{ft} is the one-week government bond of Euroland (EUL) (a Treasury bill) in week t; SMB_t is the return on small firms minus the return on large firms in week t; HML_t is the return on high book-to-market stocks minus the return on low book-to-market stocks in week t.

In this model, the intercept term, *a*, measures the abnormal weekly return after controlling for the three risk factors. Its significance is

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evidence of the degree of mispricing related to a portfolio of pro forma disclosures.

Our study sets out to answer two simple questions: is information that reconciles pro forma to GAAP earnings important in understanding a company's future performance, and does it mitigate capital market investors from being misled? Three tests are conducted to examine this issue. The first test compares market mispricing for pro forma disclosures categorized into the tiers of having no or complete reconciling information to GAAP earnings. The second test evaluates market mispricing for pro forma disclosures that fall into the tiers of having partial reconciling information and GAAP earnings only. The last test asks if disclosures that fall into the tier of GAAP earnings only, or, said another way, minimum reconciling information are good enough to mitigate market mispricing for pro forma disclosures that can be construed to have a strategic or opportunistic purpose.

2.4 Sample selection and descriptive

The sample consists of annual pro forma disclosures of companies from the EURO STOXX Fixed Index as reported by *FactSet*. The EURO STOXX Fixed Index is a subset of the STOXX Europe 600 Index representing large, mid and small cap companies from the twelve Eurozone countries of Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain. During the period 2008-2009, the Index consisted of 314 firms. The decision to collect annual rather than quarterly pro forma earnings disclosures was influenced by the greater attention paid to annual earnings announcement by the capital markets, and because most European companies are not required to disclose quarterly earnings[2]. These disclosures, in the form of press releases, were hand collected from either the "Press" or "Investor Relations" sections of companies' websites. From the final sample of 532 disclosures, 19 observations were dropped because of missing stock return data.

As described in section 3, observations from 2008 and 2009 were grouped into the tiers of complete, partial, GAAP earnings only, and no reconciling information. Table 1 shows that roughly half the observations came from each year, and that 13.2%, 10.7%, 60.7%, and 15.4% of the

[2] Using analyst following as a proxy for capital market attention, Hitz (2010) finds that for the German companies in his sample, 17.82 analysts on average participated in the annual consensus forecast. On a quarterly basis, the average number of participants in the consensus forecast fell to only 1.84 analysts.

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disclosures came from, respectively, the tiers of complete, partial, GAAP earnings only, and no reconciling information.

Table 1: Pro forma press releases by reconciling information

	N. of Press Releases	Percent of sample
Panel A: No reconciling information		
2008	40	7.52
2009	42	7.89
Total	**82**	**15.41**
Panel B: Complete reconciling information		
2008	35	6.58
2009	35	6.58
Total	**70**	**13.16**
Panel C: Some reconciling information		
2008	29	5.45
2009	28	5.26
Total	**57**	**10.71**
Panel D: Only GAAP earnings reconciling information		
2008	164	30.83
2009	159	29.89
Total	**323**	**60.71**

Distribution of 532 press releases in 2008 and 2009 by reconciling information. Panel A represents the number and percent of press releases having no reconciling information to GAAP earnings. Panel B represents press releases of companies (cross-listed on major U.S. stock exchanges) required by Regulation G to have complete reconciling information to GAAP earnings. Panel C reports the number and percent of press releases having GAAP earnings and additional account-level reconciling information. Panel D represents press releases having only GAAP earnings reconciling information.

2.5 Empirical analysis

This section has two parts. Part one presents findings concerning mispricing associated with pro forma disclosures from each tier of reconciling information. Part two reports the results of a sensitivity test[3] in which analyst forecasts of earnings are substituted for GAAP earnings.

[3] A sensitivity test was also conducted to determine if the choice of weekly calendar-time period in our regressions affected the results. After replicating the analysis using monthly calendar-time, we report similar results (details are available from the corresponding author), which leads us to conclude the regression results based on weekly calendar-time are consistent and robust.

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2.5.1 Main results

For each tier of reconciling information, observations were arranged according to the difference (i.e. DIFF) between pro forma and GAAP earnings deflated by the absolute value of GAAP earnings per share. These data were then partitioned into three groups or terciles, each containing one-third of the total number of observations. An arbitrage portfolio was constructed by buying stocks in the low DIFF portfolio and shorting stocks in the high DIFF portfolio. Both portfolios were held for a year. If the Fama-French three-factor model is valid for generating abnormal returns of the arbitrage portfolio, and these abnormal returns measure the extent or mispricing, then our supposition is that smaller abnormal returns should be associated with disclosures having more complete reconciling information. Computationally, this entailed subtracting the alpha of the high DIFF position from the alpha of the low DIFF position, and determining the statistical significance of the resulting alpha value (of the arbitrage portfolio).

Table 2 reports the results for the top and bottom tiers (i.e. complete versus no reconciling information). Panel A shows the intercept term or alpha, which measures the abnormal weekly return after controlling for the three risk factors, is insignificant for all three portfolios, thus providing no evidence of mispricing for the tier of disclosures having complete reconciling information. Conversely, for the bottom tier of disclosures having no reconciling information, a negative and significant alpha recorded in Panel B indicates the portfolio of high DIFF stocks of companies is over-valued. More importantly, however, is the alpha of the arbitrage portfolio with a long position in stocks of companies with low DIFF and a short position in stocks of companies with high DIFF. It is positive and significant, indicating a weekly, risk-adjusted return of 0.3%, and suggesting there is evidence of the existence of mispricing for companies disclosing only pro forma information in their press releases.

Table 3 reports the results for the two middle tiers of the reconciling taxonomy (i.e. partial versus GAAP earning only reconciling information). Both A and B Panels show insignificant alphas, confirming what was found for disclosures that had complete reconciling information.

A final test on 74 observations was then performed to determine whether minimal reconciling information (i.e. GAAP earnings only) is good enough to mitigate mispricing in a case where a disclosure is being used for strategic or opportunistic purposes. In this test, each observation represented an instance in which an earnings target missed by GAAP earnings was met or exceeded by pro forma earnings, and reconciling information was limited only to GAAP earnings. Table 4 reports the

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results of this test and again shows that if GAAP earnings reconciling information only is present in a disclosure, market mispricing is mitigated.

Table 2: Weekly calendar-time Fama-French model for disclosures with complete and no reconciling info: $R_{pt} - R_{ft} = a + b\,(R_{mt} - R_{ft}) + h\,SMB + s\,HML + \varphi$

	a		*b*		*s*		*h*	
Panel A: Complete reconciling information (n=70)								
Low *DIFF*	0.000	(-0.03)	0.147	(1.15)	0.064	(0.91)	-1.24***	(-6.07)
High *DIFF*	-0.003	(-0.93)	0.243**	(1.95)	0.163***	(2.94)	-1.109***	(-6.57)
Arbitrage portfolio (Low *DIFF* minus High *DIFF*)	0.003	(0.12)	-0.096	(-0.15)	-0.099	(-1.59)	-0.133***	(-3.03)
Panel B: No reconciling information (n=82)								
Low *DIFF*	-0.005	(-1.28)	0.648***	(6.14)	0.189**	(2.03)	0.205**	(2.25)
High *DIFF*	-0.008**	(-2.15)	0.735***	(7.50)	0.223**	(2.44)	0.120	(1.38)
Arbitrage portfolio (Low *DIFF* minus High *DIFF*)	0.003**	(1.76)	-0.087	(-1.48)	-0.034**	(-2.52)	0.085	(1.19)

*R_{pt} is the equally weighted return of the portfolio of firms in calendar week t; R_{mt} is the return on the value-weighted index of EuroStoxx stocks in week t; R_{ft} is the one-week government bond of Euroland (EUL) [Treasury bill] in week t; SMB_t is the return on small firms minus the return on large firms in week t; and HML_t is the return on high book-to-market stocks minus the return on low book-to-market stocks in week t using the OLS White heteroscedasticity-consistent standards and covariance adjustment procedure. DIFF is defined as the difference between the pro forma earnings per share minus GAAP earnings per share deflated by the absolute value of GAAP earnings per share. Panel A is composed of 70 observations by companies cross-listed on a major US exchange and assured of having complete reconciling information. Panel B is composed of 82 observations in which there was no reconciling information. The table reports coefficient estimates, with t-statistics in parentheses. *,**,*** represents respectively, levels of significance at 0.10, 0.05 and 0.01 using a two-tailed test.*

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Table 3: Weekly calendar-time Fama-French model for disclosures with partial and GAAP earnings only reconciling info: $Rpt - Rft = a + b\ (Rmt - Rft) + h\ SMB + s\ HML + \varphi$

	a		*b*		*s*		*h*		*Adj. R^2*
Panel A: Partial reconciling information (n=57)									
Low *DIFF*	-0.003	(-1.04)	0.728***	(7.12)	0.161*	(1.91)	-1.308***	(-5.53)	75.2%
High *DIFF*	-0.002	(-0.70)	0.803***	(7.75)	0.159*	(1.77)	-1.179***	(-4.90)	73.7%
Arbitrage portfolio (Low *DIFF* minus High *DIFF*)	-0.001	(-1.37)	-0.075***	(-5.27)	0.003*	(1.95)	-0.128**	(-2.07)	
Panel B: GAAP earnings only reconciling information (n=323)									
Low *DIFF*	-0.001	(-0.22)	0.384***	(3.68)	0.029	(0.36)	-0.828***	(-3.23)	69.0%
High *DIFF*	-0.001	(-0.30)	0.455***	(4.07)	0.027	(0.31)	-0.834***	(-2.96)	68.9%
Arbitrage portfolio (Low *DIFF* minus High *DIFF*)	0.000	(1.16)	-0.071***	(-4.47)	0.002	(0.38)	0.007	(0.020)	

*R_{pt} is the equally weighted return of the portfolio of firms in calendar week t; R_{mt} is the return on the value-weighted index of EuroStoxx stocks in week t; R_{ft} is the one-week government bond of Euroland (EUL) [Treasury bill] in week t; SMB_t is the return on small firms minus the return on large firms in week t; and HML_t is the return on high book-to-market stocks minus the return on low book-to-market stocks in week t using the OLS White heteroscedasticity-consistent standards and covariance adjustment procedure. DIFF is defined as the difference between the pro forma earnings per share minus GAAP earnings per share deflated by the absolute value of GAAP earnings per share. Panel A is composed of 57 observations by companies having partial reconciling information. Panel B is composed of 323 observations having GAAP earnings only reconciling information. The table reports coefficient estimates, with t-statistics in parentheses. *,**,*** represents respectively, levels of significance at 0.10, 0.05 and 0.01 using a two-tailed test.*

Table 4: Weekly calendar-time Fama-French model for disclosures reversing a missed earnings target and with GAAP earnings only reconciling info:
$R_{pt} - R_{ft} = a + b\ (R_{mt} - R_{ft}) + h\ SMB + s\ HML + \varphi$

	a		*b*		*s*		*h*		*Adj. R^2*
Low *DIFF*	-0.007**	(-2.02)	0.671***	(6.97)	0.058	(0.67)	0.275**	(2.16)	42.7%
High *DIFF*	-0.006*	(-1.69)	0.692***	(7.20)	0.031	(0.35)	0.289*	(1.88)	39.0%
Arbitrage portfolio (Low *DIFF* minus High *DIFF*)	0.001	(-0.20)	-0.021	(-1.64)	0.027	(0.63)	-0.014	(-0.36)	

Rpt is the equally weighted return of the portfolio of firms in calendar week t; Rmt is the return on the value-weighted index of EuroStoxx stocks in week t; Rft is the one-week government bond of Euroland (EUL) [Treasury bill] in week t; SMBt is the return on small firms minus the return on large firms in week t; and HMLt is the return on high book-to-market stocks minus the return on low book-to-market stocks in week t using the OLS White heteroscedasticity-consistent standards and covariance adjustment procedure. DIFF is defined as the difference between the pro forma earnings per share minus GAAP earnings

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*per share deflated by the absolute value of GAAP earnings per share. The table reports for 74 observations coefficient estimates, with t-statistics in parentheses. *,**,*** represents respectively, levels of significance at 0.10, 0.05 and 0.01 using a two-tailed test.*

2.5.2 Sensitivity analysis

Prior studies exploring the market's reaction to pro forma disclosures, most notably those by Bhattacharya et al. (2003) and Doyle et al. (2003), have contextualized the "surprise" or "informativeness" of a company's pro forma earnings number as the difference between it and analyst expectations of earnings. Their contextualization would seem to hold particular promise in assessing mispricing, especially for cases in which a pro forma disclosure had no reconciling information and preceded a GAAP earnings report. To determine if this formulation materially affected the results for disclosures containing no reconciling information, all tests were rerun wherein DIFF′ was defined as

> $DIFF'_t$ = the difference between pro forma earnings per share in year t and the latest consensus analyst forecast of GAAP earnings in year *t* deflated by the absolute value of GAAP earnings per share.

Table 5 indicates that when earnings forecasts are substituted for GAAP earnings, tests of mispricing yield qualitatively similar results in terms of significance and sign. Also of note is that results exhibit elevated levels of statistical significance, (i.e. t-statistics of 3.30 for the DIFF′ arbitrage portfolio compared to 1.76 for the DIFF arbitrage portfolio), and greater explanatory power (i.e., adjusted R-squared values of 62.80% and 58.22% for DIFF′ versus 34.95% and 42.45% for DIFF).

Table 5: Regression results for disclosures with no reconciling information and analyst forecasts substituted for GAAP earnings:
Rpt – Rft = a + b (Rmt – Rft) + h SMB + s HML + φ

	a		*b*		*s*		*h*		*Adj. R^2*
Low *DIFF′*	-0.014***	(-3.19)	1.299***	(11.83)	0.066	(0.92)	-0.329*	(-1.71)	62.8%
High *DIFF′*	-0.011*	(-2.51)	1.223***	(11.03)	0.002	(0.03)	-0.289	(-1.12)	58.2%
Arbitrage portfolio (Low *DIFF′* minus High *DIFF′*)	0.003***	(-3.30)	0.066***	(6.05)	0.064	(1.34)	-0.101	(-1.28)	

Rpt is the equally weighted return of the portfolio of firms in calendar week t; Rmt is the return on the value-weighted index of EuroStoxx stocks in week t; Rft is the one-week government bond of Euroland (EUL) [Treasury bill] in week t; SMBt is the return on small firms minus the return on large firms in week t; and HMLt is the return on high book-to-market stocks minus the return on low book-to-market stocks in week t using the OLS White heteroscedasticity-consistent standards and covariance adjustment procedure. DIFF′ is

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*defined as the difference between the pro forma earnings per share minus analyst forecasts of earnings per share deflated by the absolute value of GAAP earnings per share. The table reports for 82 observations coefficient estimates, with t-statistics in parentheses. *,**,*** represents respectively, levels of significance at 0.10, 0.05 and 0.01 using a two-tailed test.*

2.6 Conclusions

Prior studies have shown that when markets do not fully understand how certain expressions of earnings translate into future earnings, investors tend to incorrectly value companies in the marketplace. Set against this backdrop and the increasing predilection of European companies to issue pro forma earnings press releases, this study investigates the extent to which these disclosures are related to mispricing and whether indications of mispricing can be mitigated by disclosing how pro forma earnings are related to GAAP earnings.

To address this issue we look to the financial markets in Europe and the extent of market mispricing when disclosures contain only information on pro forma earnings. Our analysis indicates that when pro forma disclosure are absent any information about GAAP earnings, abnormal returns occur after controlling for three risk factors. If information about GAAP earnings is included in a disclosure, however, our tests no longer detect the occurrence of statistically significant abnormal returns (i.e. mispricing). Moreover, even for cases where pro forma disclosures might be regarded as having an opportunistic purpose (e.g. pro forma numbers reversing an instance in which GAAP earnings fell short of analyst earnings forecast), our results suggest that the mere mention of GAAP earnings in a disclosure seems to be good enough to mitigate mispricing.

For the European market, we believe our findings aid in explaining the relationship between real outcomes based on pro forma reports and the reconciling information contained therein. Historically, European regulatory bodies have been ineffective in imposing consistent and rigorous standards for disclosure of reconciling information (Hitz, 2010). We find evidence of positive abnormal returns (i.e. mispricing) when disclosures contain only information on pro forma earnings. Conversely, when pro forma disclosures contain reconciling information to GAAP earnings, no evidence of positive abnormal returns is found. However, inclusion of one key piece of information appears to have an impact on the usefulness of the reports. Our findings suggest that the mere mention of GAAP earnings numbers in a pro forma disclosure is enough to help investors avoid being misled when pricing a company’s stock.

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Appendix: Examples of Disclosures with Different Reconciling Information

Complete Reconciling Information

DATE: 01/27/2010

HEADLINE: SAP announces fourth quarter and full year 2009 results that exceeded expectations.

BODY: Financial highlights SAP Full Year 2009 [1]

	U.S. GAAP			Non-GAAP [2]			
€ millions, unless stated otherwise	FY 2009	FY 2008	% Δ	FY 2009	FY 2008	% Δ	% Δ constant currency [3]
Software revenues	2,606	3,606	-28	2,606	3,606	-28	-27
Software and software-related service revenues	8,197	8,457	-3	8,208	8,623	-5	-6
Total revenues	10,671	11,565	-8	10,682	11,731	-9	-9
Operating expenses	-8,031	-8,725	-8	-7,766	-8,428	-8	-8
Operating income	2,640	2,840	-7	2,916	3,303	-12	-11
Operating margin (%)	24.7	24.6	0.1pp	27.3	28.2	-0.9pp	-0.6pp
Income from continuing operations	1,825	1,928	-5	2,036	2,269	-10	-
Net income	1,789	1,869	-4	2,000	2,210	-10	-
Basic EPS from cont. operations (€)	1.54	1.62	-5	1.71	1.91	-10	-

[1] All figures are preliminary and unaudited.

[2] Adjustments in the revenue line items are for support revenue that the acquired entity would have recognized had it remained a stand-alone entity but that SAP is not permitted to recognize as revenue under U.S. GAAP as a result of business combination accounting rules. Adjustments in the operating expense line items are for acquisition-related charges. See Explanations of Non-GAAP Measures for details.

[3] Constant currency revenue and operating income figures are calculated by translating revenue and operating income of the current period using the average exchange rates from the previous year's respective period instead of the current period. Constant currency period-over-period changes are calculated by comparing the current year's non-GAAP constant currency numbers with the non-GAAP number of the previous year's respective period. See Explanations of Non-GAAP Measures for details.

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Partial Reconciling Information

DATE: Leiden 03/09/2010

HEADLINE: EADS reports 2009 results

BODY:

- Revenues of € 42.8 billion – strong deliveries across all businesses
- EBIT* before one-off in line with guidance: € 2.2 billion despite hedge rate deterioration
- A400M program continues – full year charge of € 1.8 billion
- EBIT* of € -322 million impacted by A400M provision and foreign exchange effects
- Net loss: € -763 million
- Net Cash at € 9.8 billion due to better than expected Free Cash Flow including timing benefits from advanced payments
- Increase of Airbus single aisle production rate in December 2010
- No dividend payment recommended due to losses

EADS' (stock exchange symbol: EAD) annual results 2009 demonstrate the Group's ability to face a challenging macro-economic and commercial environment thanks to proactive management of the order book and of customer funding sources. It enabled strong deliveries across all businesses. However, earnings are weighed down by provisions for delays on new programmes. Revenues stood stable at € 42.8 billion.

The EBIT* before one-off amounted to € 2.2 billion. Foreign exchange effects and the provision booked for the A400M programme in particular have weighed on EADS' EBIT* of € -322 million. The order intake of € 45.8 billion reflects the significantly weaker commercial momentum in 2009. At the same time, the Group recorded strong defence and institutional business. EADS' order book of € 389 billion provides a solid platform for future deliveries. The Net Cash position is solid at € 9.8 billion thanks to better than expected Free Cash Flow (see explanations on page 2) and remains a strong asset for the Group.

EBIT* before one-off – an indicator capturing the underlying business margin by excluding non-recurring charges or profits caused by movements in provisions or foreign exchange impacts – stood at € 2.2 billion (FY 2008: € 3.3 billion). Compared to 2008, higher volumes at Airbus and Power8 savings were more than offset by a degradation of hedge rates, the deterioration of pricing on Airbus commercial deliveries and cost increases. A380 continued to weigh significantly on the underlying performance. The performance of Single Aisle and Long Range programmes in Airbus as well as in other Divisions remains robust.

The EBIT* of EADS of € -322 million (FY 2008: € 2,830 million) was burdened by A400M and A380 provisions and exceptional negative foreign exchange impacts. In total, exchange rate impacts weighed down 2009 EBIT* by € 2.5 billion compared to 2008.

EADS' Net Income amounted to € -763 million (FY 2008: € 1,572 million), or earnings per share of € -0.94 (earnings per share FY 2008: € 1.95). The Net Income was weighed down by the deterioration of EBIT*: Self-financed R&D expenses slightly increased to € 2,825 million (FY 2008: € 2,669 million), assigned to spur new technologies and future business.

Exceptionally, due to the significant loss in 2009, the EADS Board of Directors recommends no dividend payment this year.

* EADS uses EBIT pre goodwill impairment and exceptionals as a key indicator of its economic performance. The term "exceptionals" refers to such items as depreciation expenses of fair value adjustments relating to the EADS merger, the Airbus Combination and the formation of MBDA, as well as impairment charges thereon.

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GAAP Earnings only Reconciling Information

DATE: 02/25/2010

HEADLINE: ACCIONA Key Highlights of FY 2009

BODY: 2009 has been a key year for ACCIONA Energy significantly increasing its critical mass and technological diversification.

- During 2009 ACCIONA has sold its 25.01% stake in Endesa to Enel and has simultaneously acquired 2,078[1] renewable MW from Endesa
- ACCIONA has invested €4,221m in a challenging environment
  - 93% in the Energy division: +2,566MW during 2009 (99% attributable)
  - Organic installed capacity in 2009 was 488MW (97% attributable)
- Preallocation in the Special Regime Register for 36 renewable projects totaling 1,104MW (12% of the allocation by the Ministry of Industry)
  - The five CSP projects presented (250MW) were registered
  - Preallocation of 29 windparks (824MW) and two biomass plants (30MW)

Key Figures

(€M)	Jan-Dec 08[2]	Jan-Dec 09	Chg. (%)
Revenue	7,208	6,512	-9.6%
Underlying EBITDA	1,069	1,043	-2.5%
Attributable Net Profit	464	1,263	172.0%

[1] 2,078MW already acquired (1MW pending)

[2] Excluding Endesa contribution

No Reconciling Information

DATE: Milan 02/25/2010

HEADLINE: TELECOM ITALIA GROUP preliminary results

BODY: Preliminary results at 31 December 2009 illustrated to the Board of Directors. These results have not been submitted to the Board of Directors pending a clearer evaluation of the TI Sparkle situation. Group organic EBITDA: 11.3 billion Euro, substantially in line with the previous year (-44 million against 2008). Organic EBITDA margin: 41.7%, +2.2 pp against 2008. Organic EBITDA margin Q4 2009: 38.9%, +3.3 pp on the previous year period. Organic revenues: 27.2 billion Euro, -5.6% compared with year-end 2008.

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ESSAY 3

THE RELIABILITY OF NON-GAAP DISCLOSURE IN EUROPE: AN EXAMINATION OF PRESENTATIONAL ASPECTS[1]

BINI L.*, GIUNTA F. * AND MICCINI R.*

3.1 Introduction

This study adds to the ongoing debate regarding non-GAAP disclosure by providing empirical evidence for the most widespread disclosure practices in Europe, with a specific focus on presentational aspects. Non-GAAP measures are considered a valuable tool that provides stakeholders with incremental information to supplement GAAP metrics (Cormier et al., 2017; Clinch et al., 2018). The quality of presentational aspects is particularly important. Being voluntary in nature, non-GAAP disclosure is discretionally defined by managers and is not assured. This increases the risk for opportunistic use by companies, with the aim of presenting their performance in a more favourable way (Barth et al., 2012; Bhattacharya et al., 2004).

Concern regarding the inappropriate use of non-GAAP disclosure has drawn the attention of supervisory authorities and standard setters. For instance, in the US, the Securities and Exchange Commission (SEC) recently issued a specific provision that forbids the communication of a non-GAAP measure as the only measure in public communications (SEC, 2016). On the other hand, some members of the Financial Accounting

[1] This work is the result of a joint collaboration. Nevertheless, the contents are attributable to the authors as follows: Laura Bini: sections 3.2.1, 3.2.3, 3.2.4, 3.3.2, 3.4.2; Francesco Giunta: sections 3.1 and 3.5.; Rebecca Miccini: sections 3.2.2, 3.3.1, 3.3.3, and 3.4.1.

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Standard Board (FASB) have started to question whether the proliferation of non-GAAP performance metrics indicates the need to better organize income statements so that investors can more easily calculate their own customized performance metrics (Siegel, 2014; Linsmeier, 2016). Accordingly, the International Accounting Standard Board (IASB) identified non-GAAP measures as a potential threat to the integrity of IFRS (International Financial Reporting Standards) financial reporting, indicating that regulators should do more to regulate the use of non-GAAP metrics (Shumsky, 2016).

As a consequence of the aforementioned concerns, several regulating initiatives have been adopted in recent years to increase the reliability of non-GAAP disclosure. These initiatives are aimed to encourage (or oblige) companies to comply with specific qualitative requirements when presenting their non-GAAP measures. In fact, the adoption of high-quality presentation standards improves the intelligibility and credibility of non-GAAP measures without reducing companies' discretion in the definitions and calculations of their own measures. With this purpose, in 2015, the European Securities and Markets Authority (ESMA) issued the Guidelines on Alternative Performance Measures, which require European companies to comply with a specific presentation format when communicating their non-GAAP measures. In adopting this format, companies should provide the bases of their calculations and the underlying assumptions and hypotheses for each non-GAAP measure they disclose, among other things. The presentation format adopted by the ESMA is aligned with the recommendations proposed by the International Organization of Securities Commissions (IOSCO) (2003, 2014, 2016) and the regulation system introduced by SEC (2003, 2010, 2016) in the US.

This study aims to investigate non-GAAP disclosure in European annual reports, with a specific focus on presentational aspects. Many studies have investigated non-GAAP disclosure, focusing on its efficacy in reducing information asymmetries in markets and verifying the presence of opportunistic behaviours. In contrast, very few studies have been conducted on the quality of non-GAAP disclosure (Bini et al., 2012; Bini et al., 2015). Moreover, previous studies focused mainly on non-GAAP earnings disclosed in press releases. We decided to focus our analysis on annual reporting disclosure due to its relevance as the number of non-GAAPs included in annual reports has consistently grown over time (Sherman and Young, 2018). Additionally, annual reports are the preferred information source of unsophisticated users as these individuals are known to be more vulnerable to the opportunistic use of non-GAAP disclosure (Bhattacharya et al., 2007).

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Based on a sample of 150 European companies from different industries and five different countries (France, Germany, Italy, the Netherlands, and the UK), we aim to investigate the most relevant factors that influence the number of non-GAAP measures and compliance with the most widespread qualitative requirements concerning presentational aspects. For this purpose, a specific disclosure index was developed, drawn from previous studies (Aripin et al., 2010; Bini et al., 2015; Elzahar et al., 2015). In accordance with previous literature on voluntary disclosure, the following factors that influence non-GAAP disclosure are examined: the country of origin, the level of technological intensity, company size, the presence of a GAAP profit/loss in the company's income statement, and company volatility.

Our results show that European companies share similar disclosure practices concerning both the number and the modalities of presentation of non-GAAP measures. The only exception is represented by the French companies, which communicate a significantly lower number of non-GAAP measures compared to other European companies. This could be due to the fact that French companies provide the market with supplementary measures that deviate from GAAPs less frequently. For the rest, it seems that institutional factors, such as the development of the financial market, the level of investor protection and the level of enforcement, are usually considered relevant in differentiating disclosure practices across Europe but are not effective at influencing non-GAAP disclosure. It is likely that some non-GAAP measures have become so widespread that they are commonly communicated by the majority of large international companies, such as those investigated in this study. This is the case of earnings before interest and taxes (EBIT) and earnings before interest, taxes, depreciation and amortization (EBITDA), which are disclosed by more than two-thirds of the companies in our sample. On the other hand, it is likely that the detailed recommendations included in the ESMA guidelines (CESR, 2005; ESMA, 2015) have contributed considerably to making companies' disclosure presentational formats uniform.

Additionally, our evidence does not support the idea that European companies use non-GAAP disclosure to obfuscate users' perceptions of the results. In fact, companies that report net losses disclose fewer non-GAAP metrics than other companies. We also document that volatility is an influencing factor in framing non-GAAP disclosure: companies with higher volatility communicate more non-GAAP measures and meet presentational qualitative standards more often than other companies. Moreover, larger companies disclose a greater number of non-GAAP measures than smaller companies; however, their disclosure does not

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differ in terms of presentation quality. Finally, non-GAAP disclosure does not change significantly between high-tech and non-high-tech companies.

These results contribute to the knowledge of factors that influence non-GAAP disclosure practices, enriching non-GAAP disclosure literature with new evidence in the European context. Additionally, our results could support national and supranational authorities involved in regulation processes, proving that European companies are largely compliant with the most highly recommended qualitative disclosure requirements. The results also represent a valuable benchmark for both companies and users who deal with this type of disclosure.

The rest of the paper is structured as follows: Section 1 illustrates the research background. It starts with a discussion of the evolution of non-GAAP disclosure. Then, the major challenges concerning the quality of non-GAAP disclosure are examined, and the most important regulation approaches are presented. The formulation of the research question and hypotheses concludes this section. Section 2 focuses on the research design, with an illustration of the sample and the measures used to assess non-GAAP disclosure. The descriptive analysis and the results of the multivariate analysis are reported in Section 3. Finally, several conclusions are drawn.

3.2 Research background

3.2.1 Main challenges characterizing non-GAAP disclosure quality

Until a few decades ago, economic and financial communication was associated with the accounting measures of income and capital. Since then, several factors have spurred companies to change their disclosure practices. For instance, companies have become larger and more active in international markets, intangible assets have assumed a central role in value creation processes, and the spread of economic culture and new information technologies have resulted in more intense interactions between different actors (Abeysekera, 2006; Di Piazza and Eccles, 2001; Lev and Gu, 2016). As a result, companies have progressively started providing users with other information on a voluntary basis to balance the loss of informative capacity among traditional financial metrics (Webber, 2000).

Among all types of voluntary information, non-GAAP measures have received particular attention from both preparers and users. The term 'non-GAAP measures' is commonly used to indicate financial metrics that are

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not yet defined according to a specific set of accepted accounting standards[2]. Table 1 reports a non-exhaustive list of the most common non-GAAP measures.

Non-GAAP measures were first published a few decades ago by dot-com companies, which experienced the limitation of applying traditional financial measures to their businesses. Subsequently, the publication of non-GAAP measures became a very popular practice in several sectors and has since continued to grow. Black et al. (2016) documented that in the US, non-GAAP disclosure reached its peak in the last years after a reduction due to the publication of Regulation G (2003) by SEC. However, the increasing use of non-GAAP metrics has not been limited to the US context. Choi et al. (2015) reported that the percentage of firms listed on the London Stock Exchange that publish non-GAAP measures grew from 39% in 1994 to 76% in 2001. According to Isidro and Marques (2015), the utilization rates of this type of information range between 55% and 67% among the 500 largest listed European companies. In Germany, 86% of listed companies disclosed non-GAAP measures in 2010 (Hitz 2010), and this percentage increased to 94% in 2016 (Ruhwedel et al., 2017). Finally, the Netherlands' Authority for the Financial Markets (AFM, 2014) confirmed that the number of non-GAAP measures used by the Dutch listed companies gradually increased in the period between 2009 and 2013, particularly with regard to the intermediate margins of income statements.

Table 1: Most commonly used non-GAAP measures

Non-GAAP measures
Earnings before interest and taxes (EBIT)
Earnings before interest, taxes, depreciation and amortization (EBITDA)
Adjusted EBIT
Adjusted EBITDA
Adjusted earnings per share (EPS)
Free cash flow (FCF)

[2] Due to the absence of a shared definition, different terms are used to refer to non-GAAP measures. These include *street earnings*, *alternative performance measures* and *adjusted measures*. In this chapter, we use the term 'non-GAAP measures' in a broad manner, including all other terms.

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Gearing ratio

Net financial position (NFP)

Net debt

Book-to-bill ratio

Order backlog

Order intake

Return on capital employed (ROCE)

Working capital (WC)

Source: Authors' adaptation from CFA, 2016a

The rapid diffusion of non-GAAP measures has been influenced by increased requests from investors and financial analysts. A survey of the Chartered Financial Analysts (CFA) Institute (CFA, 2016a) showed that nearly 65% of investors and financial analysts use financial non-GAAP measures in their evaluation processes. Similarly, a UK study carried out by the same institute on a sample of 262 British investors documented that 61% of them pay close attention to the non-GAAP measures published by companies (CFA, 2016b). A survey of PricewaterhouseCoopers conducted in 2014 on a sample of 85 investors noted that almost half of the investors considered non-GAAP disclosure useful in making investment decisions (PwC, 2014). Lastly, a study commissioned by the European Financial Reporting Advisory Group (EFRAG) and the Institute of Chartered Accountants of Scotland (ICAS) showed that European investment funds consider EBITDA the most useful indicator after revenue to make investment choices (EFRAG and ICAS, 2016). All this evidence suggests that investors (at least professional ones) believe that non-GAAP measures can be useful information in their decision-making.

The potential usefulness of non-GAAP measures is mainly attributable to the advantages related to their discretionary nature. In 2014, IOSCO recognized that

> Non-GAAP financial measures can be useful to issuers and investors because they can provide additional insight into an issuer's financial performance, financial condition and/or cash flow. The use of non-GAAP financial measures also can provide issuers with flexibility in communicating useful, entity-specific information. (IOSCO, 2014, p. 4)

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Several empirical findings support this view. Brown and Sivakumar (2003), for instance, suggested that statutory measures contain many non-operating items that reduce their usefulness in forecasting compared to non-GAAP measures. Bradshaw and Sloan (2002) reported that non-GAAP earnings are more strongly associated with returns than US GAAP earnings. Other evidence supports the idea that non-GAAP measures have a higher predictive power than mandatory items (Bhattacharya et al., 2003) and show lower volatility through time (Frankel and Roychowdhury, 2005). More recently, Cormier et al. (2017) showed that firms' disclosure of EBITDA enhances the relationships between both earnings and price and earnings and future cash flows. Dyreng et al. (2017) documented that non-GAAP measures used in debt covenants are better at predicting future cash flows than GAAP earnings, while Clinch et al. (2018) pointed out that non-GAAP measures are informative but only for firms that base adjustments and reconciliations on operating profit.

Despite the usefulness of non-GAAP measures becoming established over time, their wide use is still in question due to the discretion included in their calculation. In fact, as non-regulated measures, they leave room for opportunistic usage by managers, who may use non-GAAP measures to show rosier pictures of their companies. This situation is illustrated well by Black et al. (2016), who point out that

> If managers can meet their strategic objectives based on neutral reporting of solid operating performance, then they have no need to manage GAAP earnings or report non-GAAP earnings to alter stakeholder perceptions. However, operating performance alone does not enable companies to meet or beat earnings targets, then managers can use the discretion allowed within GAAP to influence the reporting of current performance with their available menu choices, such as real earnings management (e.g. decreasing discretionary spending), accruals management (e.g. managing reserves), classification shifting (McVay, 2006; Fan, Barua, Cready, & Thomas, 2010; Abernathy, Beyer, & Rapley, 2014), and expectation management (Matsumoto, 2002). However, sometimes managers' best efforts to manage earnings cannot produce GAAP earnings that meet or beat strategic earnings targets or expectations. It is then that we hypothesize that managers are most likely to turn to non-GAAP reporting. (Black et al., 2016, p. 8)

Several studies have documented the strategic use of non-GAAP disclosure. For instance, Elliott (2006) reported that sometimes, companies strategically emphasize non-GAAP numbers in their press releases. Bowen et al. (2005) confirmed this and added that loss-making companies are more likely than other companies to engage in this strategic communication

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behaviour. Moreover, Black and Christensen (2009) showed that adjustments adopted by US managers have the ability to change a negative/decreasing GAAP performance into a positive/improving non-GAAP performance or to move a firm from missing expectations on a GAAP basis to meeting or beating the consensus forecast based on non-GAAP measures. Successively, Curtis et al. (2014) confirmed these results, documenting that managers strategically exclude income-decreasing items but not increasing items. Other studies focusing on different countries have documented similar results. For instance, Entwistle et al. (2010) investigated the US and Canada; Walker and Louvari (2003) and Choi and Young (2015a) examined UK companies; and Isidro and Marques (2015) focused on a sample of EU companies.

The scepticism regarding non-GAAP reporting stems from the fact that, generally, these measures are not audited. Non-GAAP measures consist of voluntary disclosure, which is often communicated through press releases. Thus, auditors are not directly responsible for attesting to these reports. Young and Sherman (2018) noted that

> Although alternative financials can provide a useful perspective on a company's ability to deliver sustainable or repeatable earnings, it is not always clear whether the company's rationale for using non-GAAP measures is to help people understand the business better or merely to improve the way the business is perceived. (p. 58)

The concern about non-GAAP measures mainly involves individual non-professional users since it is more likely that they could be misled by opportunistic usage of this disclosure (Frederickson and Miller, 2004; Allee et al., 2007). According to Henry (2008), so-called unsophisticated investors who lack the ability to fully understand the quantitative information included in financial statements may rely more on narrative disclosure, such as press releases or shareholder letters, using these texts as a substitute for the financial statements. Empirical findings have confirmed that professional users are able to detect management attempts to manipulate firm perceptions (Black and Christensen, 2009). Contrarily, individual unsophisticated investors are at a disadvantage as they are not able to discriminately determine the usefulness of non-GAAP measures (Bhattacharya et al., 2007).

3.2.2 The regulation of non-GAAP disclosure

In recent years, an increasing number of companies are discussing their non-GAAP measures within their management discussion and analysis

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reports. Consequently, many countries are now involved in the development of specific regulation initiatives aimed to increase the reliability of non-GAAP measures. For instance, in the US, SEC and the FASB have called into question whether auditors should have a more direct role in verifying and attesting voluntary non-GAAP disclosures (Black et al., 2018a). In May 2016, SEC issued additional guidelines on non-GAAP measures that prohibit companies from using larger fonts for non-GAAP measures than for GAAP measures in public disclosures and from issuing press releases that feature only non-GAAP measures. Accordingly, the FASB expressed its interest in non-GAAP reporting, questioning whether the proliferation of non-GAAP metrics indicates the need to better organize income statements so that investors can more easily calculate their own customized performance metrics (Siegel, 2014; Linsmeier, 2016). In 2017, FASB Chairman Russell Golden formalized this sentiment, recognizing that a better understanding of how companies use non-GAAP disclosure could be useful in improving GAAP reporting (Golden, 2017).

Outside of the US, non-GAAP performance metrics have generally been more widely accepted (Black et al., 2018b). The IFRS system allows companies to report non-GAAPs on their income statements as long as the corresponding GAAP numbers receive at least equal prominence and a reconciliation between the two numbers is provided (IAS 33[3]; Young, 2014). However, in recent years, the IASB has identified non-GAAP measures as a threat to the integrity of IFRS financial reporting, indicating that regulators should do more to regulate this phenomenon (Shumsky, 2016). The IASB recognizes that non-GAAP metrics have become a rooted practice and that they reveal a lack of accounting policies that standard setters must take into consideration. However, at the same time, the IASB clearly states that GAAP metrics should remain the main measures because they are the only neutral, comparable and verifiable information, while non-GAAP measures are likely to be used with deceptive intentions (Shumsky, 2016; Hoogervorst, 2015). In recent years, individual countries have adopted normative initiatives concerning non-GAAP measures. For instance, the UK, Italy, Germany, and France have introduced different mechanisms of internal and external auditing for non-financial information reporting, which often include many non-GAAP measures.

In several countries, the regulation of non-GAAP is carried out by security and market authorities since the risk related to non-GAAPs is higher for listed companies. In 2014, IOSCO issued a proposal concerning non-GAAP financial measures, recognizing that they can provide additional,

[3] www.ifrs.org

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entity-specific insights (IOSCO, 2014). However, the Commission stressed the need to guarantee high-quality characteristics for this disclosure in order to avoid inconsistent, inadequate and even obscure presentation. Furthermore, IOSCO warned against the limitation of non-GAAP measures in terms of comparability among companies. In keeping with these concerns, in 2016, IOSCO issued the Statement on Non-GAAP Financial Measures, which is intended "to assist issuers in providing clear and useful disclosure for investors and other users of non-GAAP financial measures, and to help reduce the risk that such measures are presented in a way that could be misleading" (IOSCO, 2016, p. 2). Long before the IOSCO intervention, in the US, SEC started regulating the use of non-GAAP metrics in the early 2000s. In 2002, the Sarbanes-Oxley Act (SOX), enacted by the US Congress, commissioned SEC to issue regulations to place limitations on non-GAAP disclosure. In 2003, SEC implemented Regulation G to regulate firms' use of non-GAAP metrics. Successively, the Commission issued Compliance and Disclosure Interpretations (CDI) on non-GAAP reporting in 2010 (updated in 2011) and 2016 (updated in 2017) to address some common questions regarding how the regulation applies to reporting practices[4].

In Europe, non-GAAP reporting regulations are entrusted to ESMA. In 2005, the first Recommendation on Alternative Performance Measures was issued (at the time, ESMA was called the Committee of European Securities Regulators [CESR]) with the general objective of ensuring that investors are not misled through the use of non-GAAP measures (CESR, 2005). The Recommendation was not intended to provide companies with appropriate or relevant non-GAAP measures nor did it provide definitions for such measures. However, it recognized that

> One feature of IFRS is that it does not impose detailed formats for presentation of financial statements and it only mandates a limited number of definitions of measures or line items to be included in these statements. Formats and presentation of financial statements is an important problematic that needs to be addressed at the appropriate level, in order to foster comparability and facilitate common understanding of financial statements under IFRS. (CESR, 2005, §4)

In 2015, the CESR Recommendation was replaced by the ESMA Guidelines on Alternative Performance Measures, with the aim of improving the comparability, reliability and comprehensibility of non-GAAP figures (ESMA, 2015, §9). The CESR Recommendation and the ESMA guidelines do not show significant differences in terms of their

[4] https://www.sec.gov/divisions/corpfin/guidance/nongaapinterp.htm

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contents, though ESMA proposes a less broad definition of non-GAAP reporting. It defines an Alternative Performance Measure (APM) as "a financial measure of historical or future financial performance, financial position, or cash flows, other than a financial measure defined or specified in the applicable financial reporting framework" (ESMA, 2015, §17). The exemplificative list of APMs provided in the guidelines includes operating earnings, cash earnings, earnings before one-time charges, EBITDA, net debt, autonomous growth, and similar terms denoting adjustments to line items of statements of comprehensive income, statements of financial positions and statements of cash flow. At the same time, ESMA specifies that other common measures cannot be considered APMs, including measures defined or specified by applicable financial reporting frameworks (i.e. revenue, profit or loss, or earnings per share), any physical or non-financial measure (i.e. number of employees, number of subscribers, or sales per square metre), or any social or environmental measures (i.e. greenhouse gases emissions, breakdown of the workforce by type of contract, or geographic location) (ESMA, 2015, §19).

In order to make APMs easily analysable and understandable to investors, the guidelines require companies to define APMs in a clear and readable way. To this end, companies should provide the basis of the calculation and the underlying assumptions and hypotheses for each disclosed APM. In addition, to reduce confusion, companies should adopt meaningful labels for their APMs to adequately reflect the content and the calculation basis. Furthermore, the titles should not be overly optimistic or confusingly similar to the GAAP figures, and APMs should not be presented with more prominence than the GAAP measures. Companies are also requested to disclose a reconciliation of their APMs to the most directly comparable GAAP figures in their financial statements. To allow investors to understand the relevance and reliability of APMs, companies should explain why they are considered useful and provide comparisons to previous periods in order to show their development over time. Finally, the definition and calculation of an APM should always be consistent over time, and if a company redefines an APM or a company decides to no longer disclose it, the firm should explain the change and the reasoning behind it (ESMA, 2015, §20–48).

Compared to the SEC regulations on non-GAAP measures, the rules defined in the ESMA guidelines are less stringent and have weaker legal implications. The ESMA guidelines are consistent with the establishment of the European System of Financial Supervision (ESFS), which promotes supervisory procedures and has secured a common and uniform application of EU law. In this context, national authorities of member

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states are expected to comply with these guidelines and enforce compliance within their respective countries by making them part of their supervisory practices (Deloitte, 2016). In terms of contents, the qualitative principles required by the SEC regulations and the ESMA guidelines are very similar. Table 2 shows a comparison of the main provisions required by the two regulation systems.

Table 2: A comparison between the information required by the SEC regulations and the ESMA recommendations

	SEC	ESMA
Definition	No specific provision	Define the performance indicator and the basis for its calculation
Labelling	No specific provision	Properly classify and label the alternative measures; do not create confusion with the GAAP measures
Purpose	Explain why it is opportune to resort to a non-GAAP metric and why it is useful for investors	Explain why the publication of an alternative measure is considered useful for investors
Motivation	Explain the use of the non-GAAP parameter in compensation schemes or loan agreements	Explain the contractual reasons behind the use of an alternative measure
Prominence	Ensure equal or greater emphasis to the directly comparable GAAP measure	Ensure greater emphasis on and authority given to official financial results
Reconciliation	Each non-GAAP measure published must be analytically reconciled with the directly comparable GAAP voice	Present a reconciliation of the alternative measure with the item, which is directly comparable, reported in the financial statements
Consistency of preparation	To increase the comparability between the financial years, use of the same method of calculation is required	Publication and mode of calculation of the alternative indicator should not be subject to change over time

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Comparability across periods	Present non-GAAP values as they relate to previous years	The issuer must also publish the value of the alternative indicator in relation to previous years
Recurring items	Do not exclude recurring components in the construction of a non-GAAP parameter	Items of income, which will probably also be seen in the future, should not be classified as 'non-recurring'
Unbiased	Avoid communicating a non-GAAP measure for the sole purpose of hiding the actual business performance	No specific provisions

3.2.3 Research question and objective

As mentioned above, numerous studies have investigated non-GAAP disclosure. Research has largely focused on managers' and analysts' use of non-standard performance metrics (e.g. Bradshaw and Sloan, 2002; Bhattacharya et al., 2003; Brown and Sivakumar, 2003; Lougee and Marquardt, 2004). Many studies have provided evidence for the opportunistic use of this disclosure (Bowen et al., 2005; Elliott, 2006; Black and Christensen, 2009; Isidro and Marques, 2015), while others have supported the idea that non-GAAP metrics are able to better portray sustainable firm operations (Curtis et al., 2014; Black et al., 2018c; Clinch et al., 2018).

With a few exceptions, non-GAAP reporting research has focused mainly on the US while evidence from different contexts, such as the EU, has been very limited (Isidro and Marques, 2015; Bini et al., 2015; Guillamon-Saorin et al., 2017). As illustrated above, non-GAAP disclosure is less regulated in Europe than in the US, where regulation specifically constrains non-GAAP disclosure. Isidro and Marques (2015) noted that the lack of strict rules on non-GAAP reporting in Europe makes the European environment more responsive to the opportunistic use of non-GAAP information. This concern is shared by EFRAG, which stresses that non-GAAP disclosure of large European firms is inconsistent and obscure (EFRAG, 2009). These considerations have increased the need for more research to shed light on the use of non-GAAP metrics by European companies (Isidro and Marques, 2015).

Guillamon-Saorin et al. (2017) maintain that European capital markets and institutional mechanisms are less developed than those in the US, suggesting that their potential for non-GAAP disclosures to mislead

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investors is likely higher. Additionally, regulations in the US are enforced directly by the federal authority, SEC, while in the EU, each national supervisor authority is expected to guarantee compliance with the ESMA guidelines. Moreover, it is worth noting that the US is characterized by rule-based accounting systems, where reporting is regulated through specific rules and precise categories that leave little room for different representations of management operations. In contrast, the IFRS accounting system is principle-based and leads to companies using high discretion in defining the line items to be presented in the statements. Therefore, the IFRS accounting environment is likely to become fertile ground for the proliferation of non-GAAP measures that integrate mandatory disclosure (Isidro and Marques, 2015).

Against this background, this study focuses on the European context to investigate non-GAAP disclosure practices. First, we aim to verify whether non-GAAP disclosure differs among European countries. This analysis broadens previous evidence by considering the effects produced by the ESMA guidelines issued in 2015 (ESMA, 2015). Furthermore, we verify the influence of other factors that have been identified as determinants of corporate voluntary disclosure.

In our investigation of the determinants of non-GAAP disclosure, we consider both the number of non-GAAP metrics and the modalities of their presentation. This represents an element of novelty in non-GAAP disclosure research, since previous studies have generally focused on the amount of disclosure. However, the European regulation system is focused mainly on promoting the comparability, reliability and comprehensibility of non-GAAP figures, and this goal can only be achieved following the specific qualitative requirements concerning presentation modalities included in the ESMA guidelines (ESMA, 2015, §20–48).

Finally, previous research on non-GAAP measures has usually focused on press releases. This type of disclosure is largely used by so-called sophisticated users – professional investors and financial analysts – who can usually detect management attempts to manipulate non-GAAP measures (Black and Christensen, 2009). In contrast, we investigate non-GAAP disclosures included in annual reports for two main reasons. First, the number of non-GAAP measures communicated in management discussion and analysis has consistently increased over time (Sherman and Young, 2018). Second, annual report disclosure is largely used by unsophisticated users – individual, non-professional investors – who face higher risks related to the opportunistic use of non-GAAP disclosure (Bhattacharya et al., 2007).

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Based on these considerations, our research question is defined as follows: *What are the most influential factors that affect the amount and the modalities of presentation of non-GAAP measures disclosed in listed European companies' annual reports?*

This analysis is potentially interesting for several reasons. First, our analysis contributes to filling the gap in the literature concerning the use of non-GAAP measures by companies outside of the US context. Our evidence regarding the determinants of non-GAAP disclosures is likely to be of interest to ESMA as well as national authorities that are concerned with the quality and comparability of non-GAAP measures. To the authors' knowledge, no research has been conducted on European companies since the issue of ESMA guidelines. Finally, managers and internal and external users of non-GAAP disclosure could use this research to improve their knowledge of the use of non-GAAP metrics and their adherence to the qualitative characteristics that concern presentational aspects.

3.2.4 Hypotheses development

We have referred to the most accredited disclosure literature to identify the most important factors that influence non-GAAP disclosure practices in Europe. We have selected five main determinants, all of which are briefly discussed below.

Country of origin

As discussed above, institutional forces and other factors that characterize different countries have a significant influence on corporate disclosure practices, including non-GAAP disclosure (Clinch et al., 2018). The CFA Institute identified a list of the principal factors that may influence the supply and demand of non-GAAP measures in different countries (CFA Institute, 2016a). Specifically, investors' demands for non-GAAP earnings and hence the incentives for companies to provide these measures may differ between countries due to variations in the extent of analyst coverage, the influence of analysts, and the importance of equity markets as a source of finance. This has been confirmed by Isidro and Marques (2015), who examined the disclosure of non-GAAP earnings in 18 European countries and concluded that non-GAAP disclosure is more likely to occur in countries where the pressure to achieve earnings benchmarks is higher. Similar results were shown by Clinch et al. (2018), who investigated non-GAAP disclosure on an international sample that

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included eight different contexts (Australia, France, Germany, Hong Kong, Italy, Singapore, Sweden and the UK). On these bases, we expect that specific interrelations of institutional factors (i.e. the importance of the financial market, the level of investor protection, and the level of enforcement) that characterize each European country could differentiate non-GAAP disclosure. Thus, we formulate our hypotheses as follows:

H1a) The number of non-GAAP measures disclosed by companies in their annual reports varies among European countries.

H1b) The modalities of presentation of non-GAAP measures disclosed by companies in their annual reports vary among European countries.

Industry

According to Watson et al. (2002), corporate disclosure of financial ratios varies consistently among industries. Focusing on non-GAAP metrics, Lougee and Maquardt (2004) noted that industry growth rate is positively associated with the amount of non-GAAP disclosure. Other studies have focused on the level of technology intensity that characterizes different industries. Specifically, they showed that industries with high technology intensity communicate more non-financial information and in better quality (Gu and Li, 2003; Bozzolan et al., 2003; Oliveira et al., 2006; Bini et al., 2019). Bhattacharya et al. (2004) confirmed this relationship for non-GAAP disclosure, showing that companies operating in technological industries are more likely to communicate their non-GAAP earnings than companies in other industries. Previous research has demonstrated that earnings tend to be less informative for high technology firms because these firms invest heavily in intangibles such as research and development, which may distort GAAP earnings (Francis and Schipper 1999; Lev and Zarowin, 1999). We therefore expect that technological companies are more likely to communicate non-GAAP measures in their annual reports and pay greater attention to their presentation modalities than other companies. Thus, we set forth the following hypotheses:

H2a) Companies operating in high technology industries are more likely to disclose non-GAAP measures in their annual reports compared to other companies.

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H2b) Companies operating in high technology industries show higher quality in the modalities of their presentation of non-GAAP measures disclosed in their annual reports compared to other companies.

Net profit / net loss

The presence of net profit or net loss in an income statement is considered an influential factor in a company's decision to publish non-GAAP measures (Guillamon-Saorin et al., 2017). Frankel et al. (2011) maintained that loss-reporting firms may have more incentive to communicate non-GAAP measures, seeking to reduce information asymmetries in the market (Hayn, 1995) or, alternatively, manipulate users' perceptions (Merkl-Davies and Brennan, 2007). Empirical evidence shown by Bhattacharya et al. (2004) and Curtis et al. (2014) confirmed that non-GAAP earnings are more likely to be communicated by non-profitable companies. In light of this, we hypothesize that loss-reporting companies communicate more non-GAAP disclosure in their annual reports and pay greater attention to their modalities of presentation compared to profitable companies. Thus, our hypotheses are:

H3a) Companies that report a GAAP loss are more likely to communicate non-GAAP measures in their annual reports compared to companies that report a GAAP net income.

H3b) Companies that report a GAAP loss show a higher quality in the modalities of their presentation of non-GAAP measures disclosed in their annual reports compared to companies that report a GAAP net income.

Size

Disclosure literature shows a positive correlation between a company's size and the amount (Adams et al., 1998; Ben-Amar et al., 2017) and quality (Bini et al., 2011; Dhaliwal et al., 2012) of its discretionary disclosure. Larger companies have a greater number of stakeholders with many information needs; thus, they are expected to provide more information in their annual reports, including a greater number of non-GAAP measures. In their investigation of countries' institutional and economic factors that influence non-GAAP disclosure in the European context, Isidro and Marques (2015) showed that the decision to report

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these metrics is influenced by the company's size. Similarly, Hitz (2010) noted that the amount of non-GAAP disclosure reported by German companies is positively associated with their size. Drawing on this evidence, we formulate our hypotheses as follows:

H4a) Larger companies are more likely to disclose non-GAAP measures in their annual reports compared to other companies.

H4b) Larger companies show higher quality in the modalities of their presentation of non-GAAP measures disclosed in their annual reports compared to other companies.

Volatility

Previous studies have shown that companies tend to increase their voluntary disclosure under conditions of rising business volatility, instability and complexity (Healy, 2001). Comparing voluntary disclosure reported by a sample of Italian and US companies, Boesso and Kumar (2007) documented that business volatility is a significant predictor of the volume of information disclosed by companies but does not affect the quality of the disclosure. In keeping with this, we define our hypotheses as follows:

H5a) Companies that show higher volatility are more likely to disclose non-GAAP measures in their annual reports compared to other companies.

H5b) Companies with higher volatility show non-GAAP measures in their annual reports with higher quality in the modalities of their presentation compared to other companies.

3.3 Research design

3.3.1 Sample

Our analysis aimed to examine the disclosure of non-GAAP measures in European annual reports. We focused on 2017 annual reports as these were the last available reports at the time of the analysis. To assess the disclosure of different countries, we selected the English versions. We considered the most important and developed economies in Europe, measured in terms of Gross Domestic Product (GDP). According to the

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European statistical office (www.ec.europa.eu), the countries with the highest GDPs in 2017 were Germany, the UK, France, Italy, Spain, and the Netherlands. However, we excluded Spain from the analysis due to the difficulties we encountered in identifying English versions of Spanish companies' annual reports.

To be able to investigate an industry effect, our sample was developed while taking into account industry stratification. We focused on five European industries:

- Industrial Engineering (Indust.Engin.)
- Electronic & Electrical Equipment (E&E Equip.)
- Chemicals, Pharmaceuticals & Biotechnology (Chem.Pharma&Bio.)
- Food & Beverages (Food&Bev.)
- Software & Computer Services (Soft&Comp.Ser.)

These industries were selected because they represent some of the most important industry sub-sectors in the FTSE Global Classification System[5] in terms of number. Moreover, they use different levels of technology intensity, which was found to be positively related to the quality of non-financial disclosure (Lougee and Maquardt, 2004; Bozzolan et al., 2003; Gu and Li, 2003; Oliveira et al., 2006).

Using the Thomson Reuters database, we retrieved all European firms domiciled in the selected countries and operating in the mentioned industries. For each industry in each country, we randomly extracted six firms, obtaining a final sample of 150 firms. Then, we downloaded the 2017 English annual report from the companies' websites. However, we found that only five Dutch companies operated in the Industrial Engineering and Electronic & Electrical Equipment industries. In addition, only five English annual reports were available for the French and Dutch companies in the Software & Computer Services industry. To maintain the industry stratification, we decided to replace these missing companies with companies that operated in the same industry but were domiciled in other European countries. The final composition of our sample is illustrated in Table 3.

[5] https://www.ftserussell.com/index-series/classification

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Table 3: Final sample composition

	France	Germany	Italy	Netherlands	UK	**Total**
Indust.Engin.	6	6	6	5	7	**30**
E&E Equip.	6	6	6	5	7	**30**
Chem. Pharma&Bio.	6	6	6	6	6	**30**
Food&Bev.	6	6	6	6	6	**30**
Soft&Comp.Ser	5	6	6	5	8	**30**
Total	**29**	**30**	**30**	**27**	**34**	**150**

Within each annual report, we focused on the section concerning management discussion and analysis (usually called the Management Report, Board's Report, Report of the General Management, or Strategic Report in the annual reports examined) because companies disclose their non-GAAP measures in this section (Hossain et al., 1994; Abu-Nassar and Rutherford, 1995; Ho and Wong, 2001). We used a manual content analysis technique to investigate the information included in the management discussion and analysis of each company. We chose the manual content analysis technique used by Linderman (2001), who underlines the limitations of computer-assisted methodologies when the categorization procedures are highly complex. This is the case for non-GAAP disclosure, as different labels can be used to identify the same measure, and the items concerning the presentation can be treated and displayed in very different ways (Bini et al., 2015).

3.3.2 The assessment of non-GAAP disclosure

In accordance with our hypotheses, we assessed the disclosure of non-GAAP metrics, taking into account two measures: the number of non-GAAPs included in the annual reports (NUM), and the modalities of their presentation (PRES).

The amount of disclosure is the most common proxy used to assess disclosure quality (Wallace et al., 1994; Botosan, 1997; Lang and Lundholm, 2000; Lim et al., 2007). In this study, the NUM variable was obtained as the sum of the number of non-GAAP measures collected for each report. To identify the non-GAAP measures, we referred to the

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definition proposed in the ESMA guidelines on APMs mentioned in section 1.2 (ESMA, 2015, §17). Since the listed European companies examined in this study prepare their annual reports according to the IFRS accounting system, we excluded from our analysis the mandatory financial measures provided for each company's income statement, balance sheet and statement of cash flows (see IAS 1 – Presentation of Financial Statement, and IAS 7 – Statement of Cash Flows[6]). The NUM variable is a discrete measure that ranges from zero to infinity.

We also defined a standardized measure of the variable NUM, named NUM_REL. NUM_REL was obtained as follows:

$$NUM_REL_i = \frac{NUM_i - Min\{NUM\}}{Max\{NUM\} - Min\{NUM\}}$$

In accordance with previous research, we used the variable NUM_REL in the regression analysis as the process of relativization is the most efficient method to compare distributions with different ranges of variation. This shrewdness, in fact, eliminates the influence of the diversity of the variations (Beretta and Bozzolan, 2008).

The number of non-GAAP measures cannot be considered a sufficient variable for assessing non-GAAP disclosure practices. As we have already said, the main concern regarding this topic is the modalities of presentation. Companies select their non-GAAP measures in a discretional manner but they need to provide the necessary information to allow users to clearly understand the meanings of their non-GAAP measures. Regulation systems and guidelines mainly identify presentational aspects as crucial to guaranteeing high-quality disclosure. Accordingly, we developed a specific measure to assess the quality of presentational aspects of non-GAAP metrics included in European annual reports.

The problematic nature of disclosure quality assessments is widely recognized and has been discussed in the financial accounting literature (Healy and Palepu, 1990; Core, 2001; Beattie et al., 2004). Previous studies have used different approaches to assess disclosure quality. These include:

- *Subjective approaches* – These are based on surveys, questionnaires, ratings, judgements of analysts, and others (Coleman and Eccles, 1997; Imhoff, 1992; Welker, 1995). These studies rely on the idea that corporate disclosure can only be measured in relative terms, taking into account users' information needs. Thus, the evidence

[6] www.ifrs.org

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provided in these studies sheds light on how company disclosure satisfies the information needs of specific user categories but cannot be generalized.

- *Objective approaches* – In these cases, corporate disclosure is measured in absolute terms using a list of items that is deductively developed following established qualitative characteristics or, more often, specific regulation requirements. For instance, in her pioneering article, Botosan (1997) used different sources to assess voluntary disclosure, included the recommendations provided by the American Institute of Certified Public Accountants (AICPA) in the Jenkins Committee Report and the Canadian Institute of Chartered Accountants (CICA) study of the annual report. Similarly, researchers have referred to the Global Reporting Initiative (GRI) standards to assess corporate social responsibility (CSR) disclosure (Bini et al., 2018).

In this study, we adopted an objective approach to assessing non-GAAP disclosure since we did not want to focus on one specific category of users. Although many studies have dealt with non-GAAP measures, very few have investigated and developed specific measures that concern presentational aspects (Aripin et al., 2010; Bini et al., 2015; Elzahar et al., 2015).

Aripin et al. (2010) developed a disclosure measure to assess the quality of financial ratio disclosure based on the four key qualitative characteristics of financial information stated in the Framework for the Preparation and Presentation of Financial Statements issued by the IASB (IASB, 1989), namely, relevance, reliability, comparability, and understandability. For each element, four components were proposed to measure the quality of the ratio disclosures. Thus, the overall assessment was based on these 16 components, which were dichotomously scored. Similarly, Bini et al. (2015) focused on the disclosure quality of financial and non-financial performance indicators in Italy. In assessing disclosure quality, they mainly referred to the recommendations provided by several standard setters and professional bodies, including SEC regulations (SEC, 2003), the provisions required by the UK ASB in the document "Reporting statement: Operating and financial review" (ASB, 2006), and ESMA’s "Recommendation on alternative performance measures" (ESMA, 2005). In contrast, Elzahar et al. (2015) referred to ASB’s provision (ASB, 2006) since they aimed to verify the association between financial indicator disclosure quality and the cost of capital in the UK context. In keeping with these studies, to develop our measure of presentation modalities, we

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mainly referred to the guidance provided by SEC regulation (SEC, 2010), ESMA guidelines (ESMA, 2015) and the IOSCO recommendations (IOSCO, 2016). We focused on six main aspects: Definition, Reconciliation, Comments, Historical Data, Prospective Data, and Graphs and Tables. Table 4 offers a brief description of each item, along with the main references.

Table 4: Items included in the PRES variable

Element	Definition and references
Definition	An explanation of how a non-GAAP measure is defined/calculated (ESMA, 2015; Elzahar et al., 2015; IOSCO, 2016)
Reconciliation	The reconciliation of non-GAAP figures with financial statements (Bini et al., 2015; Elzahar et al., 2015; ESMA, 2015; IOSCO, 2016; SEC, 2010)
Comments	Management comments/explanations that help one to comprehend the performance of a non-GAAP measure in the fiscal year (Elzahar et al., 2015; ESMA, 2015; IOSCO, 2016; SEC, 2010)
Historical data	The presence of the value from the previous year for a non-GAAP measure (Bini et al., 2015; Elzahar et al., 2015; ESMA, 2015; IOSCO, 2016; SEC, 2010)
Prospective data	The quantification of future targets expected for a non-GAAP measure (Bini et al., 2015; Elzahar et al., 2015)
Graphs and tables	The presence of graphs and/or tables that aid the comprehension of the non-GAAP measure (Bini et al., 2015)

We assessed the six items for each indicator published by each company following a dichotomous scoring: 1 if the item is present and 0 otherwise. To calculate the score of each non-GAAP measure, the number of recorded items was divided by the total number of items, as shown below:

$$\mathrm{PRES}_{\varphi i} = \frac{\sum_{j=1}^{6} item_j}{6}$$

where φ is a non-GAAP metric published by a generic company i.

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By construction, the $PRES_\varphi$ score ranged from 0 (none of the disclosure items were reported) to 1 (all the disclosure items were reported).

Successively, the whole PRES score for each company was obtained as the arithmetic mean of the $PRES_\varphi$ scores reported for each disclosed non-GAAP measure.

$$\text{PRES}i = \frac{1}{n}\sum_{\varphi=1}^{n}\frac{\sum_{j=1}^{6} item_j}{6}$$

where i is a generic company in the sample.

By construction, the PRES score ranged from 0 (none of the disclosure items were reported for any published non-GAAP measure) to 1 (all the disclosure items were reported for each published non-GAAP measure).

3.3.3 Independent variables measurement

The two disclosure measurements illustrated above (NUM_REL and PRES) were used in a multiple regression analysis aimed to verify the research hypotheses formulated in section 1.4. The regression model was:

$$NGDISC = \alpha + \beta_1 COUNTRY_i + \beta_2 IND_i + \beta_3 LOSS_i + \beta_4 SIZE_i + \beta_5 BETA_i + \beta_6 PROF_i$$

where NGDISC is represented by the variable NUM_REL to test H1a, H2a, H3a, H4a and H5a and PRES to test H1b, H2b, H3b, H4b and H5b.

The measurement of the independent variables is discussed below and illustrated in Table 5.

The variable COUNTRY was defined to assess H1a and H1b. Following previous studies (Barton et al., 2010; Cooke and Wallace, 1990; Emenyonu and Gray, 1992; Guillamon-Saorin et al., 2017), we used a dummy variable for each of the five countries examined in the study.

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Table 5: Independent and control variables included in the statistical model

Independent and control variables	Measured as…
Country of origin (COUNTRY)	A vector of dummies representing the companies' countries of origin (France, Germany, Italy, the Netherlands, and the UK). France was used as a reference to compare to other countries.
Industry (IND)	A dummy variable that takes the value of 1 if a company belongs to a high-tech industry and the value of 0 otherwise.
Net profit/net loss (LOSS)	A dummy variable that assumes the value 1 for companies that reported a GAAP loss for the 2017 fiscal year and the value of 0 otherwise.
Size (SIZE)	The natural log of the firms' revenues at the end of the 2017 fiscal year.
Volatility (BETA)	The company's beta coefficient as reported in the Thomson Reuters database on December 31, 2017.
Profitability (PROF)	The company's return on equity (ROE) as reported in the Thomson Reuters database for the 2017 fiscal year.

To test H2a and H2b, which concern the association between the technological intensity of the industries and non-GAAP disclosure, we created dummy variable IND. We divided the five examined industries into two groups. Electronic & electrical equipment, software & computer services, and chemicals, pharmaceuticals & biotechnology were considered high-tech industries; in contrast, the level of technology was assumed to be lower for the companies in the industrial engineering and food & beverages industries. The variable IND assumed the value of 1 for high-tech industries and 0 otherwise.

The variable LOSS was used to test H3a and H3b. It was a dummy variable that assumed the value of 1 when a company in the sample reported a GAAP loss for the 2017 fiscal year and 0 otherwise. SIZE was the variable used to verify H4a and H4b. Several measures can be used to assess company size, including revenues, total assets, market capitalization, and number of employees. In keeping with previous literature (e.g. Adams

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et al., 1998; Dias et al., 2017), we focused on revenues. Using the Thomson Reuters database, we collected the total revenue figures as reported in the 2017 annual report for each company in the sample. The last independent variable in our model, company volatility (BETA), was used to test H5a and H5b. The uncertainty associated with the future performance of a company leads to an increase in the volatility of the stock price. The beta coefficient is a commonly used measure of the volatility and risk associated with companies (Boesso and Kumar, 2007). We measured company volatility with the beta coefficient reported on 31 December, 2017 on the Thomson Reuters database. Finally, we decided to include a profitability measure (PROF) as a control variable. Previous research on disclosure quality shows contrasting results between companies' profitability and the amount and quality of voluntary disclosure (Lang and Lundholm, 2000; Chau and Gray, 2010). Focusing on the disclosure of financial and non-financial indicators, Bini et al. (2015) did not find any significant relations with profitability. Similar results were documented by Aripin et al. (2010). In keeping with Chau and Gray (2010), we used ROE as a profitability measure. The companies' ROEs for the 2017 fiscal year were retrieved from the Thomson Reuters database.

3.4 Results

3.4.1 Univariate analysis

According to the results shown in Table 6, the companies communicated many non-GAAP measures in their annual reports – 7.17 on average – with a maximum number of 17. The use of non-GAAPs seems to be a shared practice since each company in the sample discloses at least one metric.

Table 6 also shows that non-GAAP disclosure varies significantly among industries. An ANOVA test[7] confirmed that, on average, industrial engineering companies and electronic and electrical equipment companies communicate a greater number of non-GAAP measures than companies in other industries. Contrary to our expectations, technology does not seem to be a main factor in explaining the differences among industries. Non high-tech industries, such as industrial engineering companies, report more non-GAAP measures than high-tech industries such as chemicals, pharmaceuticals and biotechnology and software and computer services industries.

[7] The results of the ANOVA test are not reported in detail due to space constraints.

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Table 6: Descriptive statistics for the NUM variable by industry and country

	Mean	Median	Min	Max	St. Dev.
Total	**7.17**	**6**	**1**	**17**	**0.60**
Indust.Engin.	10.13	10	3	17	2.92
E&E Equip.	9.50	9	4	17	3.63
Chem.Pharma&Bio.	6.13	6	1	15	3.57
Food&Bev.	5.43	5	2	10	2.21
Soft&Comp.Ser.	4.67	4	1	13	2.73
France	5.59	5	1	15	3.60
Germany	7.83	8	1	17	4.45
Italy	7.80	7	3	17	3.37
Netherlands	7.15	8	1	17	4.23

Non-GAAP disclosure practices do not seem to differ significantly among countries (Table 6). On average, companies in each country disclosed approximately seven non-GAAP measures, with the exception of French companies, which showed an average lower than six. However, the ANOVA test indicated that this difference is not statistically significant.

Table 7 shows a list of the most common non-GAAP measures, along with their relative frequencies. Considering their wide diffusion, it was not surprising that EBIT and EBITDA are the most commonly communicated measures. This result is aligned with the findings reported by Ruhwedel et al. (2017) in the German context.

The reporting frequency of the other eight measures was definitely lower, even if substantial. Moreover, it can be noted that five out of the ten measures consisted of profit measures aimed at integrating the performance reported by the GAAP net profit. Among the other measures, two were derived from balance sheet statements – Net Debt and Net Working Capital (NWC) – and two were derived from the cash flow statements – FCF and Operating Cash Flow (OCF). The ROCE was the most commonly reported ratio, with a frequency of 22.67%.

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Table 7: The ten most frequently published non-GAAP measures

Non-GAAP measure	Disclosure frequency
Earnings before interests and taxes (EBIT)	66,67%
Earnings before interests, taxes, depreciation and amortization (EBITDA)	65,33%
Net debt	36,67%
Net working capital (NWC)	32,00%
EBITDA margin	29,33%
EBIT margin	28,67%
Adjusted EBIT	28,00%
FCF	28,00%
ROCE	22,67%
OCF	18,67%

Descriptive statistics concerning the PRES variable are reported in Table 8. Considering that the maximum potential value for PRES was 1, it can be noted that, on average, European companies only comply with half of the most important requirements concerning the modalities of presentation. According to the evidence from the ANOVA test, there is no significant difference in the average score for the PRES variable among industries or countries.

Table 8: Descriptive statistics for the PRES variable by industry and country

	Mean	Median	Min	Max	St. Dev.
Total	**0.55**	**0.58**	**0.23**	**0.92**	**0.15**
Indust.Engin.	0.58	0.58	0.36	0.75	0.09
E&E Equip.	0.60	0.61	0.46	0.82	0.09
Chem.Pharma&Bio.	0.47	0.50	0.24	0.69	0.14
Food&Bev.	0.51	0.52	0.23	0.83	0.16
Soft&Comp.Ser.	0.60	0.67	0.25	0.92	0.18

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France	0.53	0.56	0.24	0.92	0.18
Germany	0.56	0.56	0.25	0.82	0.14
Italy	0.54	0.55	0.25	0.75	0.11
Netherlands	0.50	0.50	0.23	0.83	0.15
UK	0.62	0.63	0.31	0.83	0.12

To better understand the presentation modalities, Table 9 shows the frequency of disclosure for the specific items that comprised the PRES variable. These findings clearly reveal a considerable difference among the items, indicating that companies mainly focus on specific presentational aspects. First, almost all the companies provide comparative historical data for the non-GAAP measures included in their annual reports. Additionally, the publication of a non-GAAP measure is quite often accompanied by a definition of and reconciliation with the financial statements, improving the measure's intelligibility and reliability. These three aspects are the most important aspects for companies, confirming previous evidence (Bini et al., 2015; Elzahar et al., 2015).

Table 9: Frequency of the reported presentation aspects

	Definition	**Reconciliation**	**Comments**	**Historical Data**	**Prospective Data**	**Graphs and Tables**
Frequency	83.92%	71.56%	62.64%	98.42%	12.64%	70.54%

Moreover, non-GAAP measures are often reported without any interpretative guidance (comments) that could help users understand the relevance of a certain measure for a company. Analogously, the inclusion of graphical elements (graphs and tables), which help one appreciate the historical trend of non-GAAP measures, is not a widespread practice among European companies. Less surprisingly, very few companies communicate provisional non-GAAP measures in their reports, as no regulation or guidance considers the presence of future targets to be essential information concerning non-GAAP disclosure. Additionally, the inclusion of future target information is often associated with high proprietary costs (Bini et al., 2015).

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3.4.2 Multivariate regression analysis

Table 10 reports the correlation coefficients between the variables included in our model. The two dependent variables are positively correlated. This indicates that companies that disclose more indicators also pay more attention to their presentational aspects. Additionally, in accordance with our hypotheses, the number of indicators published by companies (NUM_REL) and the modalities of presentation (PRES) are positively and significantly correlated with a company's size (SIZE), volatility (BETA) and profitability (PROF). Contrary to our expectations, loss-reporting companies communicate fewer non-GAAP measures with lower PRES variable scores compared to other companies. Lastly, technology intensity (IND) does not seem to influence non-GAAP disclosure.

All correlation coefficients were lower than the 0.80 critical limit (Hair et al., 2006). This suggests that the multicollinearity problem does not exist between the independent variables in multiple regression analyses. A variance inflation factor (VIF) analysis confirmed this result.

Table 10: Correlation matrix

	Num_ Rel	(1)	(2)	(3)	(4)	(5)	(6)
1. PRES	0.312***						
2. COUNTRY	0.150	-0.0428					
3. IND	0.095	0.0249	-0.136				
4. LOSS	-0.237***	-0.315***	-0.115	0.0761			
5. SIZE	0.248**	0.202*	-0.093	0.0046	-0.263**		
6. PROF	0.175*	0.317***	0.0603	-0.021	-0.51***	0.418***	
7. BETA	0.206*	0.234**	-0.126	0.0968	0.145	0.163	0.018

Significant level at: *** 0.01; ** 0.05; * 0.10.

Variable descriptions: Germany, the UK, Italy and the Netherlands are dummy variables representing the companies' countries of origin. IND is a dummy variable assuming the value of 1 for firms belonging to high-tech industries and 0 otherwise. LOSS is a dummy variable assuming the value of 1 in the presence of a GAAP loss and 0 otherwise. SIZE is the natural log of the firm's revenue. BETA is the measure of the company's volatility. PROF is the firm's ROE.

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Table 11 reports the results of the multivariate analysis for the NUM_REL variable. The statistical F test, which represents the relationship between the variance explained by the model and residual variance, was significant ($p < 0.01$). This shows that our regression model explained a significant portion of the variance of the observed phenomenon. This was also carried out by the adjusted r-squared coefficient, which was considered high (0.26) for a disclosure study (Eng and Mak, 2003).

It can be noted that the dependent variable is significantly correlated with a company's country of origin, confirming H1a. More specifically, companies in Germany, Italy, the Netherlands and the UK communicated a greater number of indicators compared to French companies. Our results extend the evidence of Bini et al. (2011), who showed that in 2008, UK annual reports posted just as many indicators as Italian ones. With the exception of French companies, our results seem to confirm that non-GAAP communication practices among European countries are not strongly influenced by institutional differences. This result contradicts Isidro and Marques (2015), who showed that UK and Dutch companies communicated non-GAAP earnings more frequently than German, Italian and French companies. However, Isidro and Marques (2015) focused on non-GAAP earnings instead of non-GAAP measures.

Table 11: Regression results for the NUM_REL variable

Variable	**Coefficient** (***Robust Standard Error)***	**p-value**
Germany	0.216*** *(0.0606)*	0.001
UK	0.127*** *(0.0479)*	0.009
Italy	0.239*** *(0.0532)*	0.000
Netherlands	0.158*** *(0.0583)*	0.008
IND	0.051 *(0.0359)*	0.156
LOSS	-0.110** *(0.0508)*	0.032
SIZE	0.024*** *(0.0079)*	0.003

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BETA	0.126*** *(0.0377)*	0.001
PROF	-0.000 *(0.0004)*	0.422
Constant	-0.139 *(0.1080)*	0.095
Observations	137	
F (9, 127)	8.39***	0.000
R-squared	0.259	

Significant level at: *** 0.01; ** 0.05; * 0.10.

Variables description: Germany, the UK, Italy and the Netherlands are dummy variables representing the companies' countries of origin. IND is a dummy variable assuming the value of 1 for firms belonging to high-tech industries and 0 otherwise. LOSS is a dummy variable assuming the value of 1 in the presence of a GAAP loss and 0 otherwise. SIZE is the natural log of the firm's revenues. BETA is the measure of the company's volatility. PROF is the firm's ROE.

Contrary to our expectations, we reject H2a since technological intensity does not affect the number of non-GAAPs. This result enriches previous evidence showing that companies in high-tech industries pay more attention than other companies to voluntary non-financial disclosure (Gu and Li, 2003; Bozzolan et al., 2003; Oliveira et al., 2006). In fact, it could be that the use of non-GAAP measures is a shared practice for all companies, regardless of their specific activities.

Unlike in the US context (Bhattacharya et al., 2004), European loss-reporting companies do not provide a greater number of non-GAAP measures than profit-reporting companies. Thus, we reject H3a. This evidence seems to reduce the risk of opportunistic use of non-GAAP disclosure in the European context. However, to interpret these results, it is important to consider that our sample is not stratified according to the profit/loss variable.

Both firm size and volatility were positively related to the amount of non-GAAP disclosure, confirming H4a and H5a. These results strengthen previous evidence, which reports that larger companies (Ben-Amar et al., 2017; Eng and Mak, 2003; Hitz, 2010; Holder-Webb et al., 2008) as well as companies with high volatility results (Healy, 2001; Boesso and Kumar, 2007) are used to provide users with a higher amount of voluntary disclosure.

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Regression results for the PRES variable are reported in Table 12. In this case, the statistical F test was significant ($p < 0.01$), and the adjusted R-squared coefficient was adequate (0.23).

Presentational aspects concerning non-GAAP disclosure did not show significant differences among countries. Thus, H1b is rejected. This evidence contrasts with previous results, which showed that companies in more market-oriented countries pay closer attention than other companies to presentation (Bini et al., 2011). It seems that the issue of the ESMA guidelines in 2015 has been effective in drawing companies' attention to critical, qualitative aspects of non-GAAP disclosure, thus reducing the differences among companies.

The coefficient related to the variable IND is not significant. Thus, our hypothesis 2b is rejected. Overall, our results indicate that both the number and the presentational aspects of non-GAAPs do not change between high-tech and non-high-tech companies. This shows that the positive relation between high-tech companies and non-financial disclosure quality documented in other studies (Bozzolan et al., 2003; Gu and Li, 2003; Oliveira et al., 2006) cannot be extended to non-GAAP disclosure.

In line with what we found concerning the amount of disclosure, the presence of a GAAP loss is significantly and negatively correlated with disclosure quality. Thus, we reject H3b. This result confirms previous evidence showing that companies with GAAP losses display lower non-GAAP communication quality than other companies (Bhattacharya et al., 2004). However, as stated earlier, these results may have been influenced by the fact that our sample was not stratified according to the profit/loss variable.

We reject H4b since the variable PRES is not significantly associated with company size. Thus, it seems that larger companies provide a greater number of non-GAAP measures (see comments above), but they do not give more attention to presentational aspects. These results contradict previous evidence (Adams et al., 1998; Bini et al., 2011; Dhaliwal et al., 2012); however, those studies were not specifically focused on non-GAAP disclosure.

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Table 12: Regression results for the PRES variable

Variable	Coefficient (*Robust Standard Error)*	p-value
Germany	0.032 *(0.0416)*	0.438
UK	0.052 *(0.0392)*	0.185
Italy	0.026 *(0.0377)*	0.494
Netherlands	-0.023 *(0.0435)*	0.601
IND	0.00650 *(0.0241)*	0.788
LOSS	-0.104*** *(0.0360)*	0.005
SIZE	0.002 *(0.0065)*	0.737
BETA	0.078*** *(0.0294)*	0.009
PROF	0.000 *(0.0004)*	0.279
Constant	0.374*** *(0.0834)*	0.000
Observations	137	
F (9, 127)	5.44***	0.000
R-squared	0.232	

Significant level at: *** 0.01; ** 0.05; * 0.10.

Variables description: Germany, the UK, Italy and the Netherlands are dummy variables representing the companies' countries of origin. IND is a dummy variable assuming the value of 1 for firms belonging to high-tech industries and 0 otherwise. LOSS is a dummy variable assuming the value of 1 in the presence of a GAAP loss and 0 otherwise. SIZE is the natural log of the firm's revenues. BETA is the measure of the company's volatility. PROF is the firm's ROE.

Finally, we documented a significantly high level of the PRES variable for companies with higher beta coefficients, which confirms H5b. This result, together with the result obtained for the NUM_REL variable,

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suggests that volatility is one of the most influential factors affecting non-GAAP disclosure and supports the idea that non-GAAP disclosure is mainly used by companies to provide the market with incremental information that supplements GAAP measures (Merkl-Davies and Brennan, 2007).

3.5 Conclusions

In the last decades, non-GAAP disclosure has been a widely discussed topic in literature and subject to several regulatory interventions. Our study adds to the ongoing debate by providing empirical evidence of the most widespread disclosure practices in Europe. Furthermore, we examined which factors are most influential in affecting the quality of non-GAAP disclosure in European annual reports. Our study supplements previous results that have mainly been focused on the effects of non-GAAP disclosure on companies' market performance and the use of this type of disclosure to opportunistically manipulate a company performance.

Our results show that European companies use largely non-GAAP metrics; each company in our study publishes seven metrics, on average, in their annual reports. Moreover, European companies usually comply with many qualitative requirements concerning presentation features, except when prospective data, which are very rarely reported, are present. Thus, it seems that the specific recommendations included in the ESMA guidelines have been effective at drawing companies' attention to presentational aspects.

In accordance with previous studies based on the US context (Black and Christensen, 2009), our results suggest that non-GAAP disclosure is mainly motivated by the need of companies to provide the market with incremental information that complements a few GAAP measures rather than to influence users' perceptions in a positive manner. In fact, evidence has documented that companies that report losses do not publish more indicators than other companies. On the other hand, a company's volatility is significantly associated with both the amount of non-GAAP they disclose and the quality of their presentation.

Non-GAAP disclosure does not differ significantly among European countries. The wide diffusion that some non-GAAP measures have achieved among companies seems to have positively contributed to uniform disclosure practices, overcoming the differences related to institutional factors such as market development and level of investor protection. This is true, in particular, for certain earning measures, including EBIT, EBITDA, EBITDA margin, EBIT margin, and adjusted

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EBIT, which are disclosed by a large number of companies. This result calls into question the intervention of the IASB, which could consider the possibility of including these measures on the faces of income statements to increase their information capacities. Moreover, considering that a uniform definition is widespread for these measures, their mandatory disclosure could significantly improve the comparability of earnings measures among European companies.

Our research suffers from some limitations. The most significant of these is related to our sample size. We considered only five industries that do not represent all the European companies listed. In addition, our analysis was focused only on one fiscal year. Although it is said that companies' disclosure practices do not change significantly from year to year, it may be of interest to determine how disclosure practices change over time. Finally, we selected the factors that influence disclosure practices according to the most accredited literature. However, other variables could be taken into account. For instance, drawing from Black et al. (2016b, 2018), it would be interesting to probe whether non-GAAP disclosure is influenced by performance indicators used by companies in their compensation schemes and loan agreements. Unfortunately, at the moment, these are not publicly available data for all European companies.

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ESSAY 4

THE EFFECTS OF THE ESMA GUIDELINES ON THE BEHAVIOUR OF COMPANIES ON NON-GAAP DISCLOSURE IN EUROPE

VINCIGUERRA R.[*], CAPPELLIERI F.[†] AND GRAVANTE A.[‡]

4.1 Introduction

The growing concern by the standard setters and the subsequent interventions recently carried out by the main regulators and some trade associations made the Alternative Performance Measures (APMs) an important topical subject, as evidenced by the previous contributions. This chapter aims to deepen this issue, contributing to the limited empirical research on the effects that the European Securities and Markets Authority (ESMA) Guidelines have had on the behaviour of European companies in disclosing non-GAAP metrics.

Our survey will focus on the trend concerning the use of APMs before and after the introduction of the guidelines, over a long interval, from 2013 to 2017. It will be conducted on longitudinal panel data composed by the companies of the STOXX Europe 600 Index, which includes large, middle and small capitalization companies across 17 countries of the European regions. The intent of the study, by developing mixed analysis – quantitative and qualitative – is to investigate the current state of the companies' approach to the use of APMs and its evolution over time, especially as a consequence of the ESMA intervention. To this end, we will focus on *where* the APMs will be collected by companies – identifying a dedicated section, if any – and *when* they will be communicated, with reference to

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their publishing rate over time. Furthermore, we are interested in learning about whether the APMs are disclosed with different labels, to know if companies use different names to refer to the same metric. Finally, we intend to investigate, if any, cases of amendments between adjusted measures compared to their closest GAAP ones (i.e. Net Profit and EPS) or to their non-GAAP normal versions (i.e. EBIT/Operating Profit, EBITDA).

Through our research, we will be able to know *if* and *how* the European companies under study have been influenced by the recent ESMA guidelines.

4.2 The regulation of APMs and the ESMA guidelines

Over the past two decades, the voluntary adoption of APMs, also called non-GAAP earnings, to supplement financial results determined on the basis of the Generally Accepted Accounting Principles (GAAP), has increased dramatically (Bradshaw et al., 2002; Kolev et al., 2008). Previous evidence on the use of APMs by companies is scant and yields mixed results. Research on voluntary disclosure of non-GAAP earnings shows that it is a means of communicating information about firm performance in order to improve the predictability of financial results (Battacharya et al., 2003; Graham et al., 2005). Research also suggests that non-GAAP measures are used by managers to inform markets when GAAP earnings are less informative, such as for technology entities and firms with prior losses (Bowen et al., 2005; Lougee et al., 2004). In contrast, it is also possible to use non-GAAP earnings disclosure opportunistically. In fact, research findings show that non-GAAP indicators are disclosed to enhance firm performance, such as to meet earnings benchmarks. Graham et al. (2005) show that managers consider it very important for current earnings to meet earnings benchmarks in order to build credibility in the capital market, to maintain and increase share prices and build the external reputation management; not meeting these benchmarks creates uncertainty for stakeholders about the future prospects of the company (Rainsbury et al., 2015). Moreover, managers select non-GAAP earnings measures to increase or smooth earnings, or to meet analyst forecasts to convey a more favourable impression of firm performance (Bowen et al., 2005).

The non-regulated nature of APMs as well as several well-known accounting scandals (e.g. Enron) have led to an increased scepticism towards unaudited disclosures of APMs (Bhattacharya et al., 2004), inducing the main regulators to identify guidelines aimed to mitigate information asymmetries among the various market operators in order to

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safeguard market efficiency and equity in the definition of trading prices (Moscariello, 2017). Given the potential of non-GAAP earnings to impact the market, both favourably and unfavourably, several regulators have intervened over time, adopting different approaches to implement the requirements for the growing number of listed companies that report APMs.

In the next lines, reference will be made to the interventions from the Securities and Exchange Commission (SEC) and ESMA, respectively from US and European contexts. We begin by examining SEC because it is the most careful institution disciplining the subject in question and because its influence on other regulations is evident. Specifically, we will focus on ESMA interventions as our study aims to investigate the adoption of APMs by the STOXX European-listed companies. In order to have a complete picture of the interventions that have taken place in the European context, we will also introduce the *Best Practices Recommendations Guidelines* (BPR), issued by the European Public Real Estate Association (EPRA), and the *Directive on the Use of Alternative Performance Measures* (DAPM), issued by the SIX Swiss Exchange Ltd.

In the United States, SEC[1] raised concerns regarding the potential measure of non-GAAP reporting and intervened numerous times to regulate it. In December 2001, SEC issued its first official document regarding the use of Alternative Performance Indicators. This *Cautionary Advice* emphasizes the low comparability – over time and in space – of non-GAAP measures and the possibility that they may replace, and not integrate, the results determined according to GAAP. In this pre-regulation period, SEC required public companies that disclose non-GAAP financial measures to integrate them with detailed information aimed at:

- comprehending cost/revenue items that may be excluded from a non-GAAP indicator in a particular year;
- replicating changes made in subsequent years to better compare results over time;
- making a comparison with the main GAAP indicators[2].

[1] SEC is the federal stock exchange supervisory authority of the USA and is therefore responsible for the control of the securities trading in the US. It strives to protect investors and create a trustworthy market environment for securities trading (https://www.sec.gov/about.shtml).

[2] "*When a company purports to announce earnings before 'unusual or nonrecurring transactions', it should describe the particular transactions and the kind of transactions that are omitted and apply the methodology described when presenting purportedly comparable information about other periods […] A presentation of financial results that is addressed to a limited feature of financial*

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Subsequently, in response to requests for greater transparency of the markets contained in the *Sarbanes-Oxley Act* in 2002, SEC decided to extensively regulate non-GAAP disclosure through the publication of the *Conditions for use of Non-GAAP financial measures*, divided into three different areas of action (the so-called *Final Rules*).

Firstly, SEC introduced *Regulation G*, which mandates non-GAAP disclosures contain the most directly comparable GAAP measure, a clearly understandable quantitative reconciliation of the non-GAAP indicators to the most directly comparable GAAP ones. In addition, entities shall not present non-GAAP earnings in ways that mislead investors.

Secondly, SEC issued amendments *to Item 10(e) of Regulation S-K*, *Item 10 of Regulation S-B* and *Form 20-F*, requesting companies to give reasons why management considers the non-GAAP information to be useful to investors and additional purposes, if any, the management uses the non-GAAP financial measures that are not otherwise disclosed.

Thirdly, SEC introduced amendments to *Item 12 of Form 8-K*, which requires the *earnings release* to be transmitted to the US regulators along with annual or quarterly reports.

Finally, SEC published the *Compliance and Disclosure Interpretations* (C&DIs) in 2010, which were updated in May 2016.

In Europe recommendations governing the reporting of APMs were issued by the Committee of European Securities Regulators (CESR) (currently ESMA[3]). In October 2005, the CESR issued its recommendations on APMs (replaced in 2015), containing non-binding proposals for EU-listed companies, with the goal to provide transparent and unambiguous information on financial performance for investors. The principles of the recommendations were to be applied to any kind of reporting, with the exception of prospectuses, such as press releases, when financial information were included. The CESR defined APMs as any measure, other than GAAP ones, included in audited financial statements. However, as APMs are either derived from audited financial statements or calculated

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results or that sets forth calculations of financial results on a basis other than GAAP generally will not be deemed to be misleading merely due to its deviation from GAAP if the company in the same public statement discloses in plain English how it has deviated from GAAP and the amounts of each of those deviations". SEC – Securities and Exchange Commission, *Cautionary Advice Regarding the Use of 'Pro Forma' Financial Information in Earnings Releases*, December, 2001.

[3] The Committee of European Securities Regulators (CESR) was a network of EU member state authorities that advized the European Commission in securities questions and promoted consistent supervision of securities trading across the member states of the EU. It was established by the European Commission in 2001 and replaced by the European Securities and Markets Authority (ESMA) in 2011.

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by alternative methodology other than GAAP, the CESR divided them into two categories. The first one included all measures resulting from the adjustments of line items in the income statement, balance sheet, or cash flow statement, such as EBITDA or earnings before one-time charges; the second one comprized additional performance indicators reflecting business activity, projection of future cash flows, or forward-looking indicators.

In order to ensure compliance with the *qualitative characteristics of useful financial information* (CESR 2005), the regulator stated that non-GAAP measures must be: a) immediately understandable to a reader of the financial statements who has a reasonable knowledge of the dynamics of business, economic activity and accounting as well as the desire to examine the information with due diligence; b) able to influence the decisions of potential users of financial statements, favouring a better appreciation of past and present performance and a more reliable forecast of future results; c) free of material errors and prejudices so as to provide the readers of the financial statements with a true representation of the balance sheet result; d) accompanied by supplementary information that allows an effective comparison over time and space of the same. To meet these standards, *Recommendation* required companies to: i) define APMs; ii) present APMs in addition to conventional ones; iii) provide comparative data; iv) disclose coherent APMs from one year to another; v) not display APMs with more prominence, emphasis, or authority over GAAP measures; vi) explain the internal use of APMs.

In 2015, ESMA issued *Guidelines on Alternative Performance Measures*, confirming the general principles and contents of the previous document. ESMA aims to increase the usefulness and transparency of APMs and improve the comparability, reliability and comprehensibility of these figures. According to the contents of this intervention, APMs are defined as a financial measure, based on or deduced from a GAAP figure, that displays "*historical or future financial performance, financial position or cash-flow, other than a financial measure defined or specified in the applicable financial reporting framework*".

In order to make APMs easily analysable and comprehensible for investors, companies should define APMs in a clear and readable way and provide the basis of calculation as well as underlying assumptions and hypotheses. Moreover, companies should give to those figures meaningful labels that adequately reflect their contents and calculation basis to avoid detriment to users. Thereby, titles should not be overly optimistic or confusingly similar to GAAP figures, nor should items be mislabelled as non-recurring or unusual if they affected previous periods and will affect

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future periods. Moreover, ESMA confirms in its guidelines the need for a reconciliation between non-GAAP indicators and measures defined by accounting standards[4].

Furthermore, firms should explain the usefulness of APMs in order to allow users to understand their relevance and reliability and, also, the reasons for which they can contribute – incrementally compared to the GAAP indicators – to a better understanding of the financial position, cash flows and financial performance of the company. In accordance with the previous *Recommendation*, APMs should not be presented with more prominence, emphasis or authority than the GAAP figures. If a company discloses an APM, it should always provide comparatives to previous periods in order to show its change over time. Therefore, the definition and calculation of an APM should always be consistent over time. In case a company redefines an APM or decides to no longer disclose it, the firm should explain the changes and their reasoning. All the last sentences corroborate the contents of IAS 1[5].

Finally, ESMA explicitly allows compliance by reference to other documents of the company, provided that the latter are easily accessible for investors, to achieve its stated mission of protecting investors.

After describing the contents of the ESMA intervention, we proceed to reporting the EPRA regulation.

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[4] "*A reconciliation of the APM to the most directly reconcilable line item, subtotal or total presented in the financial statements of the corresponding period should be disclosed, separately identifying and explaining the material reconciling items […] Issuers or persons responsible for the prospectus should also present the most directly reconcilable line item, subtotal or total presented in the financial statements relevant for that specific APM*" ESMA - European Securities and Markets Authority, *Guidelines on Alternative Performance Measures*, pp. 7/8, 2015.

[5] "*An entity shall present additional line items (including by disaggregating the line items listed in paragraph 82), headings and subtotals in the statement(s) presenting profit or loss and other comprehensive income when such presentation is relevant to an understanding of the entity's financial performance"…"When an entity presents subtotals in accordance with paragraph 85, those subtotals shall: (a) be comprised of line items made up of amounts recognised and measured in accordance with IFRS; (b) be presented and labelled in a manner that makes the line items that constitute the subtotal clear and understandable; (c) be consistent from period to period, in accordance with paragraph 45; and (d) not be displayed with more prominence than the subtotals and totals required in IFRS for the statement(s) presenting profit or loss and other comprehensive income."* IASB - International Accounting Standards Board, *IAS 1 Presentation of Financial Statements*, Paragraphs 85, 85A, 2014.

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EPRA[6] in its *Best Practices Recommendations* Guidelines (BPR)[7] focuses on making the financial statements of public real estate companies clearer and more comparable across Europe. This enhances the transparency and coherence of the sector as a whole, playing an important role in attracting global flows of capital into the European-listed property sector and protecting the interests of investors and analysts. EPRA, sharing the same goal with the other regulatory bodies, aims to ensure that the disclosure of financial information does not mislead investors and financiers. However, unlike the others that only issue general principles/guidelines to be respected, it explains in detail the specific "*EPRA Performance Measures*" (EPM)[8] to be disclosed and how to calculate them. EPRA also requires companies to provide a summary table showing the EPM in a prominent place in their annual reports. Moreover, the EPM of the current year should be provided with the corresponding comparable ones of the prior year.

With particular reference to *Earnings* and *Net Asset Value – NAV*, EPRA took action to overcome a weakness in the IFRS discipline. According to the EPRA BPR, indeed, when these metrics are reported, respectively, in the income statement and in the financial statement, "*as required under IFRS, do not provide stakeholders with the most relevant information on the operating performance for the former, and on the fair value of the assets and liabilities for the latter. For this reason, real estate companies should disclose financial measures as required by the BPR*" (EPRA 2016).

Finally, we make a brief reference to the *Directive on the Use of Alternative Performance Measures* (DAPM) issued by the SIX Exchange Regulation Ltd (SIX Exchange Regulation Ltd, 2018). It applies to all issuers whose equity securities are listed on the SIX Swiss Exchange Ltd and whose registered offices are in Switzerland.

The DAPM promotes the clear and transparent use of APMs, just like the ESMA guidelines, though the description of the purpose is more meagre and does not emphasize the importance of providing a faithful representation of the financial information disclosed to the market.

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[6] EPRA is an institution committed to the transparency, comparability, consistency, and relevance of published results for European-listed companies. It is a not-for-profit association based in Brussels that represents the interests of both listed real estate companies in Europe as well as investors.

[7] EPRA – European Public Real Estate Association, *Best Practices Recommendations Guidelines*, November 2016, updating the previous ones of 2014.

[8] The *Performance Measures* given by the EPRA are: EPRA Earnings; EPRA NAV – Net Asset Value; EPRA Triple Net Asset Value – NNNAV; EPRA Net Initial Yield - (NIY) and 'Topped-Up' NIY; EPRA Vacancy Rate; EPRA Cost Ratios. *Ibidem*, p. 5.

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The definition of APM is very similar to that given by the ESMA guidelines though, unlike the latter, it "*specifically excludes: physical measures (e.g. number of tonnes) or non-financial performance measures, performance measures defined in other regulations applicable to issuers (e.g. solvency)*".

Similarly, the DAPM introduces the need to disclose clear and comprehensible definitions for all APMs and meaningful labels reflecting their contents and basis of calculation. Giving additional flexibility, it asserts that "*whether a label (e.g. nonrecurring expense) is misleading, is determined by the specific circumstances*".

The DAPM has other points in common with the ESMA guidelines in that it affirms that companies must:

1) disclose a reconciliation statement of the non-GAAP measures to comparable regulated ones;
2) not present APMs with more prominence than "*measures prepared in accordance with recognised accounting standards",* although it integrates the ESMA guidelines requiring companies to ensure a "*balance between performance measures defined or specified under applicable accounting standards, and APM used*";
3) compare APMs to those of the previous periods, ensuring consistency of the definition and of the calculation basis over time, reporting and describing deviations if any. However, unlike the ESMA recommendations, the DAPM does not rule the case when a company stops disclosing an APM.

Finally, we see similarities between the two approaches regarding the cross-reference issue. Specifically, DAPM states that: "*Alternatively, the information required by this directive can be provided by cross-referencing (e.g. footnote, web link) other documents, such as an appendix to the annual report or a central document on a webpage. These documents must be publicly accessible at the time the alternative performance measure is disclosed*".

4.3 Methods and data

4.3.1 Research questions

This empirical study intends to investigate the current situation regarding the use of APMs by European companies. The purpose is to understand if the ESMA guidelines have impacted the behaviour of these

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entities regarding both the use of APMs and the way in which some of them have been communicated.

As the guidelines were enacted in July 2016, the analysis will describe the practices regarding the use of the alternative indicators and their evolution over time (2013-2017) to assess whether there has been a change of attitude in the period following that event.

The data collected have been analysed to investigate some specific contents of the ESMA Guidelines concerning its:

- *Purpose* to promote the usefulness and transparency of APMs;
- *Presentation* requirements to disclose the definitions of all APMs in a clear and readable way and in order to avoid conveying misleading messages to users.

The following will explain in detail the pattern of the study.

The *Purpose* of the ESMA Guidelines is to promote the usefulness and transparency of APMs in order to provide a faithful representation of the financial information disclosed to the market. If the APMs represent information that integrates the regulated information, we think – in accordance to the contents of these Guidelines – they should not undermine the value of the GAAP metrics; moreover, disclosure must be provided without creating confusion between the regulated and non-regulated indicators. For these reasons, the research was firstly addressed to understand if, in the communication process, the companies represent the APMs with greater transparency, distinguishing clearly between GAAP and non-GAAP metrics.

According to this point, we investigate *if companies use an autonomous section to collect all the unregulated indicators.* Data were collected and analysed in order to answer the following question:

1) In which part of the financial reporting have the APMs been communicated?

ESMA Guidelines requires companies to provide a clear and legible definition of the APMs, using labels to reflect their content and calculation basis, in order to avoid conveying misleading messages. With respect to this point, the focus of the investigation was shifted to analyse APMs with the purpose of understanding if the labels used and the adjustments made are such as to guarantee clear communication. Moreover, starting from a previous exploratory survey[9], we decided to focus our attention only on

[9] Before conducting the fully-fledged investigation, we carried out an exploratory study aimed at delimiting the area of analysis to the most common indicators.

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specific indicators – Operating Profit, EBIT, EBITDA, Net Profit, EPS numerator, Net Debt[10], and, if any, their corresponding adjusted values.

Ultimately, therefore, the financial documents *of the sample companies were analysed to know the frequency with which APMs were communicated, to scan the tags used to indicate the latter, to know, if any, the sign of the adjustments, over an evolution over time.*

Data were collected and analysed in order to answer the following questions:

2) *When were APMs communicated?*
3) *Were the APMs communicated using different labels?*
4) *Referring to adjusted measures, are the adjustments positive, negative or equal to zero?*
5) *Has the ESMA regulation brought about a different attitude towards the sign of these adjustments?*

4.3.2 Data and sample

The survey was conducted on the companies of the STOXX Europe 600 Index, which includes large, middle and small capitalization companies in 17 countries of the European regions.

Since the intent of the study was to investigate the current state of the companies' approach to the use of APMs and its evolution over time, especially as a consequence of the ESMA intervention, the survey was carried out over a long interval, from 2013 to 2017.

In order to guarantee the quality of the data and the comparability of the results, banks and insurance companies were excluded as they are subject to different regulations. In addition, the firms for which documents were not available were also eliminated.

We examined the financial reporting of 409 companies between 2013 and 2017 for a total of 2045 observations (Table 1).

[10] As will be specified in detail below, only with reference to the Net Debt metric, the study limits itself to knowing the placement in the financial reporting and the frequency of its use by the sample companies. An in-depth investigation, concerning the labels used and the adjustments made, could be dealt with in future research.

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Table 1: Data and sample[11]

Total components of STOXX Europe 600 Index	600
Financials	-28
Banks	-47
Insurance companies	-33
Companies for which documents were not available	-83
Total sample size	***409***

About 22% of the companies of the sample operates in the *Industrial Goods & Services* sector; around 11% in the *Health Care* segment. The remaining entities are evenly distributed among the other sectors (Table 2).

Table 2: Companies by super sector

Super sector	**Obs**	**%**
Industrial Goods & Services	92	22,49%
Health Care	44	10,76%
Personal & Household Goods	26	6,36%
Real Estate	24	5,87%
Retail	22	5,38%
Chemicals	22	5,38%
Technology	22	5,38%
Basic Resources	21	5,13%
Food & Beverage	21	5,13%
Utilities	19	4,65%
Travel & Leisure	18	4,40%
Oil & Gas	17	4,16%
Construction & Materials	16	3,91%
Media	16	3,91%
Automobiles & Parts	15	3,67%
Telecommunications	14	3,42%
Total	***409***	***100.00%***

[11] Appendix 1 lists the 409 companies of the sample.

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From a geographical point of view, the largest representation of companies is attributable to the UK (30,07%), Germany (15,40%) and France (11,25%) (Table 3).

Table 3: Companies by country

Country	Obs	%
United Kingdom	123	30,07%
Germany	63	15,40%
France	46	11,25%
Switzerland	35	8,56%
Sweden	33	8,07%
Netherlands	20	4,89%
Italy	18	4,40%
Denmark	16	3,91%
Finland	11	2,69%
Spain	11	2,69%
Norway	10	2,44%
Belgium	7	1,71%
Ireland	6	1,47%
Austria	4	0,98%
Luxembourg	3	0,73%
Portugal	2	0,49%
Czech Republic	1	0,24%
Total	***409***	***100.00%***

After delimiting the sample, the financial reporting available on the websites of the companies was downloaded. The data regarding the APM were hand-collected from the annual reports of each non-financial company from 2013 to 2017.

In order to answer the first research question, the documents were analysed to identify, if any, the section dedicated to collecting alternative metrics. To this aim, we differentiate the cases in which the heading of the section referred explicitly to the words "*APM – Alternative Performance Measure*" – as defined by the ESMA Guidelines – from those in which reference was made to other names. It is worth noting that the identification of a separate section, however, does not preclude the widespread use of

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non-GAAP elsewhere in the annual reports. Specifically, we often collected the APMs directly from the financial statements.

At this stage data collection was carried out by looking for keywords, as specified in Table 4 below.

Table 4: Keywords for dedicated section

Item	Key words
APM (*Alternative Performance Measure*)	APM Alternative Performance Measure/Indicator Non-GAAP Section/Measure/Indicator Non-IFRS Measure
Other Names for Dedicated Section	KPI Key Performance Indicator Adjusted Measure

In order to gather information on the disclosure of specific APMs by companies, useful to answer research questions concerning the analysed non-GAAP measures, a search focused on each indicator was carried out for the following keywords (**Table 5**).

Table 5 – Keywords for specific indicator

Specific indicator	Keywords
EBIT	EBIT Interests Taxes
Operating Profit	Operating Profit Operating Income
EBITDA	EBITDA Depreciation Amortization
Earnings[12] (*numerator of the EPS*)	EPS Earnings per Share Earnings per Ordinary Share Profit or loss attributable to parent holders/ owners/shareholders/ordinary shareholders
Net Profit	Net Profit Profit After Tax Net Income Profit for the year

[12] Profit or loss attributable to ordinary equity holders of the parent entity.

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Net Debt	Net borrowings Net Cash Net Debt Net Financial Debt Net financial position Net Indebtedness Net Interest-Bearing Debt Net Interest-Bearing Liabilities Net Liquidity

Ultimately, therefore, since the data were collected by directly consulting the financial documents produced by the sample companies and, taking into account the specific needs of the research as described in the questions above, it is *primary data* that was analysed (Adams J. et al., 2007).

4.3.3 Methodological approach

Mixed analysis methodologies, quantitative and qualitative, were adopted.

In the first instance, the data were analysed with a quantitative methodology, conducted on longitudinal panel data, using as the cut-off the year in which ESMA issued its guidelines, to obtain a description of the current situation and of the evolution over time concerning the use of APMs by the sample companies.

When special situations arose, the study was deepened following a qualitative analysis approach. In such circumstances, this approach allowed us to trace information useful for better describing the phenomenon, even when the said situations had escaped quantitative investigation.

4.4 Main results

This section will highlight the results of our investigation.

The first part (*paragraph 4.4.1*) will answer the research questions concerning the "*where*" (*in which part of the financial reporting)* and the "*when*" (*in which and how many years*) companies resorted to APMs to supplement their regulated disclosure.

The subsequent sections (4.4.2 and 4.4.3, respectively), after describing in greater detail the evolution over time of the use of the alternative metrics, are dedicated to deepening the analysis of the variety of labels used to disclose the APMs and, if any, the adjustments made by the sample companies.

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The in-depth investigation in the last two sections is conducted on the subtotals presented in the income statement (Operating Profit, EBIT, EBITDA) and, as applicable, on their adjusted versions, as well as on the closest non-GAAP measures of Net Profit and Earnings. We will not treat Net Debt with the same accuracy, a metric calculated with reference to balance sheet items, although our intent is to better investigate the use of this indicator in future research.

4.4.1 Where and when

In our opinion the way in which the APMs are communicated within the financial statements is important for the purposes of their clarity and usability on the part of the final readers.

Announcements of non-GAAP indexes made in a prominent manner could in turn generate misperception in the user, undermining the purpose *to provide a faithful representation of the financial information disclosed to the market*. Moreover, the disclosure of alternative metrics in a widespread way throughout the entire financial document could generate confusion in the reader to the extent of *distracting from the presentation of the measures directly stemming from financial statements*. The creation of a special section in which to collect the APMs would allow the reader to create a distinction between GAAP and non-GAAP indicators. Such an attitude, by enhancing the clearness and readability of the annual reports, would improve their fruition and their comparability, at least between companies of the same sector.

The first part of the study is then dedicated to knowing *where* companies communicated alternative indicators. The research question is:

1) *In which part of the financial reporting have the APMs been communicated?*

The results are summarized in Chart 1 – Dedicated Section below.

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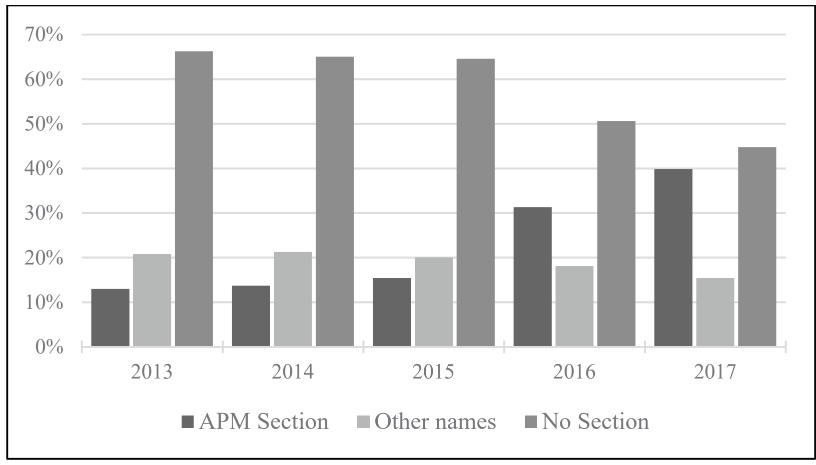
Chart 1: Dedicated section



From the analysis of the annual reports it emerges that the number of companies that used a specific section, called APM, shows a slight gradual increase, starting from 12,96% in 2013 to 15,40% in 2015. The act of issuing guidelines (2015) and then their entry into force (*on or after July 2016*) produced a noticeable effect on the behaviour of companies, doubling the presence of an APM section in the annual reports (31,30%) compared to the previous year. In 2017, after the guidelines came into force, the percentage of companies that disclose non-GAAP in a specific paragraph called APM grew significantly, reaching its highest point of 39,85%.

At the same time, the number of entities that did not collect their APMs in a separate section simultaneously declined, hitting the bottom in 2017 (44,74%). In 2013 20,78% of observations show a dedicated section called KPI or Adjusted Measures. As we can see from the chart, the number of *other names* follows a downward trend from 2015 (20,05%) to 2017 (15,40%).

Finally, the graph provides evidence that these changes, which took place after the intervention of ESMA, can be traced back to a greater transparency in the companies' attitude to differentiating non-regulated metrics from GAAP ones.

To complement the previous results, we also depict *where* the dedicated sections were located in the financial reporting of the sample companies. We learn that these are randomly placed in various parts of the annual reports, such as:

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- Notes;
- Management Reports or Strategic Reports; and, rarely,
- Additional Information or Other Financial Information (i.e. for *Land Securities*, financial year 2017, Figure 1 and Figure 2).

Figure 1: Index of the 2017 Consolidated Financial Statement of Land Securities

Financial statements

96 Statement of Directors' Responsibilities
97 Independent Auditor's Report
103 Income statement
103 Statement of comprehensive income
104 Balance sheets
105 Statement of changes in equity
106 Statement of cash flows
107 Notes to the financial statements

Additional information

156 Business analysis – Group
160 Business analysis – London
161 Business analysis – Retail
162 Sustainability reporting
168 Combined Portfolio analysis
170 Lease lengths
171 Development pipeline and trading property development schemes
172 Alternative performance measures
172 Five year summary
174 Acquisitions, disposals and capital expenditure
175 Remuneration policy
180 Subsidiaries, joint ventures and associates
183 Shareholder information
186 Key contacts and advisers
187 Glossary
IBC Cautionary statement

Source: Consolidated Financial Statements 2017, Land Securities, p. 1.

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Figure 2: APMs 2017 Additional Information Section from Land Securities

Alternative performance measures

The Group has applied the European Securities and Markets Authority (ESMA) 'Guidelines on Alternative Performance Measures' in these annual results. In the context of these results, an alternative performance measure (APM) is a financial measure of historical or future financial performance, position or cash flows of the Group which is not a measure defined or specified in IFRS.

The table below summarises the APMs included in these annual results, where the definitions and reconciliations of these measures can be found, as well where further discussion is included. The definitions of all APMs are included in the Glossary and further discussion of these measures can be found in the financial review.

Table 119

	Nearest IFRS measure	Reconciliation
Revenue profit	Profit before tax	Note 4
Adjusted earnings	Profit attributable to owners of the parent	Note 5
Adjusted earnings per share	Basic earnings per share	Note 5
Adjusted diluted earnings per share	Diluted earnings per share	Note 5
Adjusted net assets	Net assets attributable to owners of the parent	Note 5
Adjusted net assets per share	Net assets attributable to owners of the parent	Note 5
Adjusted diluted net assets per share	Net assets attributable to owners of the parent	Note 5
Total business return	n/a	Note 5
Combined Portfolio	Investment properties	Note 14
Valuation surplus/deficit	Net surplus/deficit on revaluation of investment properties	Note 14
Adjusted net debt	Borrowings	Note 20
Group LTV	n/a	Note 20

Source: Annual Report 2017 of Land Securities, p. 172.

In very few cases, this information was collected in supplementary documents and *cross referenced*[13] in the annual report (i.e. *Nestlé*, financial year 2017, Figure 3, Figure 4 and Figure 5):

Figure 3: Nestlé 2017 Financial Statements - Reference to the "*APMs*" document

(a) Certain financial performance measures, that are not defined by IFRS, are used by management to assess the financial and operational performance of the Group. The "Alternative Performance Measures" document published under https://www.nestle.com/investors/publications provides the definition of these non-IFRS financial performance measures.

Source: Financial Statements 2017 of Nestlé, p. 150.

[13] ESMA allows compliance by reference. For further details, please refer to Paragraph 2 – *The regulation of APM and the ESMA guidelines*.

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Figure 4: Nestlé web page disclosing the "*APMs*" document

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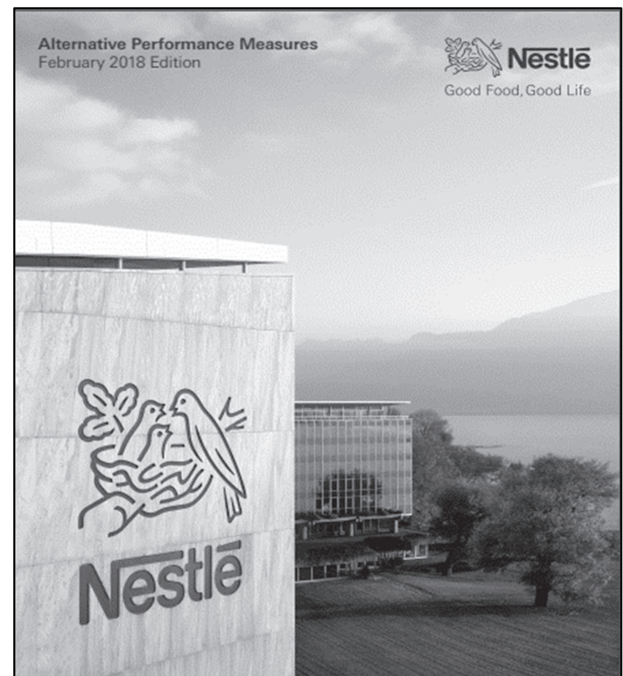
Annual Review
Full-Year Financials
Half-Year Financials
Five Year Review
Corporate Governance Report
2017 Creating Shared Value Achievements
Alternative Performance Measures
Nestlé Group - 2017 Restatements

For the first quarter and nine months results, we report sales only and this information is available through the press releases and related presentations.

Figure 5: 2017 "*Alternative Performance Measures*" document of Nestlé



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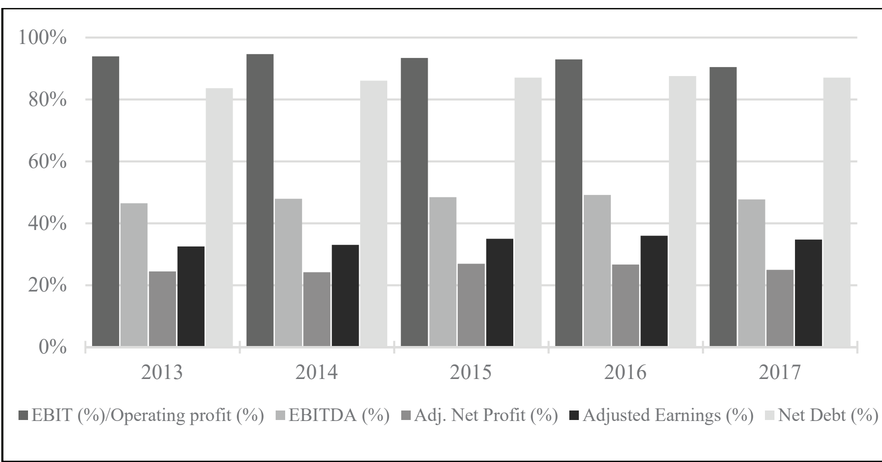
In general, we can conclude that the unpredictability of the location of non-GAAP metrics weakens the readability of the documents and undermines their comparability over space.

After gathering information regarding *where* non-GAAP items were communicated, the intention was to answer the second research question: *When were APMs communicated*?, identify the popularity of these indicators, and appreciate the effects, if any, of the use of ESMA Guidelines.

Chart 2 illustrates the diffusion of EBIT/Operating Profit, EBITDA, Adjusted Net Profit, Adjusted Earnings and Net Debt among the firms' annual reports from 2013 to 2017.

Chart 2: Spread of Alternative Performance Measures



As is evident from **Chart 2**, almost all sample companies published at least one APM (among those we are interested in) during this five-year period.

In particular, the **EBIT/Operating Profit** measures are the most popular alternative indicators, with a publishing rate always higher than 90%. As regards as the trend of EBIT/Operating Profit over time, the number of entities that disclosed measures regarding operating results shows a slight growth from 93,89 % in 2013 to peak 94,62% in 2014. Since the issuing of guidelines from ESMA (October 2015), their spread started to decline, reaching its lowest point of 90,46% in 2017, after recommendations came into force.

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The last bar of this histogram represents the massive use of **Net Debt** in the sample annual reports. In particular, excluding a slight increase of 3,42% from 2013 to 2015, the percentage of companies that announced Net Debt in their reports remains stable at around 88% for the last two years of our analysis.

Carrying on with the analysis, the empirical evidence demonstrates that the disclosures of EBITDA, Adjusted Earnings, and Adjusted Net Profit figures are limited to a lower percentage of companies, always below 50%.

In regard to the use of **EBITDA**, Graph 2 allows the detection of a slightly rising trend from 2013 to 2016, followed by a modest dip of 1,47% in the first year of the new ESMA Guideline application.

In the same way, the portion of entities that presented **Adjusted Earnings** rises progressively, starting at 32,52% in 2013 to reach 35,94% in 2016. However, after this gradual increase, its use drops to hit the bottom, at 34,72%, over the last year.

The chart provides evidence that **Adjusted Net Profit** is disclosed less frequently than the others in the sample annual reports. After three years of a gradual progressive increase (from 2014 to 2016), its use – reflecting the trends of the other APMs – weakly declines by 1,71% in 2017.

As all the APMs being studied suffered a not-significant decline in 2017, there is not enough evidence to comment on the effects of the ESMA intervention on their frequency. This downward trend, shared by all the APMs, is in line with our expectations. In our opinion, the restrictions required by these guidelines – reducing the discretionary of entities – could have inhibited companies from disclosing non-GAAP metrics. On the other hand, as 2017 is just the first year of implementation, this tendency could be prodromal of a change in the attitude of companies, allowing for further in-depth research.

Below, the analysis focuses on deepening the disclosure of each metric by the sample companies over the investigation period. In particular, we are going to try to answer the following research questions:

3) *Have the APMs been communicated using different labels?*
4) *Referring to adjusted measures, are the adjustments positive, negative or equal to zero?*
5) *Has the ESMA regulation brought about a different attitude towards the sign of these adjustments?*

It is worth highlighting that in some cases, the adjustments are computed with reference to a GAAP (Net Profit and EPS); in others they

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are calculated compared to the closest APM (EBIT, Operating Profit, EBITDA).

4.4.2 Operating Performance Measures

Operating Profit /EBIT and their adjustments

The empirical evidence suggested we treat two operating subtotals together: **Operating Profit** and **EBIT**.

Indeed, a lack of any definition of ***Operating Profit*** by the International Accounting Standards Board (IASB) (EFRAG TEG meeting 2017) allowed entities a wide discretion in the description and in the composition of this measure. As a matter of fact, *"in many cases the "operating profit" subtotal was very similar to EBIT"* (ERAG TEG meeting 2017); sometimes, it was even used as its synonym (as in Figure 6**)**, in particular in 14,59% of the cases in 2017[14].

Figure 6: Consolidated income statement 2017 of DKSH

Consolidated income statement

in CHF millions[1]	Notes[2]	2017	2016
Net sales	4	11,006.4	10,505.2
Other income	5	38.9	25.2
Goods and materials purchased and consumables used		(9,479.4)	(9,022.4)
Employee benefit expenses	6	(638.8)	(594.4)
Depreciation, amortization and impairments	14/16	(37.9)	(39.5)
Other operating expenses	7	(596.1)	(579.5)
Share of profit/(loss) of associates and joint ventures	17/18	3.9	(1.6)
Operating profit (EBIT)		**297.0**	**293.0**
Financial income	8	2.3	1.7
Financial expenses	8	(15.7)	(12.2)
Gain on sale of subsidiaries and associates	17/28	6.9	10.7
Profit before tax		**290.5**	**293.2**
Income tax expenses	9	(77.2)	(80.2)
Profit after tax		**213.3**	**213.0**

Source: Consolidated Financial Statements 2017, DKSH Group, p. 42.

[14] For details, please refer to the Chart A – Detail for 2017, in the Appendix.

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EFRAG, also, without framing it, merely states that the "*Investors often use operating profit to understand the profitability and cash flows generated by the entity's 'current operations' or 'primary business activities' […]. It is therefore useful to them to forecast future earnings and assess the effectiveness of management*" (EFRAG TEG meeting 2017).

As for ***EBIT – Earnings Before Interest and Tax*** – it represents the profit a company generates ignoring taxes and interest-related items. Although such an explanation appears to be formally clear, there is uncertainty concerning income/expenses. The issue is that IFRS Standards do not provide a clear definition of them (EFRAG TEG meeting 2017).

Only in 35,79% of the sample annual reports, on average, is there an explicit reference to EBIT, showing the same behaviour even after the introduction of the new ESMA Guidelines. Moreover, during the investigation period, the majority of entities – 64,21% on average – disclose *Operating Profit* figures, even though there were differences in their labelling and their calculation (Chart 3).

Chart 3: EBIT - Operating Profit

Indeed, in practice, we find a wide variety of labels used words instead of *Operating Profit* and *EBIT*.

Empirical evidence shows that differences in the labels used to communicate EBIT are few. Other than the acronym EBIT, sample companies referred to *Profit before financial items; Profit before financial result; Profit on ordinary activities before finance costs; Profit before tax*

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(+/-financial result); Profit before interest and taxation (PBIT); IFRS EBIT. In the latter case, the term "*IFRS*" associated with "*EBIT*" could at first be confusing between GAAP and non-GAAP measures. IASB provides in a Discussion Paper (IASB 2017) a "*diagram […] illustrating how to present EBITDA and EBIT in the statement of profit or loss*", so the company may have used this term to stick more closely to the *proposed* scheme.

These not-significant disparities in the used labels only apparently make the comparison easier and do not compromize the clearness and understandability of the indicator. Indeed, the comparability is undermined by the differences that we detected in the calculation basis adopted by sample companies as regards, at least, at the treatment of interest-related items.

In contrast, the range of labels attributable to the Operating Profit metric is broader compared to the case before. In this circumstance, the comparability is compromized both by the different basis of calculation to which the companies resort and by the variety of labels used to present Operating Profit[15]. In our financial report analysis, in particular, we detected different *terms* for *Operating Profit* (Table 6). This would create severe inconsistencies and confuse users of financial statements.

Table 6: Labels attributable to Operating Profit

Operating profit	Income From Operation
Operating Result	Operational Result
Operating profit IFRS	Operating profit as reported under IFRS
Income from Operating Activities	Operating Income
Profit from operation	Profit for the year from continuing operation
Result from operation	Operating profit after tax
Profit from Operating Activities	Results from Operating Activities
Operating profit after share of net profit of associates	US GAAP Operating income from continuing operations

In such circumstances, the reader who intends to know the operating result achieved by a company must first intercept the indicator that he

[15] In the same manner, the EFRAG recognizes the difficulties attributable to the existence of different labels and calculation methods to disclose the Operating Profit. EFRAG TEG meeting 29 - 30 March 2017 – *Primary Financial Statements Issues Paper – Use of additional subtotals in the Statement of Financial Performance*, p. 5, paragraphs 23-24.

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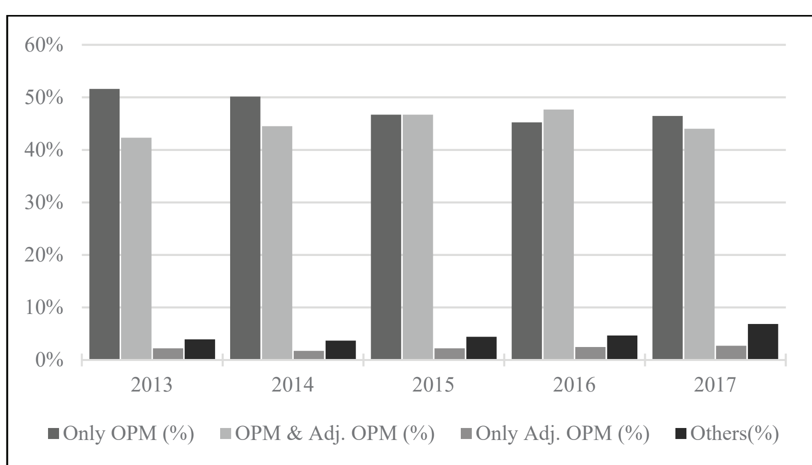
considers to be the one closest to the Operating Profit; at a later time, also through the investigation of the calculation basis, he can make sure of the soundness of his evaluation before using the information provided by the APM itself. The use of different terms to indicate the same alternative indicator, therefore, makes the usability of the APMs by the end readers more complicated. Furthermore, the use of many *own definitions* by the sample companies in place of a unified stand clashes with the aims of the ESMA of promoting the *usefulness* and *transparency* of APMs and of improving the *comparability*, *reliability* or *comprehensibility* of the financial information disclosed to the market.

This circumstance determines the need for standardization, already recognized by the IFRS[16], necessary to allow the alignment with ESMA requirements.

The empirical evidence shows that many companies presented the ***adjusted version*** beside the *normal version* of these APMs (i.e. *"EBIT" and "Operating Profit")*. Results are summarized in Chart 4 where, for reasons of greater clarity, we deal with the above-mentioned *Operating Performance Measures (OPM).*

Chart 4: Frequency of OPM and their Adjusted Figures



[16] The use of "*Own Definition*" by companies in order to refer to the Operating Profit metric was also seen by IFRS. IFRS Foundation 2016: *Better Communication in Primary Financial Statements*. IFRS Advisory Council Meeting – October 2016, p. 13. (http://archive.ifrs.org/Meetings/Pages/IFRS-Advisory-Council-October-2016.aspx).

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According to the graph, a slight rise in the percentage of firms that disclosed, at the same time, both a normal and an adjusted version of these non-GAAP measures takes place from 2013 to 2016. The increasing tendency perceptible in the first years is followed by a drop of 3,67% in 2017 compared to the financial year 2016. The detected turnaround could be a more evident effect of the ESMA Guidelines on the sample annual reports. This decline of 3,67% can be found in an increase of 1,22% of entities that disclosed only *normal figures*, in a minimal growth of 0,25% of observations that presented only Adjusted OPM, and in a significant rise of 2,20% of "Others" that did not provide any information concerning operating subtotals.

We would like to highlight the cases of a small number of companies – 2,25% on average – that announced only an *adjusted* OPM instead of its *normal version*. For greater clarity, in Figure 7, we illustrate one such example.

Figure 7: Income Statement 2013 Carlsberg

INCOME STATEMENT

DKK million	Section	2013	2012
Revenue		93,732	92,367
Excise duties on beer and soft drinks etc.		-27,180	-25,899
Net revenue		**66,552**	**66,468**
Cost of sales	1.3.1	-33,622	-33,831
Gross profit		**32,930**	**32,637**
Sales and distribution expenses	1.3.3	-18,717	-18,912
Administrative expenses	1.3.3	-4,502	-4,185
Other operating activities, net	1.3.4	17	145
Share of profit after tax, associates	5.5	116	108
Operating profit before special items		**9,844**	**9,793**
Special items, net	3.1	-466	85
Financial income	4.1	721	900
Financial expenses	4.1	-2,254	-2,672
Profit before tax		**7,845**	**8,106**
Corporation tax	6.1	-1,894	-1,861
Consolidated profit		**5,951**	**6,245**

Source: Consolidated Financial Statements 2017, Carlsberg, p. 55.

As is evident here, Carlsberg only discloses an adjusted version of Operating Profit, recurring to the "*Operating Profit Before Special Items*" name, in its Income Statement of 2013.

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It is worth noting that, as with the normal figure, we found a wide range of labels used to refer to *Adjusted EBIT* or to *Adjusted Operating Profit*, as shown respectively in Table 7 and Table 8 below.

Table 7: Labels attributable to Adjusted EBIT

Operational EBIT	Underlying EBIT
Comparable EBIT	NON-IFRS EBIT
Core EBIT (Core Profit From Operations)	Normalized EBIT
Underlying PBIT	Headline PBIT

Table 8: Labels attributable to Adjusted Operating Profit

Adjusted Operating Profit
Adjusted NON GAAP Operating Profit
Adjusted Operating Income
Adjusted Operating Profit (NOPAT)
Adjusted Operating Profit Before Interest and Tax
Adjusted Operating Result
Adjusted Profit From Operations
Core Operating Income
Core Operating Profit
Headline Operating Profit
Net Operating Income Excluding Goodwill Impairment Charge
NON GAAP Operating Income from Continuing Operations
NON-GAAP Operating Income
NON-IFRS Operating Profit
Normalized Profit from Operating Activities
Normalized Profit from Operation
Operating Margin Before Amortization of Intangible Assets Acquired in Business Combination
Operating Profit After Transformation Cost
Operating Profit Before Amortisation and Other Income and Expenses
Operating Profit Before Amortization of Intangible Asset
Operating Profit Before Exceptional Expenses
Operating Profit Before Exceptional Items
Operating Profit Before Exceptional Items Adjusted For Amortisation of Intangible Assets and Depreciation of Tangible Assets

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Operating Profit Before Exceptional Items and Amortisation
Operating Profit Before Exceptional Items and Other Items
Operating Profit Before Exceptional Items and Tax
Operating Profit Before Exceptional Operating Costs, Amortisation and Impairment Of Goodwill and Acquired Intangible Asset
Operating Profit Before Gain On Deemed Disposal of Equity Interest
Operating Profit Before Impairment of Intangible Asset
Operating Profit Before Impairment, Restructuring And Other Income and Expenses
Operating Profit Before Items Affecting Comparability
Operating Profit Before Joint Ventures and Associates
Operating Profit Before Non-Recurring Items
Operating Profit Before Non-Underlying Items
Op. Profit Before Restructuring and Closure Cost/Other Exceptional Items/Impairment Losses
Operating Profit Before Special Items
Operating profit before special items and remeasurements
Operating Profit Before Tax and Non-Recurring Items
Operating Profit on Business Activity
Profit From Recurring Operations
Recurring Operating Income
Trading Operating Income
Trading Operating Profit
Trading Profit
Underlying Business Performance (*Before Exceptional Items and Re-measurement*)
Underlying Operating Income
Underlying Operating Profit
Underlying Operational Result
Underlying Trading Operating profit

Our research sheds new light on the relationship between *adjusted and normal* versions of these non-GAAP measures, investigating the direction of the sample adjustments. The results, summarized in Chart 5, illustrate *positive, negative* or *equal to zero* adjustments[17] made by companies that present both a normal and an adjusted version of OPM (namely, 42,30% of the sample for 2013; 44,50% for 2014; 46,70% for 2015; 47,68% for 2016; 44,01% for 2017).

[17] The adjustments are calculated as the difference between *adjusted* and *normal version*: Adjusted OPM – OPM.

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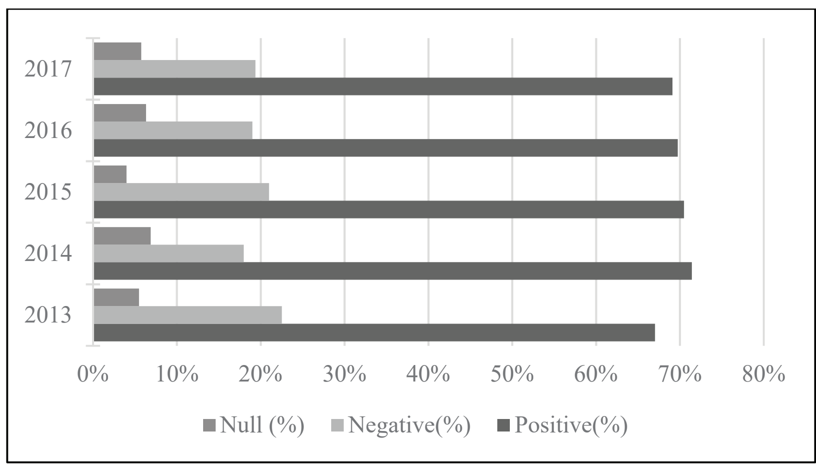
Chart 5: OPM Adjustments



In the majority of entities, around 70% on average, the adjusted operating subtotals display values higher than those shown by the normal ones[18]. Indeed, in 2013, 67,03% of the companies present a positive gap between adjusted and normal OPM. This percentage, after a progressive growth up to 70,50% in 2015, starts to decline to reach 69,11% in the last year. Only a small percentage of firms (approximately 5,5%) present an adjustment equal to zero. These marginal changes appear to be not sufficient to reach reliable conclusions regarding of the influence of ESMA Guidelines. In general, we can only surmize that their application does not seem to have produced significant effects on the direction of the adjustments but, on the other hand, it could have affected their magnitude. The last issue could be the subject of further in-depth research.

EBITDA / Adjusted EBITDA

Though the **EBITDA** - ***Earnings Before Interest, Taxation, Depreciation and Amortization*** - (IASB 2017) is commonly reported by entities, it is

[18] In a similar study, on a sample of Italian listed companies: "*The percentage of companies that make positive adjustments to their financial statement figures is 100%. In all analysed cases, the adjustments each entity made to calculate APMs improved the entity's performance*". Magli F., Nobolo A., Ogliari M., 2017, *Alternative Performance Measures and ESMA Guidelines: improving stakeholders' communication*, International Journal of Business and Management, Vol.12, No. 12.

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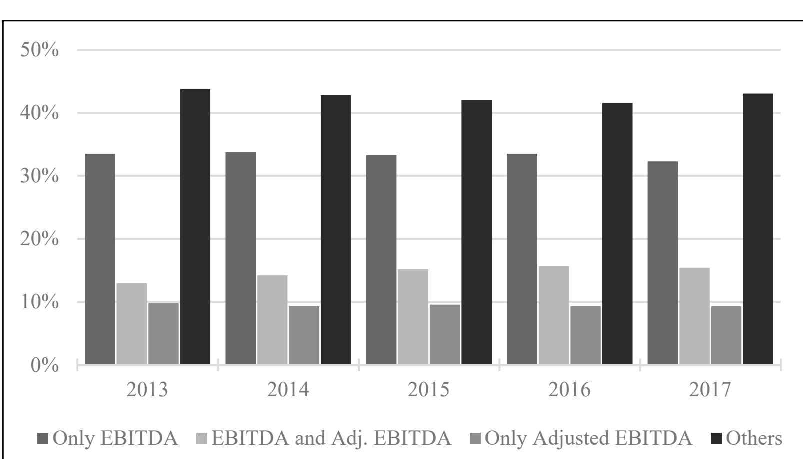
not required nor defined by IFRS Standards. Its use is lower than that of OPM, reaching a percentage almost always close to 50% (as shown in Chart 2 – “Spread of Alternative Performance Measures”).

In contrast to the *Operating Performance Measures* (OPM), we do not detect a wide range of labels attributable to this indicator [19]; on the other hand, we also find an *adjusted version* of this non-GAAP metric in the sample annual reports.

Our study investigates the use of these APMs in the survey period, ascertaining their variations, if any, since the entry into force of the ESMA Guidelines. Results are summarized in Chart 6.

Chart 6: EBITDA Disclosure



The diagram provides evidence that the portion of entities that presented only the EBITDA remains stable at around 33,25%, on average, for the whole sample period. The percentage that published both the EBITDA and the Adjusted EBITDA is lower than the previous one; its trend is slightly fluctuating and close to 14,67%.

The small number of companies that disclosed only the Adjusted EBITDA does not depart from the mean value of 9,44% over the five-year

[19] Only in one case did we detect the use of the acronym OIBDA (*Operating Income Before Depreciation and Amortization*) by the company “**Telefonica Deutschland**”. In this case, the reference to the word "*Operating*" filled us with doubt that it could be traced back to the case of the Operating Profit. However, the reference to the words *Depreciation* and *Amortization* led us to believe that its closest measure was just the EBITDA.

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period. This data is interesting in itself: We find it curious that so many companies communicated an *adjusted version* of an indicator for which the *normal one* was not communicated. Furthermore, we notice that this percentage is significantly higher than the correspondent (2,25%) of the companies that provided only the Adjusted OPM.

Finally, we can see that most companies do not disclose these indicators at all. In particular, its percentage, after a slight drop from 43,77% in 2013 to 41,56% in 2016, increases to 43,03% in 2017.

From the empirical evidence, we deduce that there is almost no effect traced back to the ESMA intervention on the direction of the adjustments.

In the following part, we are going to focus attention only on the sub-samples of companies that disclosed both the EBITDA and its adjusted version in order to understand the trend of these amendments from 2013 to 2017 (for details, refer to Chart 7). First of all, we note that the percentage of companies that reported a positive difference [20] is always much greater than the others. However, after a peak of 77,42% in 2015[21], it falls to 63,49% in 2017, confirming that the ESMA discipline would have had some effect on the disclosure of these discretionary parameters. Coincidentally, the orange bar (representing the negative difference), moving from its lowest point (of 19,35%) in 2015, increases to 30,16% in 2017. Finally, the *equal to zero* difference suffers a reduction up to 3,23% in 2015, increases to 10,94% in 2016 and shows a considerable decrease of 4,59% in 2017.

The effect of the guidelines is recognizable in the reduction of the number of companies that give evidence of positive adjustments providing an improved image/performance compared to GAAP.

[20] The adjustments are calculated as the difference between the *adjusted* and *normal version*: Adjusted EBITDA – EBITDA.

[21] Our results are consistent with those of a previous study: "*Whereas in comparison to 2014, the percentage of companies that publish a higher modified EBITDA than normal EBITDA increased from 79% to 84%, a decline to now merely 72% of companies that announce a higher adjusted EBITDA is observable*".
Bachelor Thesis by Hähn F., *The Disclosure of Alternative Performance Measures at the German Capital Market*, Hochschule Rhein-Waal Rhine-Waal University of Applied Sciences, 2018.

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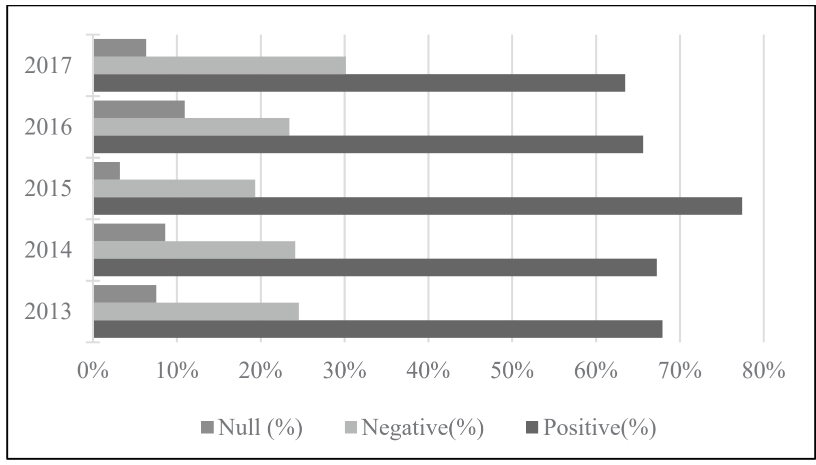
Chart 7: EBITDA Adjustments



4.4.3 Earnings subtotals

Net Profit-Adjusted Net Profit

Net Profit is a measure of the profitability of an entity after accounting for all costs and taxes. We do not detect considerable discrepancies in the labels used: we just find a few cases of different terms, like "*Profit after tax*", "*Profit for the year*" and "*Net Income*".

Its closest non-GAAP measure, ***Adjusted Net Profit***, does not have a precise and unambiguous definition. This alternative indicator is calculated and disclosed by a modest number of our sample companies (25% on average) in the investigation period, as evidenced in Chart 2 – "Spread of Alternative Performance Measures" above. Specifically, in Chart 8 below, we repeat data through a line graph in order to better show its trend over time.

Later, we shall focus on the sub-sample of companies that disclosed the Adjusted Net Profit in order to compare it with its closest GAAP measure. The aim is to understand, if any, the differences between alternative and regulated metrics [22] and their directions. Chart 9 below summarizes our results.

[22] The adjustments are calculated as the difference between *adjusted* and *GAAP measure*: Adjusted Net Profit – Net Profit.

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Chart 8: Adjusted Net Profit

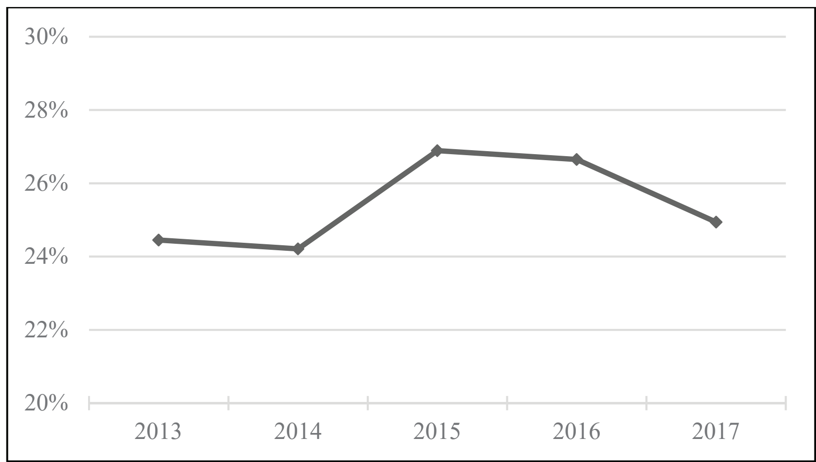
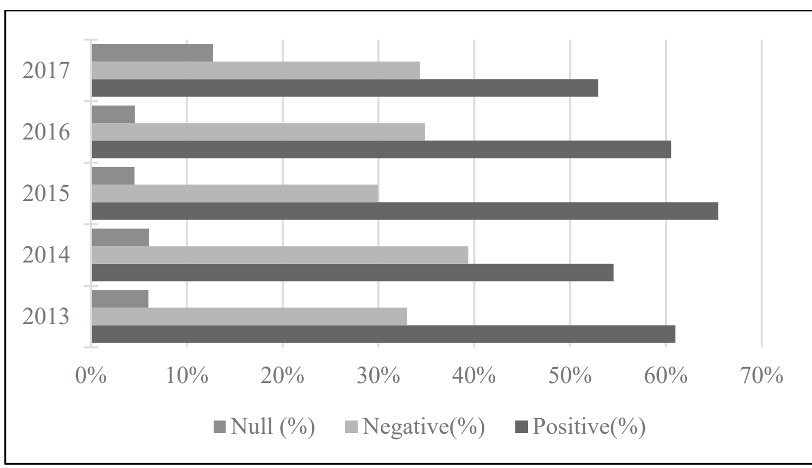


Chart 9: Adjustments to Net Profit



First of all, we note that the percentage of companies that show a positive difference is always much greater than those that display negative or equal to zero adjustments for the entire sample period. This would confirm the desire of companies to communicate an improved performance compared to that released according to GAAP.

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Regarding the trend of the adjustments over time, we note that after a first slight reduction in *positive* adjustments in 2014 (up to 54,55%) and a subsequent increase in 2015 (up to 65,45%), from this year onwards, this difference begins to decrease more and more, reaching 52,94% in 2017. The *negative* gap between the two indicators stands at around an average value of 34,41%, excluding the trend variations in 2014 (+ 4,98%) and in 2015 (- 4,41%). Of particular note is the circumstance that the significant growth of *equal to zero* differences – with a peak of 12,75% in 2017 – corresponds to both a reduction of 7,61% in the number of companies providing positive adjustments and a minimal dip of 0,55% in those displaying a lower value of this APM. This evidence could still confirm the effect of the ESMA discipline on the disclosure of these discretionary parameters.

Earnings / Adjusted Earnings of EPS

Basic Earnings Per Share (EPS) is calculated by dividing profit or loss attributable to ordinary equity holders of the parent entity (the numerator) by the weighted average number of ordinary shares outstanding (the denominator) during the period [23].

It might be interesting to learn that the ***Adjusted Earnings*** spread, like the *Adjusted Net Profit* one, is less frequent than others (as can be seen in Chart 2 – "Spread of Alternative Performance Measures" above).

In contrast with other indicators, however, we did not detect noteworthy differences in the labels used by sample companies. Generally, almost all the entities adopted labels close to the expression "*profit or loss attributable to*" (of IAS 33); the disparities can be found in the terms used to identify the beneficiaries of this result: *parent holders, owners, shareholders, ordinary shareholders.*

Chart 10 below illustrates our results concerning the attitude of companies in reporting ***Earnings*** and ***Adjusted Earnings*** over the investigation period.

[23] IASB - International Accounting Standards Board, *IAS 33 Earnings per Share*, Paragraph 10, 2008.

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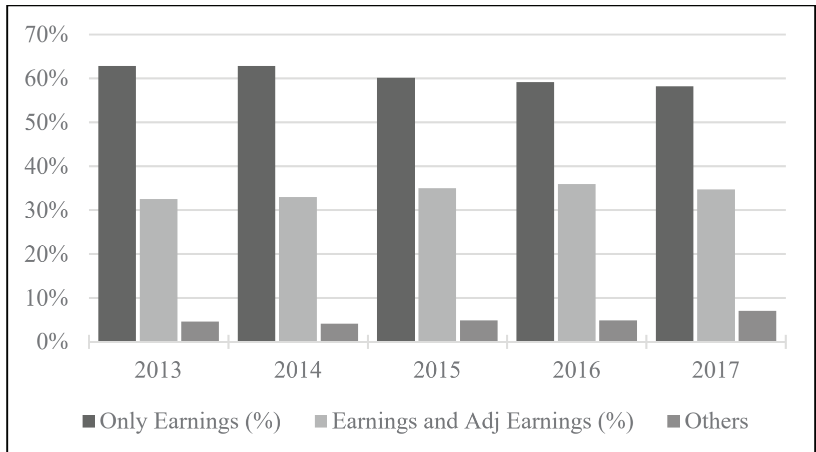
Chart 10: Earnings Disclosure



The findings suggest that most entities – 60,64% on average – displayed only *Earnings*, while we do not find any firm announcing just its adjusted version (this is perhaps due to the circumstance for which these amendments are made in relation to a regulated metric); about a third part of the sample communicated both indicators, with an almost uniform trend over the years, passing from 32,52% in 2013 to 35,94% in 2016, with a progressive decrease of 1,22 percentage points in 2017. The grey bar, finally, represents the percentage of the companies that did not report either the EPS or its adjusted version. This one, after a slight decline from 4,65% in 2013 to 4,16% in 2014, grows progressively reaching its peak of 7,09% in 2017.

Based on the data collected, it is not possible to draw conclusions regarding the effects produced by the intervention of ESMA. This is probably due to the *GAAP nature* of the benchmark.

Subsequently, we investigate only the sub-samples of companies that disclosed both *Earnings* and *Adjusted Earnings* to understand how many companies report the non-GAAP value higher, lower than or equal to the GAAP parameter and how this trend varies over the sample period (as we can see in Chart 11).

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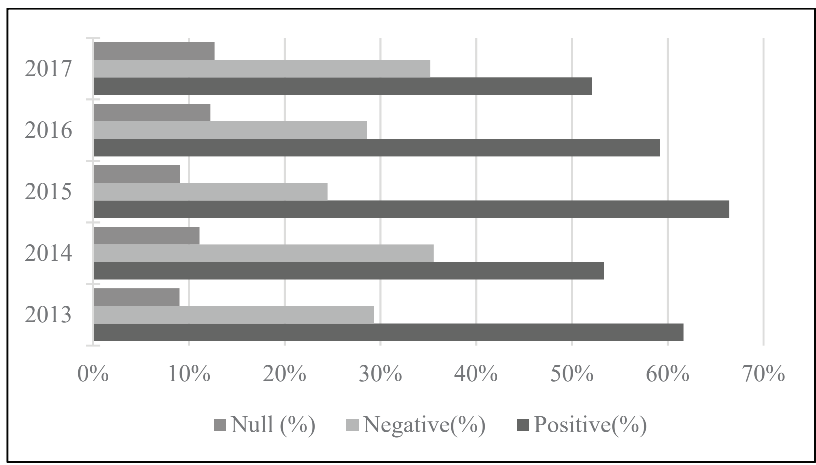
Chart 11: Earnings Adjustments



Initially, we note that the percentage of companies that report a *positive* difference [24] is much greater than those displaying *negative* or *equal to zero* gaps. The majority of sample companies have always disclosed an *Adjusted Earnings* higher than its closest GAAP measure. In detail, after a first significant narrowing in 2014 (up to 53,33%) and a subsequent increase of 13,10% in 2015, from this last year onwards, the trend begins to decrease more and more, reaching a bottom of 52,11% in 2017. Then, the negative difference between the two indicators, starting from its lowest point of 24,48% in 2015, follows an upward trend until 35,21% in 2017. Finally, the *null difference* bar, excluding a dip of 2,02% from 2014 to 2015, levelled out at around an average value of 12,50% in the last two years of the survey.

These results show that the ESMA intervention had an important impact on the directions of the adjustments. It produced the effect of reducing the number of companies that communicated pro forma earnings compared to that determined in accordance with the GAAP regulations. Besides, considering that the *Earnings* numerator plays a fundamental role in the perception of the firm value, this turnaround could have affected – or will be able to influence – the investors' decision making.

At this stage we can give out details of companies operating in the *Real Estate* sector, taking into account the intervention of EPRA, their

[24] The adjustments are calculated as the difference between *adjusted* and *GAAP measure*: Adjusted Earnings – Earnings.

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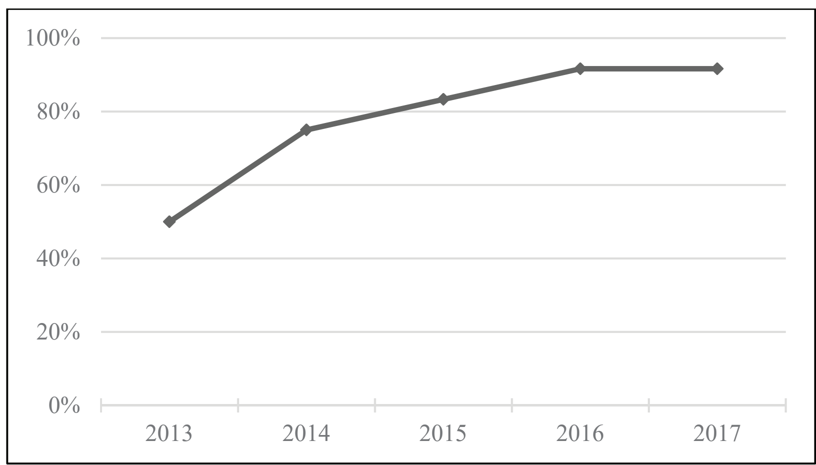
trade association, which issued specific guidelines[25]. Indeed, twenty-four companies in the sample belong to the *Real Estate* industry and almost all of them calculated their *Adjusted Earnings* following the EPRA recommendations. In particular, it is noteworthy that the association makes a distinction between the ***EPRA Earnings*** (determined according to the required adjustments compared to the GAAP Earnings)[26]) and the ***EPRA Adjusted Earnings*** (that arise from the possibility, allowed to companies, to make other adjustments "to arrive at an underlying performance measure appropriate for their business model")[27], presenting it *below EPRA Earnings* and using a different name for that measure, such as *Adjusted Earnings*.

The purpose of the analysis is to investigate how frequently public real estate companies in the sample followed the EPRA BPR in calculating the ***Adjusted Earnings*** from 2013 to 2017. The diagram below (Chart 12) provides strong evidence that only 50% of companies calculated the EPRA *Earnings* in 2013. However, this percentage of companies grew significantly over the years, reaching a peak of 91,67% in 2017.

Chart 12: Compliance with the EPRA BPR



[25] For further details, see the previous paragraph: *The regulation of APMs and the ESMA Guidelines.*

[26] For details, please refer to Figure A – EPRA Earnings, in the Appendix.

[27] EPRA – *Best Practices Recommendations Guidelines* – November, pp. 6/7, 2016.

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To better describe this particular phenomenon and supplement the results of the quantitative analysis, we carried out a qualitative investigation of the *Hammerson* case. Hammerson is a member of the European Public Real Estate Association (EPRA) and has representatives who actively join in in several of its committees and initiatives. This includes working with peer group companies, real estate investors, analysts, and the large audit firms to improve the transparency, comparability, and relevance of the reported results of listed real estate companies in Europe. As with other real estate companies, it adopts the EPRA Best Practice Recommendations (BPR) and was awarded an *EPRA Gold Award* for compliance with the BPR in 2016.

In Figure 8 below, we report a scheme of details, taken from the Annual Report 2017, which incorporates the adjustments necessary to move from *IFRS Earnings* to *EPRA Earnings*. It shows also other adjustments, more than the previous ones, *to arrive at the underlying performance measure appropriate for its* specific *business model*. It is presented *below* the *EPRA Earnings*, by a different name, *Adjusted*.

Figure 8: Notes to the Financial Statements 2017 of Hammerson

B: Earnings per share

			2017		2016	
		Notes	Earnings £m	Pence per share	Earnings £m	Pence per share
Basic		2	**388.4**	**49.0**	317.3	40.2
Dilutive share schemes			**–**	**(0.1)**	–	(0.1)
Diluted			**388.4**	**48.9**	317.3	40.1
Basic			**388.4**	**49.0**	317.3	40.2
Adjustments:						
Revaluation (gains)/losses on properties:	Reported Group	2	**(1.9)**	**(0.2)**	24.7	3.1
	Share of Property interests	2	**(19.4)**	**(2.5)**	(11.3)	(1.4)
			(21.3)	**(2.7)**	13.4	1.7
Loss on sale of properties:	Reported Group	2	**15.5**	**2.0**	24.0	3.0
Net exchange gain previously recognised in equity, recycled on disposal of foreign operations:	Reported Group	2	**(27.8)**	**(3.5)**	–	–
Debt and loan facility cancellation costs:	Reported Group	7	**41.5**	**5.2**	0.4	0.1
Change in fair value of derivatives:	Reported Group	7	**21.3**	**2.7**	3.5	0.4
	Share of Property interests	12B	**–**	**–**	(0.8)	(0.1)
			21.3	**2.7**	2.7	0.3
Other adjustments:	Reported Group					
	Gain on sale of other investments	2	**–**	**–**	(1.3)	(0.1)
	Potential business acquisition costs	2	**6.5**	**0.8**	–	–
	Non-controlling interests	2	**19.6**	**2.5**	0.3	–
			26.1	**3.3**	(1.0)	(0.1)
Premium outlets:	Revaluation gains on properties	12B, 13B	**(225.2)**	**(28.4)**	(138.4)	(17.5)
	Deferred tax (including on acquisition)	12B, 13B	**35.0**	**4.4**	14.3	1.8
	Other adjustments	12B, 13B	**(6.2)**	**(0.8)**	(1.8)	(0.3)
			(196.4)	**(24.8)**	(125.9)	(16.0)
Total adjustments			**(141.1)**	**(17.8)**	(86.4)	(11.0)
EPRA			**247.3**	**31.2**	230.9	29.2
Other adjustments:	Translation movement on intragroup funding loan: Premium outlets	12B	**(1.0)**	**(0.1)**	(0.2)	–
Adjusted			**246.3**	**31.1**	230.7	29.2

Source: Consolidated Financial Statements 2017, Hammerson, Note 10: Earnings and headline earnings per share and net asset value per share, p. 146.

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4.5 Conclusion

This chapter analysed the impact of the ESMA Guidelines on the disclosure of APMs by 409 sample companies extracted from the STOXX Europe 600 Index.

After reviewing the main regulations dealing with the non-GAAP disclosure, we focused only on the ESMA discipline, investigating the "*degree of compliance*" of companies with these rules on a 5-year time interval (2013 - 2017).

The first part was devoted to the discussion of *where – in which part of the financial reporting* – the APMs were collected. The results suggest that since 2016 there has been an increase in the number of companies that dedicated a separate section whose name referred explicitly to the words "*APM – Alternative Performance Measure*" – as defined by the ESMA Guidelines (or to its replacement as *Alternative Performance Indicator*, *Non-GAAP Section*/*Measure*/*Indicator*, *Non-IFRS Measure*). At the same time, we recorded a decrease in those that did not collect alternative indicators in a separate section. The number of companies that, despite using a separate section, registered it using different terms – such as *KPI*, *Key Performance Indicator*, *Adjusted Measure* – remains essentially unchanged over time. According to our view, this could be an effect of the alignment of companies to the request for greater transparency promoted by the ESMA Guidelines.

Later, we concentrated on the *when – in which and how many years* – companies resorted to APMs to supplement their regulated disclosure. In 2017, with reference to the frequency of APMs under study, we detected a slight decline in the number of entities that communicated Operating Profit/EBIT, EBITDA, Adjusted Net Profit, Earnings numerator and Net Debt. In contrast to previous results, in our opinion, this reduction, which follows a not very variable trend in the previous years, is not enough to comment on the effects of the ESMA intervention.

The subsequent sections were dedicated to deepening the analysis of the variety of labels used to disclose the APMs and, if any, on the adjustments made by the sample companies.

Empirical evidence has shown that for some indicators, the sample companies used a restricted variety of labels, as in the case of EBITDA, Adjusted Net Profit and the Earnings numerator. In contrast, the many labels we found in the annual reports referring to Operating Profit and EBIT metrics made the exploitation of these measures more complicated for end readers. This behaviour clashes with the aims of the ESMA of promoting the usefulness and the transparency of APMs and of improving

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the comparability, reliability and/or comprehensibility of the financial information disclosed to the market determining the need for standardization, already recognized by the IFRS.

In the last part, the comparison between the adjusted measures and their closest GAAP ones (i.e. Net Profit and EPS) or their non-GAAP normal versions (i.e. EBIT/Operating Profit, EBITDA) showed a prevalence of *positive* adjustments compared to *negative* or *equal to zero* ones. This would confirm the desire of companies to communicate an improved performance compared to that released according to the generally accepted accounting principles. Although most companies have reported positive amendments, however, we detected a contraction in the number of companies that assumed this behaviour (especially for adjustments made with the reference of GAAP metrics, as in the case of the Earnings numerator and Net Profit), in the last years of investigation. This result, in our perspective, could be a consequence of a compression of opportunistic conducts generated by the ESMA Guidelines.

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Appendix 1 - List of the 409 companies that make up the sample

1. 1 & 1 DRILLISCH
2. A.P. MOLLER-MAERSK B
3. A2A
4. AALBERTS INDUSTRIES
5. ABB
6. ABERTIS INFRAESTRUCTURAS
7. ABLYNX
8. ACCOR
9. ACS
10. ADECCO
11. ADIDAS
12. ADP
13. AENA SME
14. AGGREKO
15. AHOLD DELHAIZE
16. AIR FRANCE-KLM
17. AIR LIQUIDE
18. AIRBUS
19. AKER BP
20. AKZO NOBEL
21. ALFA LAVAL
22. ALSTOM
23. ALTRAN TECHNOLOGIES
24. AMADEUS IT GROUP
25. AMBU 'B'
26. AMS AG
27. ANDRITZ
28. ANGLO AMERICAN
29. ANHEUSER-BUSCH INBEV
30. ANTOFAGASTA
31. ARCELORMITTAL
32. ARKEMA
33. AROUNDTOWN (FRA)
34. ARYZTA
35. ASHTEAD GRP
36. ASM INTERNATIONAL
37. ASML HLDG
38. ASSA ABLOY
39. ASSOCIATED BRITISH FOODS
40. ASTRAZENECA
41. ATLANTIA
42. ATLAS COPCO A
43. ATOS
44. AURUBIS
45. BABCOCK INTERNATIONAL
46. BAE SYSTEMS
47. BALFOUR BEATTY
48. BARRATT DEVELOPMENTS
49. BARRY CALLEBAUT
50. BAYER
51. BB BIOTECH
52. BBA AVIATION
53. BE SEMICONDUCTOR
54. BEIERSDORF
55. BELLWAY
56. BERKELEY GRP HLDG
57. BHP BILLITON
58. BILLERUDKORSNAS
59. BIOMERIEUX
60. BMW
61. BOLIDEN
62. BOSKALIS WESTMINSTER
63. BP
64. BPOST SA
65. BRENNTAG
66. BRITISH AMERICAN TOBACCO
67. BRITISH LAND COMPANY
68. BRITVIC
69. BTG
70. BUCHER INDUSTRIES
71. BUNZL
72. BURBERRY
73. BUREAU VERITAS
74. BUWOG
75. CAPITAL & COUNTIES PROPERTIES
76. CARLSBERG B
77. CARNIVAL
78. CASINO GUICHARD
79. CASTELLUM
80. CENTAMIN
81. CENTRICA
82. CEZ
83. CLARIANT
84. CNH INDUSTRIAL NV
85. COBHAM
86. COCA-COLA HBC
87. COLOPLAST B
88. COMPASS GRP
89. CONTINENTAL
90. CONVATEC PLC
91. CRH
92. CRODA INTERNATIONAL
93. DAILY MAIL & GENERAL TRUST
94. DAIMLER

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95. DANONE
96. DASSAULT AVIATION
97. DASSAULT SYSTEMS
98. DAVIDE CAMPARI
99. DCC
100. DECHRA PHARMACEUTICALS
101. DERWENT LONDON
102. DEUTSCHE POST
103. DEUTSCHE TELEKOM
104. DEUTSCHE WOHNEN
105. DIAGEO
106. DIXONS CARPHONE
107. DKSH HOLDING
108. DOMETIC GROUP AB
109. DORMA+KABA
110. DS SMITH
111. DSV B
112. DUERR
113. DUFRY GRP
114. E.ON
115. EASYJET
116. EDENRED
117. EDP ENERGIAS DE PORTUGAL
118. ELECTROCOMPONENTS
119. ELECTROLUX B
120. ELEKTA B
121. ELISA CORPORATION
122. EMS-CHEMIE HLDG
123. ENAGAS
124. ENEL
125. ENI
126. ERICSSON LM B
127. ETS COLRUYT
128. EUROFINS SCIENTIFIC
129. EVONIK INDUSTRIES
130. EXPERIAN
131. FABEGE
132. FERGUSON PLC
133. FERROVIAL
134. FIAT CHRYSLER AUTOMOBILES
135. FLUGHAFEN ZURICH
136. FONCIERE DES REGIONS
137. FRAPORT
138. FREENET
139. FRESENIUS
140. FRESENIUS MEDICAL CARE
141. FRESNILLO
142. FUCHS PETROLUB PREF
143. GALAPAGOS
144. GEA GRP
145. GEBERIT
146. GEMALTO
147. GENMAB
148. GEORG FISCHER
149. GERRESHEIMER
150. GETINGE B
151. GETLINK
152. GIVAUDAN
153. GKN
154. GLANBIA
155. GLAXOSMITHKLINE
156. GLENCORE PLC
157. GN STORE NORD
158. GREAT PORTLAND ESTATES
159. GRENKE N
160. GRIFOLS
161. GRP 4 SECURICOR
162. GVC HOLDINGS
163. H. LUNDBECK
164. HALMA
165. HAMMERSON
166. HAYS
167. HEIDELBERGCEMENT
168. HEINEKEN
169. HEINEKEN HLDG
170. HELLA
171. HENKEL PREF
172. HENNES & MAURITZ B
173. HEXAGON B
174. HEXPOL 'B'
175. HOCHTIEF
176. HOWDEN JOINERY GRP
177. HUGO BOSS
178. HUHTAMAKI
179. HUSQVARNA B
180. IAG
181. ICA GRUPPEN
182. ICADE
183. IMCD
184. IMI
185. IMPERIAL BRANDS
186. INCHCAPE
187. INDIVIOR
188. INDUSTRIA SE DISENO TEXTIL SA
189. INFINEON TECHNOLOGIES
190. INFORMA
191. INMARSAT
192. INMOBILIARIA COLONIAL SOCIMI
193. INNOGY
194. INTERCONTINENTAL HOTELS GRP

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195.INTERTEK GRP
196.INTU PROPERTIES PLC
197.JERONIMO MARTINS
198.JOHNSON MATTHEY
199.JUST EAT
200.K + S
201.KESKO
202.KINDRED
203.KINGFISHER
204.KINGSPAN GRP
205.KION GROUP
206.KLEPIERRE
207.KONE B
208.KONECRANAS
209.KONINKLIJKE DSM
210.KPN
211.KUEHNE+NAGEL
212.L'OREAL
213.LAND SECURITIES
214.LANXESS
215.LEG IMMOBILIEN
216.LEGRAND
217.LEONARDO
218.LINDE TENDERED
219.LINDT & SPRUENGLI REG
220.LOGITHECH INTERNATIONAL
221.LONZA
222.LOOMIS B
223.LUFTHANSA
224.LUNDBERGFORETAGEN B
225.LUNDIN PETROLEUM
226.LVMH MOET HENNESSY
227.MAN
228.MARINE HARVEST
229.MARKS & SPENCER GRP
230.MEDICLINIC INTERNATIONAL
231.MEGGITT
232.MELROSE INDUSTRIES
233.MERCK
234.MERLIN ENTERTAINMENTS
235.METRO AG
236.MICRO FOCUS INTERNATIONAL
237.MONCLER
238.MONDI
239.MONEYSUPERMARKET COM GP.
240.MORRISON (WILLIAM) SUPERMARK
241.MTU AERO ENGINES
242.NATIONAL GRID
243.NESTE
244.NESTLÉ
245.NEW WH SMITH
246.NEXT
247.NIBE INDUSTRIER B
248.NMC HEALTH
249.NOKIA
250.NORSK HYDRO
251.NOVARTIS
252.NOVO NORDISK B
253.NOVOZYMES
254.OC OERLIKON
255.OCADO
256.OMV
257.ORANGE
258.ORKLA
259.ORPEA
260.ORSTED
261.OSRAM LICHT
262.OUTOKUMPU
263.PADDY POWER BETFAIR
264.PANDORA
265.PEARSON
266.PENNON GRP
267.PERNOD RICARD
268.PERSIMMON
269.PEUGEOT
270.PHILIPS
271.PIRELLI & C. S.P.A.
272.PLASTIC OMNIUM
273.PLAYTECH
274.POLYMETAL INTERNATIONAL
275.PORSCHE PREF
276.PROSIEBENSAT.1 MEDIA
277.PRYSMIAN
278.PSP SWISS PROPERTY
279.QUIAGEN
280.RANDGOLD RESOURCES
281.RANDSTAD
282.RECKITT BENCKISER GRP
283.RECORDATI
284.RELX NV
285.REMY COINTREAU
286.RENAULT
287.RENTOKIL INITIAL
288.RHEINMETALL
289.RIGHTMOVE GRP
290.RIO TINTO
291.ROCHE HLDG P
292.ROLLS ROYCE HLDG
293.ROTORK
294.ROYAL DUTCH SHELL A
295.ROYAL MAIL

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296.RPC GROUP
297.RTL GRP
298.RUBIS
299.RWE
300.RYANAIR
301.SAAB B
302.SAFRAN
303.SAGE GRP
304.SAINSBURY (J)
305.SAINT GOBAIN
306.SAIPEM
307.SANDVIK
308.SAP
309.SARTORIUS PREF.
310.SBM OFFSHORE
311.SCHAEFFLER AG
312.SCHIBSTED GRUPPEN
313.SCHINDLER P
314.SCHNEIDER ELECTRIC
315.SCOTTISH & SOUTHERN ENERGY
316.SEB
317.SECURITAS B
318.SEGRO
319.SES
320.SEVERN TRENT
321.SGS
322.SHAFTESBURY
323.SHIRE
324.SIEMENS
325.SIEMENS GAMESA
326.SIKA
327.SIMCORP
328.SKANSKA B
329.SKF B
330.SKY
331.SMITH & NEPHEW
332.SMITHS GRP
333.SMURFIT KAPPA GRP
334.SNAM RETE GAS
335.SODEXO
336.SOFTWARE
337.SOLVAY
338.SONOVA
339.SOPRA STERIA GROUP
340.SPECTRIS
341.SPIRAX-SARCO
342.SPRINGER (AXEL)
343.SSP GROUP
344.STATOIL
345.STMICROELECTRONICS
346.STORA ENSO R
347.STRAUMANN
348.SUBSEA 7
349.SVENSKA CELLULOSA B
350.SWATCH BEARER
351.SWEDISH MATCH
352.SWEDISH ORPHAN BIOVITRUM
353.SWISS PRIME SITE
354.SWISSCOM
355.SYMRISE
356.TATE & LYLE
357.TAYLOR WIMPEY
358.TDC
359.TELECOM ITALIA
360.TELEFONICA DEUTSCHLAND
361.TELENOR
362.TELEPERFORMANCE
363.TELIA COMPANY
364.TEMENOS GRP
365.TENARIS
366.TERNA
367.TESCO
368.TGS-NOPEC GROPHYSICAL
369.THALES
370.THYSSENKRUPP
371.TOTAL
372.TRAVIS PERKINS
373.TRELLEBORG B
374.TUI
375.TULLOW OIL
376.UBISOFT ENTERTAINMENT
377.UBM
378.UCB
379.UDG HEALTHCARE PUBLIC
380.UNIBAIL-RODAMCO
381.UNILEVER NV
382.UNITED INTERNET
383.UNITED UTILITIES GRP
384.UPM KYMMENE
385.VALEO
386.VEOLIA ENVIRONNEMENT
387.VESTAS WIND SYSTEM
388.VICTREX
389.VIFOR PHARMA
390.VINCI
391.VISCOFAN
392.VIVENDI
393.VODAFONE GRP
394.VOESTALPINE
395.VOLKSWAGEN PREF
396.VOLVO B
397.VONOVIA SE
398.VOPAK

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399. WACKER CHEMIE
400. WARTSILA
401. WEIR GRP
402. WHITBREAD
403. WILLIAM DEMANT
404. WIRECARD
405. WOLTERS KLUWER
406. WOOD GRP (JOHN)
407. WPP
408. YARA
409. ZALANDO

Appendix 2

Chart A – Detail for 2017

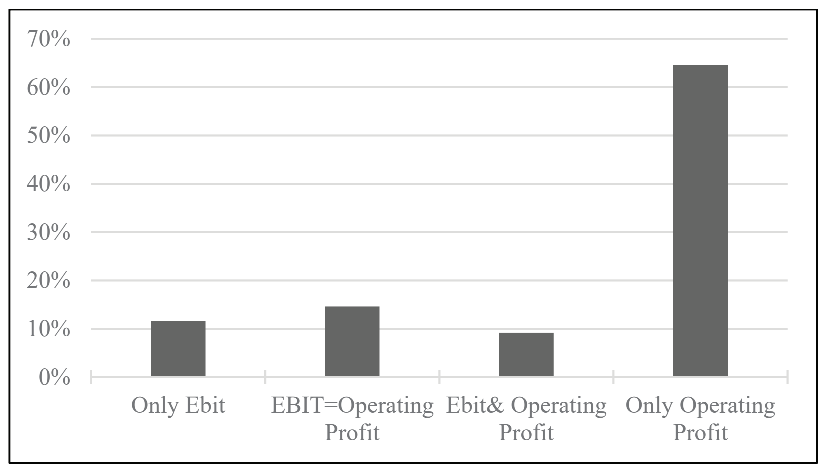

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Figure A – EPRA Earnings

Earnings per IFRS income statement		xxx
Adjustments to calculate EPRA Earnings, **exclude:**		
(i)	Changes in value of investment properties, development properties held for investment and other interests	x
(ii)	Profits or losses on disposal of investment properties, development properties held for investment and other interests	x
(iii)	Profits or losses on sales of trading properties including impairment charges in respect of trading properties	x
(iv)	Tax on profits or losses on disposals	x
(v)	Negative goodwill / goodwill impairment	x
(vi)	Changes in fair value of financial instruments and associated close-out costs	x
(vii)	Acquisition costs on share deals and non-controlling joint venture interests	x
(viii)	Deferred tax in respect of EPRA adjustments	x
(ix)	Adjustments (i) to (viii) above in respect of joint ventures (unless already included under proportional consolidation)	x
(x)	Non-controlling interests in respect of the above	x
EPRA Earnings		xxx
EPRA Earnings per Share (EPS)		x
Company specific adjustments:		
(a) Company specific adjustment 1		yyy
(b) Company specific adjustment 2		yyy
Company specific Adjusted Earnings		yyy
Company specific Adjusted EPS		y

For an excel version of the tables, please click here.

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ESSAY 5

NON-GAAP DISCLOSURE BY EUROPEAN DIGITAL COMPANIES: A MULTIPLE-CASE ANALYSIS

FERA P.[*], LOMBARDI R.[†] AND RICCIARDI G.[*]

5.1 Introduction

Lyft Inc. is a US-based transportation network company that develops, markets, and operates the Lyft mobile app offering car rides, scooters and a bicycle-sharing system. Referring to the 2019 quarterly results of Lyft Inc, it has been argued that "*Lyft Inc. is no longer a start-up, but it still loses money like the best of them*" (Griswold, Quartz, 2019). Thus, Lyft Inc. reports a net loss of $1.1 billion as reported in the following scheme.

Key Metrics	Three Months Ended March 31,	
	2019	2018
Revenue	776.027,00	397.188,00
Costs and expenses		
Cost of revenue	462.857	260.609
Operations and support	187.235	59.905
Research and development	630.960	63.192
Sales and marketing	275.129	168.707
General and administrative	376.736	90.154
Total costs and expenses	1.932.917	642.567
Loss from operations	- 1.156.890	- 245.379

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Interest income	19.654	11.501
Other income (expense)	146	- 55
Loss before income taxes	- 1.137.090	- 233.933
Provision for income taxes	1.383	406
Net loss	**- 1.138.473,00**	**- 234.339,00**
Net loss per share, basic and diluted	- 48,53	- 11,69
Weighted-average number of shares outstanding used to compute net loss per share, basic and diluted	23.459	20.039
Stock-based compensation included in costs & expenses:		
Cost of revenue	41.489,00	105,00
Operations and support	51.404	51
Research and development	506.206	728
Sales and marketing	45.111	127
General and administrative	215.276	985

In its announcement of first-quarter results, the company moved attention from the $1.1 billion lost under Generally Accepted Accounting Principles (GAAP) to some adjusted figures. Indeed, Lyft Inc. attributed the bulk of its quarterly loss to $894 million in stock-based compensation and related payroll-tax expenses triggered by its March IPO. Specifically, the company reports a "Non-GAAP Net Loss" of $212 million by taking out these costs. In this regard, it can be helpful to look at the First Quarter Highlights released by Lyft Inc. in its quarterly announcement results. As reported in the following box, the second point is dedicated to the explanation of the reported loss and starts focusing on the stock-based compensation ($894 million) to which Lyft Inc. attributes the reported loss. Moreover, looking at all the main aspects of its quarterly announcement, it is observable that four out of six are focused on non-GAAP measures.

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First Quarter 2019 Highlights

- *Lyft reported Q1 revenue of $776.0 million versus $397.2 million in the first quarter of 2018, an increase of 95 per cent year-over-year.*
- *Net loss for Q1 includes $894 million of stock-based compensation and related payroll tax expenses, primarily due to RSU expense recognition in connection with our initial public offering. As a result, net loss for Q1 2019 was $1,138.5 million versus a net loss of $234.3 in the same period of 2018. Net loss margin was not meaningful in the quarter and (59.0%) in the first quarter of 2018.*
- *Adjusted net loss was $211.5 million versus an adjusted net loss of $228.4 million in the first quarter of 2018. Adjusted net loss is adjusted for amortization of intangible assets, stock-based compensation expense, payroll tax expense related to stock-based compensation, changes to the insurance reserve attributable to historical periods, and cost related to acquisitions.*
- *Lyft reported Contribution of $384.9 million versus $140.4 million in the first quarter of 2018, up 174% year-over-year. Contribution Margin increased to 49.6% from 35.4% versus the first quarter of 2018.*
- *Adjusted EBITDA was ($216.0) million versus ($238.7) million in the first quarter of 2018. Adjusted EBITDA Margin was (27.8%) versus (60.1%) in the first quarter of 2018.*
- *Lyft's IPO Registration Statement was declared effective on March 28, 2019. The IPO closed on April 2, 2019.*

Lyft Inc., 8K Reports 1st Quarter, 2019.

Additionally, Lyft Inc. is not the only company to try to win over investors using alternative financial measures. Indeed, before the IPO, Uber Technologies Inc. calculated its quarterly results by coming up with a non-GAAP metric called "core platform contribution profit": "*Core Platform revenue less the following direct costs and expenses: (i) cost of revenue, exclusive of depreciation and amortization; (ii) operations and support; (iii) sales and marketing; (iv) research and development; and (v) general and administrative"*. Thus, the company reported an operating loss of $940 million instead of $3 billion.

It is worth citing one more case. WeWork Cos., the shared office company, filed for an IPO in December once it created a non-GAAP measure called "community-adjusted EBITDA". This measurement

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changes the financial results of the company from a net loss of $1.9 billion (using GAAP) to a profit of $467 million using the non-GAAP metric. According to S&P Global Intelligence, the GAAP loss ($1.9 billion) would be the second-largest in history among US start-ups IPO, between Uber and Lyft.

Previous cases provide an idea of the consolidated use of nonstandard metrics (non-GAAP measures) under the perspective of non-GAAP reporting (Marques, 2017; Parrino, 2016) and their crucial role in communicating financial results. In fact, it seems that companies have become aware that income statements and balance sheets relying on GAAP are no longer enough to capture investors' attention, especially when firms operate in IT and digitalized industries. In this scenario, digital companies seem to disclose more and higher quality information (Gu and Li, 2003; Bozzolan et al., 2003; Oliveira et al., 2006; Bini et al., 2019) and, for example, they are more likely to communicate non-GAAP earnings (Bhattacharya et al. 2004). Thus, non-GAAP reporting (Parrino, 2016) has become a relevant issue in recent years in order to draft significant corporate information to disclose to all stakeholders, especially for IT and digitalized companies (Haegeman et al., 2013; Routley et al., 2013; Sathananthan et al., 2018; Sousa and Rocha, 2019, Timmers, 1998).

In the light of previous considerations, the aim of this study is to analyse digital companies' behaviour in terms of non-GAAP financial disclosure describing contents and the intra and inter-firm comparability assuring comprehensive disclosure to stakeholders, especially investors. To this end, this study analyses the non-GAAP financial disclosure of top digital European companies from 2016 to 2018, particularly through a qualitative method (Blumberg et al., 2014; Hair et al., 2003; Yin, 2014), showing interesting results for academic and practical communities.

In the remainder of this study, section 5.2 proposes a theoretical background, section 5.3 describes the research strategy, section 5.4 presents our findings, and section 5.5 defines conclusions and future research.

5.2 Theoretical background

According to Lev and Bu (2016), financial reports have become less useful in capital market decisions over the last century. In fact, while many scholars suggest that earnings are the primary product of accounting to be used as a better measure of performance (Graham et al., 2005), Srivastava (2014) highlights that earnings explains only 2.4% of the variation in stock returns for a 21st century company, which means that almost 98% of the

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variation in companies' annual stock returns are not explained by their annual earnings.

This trend seems to be a consequence of changes in the global economy which, by the outset of the 21st century, has moved from being primarily an industrial economy to becoming mainly a knowledge-based one (Shapiro and Varian, 1998; Baumol and Schramm, 2010). As a result, firms have increased their investments in intangibles such as innovation, advertizing, information technology, human capital, and customer relations (Corrado and Hulten, 2010). Consistent with this trend, there has been a dramatic increase over time in the firms' average intangible intensity as measured by research and development (R&D) expenses, market-to-book ratios, and selling, general and administrative (SG&A) expenses (Francis and Schipper, 1999; Banker et al., 2011; Eisfeldt and Papanikolaou, 2013).

In this scenario, recent studies highlight that looking at accounting earnings in order to evaluate digital companies is practically useless because the widespread and common financial accounting models are not suitable to catch the increasing return to scale on intangible investments, which are the key-value creators for digital companies. This becomes even clearer by analysing balance sheets and income statements, which represent the basis of the financial statements. In fact, for an industrial company with tangible assets and goods, the balance sheet can properly represent the production inputs/outputs and, at the same time, the income statement gives a practical approximation of the costs required to generate shareholder value. However, these statements have little salience for a digital company (Govindarajan et al., 2018).

As for the balance sheet, the reported assets have to be at the disposal of the company and be within the company's boundaries. The IFRS Conceptual Framework states, indeed, that "*an asset is a present economic resource controlled by the entity as a result of past events*". Assuming the creation of a new and innovative business model (Porte and Heppelman, 2014; Sousa and Rocha, 2019), digital companies often report assets that are intangible in nature, and a lot of them have ecosystems that cannot be constrained in boundaries (i.e. Amazon's Buttons and Alexa-powered Echo, Uber's cars, and Airbnb's residential properties) (Bharadwaj et al., 2013; Kraus et al., 2019). Moreover, many digital companies do not sell physical products and so they have no inventory to report, leading to circumstances in which the balance sheets of physical and digital companies present completely different pictures (i.e., Walmart's $160 billion of hard assets for its $300 billion valuations against Facebook's $9 billion dollars of hard assets for its $500 billion valuations).

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A digital company invests a lot of resources in activities such as R&D, improving brand building, implementing organizational strategy, customer and social relationships especially through e-commerce channels, computerized data and software, and investing in human capital (Haegeman et al., 2013; Routley et al., 2013; Sathananthan et al., 2018; Sousa and Rocha, 2019, Timmers, 1998). Among technologies supporting digital companies and their digital offerings, for example, “big data analytics will become a fifth strategic dimension needing to be accounted for in many companies. More and more firms will need to find a way to integrate this capability into their existing business models." (Sousa and Rocha, 2019). Additionally, digital companies focus on their digital vision to achieve their aims, keeping indicators supporting accountability and performance achievement.

However, the economic scope of intangible investments by a digital company is the same as properties and equipment for an industrial company. Thus, for a digital company, investments in its building blocks are not capitalized as assets: they are just expenses in the income statement. So when a digital company invests in these kinds of activities, there's a good chance that it will report losses. Therefore, it is clear why investors cannot rely on accounting earnings in their investment decisions (Breuer and Windisch, 2019). In this regard, Enache and Srivastava (2017) found that intangible investments exceed property, plant and equipment in terms of capital creation for US companies – which further suggests that balance sheets have become an artefact of regulatory compliance, with little or no utility to investors. Banks also consider the balance sheet less useful for their lending decisions since they rely on asset coverage to calculate their security.

Additionally, in an economic context where digital companies are growing dramatically and industrial companies are digitizing their processes (Allen, 2019; Bharadwaj et al., 2013; Brynjolfsson and Kahin, 2002), income statements have less impact on investors' decisions. In addition, the current financial accounting model is not able to capture the fact that, in contrast to physical assets that depreciate with use, intangible assets might improve with use. For example, – it is easy to see that Facebook's value increases as more people use it because the benefits for a user become greater with the arrival of new users: the more the users, the higher the value of the company. Therefore, the main goal for digital companies is to become a leader in the market, create network effects, and command a "winner-take-all" profit structure. In 2017, Facebook reported a gross margin of 76% on its revenues of $46.5 billion. These results

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illustrate the abovementioned model where every additional dollar of revenue creates an almost equivalent value for shareholders.

Nevertheless, the concept of network effects cannot be applied within the financial accounting model nor the increase in the value of a resource with its use. Indeed, the reason behind the growth of digital companies (the increasing returns to scale) does not fit with a basic rule of financial accounting (assets depreciate with use).

Anyway, digital companies are not the only firms relying strongly on intangible assets. Professional services firms are also built on these immaterial resources (Hitt et al., 2001). However, digital companies have to face an accounting issue that is about the match between costs and revenues. For example, Google can reach more clients from the same office just by adding capacity to its server while an audit firm, in order to have more clients, absolutely needs more human resources and office space. Therefore, the costs of services for professional services firms – mainly wages – are matched to current revenues. Thus, their income statements can easily be an accurate proxy of the real difference between costs and revenues in a period, like industrial companies. For digital companies, the costs for building an idea-based platform have to be reported as expenses in their initial years, when they have modest revenue. In later years, when they start earning consistent revenues on an established platform, their costs significantly decrease. In both phases, the calculation of earnings does not reflect the true cost of revenues.

For these reasons, digital companies are left with a balance sheet that is not able to reflect the value of their investments and an income statement that is not suitable to capture the created surplus. Overall, the main issue is all about what digital companies can do to enhance the informativeness of their financial statements.

However, it is still not possible to give a specific answer. Accounting standards will change in the near future to allow digital companies to capitalize on their intangible investments. According to Govindarajan et al. (2018), CFOs are aware of the growing limitations of the current financial reporting model. They are, however, extremely pessimistic about whether the model can be fixed within the current regulatory regime: i.e. one CFO commented that standard setters enjoy monopoly power and have no incentives to change their methods to be more responsive to investors, while another CFO mentioned that it will take a full-blown crisis to force significant changes in the standard-setting process. However, there are things companies can do to convey their real value to investors. Govindarajan et al. (2018) found that investors look for certain cues about the success of a company's business model, such as acquisition

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of major customers, introduction of new products and services, technology, marketing, distribution agreements, new subscriber counts, revenue per subscriber numbers, customer dropouts, and geographical distribution of customers. Companies can disclose these items in the management discussion and analysis section of their annual report. Specifically, any significant value-relevant development must be immediately disclosed rather than waiting for the annual report. Govindarajan et al. (2018) have also demonstrated that disclosures on network advantages, such as web traffic and strategic alliances, are considered highly value-relevant by investors. When combined with these nonfinancial indicators, financial performance measures become more value-relevant. In addition, companies can provide detailed information on intangible investments made by the company – even if that information is not vetted by the auditors – by reporting these investments in three categories: customer relationship and marketing, information technology and databases, and talent acquisition and training.

Overall, considering that digital companies focus their investments on intangible assets, and they will represent the new face of the global economy, they will also have to change the ways by which they communicate their value to outside investors. In fact, companies increasingly resort to the provision of pro-forma and non-GAAP reports, even though this practice is looked down on (especially by SEC in the US) and is opportunistically misused by a few companies (Parrino, 2016). Even analysts increasingly rely on non-GAAP metrics (Marques, 2017). In fact, as firms become increasingly difficult to value and more and more companies report negative earnings, analysts perform multiple adjustments to recreate companies' financials in their internal assessments. For example, they capitalize a part of R&D expenditures that can enhance a firm's future competitive ability and deduct a part of capital investments that merely maintain firms' competitive ability.

5.3 Research strategy

Existing literature confirms that corporate disclosure of financial ratios varies consistently among industries (Watson et al., 2002). Particularly, existing studies show that industries with high technology intensity disclose more and higher quality information (Gu and Li, 2003; Bozzolan et al., 2003; Oliveira et al., 2006; Bini et al., 2019). Specifically, Bhattacharya et al. (2004) highlight that companies operating in technological industries are more likely to communicate non-GAAP earnings. In addition, other studies reveal that earnings tend to be less

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informative for high-technology firms because they invest heavily in intangibles (e.g. R&D), which may distort GAAP earnings (Francis and Schipper 1999; Lev and Zarowin 1999).

Through a qualitative method (Blumberg et al., 2014; Hair et al., 2003; Yin, 2014), this study aims to analyse the digital companies' behaviour in terms of non-GAAP financial disclosure in a setting that is not strictly regulated relative to such an issue. Thus, this study analyses the top digital European companies' non-GAAP financial disclosure from 2016 to 2018. In Europe, the regulation concerning non-GAAP financial reporting disclosure is provided by ESMA (European Securities and Markets Authority). It consists of a set of guidelines to increase the transparency of non-GAAP disclosure and improve their comparability and reliability. Since the ESMA guidelines were issued in 2015, this study focuses on the 2016-2018 reference period to avoid potential biases due to exogenous factors rather than endogenous changes within the firms' non-GAAP reporting behaviour.

As for the identification of the top digital European companies, this study relies on the Top 100 Digital list released by Forbes in September 2018. This list offers a closer look at the technology, media, digital retail, and telecommunication companies that shape the digital world, including companies from all corners of the digital economy. To compile the top 100 digital companies, Forbes first looked at the technology, media, digital retail, and telecommunication companies that made it onto 2018 Global 2000 (it includes publicly-traded companies from 60 countries). Additionally, Forbes added to that group the big digital companies that have gone public since the Global 2000 was published in May. Companies were scored on a variety of factors, including sales, profits, assets growth and performance of the stock over the relative past year.

Among the Forbes Top 100 Digital, 14 companies are listed on the European market. After excluding two companies that went public after 2016 and two companies whose 2018 annual reports are still not available, our analysis focuses on 10 companies, i.e. 30 firm-year observations from 2016 to 2018, showing interesting results for academic and practical communities.

5.4 Analysis

Our analysis performed on the final sample is composed of five steps: a) a description of the sample; b) a descriptive analysis of the non-GAAP disclosure provided by the companies; c) a focus on the non-GAAP indicators; d) a brief analysis about the definitions of the non-GAAP

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indicators; e) an analysis on the deviations between the GAAP and non-GAAP measures.

Starting from the description of sample (a), the top 10 European digital companies are listed on the Middle-West and North European Market and operate in four main industries (Table 1).

Table 1. Sample composition

Company	**Industry**	**Country**
Infineon Technologies	Semiconductors	Germany
Zalando	Retailing	Germany
SAP	IT Software & Services	Germany
ASML Holding	Semiconductors	Netherlands
NXP Semiconductors	Semiconductors	Netherlands
Dassault Systemes	IT Software & Services	France
ATOS	IT Software & Services	France
Accenture	IT Software & Services	Ireland
Nokia	Technology Hardware & Equipment	Finland
STMicroelectronics	Semiconductors	Switzerland

We highlight that Central Europe represents 7 out of 10 of the analysed cases, with the German market that has the main part (3 out of 10 companies) followed by the Netherlands and France. As for the industries, Chart 1 shows that 8 out of 10 companies operate in just two industries: IT Software & Services (4) and Semiconductor (4). The reaming two companies operate in the retailing and hardware technology industries.

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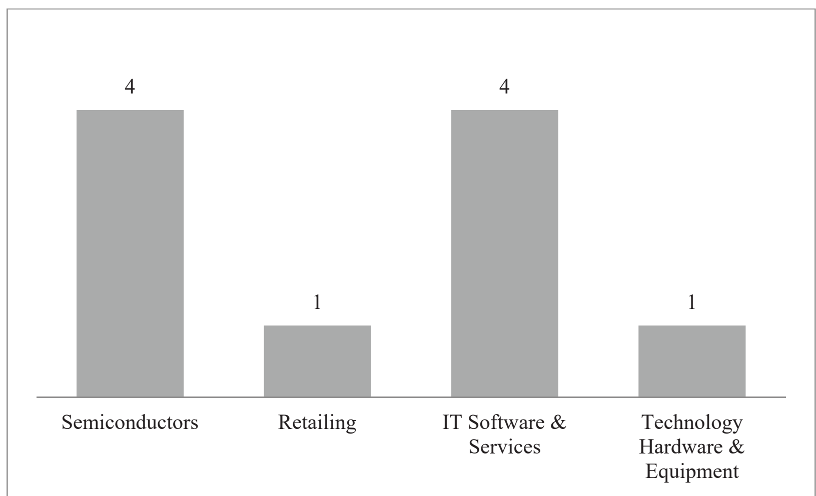
Chart 1. Companies clustered by industry



In the second step of our analysis (b), we collected information about the non-GAAP disclosure looking at the full annual reports of companies' sample over the period 2016-2018. The descriptive analysis developed in the following pages aims to describe the non-GAAP disclosure provided by the selected companies, highlighting some characteristics of the information provided about the non-GAAP measures.

First and foremost, by analysing the financial statements and the attached documents, we collected information about: i) the presence or lack of non-GAAP measures; ii) the presentation of a non-GAAP section within the annual report; iii) the drawing up or the lack of a reconciliation scheme. Looking at Chart 2, we highlight that 9 out of 10 companies present at least one non-GAAP measure, while only one company (ATOS) does not use a non-GAAP measure at all.

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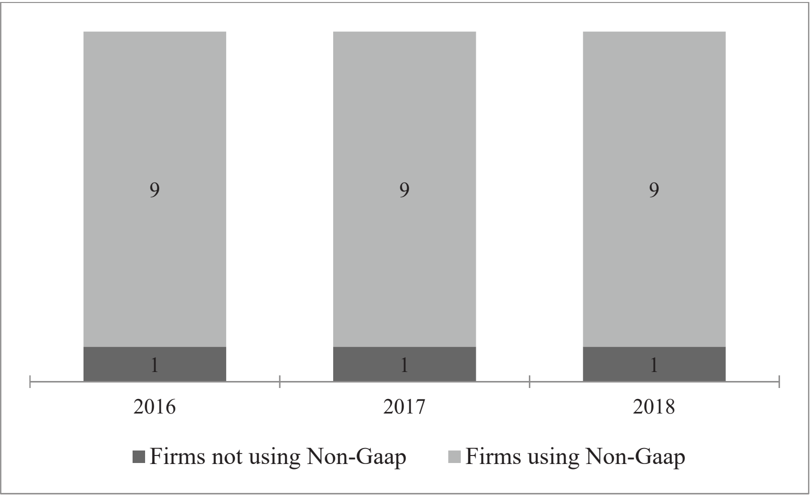
Chart 2. Use of non-GAAP measures



In particular, focusing on the nine companies that disclose at least one non-GAAP indicator (Chart 3), it is possible to notice that, in 2016 and 2017, only two of them provide full disclosure by simultaneously presenting a non-GAAP section and a reconciliation scheme, as recommended by ESMA, while in 2018 one more company adopts this kind of disclosure. At the same time, three companies provide neither a non-GAAP section nor a reconciliation scheme in 2016 and in 2017; in 2018, there were four. Finally, it is also interesting to highlight that companies that do not draw up a non-GAAP section often provide a reconciliation scheme.

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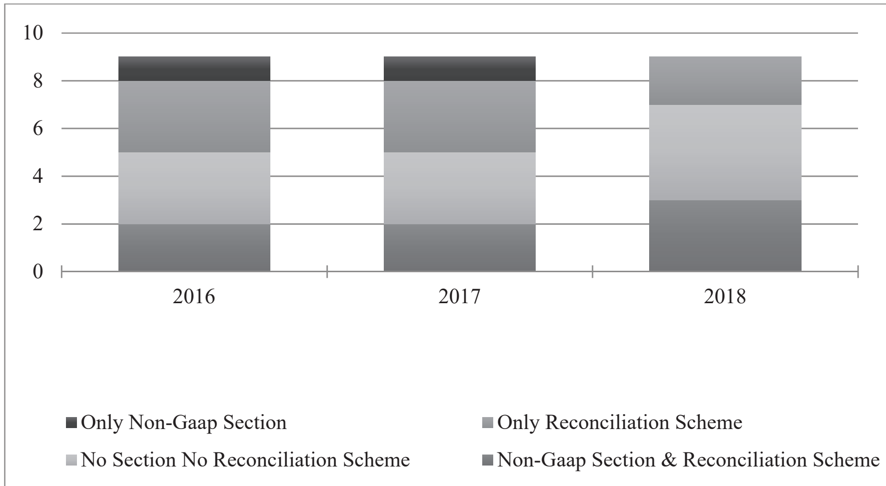
Chart 3. Disclosure of non-GAAP measures



This preliminary overview suggests that digital companies make extensive use of non-GAAP metrics (in 9 out of 10 cases,. we found at least one alternative performance measure) and, at the same time, they seem to be quite careless about ESMA since there is poor compliance with its guidelines due to a slight use of both the non-GAAP section and a reconciliation scheme.

In the third step of the study (c), the analysis goes in-depth, focusing on the specific indicators used by the firms included in the sample. Considering the horizon of three years (2016-2018), we found 19 different non-GAAP indicators divided into different categories: i) Cash Flow; ii) Exchange Effect; iii) Costs; iv) Subtotals; v) Revenues; vi) Equity. Table 2 summarizes non-GAAP indicators.

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Table 2. Non-GAAP indicators clustered by category

Cash Flow	**Exchange Effect**	**Costs**	**Subtotals**	**Revenues**	**Equity**
Free Cash Flow (FCF)	Net Sales Exchange Rate Effect	Cost of Revenues	Adjusted Operating Income (loss)	Adjusted Revenue	Non-GAAP Diluted Earnings per Share
Adjusted FCF	Operating Expenses Exchange Rate Effect	Research and Development	Non-GAAP Gross Profit		Profit Attributable to Equity Holders
		Sales and Marketing	Net income (loss)		
		General and Administrative	EBITDA		
		Non-GAAP Operating Expenses	Adjusted EBITDA		
			Adjusted EBIT		
			Income Before Taxes		
2	**2**	**5**	**7**	**1**	**2**

The widespread use of non-GAAP indicators among digital companies is also confirmed in Table 2: nine cases led to 19 different alternative performance measures in just three years. The major number of indicators belongs to Subtotals, showing 7 indicators. Then, 5 indicators are included in the Costs group, 6 indicators are equally divided between the categories Equity, Cash Flows and Exchange Effect, and only 1 indicator belongs to the Revenues. Chart 4 shows the indicators and the number of companies of Subtotals using each indicator over the period 2016-2018. Particularly, the only change is in the EBITDA, used by one company less in 2018. Moreover, the most-used indicator is the adjusted operating income.

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Chart 4. "Subtotals" non-GAAP measures

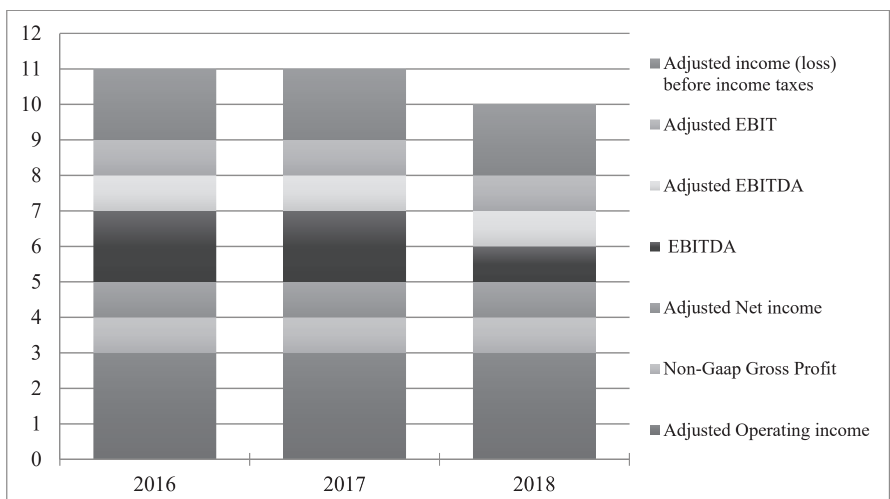
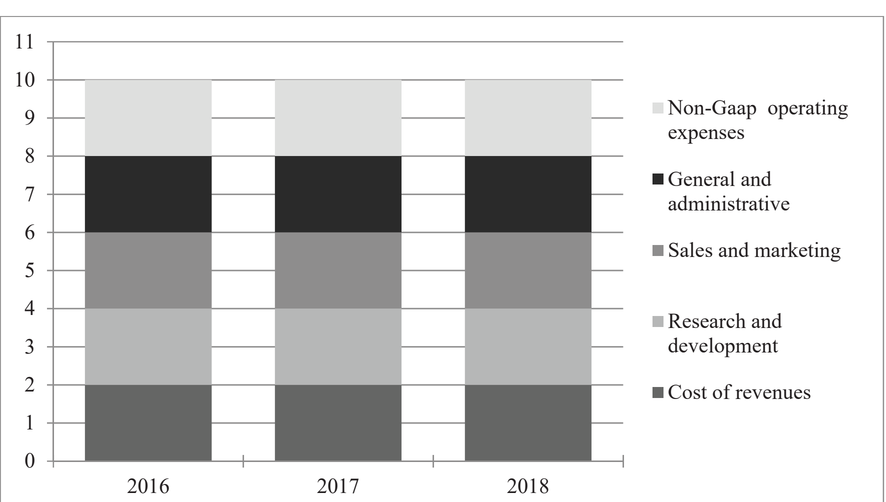


Chart 5 shows the composition of the category Costs, which is the second-highest category. The chart shows that each indicator is used by two companies during the years 2016-2018. Additionally, the companies using these indicators are always the same (SAP and Dassault Systems).

Chart 5. "Costs" non-GAAP measures



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At this stage of the analysis, it can be useful to understand which is the most-used non-GAAP indicator among all the categories. Thus, we propose Chart 6.

Chart 6. Globally most-used non-GAAP measures

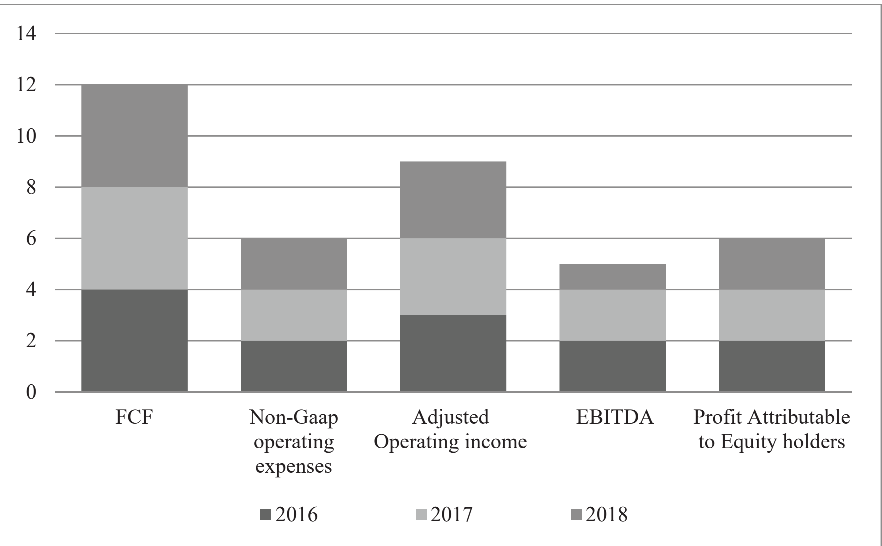

Chart 6 shows that the most-used indicator is FCF, followed by adjusted operating income, with other adjustments for operating expenses and the separation of profit attributable to equity shareholders tied for third. Furthermore, it is interesting to see the category Cash Flow, included in the most-used indicators by the companies.

The fourth step of our study is (d) analyse the definitions of each indicator provided by the companies during the years 2016-2018. The purpose of this analysis is to find if there are any differences among the definitions between the companies and over the reference period. In order to have better comparability, we focused on the definition of the most-used indicators provided by the companies in the sample as follows.

- Free Cash Flow (FCF) is defined as: "*cash provided by operating activities less purchases of property, equipment, and other assets*". Thus, all the companies (except one) calculate the FCF starting from "Net cash flows from operating activities";

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- EBITDA is defined as "*the EBIT before depreciation of property, plant and equipment and intangible assets*". Non-GAAP Operating expenses consist of "*operating expense numbers that have been adjusted by excluding the following expenses: Acquisition-related charges; Share-based payment expenses; Restructuring expenses, that is, expenses resulting from measures which comply with the definition of restructuring according to IFRS*". Alternatively, it is defined as "*adjustments to IFRS operating expense aimed at the exclusion of the amortization of acquired intangibles, share-based compensation expense and related social charges and other operating income and expense*";
- Adjusted Operating Income is defined as "*Operating Income adjusted from the respective IFRS measures by adjusting for the aforementioned revenue (non-IFRS) and operating expenses (non-IFRS)*". Alternatively, it is defined as "*all adjustments to IFRS income data reflect the combined effect of these adjustments, plus with respect to net income and diluted net income per share, the income tax effect of the non-IFRS adjustments and certain one-time tax effects*".

By analysing each definition, we found some differences in how two different companies define the same non-GAAP measure while there are no differences if we compare the definitions provided by the same company over the reference period. Additionally, we report below an extract of the SAP 2016 Annual Report where they define FCF.

> *We calculate free cash flow as net cash from operating activities minus purchases (other than purchases made in connection with business combinations) of intangible assets and property, plant, and equipment.*
>
> SAP., Annual Report 2016.

Alternatively, it is also useful to looking at the 2017 ASML Holding Annual Report.

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> *Free cash flow is a non-GAAP measure and is defined as net cash provided by operating activities (2017: EUR 1,798.6 million and 2016: EUR 1,665.9 million) minus purchase of property, plant and equipment (2017: EUR 338.9 million and 2016: EUR 316.3 million) and purchase of intangible assets (2017: EUR 19.1 million and* 2016: EUR 8.4 million).
>
> ASML-Holding., Annual Report 2017.

Additionally, we provide another definition of the FCF based on the STMicroelectronics Annual Report for 2017.

> *Free Cash Flow, which is a Non-GAAP measure, defined as (i) net cash from operating activities plus (ii) net cash used in investing activities, excluding payment for purchases (and proceeds from the sale) of marketable securities, and net cash variation for joint ventures deconsolidation, which are considered as temporary financial investments. The result of this definition is ultimately net cash from operating activities plus payment for purchase and proceeds from non sale of tangible, intangible and financial assets, proceeds received in the sale of businesses and cash paid for business acquisitions.*
>
> STMicroelectronics., Annual Report 2017.

Based on what companies intend for FCF and on how it is determined, the non-GAAP indicator represents a measure of the global operating cash flow from both current operating activities and non-current investing activities. In particular, it is the most-used non-GAAP indicator among EU top digital companies as it represents an intermediate measure – between the cash generated from operating activities and the free cash flow to equity – that is not required by the IFRS reporting system (IAS 7, *Statement of Cash Flow*). Digital companies believe that such an indicator is very useful for investors and stakeholders. Moreover, the above boxes are examples to highlight that the FCF non-GAAP measurement is consistent among the whole set of analysed companies and, therefore, it represents a comparable indicator.

Referring to EBITDA, we found some differences among definitions provided by companies in the sample. Therefore, we report below two extracts of the 2017 Annual report, respectively by Zalando and NXP Semiconductors.

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EBITDA

EBITDA is short for EBIT before depreciation and amortization of property, plant and equipment and intangible assets.

Zalando, 2017 Annual Report

[1] EBITDA is defined as operating income plus the results relating to equity accounted investees, excluding depreciation, amortization and impairment charges.

NXP Semiconductors, 2017 Annual Report

The definitions by Zalando and NXP Semiconductors' 2017 Annual Report are based on a different way of calculating EBITDA. Thus, the starting point is different: Zalando starts from EBIT excluding depreciation and the amortization of tangible and intangible assets; NXP Semiconductors starts from the operating income that, in turn, is not explicitly defined, creating more stumbling blocks to transparency and comparability. Moreover, NXP Semiconductors, before excluding depreciation and amortization, adds the results relating to equity accounted investees. Therefore, the considerations previously proposed for the FCF measure do not fit the EBITDA measure since it is not strictly comparable among different firms.

Overall, this step of the analysis highlights the relevance for digital companies to determine specific cash flow information based on a few non-GAAP indicators since they are commonly used with a high level of comparability among firms and years. At the same time, it should be noticed that the income-based non-GAAP measures seem to be less valuable relative to digital companies since there is a wide range of indicators with a limited degree of comparability, especially among firms.

After the ways companies present their alternative performance measures have been defined, this study, in the last part of the analysis, also calculates the deviation between the non-GAAP indicators and their reference GAAP in order to estimate the impact they have on the financial reporting process. Table 3 shows the average deviations among the five most-used non-GAAP indicators.

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Table 3. The average deviation between GAAP and non-GAAP measures

Non-GAAP Indicator	2016	2017	2018
FCF	-26,46%	-40,30%	-70,92%
Non-GAAP Operating Expenses	-10,21%	-10,99%	-9,86%
Adjusted Operating Income	24,04%	30,68%	23,46%
EBITDA	426,86%	65,59%	-
Profit Attributable to Equity Holders	35,65%	32,81%	34,95%

As shown in Table 3, the most-used non-GAAP measure (FCF) implies a negative effect relative to the GAAP parameters that are directly comparable to them, as reported in the reconciliation schemes. Specifically, adjustments to the cash flow from operating activities lead to free cash flows that are steadily and consistently lower over the reference period. This seems probable due to the need for providing more useful information through a measure that better reflects the firm performance and allows for a better decision making by outsiders.

On the other hand, the remaining four most-used non-GAAP indicators imply a positive effect relative to the most directly comparable GAAP measures. Specifically, non-GAAP operating expenses tend to decrease the global amount of operating expenses, with a fairly stable average deviation during the reference period. In addition, the non-GAAP measures that represent an earnings adjustment reflect performance better relative to the most directly comparable GAAP parameters.

In particular, while the average deviation of the adjusted operating income and the profit attributable to equity holders are relatively stable over time, EBITDA shows an extreme average deviation at the beginning of the reference period and a consistent reduction for the next period (2018 is not reported since none of the companies reporting EBITDA provided the relative reconciliation scheme). The difference between the two years is due to the NXP Semiconductors' Annual Report 2016. Indeed, in 2016 the operating income amounts to 285 million dollars while EBITDA is 2.652 million dollars. Similar trends could be also attributable to an opportunistic use of non-GAAP measures aimed at window-dressing activities rather than to a better performance measurement goal, though this requires deeper analyses

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5.5 Conclusions and future research

This study summarizes the alleged inadequacy of the current financial reporting systems for digital companies that are heavily involved in the disclosure of non-GAAP measures to convey more useful information to stakeholders, and especially to investors. Thus, this study focuses on the top digital European companies and analyses their behaviour in terms of non-GAAP financial disclosure to draft the main theoretical and practical implications.

The results from this study highlight that there is widespread use of non-GAAP metrics among digital companies (in 9 out of 10 cases we found at least one alternative performance measure) contributing to existing literature (Bhattacharya et al. 2004; Marques, 2017; Parrino, 2016).

Additionally, digital companies use a wide range of different non-GAAP indicators (nine cases generated 19 alternative performance measures in just three years) in the interest of quality information disclosure (Gu and Li, 2003; Bozzolan et al., 2003; Oliveira et al., 2006; Bini et al., 2019). Among these alternative performance measures, there are parameters that are commonly used by nearly all companies, while others seem to be more firm-specific according to peculiar needs. Especially with regard to the most-used non-GAAP metrics – the cash flow-based ones – this trend is interpreted as a shared need, among digital companies, to convey additional disclosure and performance measures to the GAAP metrics, which seem to be inadequate to represent their value creation process (Sousa and Rocha, 2019).

These considerations justify the increasing use of alternative performance measures among firms that are heavily engaged in digital activities since they are characterized by heavy investment in intangible assets (Haegeman et al., 2013; Routley et al., 2013; Sathananthan et al., 2018; Sousa and Rocha, 2019, Timmers, 1998) and a value creation process that seems to be at odds with how standardized GAAPs work.

However, with the exception of the most-used non-GAAP measure (FCF), the definition of such indicators is not always consistent among firms, resulting in comparability matters that can create additional processing costs for stakeholders. Moreover, since the income-based non-GAAP metrics always reflect better performance relative to the most directly comparable GAAP parameters, issues involving stakeholders are even exacerbated as similar trends could be also attributable to an opportunistic use of non-GAAP measures aimed at window-dressing activities.

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In this perspective, we firmly believe further investigation on this topic is required, mainly to analyse the disclosure of non-GAAP measures among digital companies and their impact on stakeholders. Even if several limitations exist, our future research intends to draft the main determinants of previous metrics and the consequences of their massive use also in terms of performance. Particularly, adopting the perspective of IT and digital companies operating in the fourth industrial revolution assuming new business models, our forthcoming studies aim to define proposals to improve pillars and a renewed reporting system to capture the investors' and stakeholders' attention.

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SECTION B –

NON-GAAP DISCLOSURE FROM A PREPARER'S PERSPECTIVE

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ESSAY 6

NON-GAAP MEASURES: THE CASE OF THE ENI GROUP

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6.1 Introduction

Eni, an Italian energy company listed on the New York and Milan Stock Exchanges, engages in up, mid and downstream activities covering the entire value chain of the energy business. Eni operates in 67 countries with more than 200 subsidiaries through a business model that supports strong integration among the several activities managed.

Eni's business model aims to create value for the company's shareholders and for all of its stakeholders. Eni recognizes that the main challenge in the energy sector is to provide efficient and sustainable energy access to local communities while facing climate change. The response to this challenge may trigger a new economic paradigm and changes in patterns of consumption and supply as well as in industrial processes. In this framework, Eni has adopted a systemic approach to adapting its business model to the emerging trends of decarburization, increasing company resilience to the scenario and its ability to grow organically and strengthen its sustainability. The Eni business model, underpinned by the permanent development of proprietary technologies and a shift to digitalization, is built around the following levers: i) operational excellence; ii) carbon neutrality in the long term; iii) promotion of local development.

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‡ ENI Group Financial Reporting Manager

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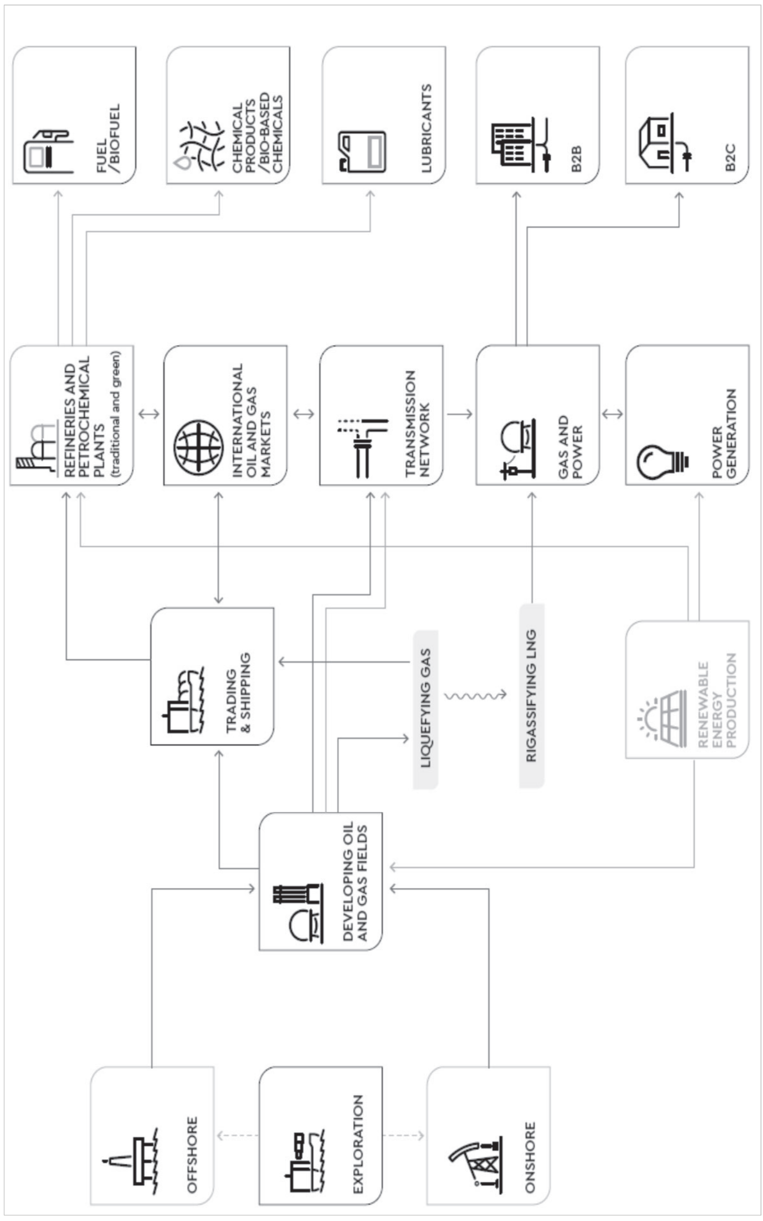

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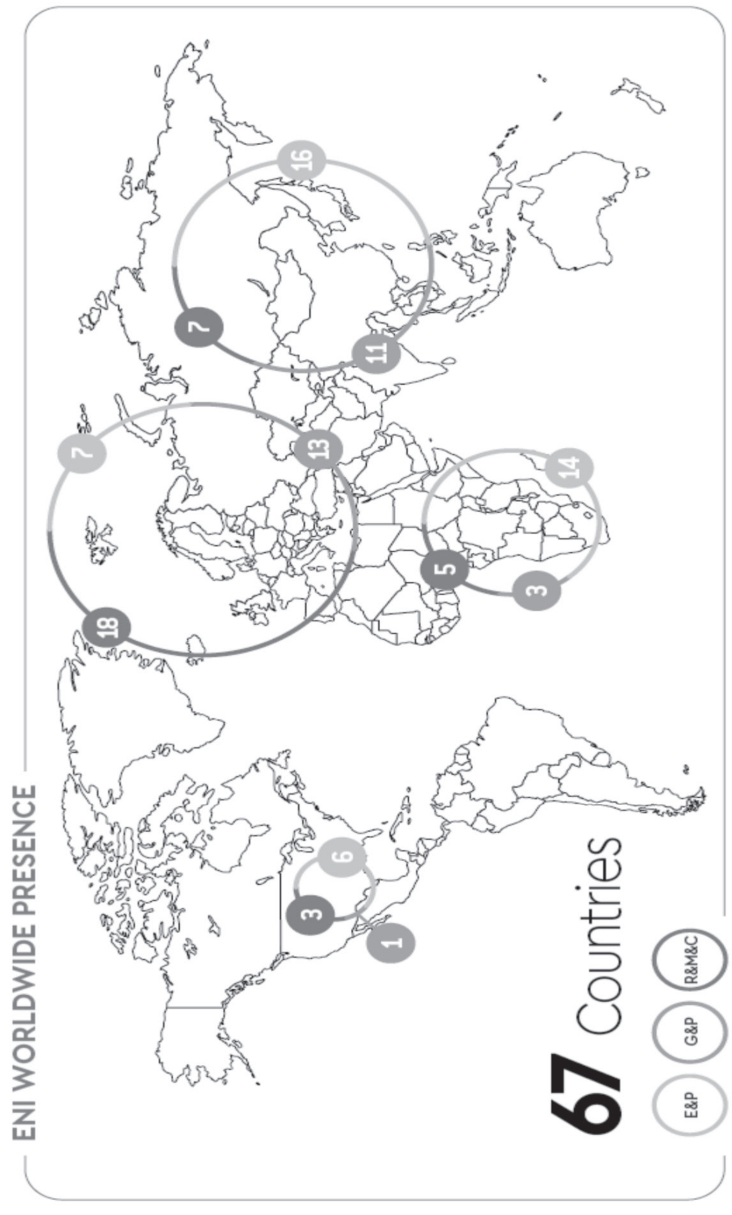

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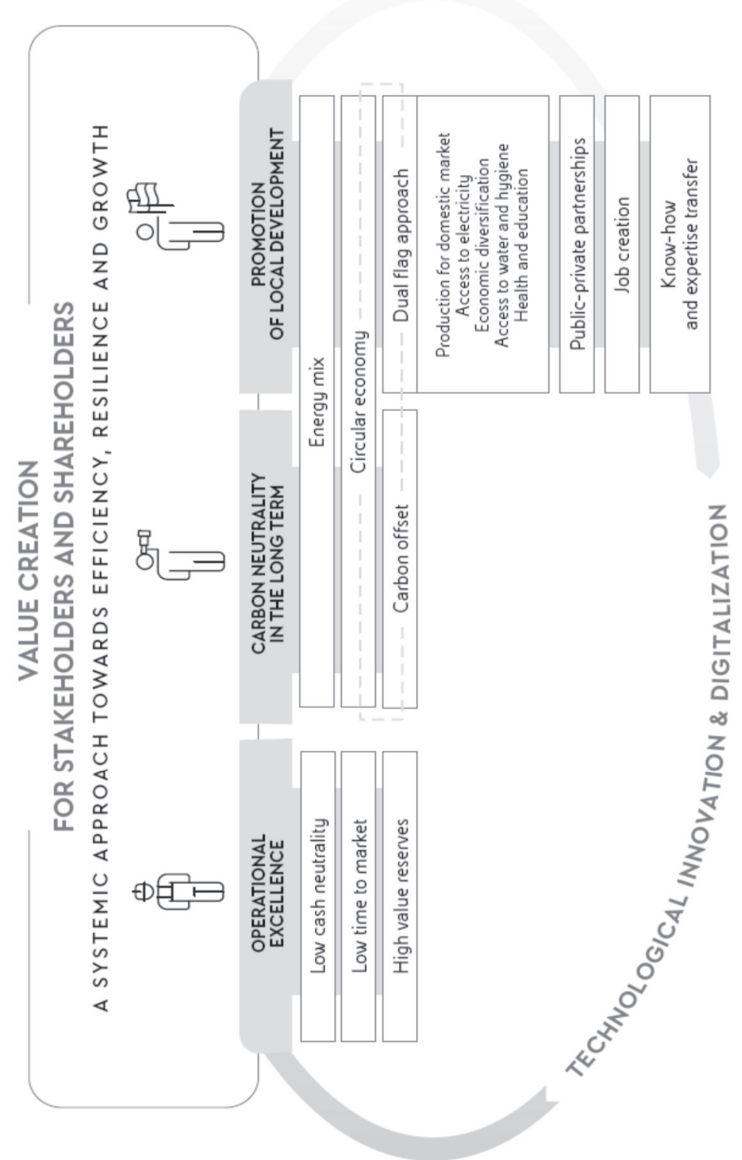

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6.2 Main data

OPERATING DATA

		2018	2017	2016
EXPLORATION & PRODUCTION				
Hydrocarbon production	(kboe/d)	1,851	1,816	1,759
Net proved reserves of hydrocarbons	(mmboe)	7,153	6,990	7,490
Average reserve life index	(years)	10.6	10.5	11.6
Organic reserve replacement ratio	(%)	100	103	193
Profit per boe[a]	($/boe)	9.3	8.7	2.0
Opex per boe[b]		6.8	6.6	6.2
Finding & Development cost per boe[c]		10.4	10.4	13.2
GAS & POWER				
Worldwide gas sales	(bcm)	76.71	80.83	86.31
of which: Italy		*39.03*	*37.43*	*38.43*
outside Italy		*37.68*	*43.40*	*47.88*
LNG sales		10.3	8.3	8.1
Installed capacity power plants	(GW)	4.7	4.7	4.7
Electricity produced	(TWh)	21.62	22.42	21.78
Electricity sold		37.07	35.33	37.05
REFINING & MARKETING AND CHEMICALS				
Retail sales of petroleum products in Europe	(mmtonnes)	8.39	8.54	8.59
Retail market share in Italy	(%)	24.0	24.3	24.3
Service stations in Europe at year end	(number)	5,448	5,544	5,622
Refinery throughputs on own account	(mmtonnes)	23.23	24.02	24.52
Average throughput of service stations in Europe	(kliters)	1,776	1,783	1,742
Balanced capacity of refineries	(kbbl/d)	548	548	548
Capacity of biorefineries	(ktonnes/year)	360	360	360
Production of biofuels	(ktonnes)	219	206	191
Production of petrochemical products	(ktonnes)	9,483	8,955	8,809
Average plant utilization rate	(%)	76	73	72

(a) Related to consolidated subsidiaries.
(b) Includes Eni's share in joint ventures and equity-accounted entities.
(c) Three-year average.

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FINANCIAL HIGHLIGHTS

		2018	2017	2016
Net sales from operations	(€ million)	75,822	66,919	55,762
Operating profit (loss)		9,983	8,012	2,157
Adjusted operating profit (loss)[a]		11,240	5,803	2,315
Adjusted net profit (loss)[a][b]		4,583	2,379	(340)
Net profit (loss)[b]		4,126	3,374	(1,051)
Net profit (loss) - discontinued operations[b]				(413)
Group net profit (loss)[b] (continuing and discontinued operations)		4,126	3,374	(1,464)
Net cash flow from operating activities		13,647	10,117	7,673
Capital expenditure		9,119	8,681	9,180
of which: exploration		*463*	*442*	*417*
development of hydrocarbon reserves		*6,506*	*7,236*	*7,770*
Dividend to Eni's shareholders pertaining to the year[c]		2,989	2,881	2,881
Cash dividend to Eni's shareholders		2,954	2,880	2,881
Total assets at year end		118,373	114,928	124,545
Shareholders' equity including non-controlling interests at year end		51,073	48,079	53,086
Net borrowings at year end		8,289	10,916	14,776
Net capital employed at year end		59,362	58,995	67,862
of which: Exploration & Production		*50,358*	*49,801*	*57,910*
Gas & Power		*3,143*	*3,394*	*4,100*
Refining & Marketing and Chemicals		*7,371*	*7,440*	*6,981*
Share price at year end	(€)	13.8	13.8	15.5
Weighted average number of shares outstanding	(million)	3,601.1	3,601.1	3,601.1
Market capitalization[d]	(€ billion)	50	50	56

(a) Non-GAAP measures.
(b) Attributable to Eni's shareholders.
(c) The amount of dividend for the year 2018 is based on the Board's proposal.
(d) Number of outstanding shares by reference price at year end.

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6.3 Non-GAAP information: The approach adopted

Eni's financial information, in line with common practice in the Oil & Gas industry as well as in other industries, combines a statutory perspective, based on the results deriving from the application of the generally accepted accounting principle (GAAP) – which for Eni are the international accounting standards (IFRS) – and a management perspective based on performance measures that, in spite of being derived from the GAAP results, are not mandated or defined by the IFRS – the so-called non-GAAP measures.

The use of non-GAAP measures provides important additional information to investors and users of financial reports because these alternative measures help evaluate Eni's underlying performance by excluding non-core, extraordinary or non-recurring items, thus improving the comparability of Eni's results over the reporting periods and across the industry.

Items generally excluded from the calculation of non-GAAP measures include capital gains, impairment losses, restructuring charges, expenses incurred in connection with the liquidation or the closure of a business, the accounting mismatch between the recognition of derivatives through profit and the occurrence of the hedged transaction, and the difference between the current costs of supplies and the accounting of inventories under GAAP, among others. The relevance of the non-GAAP performance measures to investors is explained by the characteristics of the items excluded from the calculation of such measures, which can vary substantially from company to company depending on accounting methods, management judgements, the book value of assets, capital structure, and the method by which assets were acquired.

The presentation of non-GAAP measures also responds to specific market needs, especially when considering financial analysts who require companies to provide "normalized" or "clean" results against which market estimates are compared, or the outcome of forecasting evaluation models. It is worth noting that management's future earnings guidance is normally made "ex-items", i.e. excluding the impact of any non-core transactions on which financial analysts model future results.

The main goals of non-GAAP measures are to assist investors and stakeholders in general to evaluate management performance by eliminating or at least smoothing down the effects of events outside management control and by improving comparability among players competing in the same industry.

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The significance of the non-GAAP measures has also been recognized by market regulators. The US SEC was the first to recognize and regulate the use of non-GAAP measures by encouraging companies to disclose such measures, typically furnished to investors in press releases and strategy presentations, in regulatory filings also so as to not impair investors' ability to access information judged of importance by management. Consob – the Italian market regulator – starting from 2006, requires a breakdown of the non-GAAP items according to a format defined by the CESR (the former ESMA) in the disclosure of the financial statement of companies' net financial position.

The use of non-GAAP measures in statutory financial reporting and regulatory filings must comply with the following minimum requirements:

- Non-GAAP measures must not be presented in the statutory financial information with greater pre-eminence than GAAP results;
- Non-GAAP measures must be defined in a clear and understandable manner. Issuers are required to explain why management believes that non-GAAP measures provide relevant and reliable information to financial reporting users;
- A reconciliation must be provided between the non-GAAP measures and the most-directly comparable GAAP measures;
- Non-GAAP measures must also be disclosed for comparative periods;
- The definition and the methods of calculation of non-GAAP measures must be applied in a consistent and uniform manner over time. In case of changes in the methods of determination, it is necessary to explain the change and the reasons why management believes the new alternative performance measures represent a more significant and reliable disclosure for the investor, as well as providing the restatement of the data of previous reporting periods;
- It is prohibited to exclude from a non-GAAP measure of cash flow performance, other than EBIT and EBITDA, items that required, or will require in the future, a cash settlement.

To assure compliance with the above-mentioned rules, the definition of non-GAAP measures is mainly a top-down approach based on an in-depth analysis of stakeholders' needs, benchmarks with other peers, and strong insight into the business trends and dynamics to identify the best information to enable investors to understand the business through the eye of management.

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It should be noticed that the recent evolution of European laws and regulations requires external auditors to extend their scope of activities, including analysis of the consistency between the information provided in the statutory financial statement (formats and disclosures required by applicable accounting standards) and the information provided in the management and discussion analysis based mainly on a mon-GAAP format. Moreover, European laws and regulations require auditors to review and disclose eventual relevant errors in the definition of management discussion and analysis, requiring therefore an analysis of non-GAAP measures. Based on this, issuers have enlarged the scope and reach of their internal control systems for financial information to include all designs, calculations and controls of the non-GAAP measures.

This recent evolution has also boosted the evolution of supporting system and information flows, strengthening the quality of the process, data collection and data quality of the non-GAAP measures that are, under an internal control system, equal, or at least similar, to the GAAP measures.

6.4 Non-GAAP measures in Eni's financial reporting

A first set of non-GAAP measures relates to the reclassified statements of financial position and cash flow that aim to summarize the statutory financial statements so the company's cash generation and net financial position are easily understood.

In particular:

- *Reclassified income statement* – The profit and loss statement aggregates: (i) the items of the "Purchases, services of services and other costs" and the "Cost of labor" of the statutory scheme in the item "Operative Costs"; (ii) presents a summary of the items of the statutory scheme of the "Income (charges)" and "Income (expenses) on investments". The other components follow the same detail present in the statutory scheme.
- *Reclassified balance sheet* – The reclassified balance sheet aggregates the amount of assets and liabilities derived from the statutory balance sheet in accordance with functional criteria, which consider the enterprise conventionally divided into the three fundamental areas focusing on resource investments, operations and financing. This summarized group balance sheet provides useful information in assisting investors to assess the capital structure and to analyse its sources of funds – equity and net

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borrowings – and investments in fixed assets and working capital. It discloses the company's net financial position ("net borrowings") given by short and long-term finance debt less cash and cash equivalents, held-for-trading securities and other very liquid assets, not related to operations, which represent investment of temporary cash surpluses. The reclassified balance sheet is the base from which to calculate the key ratio of the company's indebtedness: leverage (ratio of net borrowings to total equity) and gearing (ratio of net borrowings to total net capital employed).

- *Reclassified cash flow statement* **–** The reclassified cash flow statement summarizes the statutory cash flow to allow the connection between the statutory financial statements, which state the change in cash and cash equivalents for the reporting period, and the change of the net financial position in the reclassified cash flow. The measure that allows this connection is the "free cash flow", i.e. the cash surplus or deficit that remains after the financing of the investments related to operations, i.e. excluding investment in securities held for trading and in other asset classes, which are netted against finance debt to calculate the company's net financial position. The free cash flow closes alternatively: (i) on the change in cash and cash equivalents for the period, after including cash flows relating to finance debts or lease liabilities repayments/issuance of new finance debt; and investments/divestments of financial assets not related to operations, movements related to equity-owners (payment of dividends, share repurchases, issuance of new shares), and exchange rate translation differences on cash and cash equivalents; (ii) on change in net borrowings (or net financial position) for the period, after including movements related to the equity-owners, as well as the effects on finance debt of acquisition/loss of control over subsidiaries and exchange rate translation differences on finance debt.

Hereinafter the reclassified format related to the 2018 financial year.

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PROFIT AND LOSS ACCOUNT

(€ million)	2018	2017	2016	Change	% Ch.
Net sales from operations	75,822	66,919	55,762	8,903	13.3
Other income and revenues	1,116	4,058	931	(2,942)	(72.5)
Operating expenses	(59,130)	(55,412)	(47,118)	(3,718)	(6.7)
Other operating income (expense)	129	(32)	16	161	..
Depreciation, depletion, amortization	(6,988)	(7,483)	(7,559)	495	6.6
Impairment reversals (impairment losses), net	(866)	225	475	(1,091)	..
Write-off of tangible and intangible assets	(100)	(263)	(350)	163	62.0
Operating profit (loss)	**9,983**	**8,012**	**2,157**	**1,971**	**24.6**
Finance income (expense)	(971)	(1,236)	(885)	265	21.4
Income (expense) from investments	1,095	68	(380)	1,027	..
Profit (loss) before income taxes	**10,107**	**6,844**	**892**	**3,263**	**47.7**
Income taxes	(5,970)	(3,467)	(1,936)	(2,503)	(72.2)
Tax rate (%)	*59.1*	*50.7*	*217.0*	*8.4*	
Net profit (loss) - continuing operations	**4,137**	**3,377**	**(1,044)**	**760**	**22.5**
Net profit (loss) - discontinued operations			**(413)**		
Net profit (loss)	**4,137**	**3,377**	**(1,457)**	**760**	**22.5**
attributable to:					
Eni's shareholders	**4,126**	**3,374**	**(1,464)**	**752**	**22.3**
- continuing operations	**4,126**	**3,374**	**(1,051)**	**752**	**22.3**
- discontinued operations			(413)		..
Non-controlling interest	**11**	**3**	**7**	**8**	**..**
- continuing operations	**11**	**3**	**7**	**8**	**..**
- discontinued operations					

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Summarized Group Balance Sheet[a]

(€ million)	December 31, 2018	December 31, 2017	Change
Fixed assets			
Property, plant and equipment	60,302	63,158	(2,856)
Inventories - Compulsory stock	1,217	1,283	(66)
Intangible assets	3,170	2,925	245
Equity-accounted investments and other investments	7,963	3,730	4,233
Receivables and securities held for operating purposes	1,314	1,698	(384)
Net payables related to capital expenditure	(2,399)	(1,379)	(1,020)
	71,567	**71,415**	**152**
Net working capital			
Inventories	4,651	4,621	30
Trade receivables	9,520	10,182	(662)
Trade payables	(11,645)	(10,890)	(755)
Tax payables and provisions for net deferred tax liabilities	(1,104)	(2,387)	1,283
Provisions	(11,886)	(13,447)	1,561
Other current assets and liabilities	(860)	287	(1,147)
	(11,324)	**(11,634)**	**310**
Provisions for employee post-retirement benefits	**(1,117)**	**(1,022)**	**(95)**
Assets held for sale including related liabilities	**236**	**236**	
CAPITAL EMPLOYED, NET	**59,362**	**58,995**	**367**
Eni shareholders' equity	51,016	48,030	2,986
Non-controlling interest	57	49	8
Shareholders' equity	**51,073**	**48,079**	**2,994**
Net borrowings	**8,289**	**10,916**	**(2,627)**
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	**59,362**	**58,995**	**367**

(a) For a reconciliation to the statutory statement of cash flow see the paragraph "Reconciliation of Summarized Group Balance Sheet and Statement of Cash Flows to Statutory Schemes".

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Summarized Group Cash Flow Statement[a]

(€ million)	2018	2017	2016	Change
Net profit (loss)	**4,137**	**3,377**	**(1,044)**	**760**
Adjustments to reconcile net profit (loss) to net cash provided by operating activities:				
- depreciation, depletion and amortization and other non monetary items	7,657	8,720	7,773	(1,063)
- net gains on disposal of assets	(474)	(3,446)	(48)	2,972
- dividends, interests, taxes and other changes	6,168	3,650	2,229	2,518
Changes in working capital related to operations	1,632	1,440	2,112	192
Dividends received, taxes paid, interests (paid) received during the period	(5,473)	(3,624)	(3,349)	(1,849)
Net cash provided by operating activities	**13,647**	**10,117**	**7,673**	**3,530**
Capital expenditure	**(9,119)**	**(8,681)**	**(9,180)**	**(438)**
Investments and purchase of consolidated subsidiaries and businesses	(244)	(510)	(1,164)	266
Disposals	1,242	5,455	1,054	(4,213)
Other cash flow related to capital expenditure, investments and disposals	942	(373)	465	1,315
Free cash flow	**6,468**	**6,008**	**(1,152)**	**460**
Borrowings (repayment) of debt related to financing activities[b]	(357)	341	5,271	(698)
Changes in short and long-term financial debt	320	(1,712)	(766)	2,032
Dividends paid and changes in non-controlling interests and reserves	(2,957)	(2,883)	(2,885)	(74)
Effect of changes in consolidation, exchange differences and cash	18	(65)	(3)	83
NET CASH FLOW	**3,492**	**1,689**	**465**	**1,803**

Change in net borrowings

(€ million)	2018	2017	2016	Change
Free cash flow	**6,468**	**6,008**	**(1,152)**	**460**
Net borrowings of acquired companies	(18)			(18)
Net borrowings of divested companies	(499)	261	5,848	(760)
Exchange differences on net borrowings and other changes	(367)	474	284	(841)
Dividends paid and changes in non-controlling interest and reserves	(2,957)	(2,883)	(2,885)	(74)
CHANGE IN NET BORROWINGS	**2,627**	**3,860**	**2,095**	**(1,233)**

(a) For a reconciliation to the statutory statement of cash flow see the paragraph "Reconciliation of Summarized Group Balance Sheet and Statement of Cash Flows to Statutory Schemes".
(b) The item included investments and divestments (on net basis) in held-for-trading financial assets and other investments/divestments in certain short-term financial assets. Due to their nature and the circumstance that they are very liquid, these financial assets are netted against finance debt in determing net borrowings. Cash flows of such investments were as follows:

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Besides the reclassified financial statements, Eni has developed specific, alternative performance measures to better represent the company's underlying economic and financial performance according to the ratio explained in the previous section. In particular, the main non-GAAP measures used in Eni's financial reporting are:

- adjusted operating profit and adjusted net profit;
- net borrowings, leverage and gearing, coverage, current ratio, and other indicators generally considered in the financial analysis (debt coverage, net debit/EBITDA adjusted, etc.);
- free cash flow, adjusted net cash flow from operating activities and cash neutrality.

Other non-GAAP indicators have been developed according to the industry practice for disclosing the Oil & Gas performance such as:

- Profit per barrels of oil equivalent (BOE) – Measures the return per oil and natural gas barrel produced. It is calculated as the ratio between results of operations from E&P activities (as defined by FASB Extractive Activities - Oil and Gas Topic 932) and production sold.
- Opex per BOE – Measures efficiency in the oil and gas development activities, calculated as the ratio between operating costs (as defined by FASB Extractive Activities - Oil& Gas Topic 932) and production sold.
- Cash flow per BOE, which represents the cash generation per barrel of oil produced.
- Finding & Development cost per BOE – Represents Finding & Development cost per BOE of new, proved or possible reserves. It is calculated as the overall amount of exploration and development expenditure, the consideration for the acquisition of possible and probable reserves as well as additions of proved reserves deriving from improved recovery, extensions, discoveries, and revisions of previous estimates (as defined by FASB Extractive Activities – Oil and Gas Topic 932).

Adjusted operating profit

Adjusted operating profit is derived by the corresponding IFRS-reported measure of performance by excluding the economic effects related to the following events/transactions.

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- *Inventory holding gain or loss* – This is the difference between the cost of sales of the volumes sold in the period based on the cost of supplies of the same period and the cost of sales of the volumes sold calculated using the weighted average cost method of inventory accounting as required by IFRS.
- *Special items* – These include certain significant non-core gains or losses pertaining to either: (i) infrequent or unusual events and transactions, being identified as non-recurring items under such circumstances; (ii) certain events or transactions which are not considered to be representative of the ordinary course of business or that are related to underlying outside the management controls. Examples of special items are:
  - asset impairments or write-ups that are strictly influenced by the scenario of the oil prices and management assumptions on highly uncertain matters such as reserve estimation, asset life, decommissioning costs, future trends in operating expenses and capital expenditure, and restructuring charges;
  - provisions for environmental clean-up and remediation and for risks other than those on trade receivables, including risks related to legal disputes (judicial or administrative), bankruptcy procedures and other insolvency procedures, and onerous contracts. These charges, even though recurring, involve the use of critical accounting estimates and management judgement, thus impairing the comparability of financial information;
  - gains/losses on disposal of assets;
  - impairment of receivables related to unusual events (e.g. default of a state).
- *Exchange rate differences and derivatives* relating to industrial activities and commercial payables and receivables, particularly exchange rate derivatives to manage commodity-pricing formulas that are quoted in a currency other than the functional currency. Those items are reclassified into operating profit with a corresponding adjustment to net finance charges in order to provide better evidence of the risk-reducing function of derivatives that, due to the netting process realized to offset opposite positions, does not satisfy the formal accounting criteria to be classified as hedging instruments.
- *Non-recurring material income or charges* that, according to the Italian market regulation rules, are to be clearly reported in the management's discussion and financial tables, usually classified as non-recurring items charges such as sanctions, fines, convictions,

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and the amount of the transaction related to judicial, administrative and antitrust proceedings. Gain related to positive finalizations of above-mentioned proceedings are classified as non-recurring items.

Adjusted net profit and net profit special items classification

When determining the adjusted net profit, the following are excluded in addition to special items of operating profit:

- the capital gains or losses realized from the disinvestment of equity-accounted entities as well as the effects of adjusting the fair value of investments in entities whose control, connection or co-control have been divested;
- the special items included in the Eni result of relevant investee companies evaluated with the equity method;
- the tax effect (current and deferred) of the special items of the operating profit;
- the tax effects of special events such as those related to a change in a tax regime, the impairment of tax assets and the effects of results of tax disputes.

The adjusted net profit of the business areas is calculated on an unlevered basis as it excludes the financial charges or income related to the notional debt attributed to each sector and their assignment to the segment reporting unit “Corporate and other activities”. The attribution is performed net of the relative tax effect calculated on a conventional basis using the statutory rate for the income tax of Italian companies. Included in the financial charges or income related to assets operated by the sector are, in particular, income on financial receivables and securities used in operating activities and charges deriving from the accretion discount of liabilities recognized at actual value (for example, the accretion discount on abandonment funds); as well as any special financial items.

Finance charges or income related to net borrowings excluded from the adjusted net profit of business segments are comprised of interest charges on finance debt and interest income earned on cash and cash equivalents not related to operations. Therefore, the adjusted net profit of business segments includes finance charges or income deriving from certain segments of operated assets, i.e. interest income on certain receivable financing and securities related to operations and finance charges pertaining to the accretion of certain provisions recorded on a discounted

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basis (as in the case of the asset retirement obligations in the Exploration & Production segment).

Non-GAAP cash flow and balance sheets

The growing relevance of cash flow information, especially in mature sectors like the Oil & Gas industry, has determined the need to include in the scope of non-GAAP measure information related to cash flow generation and balance sheets.

With reference to cash generation, the information deriving from the reclassified cash flow statement has been recently integrated by the adjusted net cash flow from operating activities.

Adjusted net cash flow from operating activities is determined before changes in working capital, using a replacement cost for the inventories and excluding non-recurring expenses in order to present the underlying cash generation from operating activities.

With reference to the net debt information and leverage, the application of the new accounting standard on leasing (IFRS 16) and the related IFRIC interpretation has determined the need to develop the information in order to provide separate evidence of the liability related to the lease contracts, and for those put in place by Eni as an operator in an unincorporated joint operation, the amount of the lease liability related to Eni's working interest.

In particular, IFRS 16 requires almost all lease contracts to recognize a right of use assets as a contra to a lease liability classified as a financial lease; the profit and loss account will record, among others, the depreciation of the right of use asset and the interest expenses related to the lease liability. The lease payment related to the principal part of the lease liability will be classified as cash flow from financial activities. Consequently, compared with the requirements of IAS 17 related to operating leases, the adoption of IFRS 16 will result in a significant impact in the statement of cash flows by determining:

(a) an improvement of the net cash provided by operating activities, which will no longer include the operating lease payments not capitalized, but will only include the cash payments for the interest portion of the lease liability that is not capitalized;
(b) an improvement of the net cash used in investing activities, which will no longer include capitalized lease payments for property, plant and equipment and intangible assets, but will only include

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cash payments for the capitalized interest portion of the lease liability;

(c) a worsening in the net cash used in financing activities, which will include cash payments for the principal portion of the lease liability.

Moreover, IFRIC indicated that, in the case of unincorporated joint operations, the operator recognizes the entire lease liability as, by signing the contract, it has primary responsibility for the liability towards the third-party supplier. Therefore, if, based on the contractual provisions and any other relevant facts and circumstances, Eni has primary responsibility, it shall recognize in the balance sheet: (i) the entire lease liability and (ii) the entire RoU asset, unless there is a sublease with the followers.

Based on the above, a set of Non-GAAP measures has been developed with the aim of clearly indicating the amount of lease liability and the amount related to the Eni working interest in order to define the appropriate net borrowing and the appropriate leverage or gearing, permitting analysts to determine their own elaborations.

6.5 Responsibilities and internal controls over non-GAAP

The non-GAAP measures are determined by the company's department of consolidated financial reporting through the gathering of all informative elements needed to adjust the IFRS-reported results, which are input into the consolidated financial reporting system (MASTRO) by all group entities.

The data is entered for the reporting package by the administration department of the consolidated companies (subsidiaries or joint operations) and, in certain cases, in simplified form by the associate or jointly controlled companies. Data is entered in accordance with the Group Accounting Rules.

The reporting package is divided into two sections:

- *Primary disclosures*, which include the elementary data required to prepare the balance sheet, the profit and loss statement organized by nature of items, the tax rate reconciliation, the cash flow statement and the supplementary tables, the statement of comprehensive income, and the statement of changes in equity as well as to prepare the profit and loss statement organized by use and the reclassified balance sheet and cash flow statement, and the

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data required to prepare the business unit management reporting. Primary disclosure also includes:

- o operating data, entered by the companies and approved by the business line administrative coordinator in conjunction with the respective planning and control departments;
- o special items, used to calculate the operating profit and adjusted net income for the group and by segment. The department responsible for consolidated financial reporting shall ensure that all Eni companies load special items and the related tax effects into the Eni consolidation information system in a consistent and accurate manner.

The primary disclosure information is used to reconcile and eliminate intercompany items and is entered for all period-end reporting, as indicated in the reporting cycle, for each subsidiary or business area, in line with the control models adopted by the business areas.

- *Additional disclosures*, which include the basic information needed to prepare the explanatory notes to the consolidated financial statements. The information is entered solely by company. Elementary data pertaining to receivables/payables and costs/revenues to/from other consolidated companies are not required for the consolidated financial statements.

The company administration department enters the reporting package into the Eni consolidation information system also in relation to non-GAAP disclosures and checks the completeness and accuracy of the input data.

Through pre-defined flows to the consolidated financial reporting system and appropriate balancing/validation checks, the Eni consolidation information system automatically ensures the consistency of the information used for financial reporting with the information used for business line management reporting since it processes the two reporting streams using the same database.

Following the timetable set out in the Eni calendar, the company administration department enters the information required for the reporting package into the Eni consolidation information system. Each consolidated balance sheet item must show the value of the corresponding item in the general chart of accounts of each company, details of which are given if necessary in respect of any requirement to report management data.

The data is entered manually or through the automatic transfer of files between systems. In both cases, the company administration department

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must ensure that the data is fully and accurately entered into the Eni consolidation information system and that such data is consistent with the information entered into the accounting systems and with the adjustment entries if, during the period in question (end of the month or quarter) this is not promptly recorded by the information system used to maintain the general accounting ledgers.

Where necessary, the company administration department adjusts the values in its own accounts in line with the accounting standards for the consolidated financial statements set out in the group rules, checking that the adjustments have been performed completely and accurately and that the group rules have been observed in the approach applied and the calculations performed.

The list of adjustments must be approved by someone with the appropriate level of seniority in the company administration department. If the company administration department records the adjustments in the accounting system, they must verify that such adjustments fully and accurately reflect those identified and approved.

Every six months, following the entry of the data for the additional disclosures, the company administration department, in accordance with the reporting cycle deadlines, must enter the following into the consolidation information system:

- the comparative profit and loss statement and balance sheet, which report the figures drawn from the individual financial statements with all the adjustments needed to obtain the figures for the consolidated financial statements;
- the form containing the reconciliation of the result and shareholders' equity reported in the individual financial statements with the result and shareholders' equity reported in the consolidated financial statements, inputting the changes for the period, the adjustments to bring them into line with the accounting standards for the consolidated financial statements set out in the group rules, as well as the internal profits/ higher costs attributed.

The company administration department must check that the data entered in the comparison/reconciliation forms is complete and accurate, comparing the data for each balance sheet item against the figures in the trial balance and the adjustment entries, if managed via electronic documents.

The business line administrative coordinators coordinate the preparation of the reporting package and check the data entered in relation to the

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business line administration departments. The following controls are performed:

- consistent with the timetable set out in the Eni calendar, the timeliness, reasonableness and completeness of the input data are checked by analysing the summary figures contained in the Eni consolidation information system. The data are also compared with the figures for the corresponding period-end closing for the previous period summarized at business line and individual company levels, where necessary, to identify any significant differences that require further investigation;
- the consistency of the input data is controlled, and any imbalances in the profit and loss, balance-sheet and cash-flow figures are identified;
- the companies are notified of any anomalies found and are requested to resolve the problems;
- the reconciliation of the intercompany balances is monitored to ensure it is correctly performed, in accordance with the timetable established in the Eni calendar;
- the Eni department responsible for preparing the consolidated financial reporting and the companies of the relevant business line work together to resolve any anomalies found or address any further reporting requirements;
- a list of the checks performed is prepared and the supporting documentation is attached.

Confirmation is given to the Eni department responsible for consolidated financial reporting that data entry and verification of the reporting package for their entire business line has been completed.

Upon completion of all reporting packages by the group entities, the Eni department responsible for consolidated financial reporting prepares the consolidated financial statements, relevant notes and non-GAAP disclosures.

Regarding the non-GAAP measures, in the first processing phase, the financial reporting function carries out a congruence analysis between the values of the special items emerging from the various MASTRO forms and the expected results on the basis of information and communication flows occurring during the relevant period (for example, presentations discussed in meetings with the supervisory bodies).

After this check, financial reporting prepares the documentation “Detail of special item” to complete the specific section of the financial

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statements relating to the financial review section. The consolidated financial statements (BICOR) Manager verifies the representation proposal prepared by financial reporting and, if necessary, make the appropriate changes. The results of these elaborations are forwarded to businesses for adequate information.

Before publication, the documentation, with evidence of any changes to the types of special items or non-GAAP measures in comparison to the previous reporting period, is brought to the attention of the Chief Accounting Officer for approval.

In consideration of the circumstance that the types of special items or non-GAAP measures are strictly linked to the evolution of scenarios and business, the BICOR Manager guarantees this update by evaluating the reports coming from the business units or by each business Control & Planning function. Communication flows are properly tracked and changes to the non-GAAP measure classification are brought to the attention of the Chief Accounting Officer for their approval.

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ESSAY 7

NON-GAAP DISCLOSURE BY INTESA SANPAOLO BANKING GROUP

COGLIATI M. A.* AND NOVIELLO L.†

7.1 Introduction

Intesa Sanpaolo is the Italian banking group formed by the merger of Banca Intesa and Sanpaolo IMI. The merger brought together two major Italian banks with shared values so as to increase their opportunities for growth, enhance service for retail customers, significantly support the development of businesses, and make an important contribution to the country's growth.

Intesa Sanpaolo, among the top banking groups in the euro zone with a market capitalization of 38.0 billion euros[(§)], is the leader in Italy in all business areas (retail, corporate, and wealth management). The Group offers its services to 11.9 million customers through a network of over 4,200 branches well distributed throughout the country with market shares no lower than 12% in most Italian regions.

The Group has a strategic international presence, with approximately 1,100 branches and 7.5 million customers, including subsidiaries operating in commercial banking in 12 countries in Central Eastern Europe and Middle Eastern and North African areas, and an international network of specialists in support of corporate customers across 25 countries, in particular in the Middle East and North Africa and in those areas where Italian companies are most active, such as the United States, Brazil, Russia, India, and China.

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* Intesa SanPaolo, Accounting and Tax Department, Reporting Unit – Senior Manager

† Intesa SanPaolo, Head of Consolidated Financial Statements and Regulatory – Senior Director

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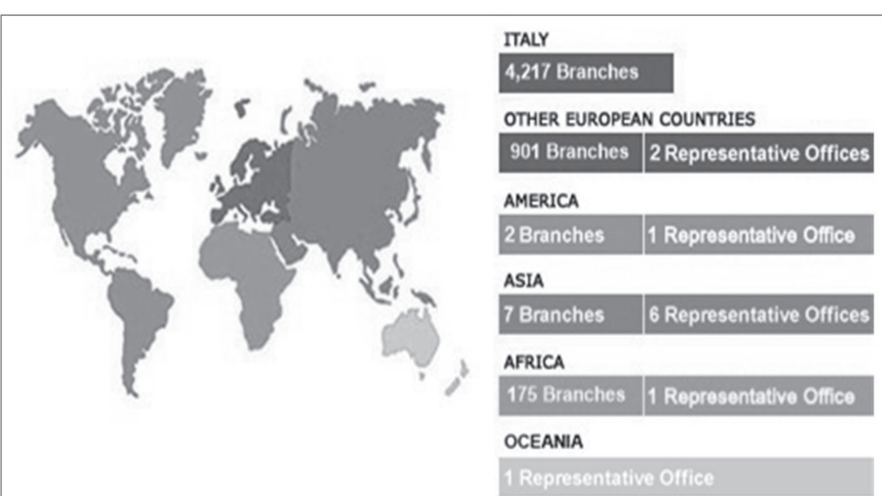
A presentation of the Group – Italian leader with a European scale



[§] As at 29 March 2019

Intesa Sanpaolo is a real-economy bank that supports the real economy, leveraging a strong balance sheet to match healthy credit demand, and manages the financial wealth of clients with care. At the same time, Intesa Sanpaolo is simple yet innovative, acting with a truly multi-channel model, with sustainable profitability in which operating performance, productivity, risk profile, liquidity, and solidity/leverage are carefully balanced.

Intesa Sanpaolo is a bank with a distinctive identity/reputation, committed to contributing to the growth and development of the economy and society, supporting social and environmental value creation for long-term economic development and respecting all stakeholders. Its organizational structure is based on six business units. In addition, there is the corporate centre, which is charged with providing guidance, coordination and control for the entire Group.

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The Intesa Sanpaolo Group

Banca dei Territori	Corporate and Investment Banking	International Subsidiary Banks	Private Banking	Asset Management	Insurance	Corporate Centre (*)

(*) Includes the Group's Treasury and the Capital Light Bank

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7.2 Main data

The Intesa Sanpaolo Group closed its income statement for 2018 with a net income of 4,050 million euro compared to 7,316 million euro for the same period of 2017.

For comparison purposes, it should be noted that the income statement for the previous year included the public contribution of 3.5 billion euro assigned by the Italian government as part of the acquisition of certain assets and liabilities and certain legal relationships with Banca Popolare di Vicenza and Veneto Banca to offset the impact on capital ratios. Excluding this contribution, the net income for 2018 increased by around 6%.

In addition, due to the aggregation process with the aforementioned banks, the main data in the income statement are shown according to two different points of view: Official data and aggregate data[1].

The positive performance with respect to the "aggregate" like-for-like figures was due to the slight increase in operating income, attributable to the profits (losses) on financial assets and liabilities and income from the insurance business, which was fully offset by the decrease in the interest and fee and commission income. Operating costs were down on the like-for-like figure. Net adjustments to loans were also lower.

The detailed breakdown of the components of reclassified operating income for 2018 shows a net interest income of 7,276 million euro, a slight decrease – in the presence of growth in average intermediated volumes – compared to the aggregate figure (around -2%) and a slight increase compared to the figure for 2017 (+0.2%).

Net fee and commission income (7,887 million euro) was also down slightly on the aggregate figure (around -2%) and up (+0.3%) on the figure for 2017, almost entirely attributable to the positive performance of the commercial banking segment.

Income from insurance business, which includes the cost and revenue captions of the insurance business of the Group's life and non-life companies, showed a significant increase (approximately +16% to 1.084 million euro).

[1] As indicated in the paragraph 4.1 – reclassified consolidated income statement, considering the particular case in question, no adjustments were made to the historic data in the reclassified income statement in order to retroactively reflect the effects of the acquisition. For the sole purpose of permitting a like-for-like comparison with performance in 2018, the figures for 2017 were reconstructed based on management records ("Aggregate data").

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The profits (losses) on financial assets and liabilities at fair value, which include the contribution from trading and hedging, reached 1,609 million euro, a significant increase (+25% on the aggregate figure and +22% on the figure for 2017).

As a result of the above performance, the operating income for the period amounted to 17,875 million euro, up 0.2% on the aggregate figure and 2.3% on the figure for 2017.

Operating costs (9,470 million euro), which are carefully monitored, were down compared to the aggregate figure (-3.6%), both for personnel expenses (-3.3%) and administrative expenses (-5.1%), but were up on the figure for 2017 (+2.5%), attributable to both components (+2.7% and +1.7%, respectively) in relation to the operations of the aggregate set. Amortization and depreciation were essentially stable compared to the aggregate figure (-0.1%) and up on the figure for 2017 (+3.9%).

As a result of the revenue and cost performance, the operating margin came to 8,405 million euro, up 4.8% on the aggregate figure and 2% on the figure for 2017.

Net adjustments to loans decreased overall to 2,394 million euro (around -28% compared to both the aggregate and the 2017 figures) due to lower adjustments to bad loans.

Net income includes, among others:

- for 2018, the gain of 443 million euro related to the finalization, in December, of the agreement with Intrum for the strategic partnership regarding the non-performing loans;
- for 2017, the above-mentioned public contribution of 3.5 billion euro and 811 million euro from the sale of the equity investment held in Allfunds Bank;
- for both years, charges aimed at maintaining the stability of the banking industry.

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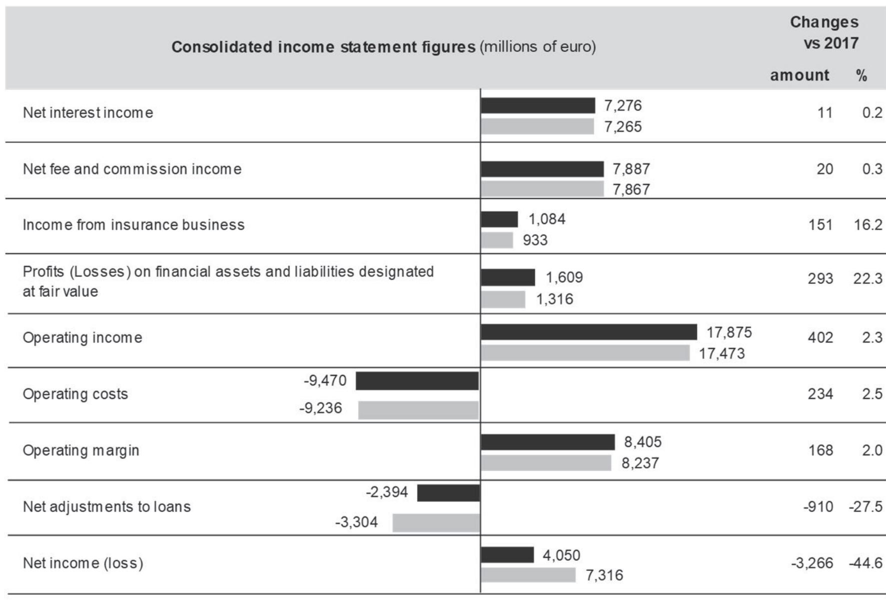
Income Statement figures and Alternative Performance Measures



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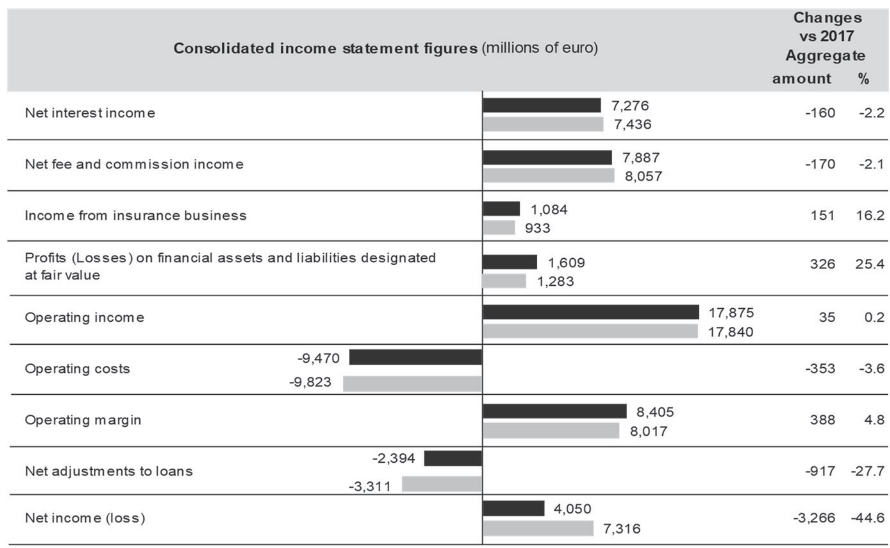
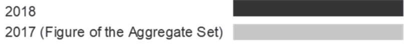


Consolidated income statement figures (millions of euro)	2018	2017 (Figure of the Aggregate Set)	Changes vs 2017 Aggregate amount	%
Net interest income	7,276	7,436	-160	-2.2
Net fee and commission income	7,887	8,057	-170	-2.1
Income from insurance business	1,084	933	151	16.2
Profits (Losses) on financial assets and liabilities designated at fair value	1,609	1,283	326	25.4
Operating income	17,875	17,840	35	0.2
Operating costs	-9,470	-9,823	-353	-3.6
Operating margin	8,405	8,017	388	4.8
Net adjustments to loans	-2,394	-3,311	-917	-27.7
Net income (loss)	4,050	7,316	-3,266	-44.6

Figures restated, where necessary and material, considering the changes in the scope of consolidation. Aggregate figures recalculated on the basis of management accounts to include the economic effects of the acquired Aggregate Set of Banca Popolare di Vicenza and Veneto Banca.



With regard to the balance sheet aggregates, loans to customers as at 31 December 2018 amounted to 393,550 million euro and were slightly down overall (-1.5%) on the like-for-like figure as at 1 January 2018 (which includes the effects of the first-time adoption of IFRS 9), essentially attributable to non-performing loans, also as a result of the sales of bad loans completed during the year.

On the funding side, direct deposits from banking business amounted to 415,082 million euro at the end of 2018, down slightly on 1 January 2018 (-2%) due to the decrease in funding through bonds and subordinated liabilities (around -9% and -20%, respectively) and in other forms of funding (around -16%), including certificates and commercial paper.

Direct deposits from insurance business, which include technical reserves, were slightly down overall compared to the beginning of the year (-2%), at 149,358 million euro.

The Group's indirect customer deposits as at 31 December 2018 amounted to approximately 496 billion euro, down (-4.8%) from the beginning of the year. In addition to a moderate decline in assets under

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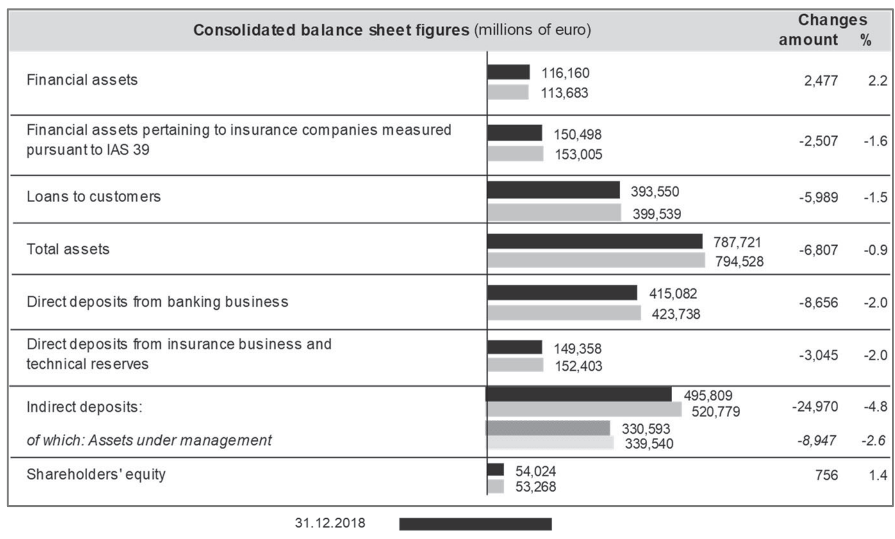
management (-2.6%), attributable to the lower value of the assets due to the negative performance of the markets, which exceeded the net placements made, the negative performance of this aggregate was driven above all by the decrease in assets under administration (-8.8%), which was also mainly attributable to the negative performance of the markets.

Balance Sheet figures and Alternative Performance Measures



Consolidated balance sheet figures (millions of euro)	31.12.2018	01.01.2018	**Changes amount**	**%**
Financial assets	116,160	113,683	2,477	2.2
Financial assets pertaining to insurance companies measured pursuant to IAS 39	150,498	153,005	-2,507	-1.6
Loans to customers	393,550	399,539	-5,989	-1.5
Total assets	787,721	794,528	-6,807	-0.9
Direct deposits from banking business	415,082	423,738	-8,656	-2.0
Direct deposits from insurance business and technical reserves	149,358	152,403	-3,045	-2.0
Indirect deposits:	495,809	520,779	-24,970	-4.8
of which: Assets under management	330,593	339,540	*-8,947*	*-2.6*
Shareholders' equity	54,024	53,268	756	1.4

7.3 Non-GAAP information: The approach adopted

In addition to the financial statements, Intesa Sanpaolo prepares reclassified financial statements with the aim of providing a more effective presentation of income statement and balance sheet aggregates.

Reclassified financial statements are included in the annual report, in the half-yearly report, and in the quarterly reports as at 31 March and 30 September, and present reclassification and different aggregate data with respect to income statements and balance sheets presented in the financial statements prepared in accordance with Bank of Italy instructions[2].

[2] Circular 262 of 22 December 2005, "Banks' financial statements: layout and preparation", contains the administrative provisions issued by the Bank of Italy pursuant to Article 9.1 of Legislative Decree 38/2005. These provisions govern, in conformity with IAS/IFRS, the formats of the financial statements of the Italian

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Reclassified financial statements always include comparative figures for other reporting periods/years and are accompanied by a clear description of the policies adopted in their preparation, along with a reconciliation of values with the book values stated in the balance sheet and income statement.

For the purposes of standardizing disclosure at the group level, all Italian banks in the Group preparing reclassified financial statements are required to use the reclassification and presentation criteria described in the next section for both their separate financial statements to the extent applicable.

In accordance with Consob Memorandum 6064293 of 28 July 2006, statements reconciling the financial statements and the reclassified financial statements (as illustrated below) must be included as appendices in annual and interim reports.

The margins of the reclassified income statement fall entirely within the bounds of the alternative performance indicators recommended by the ESMA guidelines published on October 5, 2015 (ESMA/2015/1415en)

In the following paragraphs are extracts of reclassified financial statements as shown in consolidated financial statements as at 31 December 2018, together with the additional information provided with reference to the main margins of income statement.

Intesa Sanpaolo believes that the reclassified financial statements and some other non-GAAP information (or Alternative Performance Measures – APMs) provide useful additional financial information that should be taken into account when evaluating performance. Some of these APMs – generally used in the financial sector – are also used in financial, operational and planning decisions within the entity. Intesa Sanpaolo believes that these APMs give a true and fair view of its financial information.

Also, these other APMs, indicated below, are presented in accordance with the aforementioned ESMA guidelines.

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banks (balance sheet, income statement, statement of comprehensive income, statement of changes in shareholders' equity and statement of cash flows), the notes to the financial statements and the report on operations that banks (on a solo basis) and banking groups (on a consolidated basis) are required to produce. Circular 262 contains the provisions governing, in conformity with IAS/IFRS, the formats of the financial statements (balance sheet, income statement, statement of comprehensive income, statement of changes in shareholders' equity and statement of cash flows), the notes to the financial statements and the report on operations that banks (on a solo basis) and banking groups (on a consolidated basis) are required to produce.

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7.4 Non-GAAP measures in Intesa Sanpaolo's financial reporting

In the present paragraph there is a description of the reclassified financial statements and other APMs included in Intesa Sanpaolo's annual report.

7.4.1 Reclassified consolidated income statement

A condensed reclassified consolidated income statement is prepared to give a more immediate understanding of results. To enable consistent comparison, the figures for previous periods are restated, where necessary, to account for changes in the scope of consolidation. The restated financial statements are obtained by making appropriate adjustments to historical data to reflect the significant effects of such changes retroactively. Any differences due to the possibility of choosing between different options provided for by IAS/IFRS or arising from the use of different methods or parameters to measure assets and liabilities are not considered as they are deemed irrelevant.

Set below is the reclassified income statement included in consolidated financial statements as at 31 December 2018.

It must be pointed out that the 2017 income statement includes the impact of the acquisition, with effect from the third quarter, of certain assets, liabilities and legal relationships of Banca Popolare di Vicenza and Veneto Banca and, with effect from the fourth quarter, of subsidiaries Banca Apulia, Banca Nuova, Veneto Banka (Croatia), Veneto Banka Sh.a (Albania), Sec Servizi and Servizi Bancari (hereinafter also the "Aggregate Set"). Considering the particular case in question, no adjustments were made to the historic data in the reclassified income statement in order to retroactively reflect the effects of the acquisition. For the sole purpose of permitting a like-for-like comparison with performance in 2018, the figures for the first three quarters of 2017 have also been reconstructed based on management records – since separate accounting records ceased to be kept in the fourth quarter of 2017 following the IT migration in early December 2017 of the former Banca Popolare di Vicenza and Veneto Banca accounts – to reflect retroactively the effects on the income statement of the assets and liabilities of the former Banca Popolare di Vicenza and Veneto Banca (the Aggregate Set). These figures are shown in specific columns of the reclassified income statement and the reclassified income statement on a quarterly basis ("Aggregate" figures).

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Reclassified income statement

(millions of euro)

	2018	2017	Changes vs 2017		2017 Aggregate	Changes vs 2017 Aggregate	
			Amount	%		Amount	%
Net interest income	7,276	7,265	11	0.2	7,436	-160	-2.2
Net fee and commission income	7,887	7,867	20	0.3	8,057	-170	-2.1
Income from insurance business	1,084	933	151	16.2	933	151	16.2
Profits (Losses) on financial assets and liabilities designated at fair value	1,609	1,316	293	22.3	1,283	326	25.4
Other operating income (expenses)	19	92	-73	-79.3	131	-112	-85.5
Operating income	**17,875**	**17,473**	**402**	**2.3**	**17,840**	**35**	**0.2**
Personnel expenses	-5,843	-5,687	156	2.7	-6,045	-202	-3.3
Other administrative expenses	-2,784	-2,738	46	1.7	-2,934	-150	-5.1
Adjustments to property, equipment and intangible assets	-843	-811	32	3.9	-844	-1	-0.1
Operating costs	**-9,470**	**-9,236**	**234**	**2.5**	**-9,823**	**-353**	**-3.6**
Operating margin	**8,405**	**8,237**	**168**	**2.0**	**8,017**	**388**	**4.8**
Net adjustments to loans	-2,394	-3,304	-910	-27.5	-3,311	-917	-27.7
Other net provisions and net impairment losses on other assets	-187	-217	-30	-13.8	-234	-47	-20.1
Other income (expenses)	524	4,746	-4,222	-89.0	4,746	-4,222	-89.0
Income (Loss) from discontinued operations	-	-	-	-	-	-	-
Gross income (loss)	**6,348**	**9,462**	**-3,114**	**-32.9**	**9,218**	**-2,870**	**-31.1**
Taxes on income	-1,659	-1,482	177	11.9	-1,481	178	12.0
Charges (net of tax) for integration and exit incentives	-120	-300	-180	-60.0	-300	-180	-60.0
Effect of purchase price allocation (net of tax)	-157	327	-484		327	-484	
Levies and other charges concerning the banking industry (net of tax)	-340	-649	-309	-47.6	-678	-338	-49.9
Impairment (net of tax) of goodwill and other intangible assets	-	-	-	-	-	-	-
Minority interests	-22	-42	-20	-47.6	230	-252	
Net income (loss)	**4,050**	**7,316**	**-3,266**	**-44.6**	**7,316**	**-3,266**	**-44.6**

Figures restated, where necessary and material, considering the changes in the scope of consolidation. Aggregate figures recalculated on the basis of management accounts to include the economic effects of the acquired Aggregate Set of Banca Popolare di Vicenza and Veneto Banca.

In more detail, with reference to the margins of the Intesa Sanpaolo's reclassified income statement above, the APMs are:

- **Operating income,** derived by the sum of the following captions of the reclassified income statement:
  - Net interest income;
  - Net fee and commissions income;

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  - Income from insurance business;
  - Profits (Losses) on financial assets and liabilities designated at fair value;
  - Other operating income (expenses).
- **Operating costs**, derived from the sum of the following captions of the reclassified income statement:
  - Personnel expenses;
  - Other administrative expenses;
  - Adjustments to property, equipment and intangible assets.
- **Operating margin**, derived from the difference between Operating income and Operating Costs.
- **Gross income (loss),** derived by adding/subtracting the following captions from Operating Margin:
  - Net adjustments to loans;
  - Other net provisions and net impairment losses on other assets;
  - Other income (expense);
  - Income (Loss) from discontinued operations.

In the context of **net income** (loss), the following are considered in addition to taxes on income:

- Charges for integration and exit incentives (net of tax);
- Effect of purchase price allocation (net of tax);
- Levies and other charges concerning the banking industry (net of tax);
- Impairment of goodwill and other intangible assets (net of tax);
- Minority interests.

Detailed breakdowns of restatements and reclassifications with respect to the layout established in Bank of Italy Circular 262 are provided in separate tables included in the attachments to the financial statements, as required by Consob in the aforementioned Memorandum 6064293 of 28 July 2006. In brief, the reclassifications of the consolidated income statement are as follows:

- **Dividends relating to shares or units in portfolio**, which have been reallocated to the item Profits (losses) on financial assets and liabilities designated at fair value;
- **Profits (losses) on financial assets and liabilities pertaining to insurance companies** (measured in accordance with IAS 39, by virtue of the Group's exercise of the option to defer application of

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IFRS 9), which include the shares of net interest income, Dividends and the income from financial assets and liabilities relating to insurance business, has been reclassified, along with net premiums and the balance of income and expenses from insurance business, to the specific item income from insurance business, to which the effect of the adjustment of the technical reserve has also been attributed, in respect of the component borne by the insured parties, relating to the impairment of the securities held in the portfolios of the Group's insurance companies;

- **Differentials on derivatives, classified to the trading book and contracted to hedge transactions in foreign currencies**, have been allocated among net interest income owing to the close correlation;
- Profits (losses) on trading, fair value adjustments in hedge accounting, profits (losses) on financial assets and liabilities measured at fair value through profit or loss, profits (losses) on disposal or repurchase of financial assets measured at fair value through other comprehensive income and on sale or repurchase of financial liabilities, which **have been reallocated to the single item Profits (losses) on financial assets and liabilities designated at fair value;**
- **The recoveries of expenses, taxes and duties have been subtracted from other administrative expenses**, instead of being included in other income;
- **Profits and losses on disposal or repurchase of financial assets measured at amortized cost (loans and debt securities), which have been allocated to net adjustments to loans**;
- **Net adjustments/recoveries for credit risk associated with financial assets measured at amortized cost and financial assets measured at fair value through other comprehensive income**, the effects on the income statement of the changes in contracts and the net provisions for risks and charges for credit risk relating to commitments and guarantees given, **attributed to the single item net adjustments to loans**;
- **The reversal in the time value of Employee termination indemnities and Allowances for risks and charges**, which **was included among net interest income**, as a phenomenon deriving directly from the application of the amortized cost criterion, in the absence of changes in projected future cash flows, in keeping with the treatment of the time value of financial assets measured at amortized cost;

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- **Net losses for credit risk associated with financial assets measured at amortized cost** other than loans and net impairment losses on equity investments, **as well as property and equipment and intangible assets** (including property and other assets resulting from the enforcement of guarantees or purchase at auction and intended for sale on the market in the near future), which **have been reclassified to other net provisions and net impairment losses on other assets**, which consequently include – in addition to the provisions for risks and charges – the valuation effects of the assets other than loans, with the sole exception of impairment losses on intangible assets that have been reclassified to impairment (net of tax) of goodwill and other intangible assets;
- **Realized profits (losses) on financial assets measured at amortized cost other than loans, on equity investments and on other investments have been reallocated to other income (expenses)**. Accordingly, in addition to the income and expenses not strictly related to operations, this caption represents the summary of the effects from the realization of assets other than loans;
- **Charges (net of tax) for integration and exit incentives**, which have been reclassified from Personnel expenses, other administrative expenses and, to a lesser extent, other captions of the income statement **to a separate caption**;
- **The effects of purchase price allocation, net of the tax effect, are indicated in a specific caption.** They represent adjustments to and any impairment losses on financial assets and liabilities and property, equipment and intangible assets which were measured at fair value as provided for by IFRS 3;
- **Levies and other charges aimed at maintaining the stability of the banking industry, which have been reclassified, after tax, to the specific caption**;
- **Goodwill impairment and impairment losses on other intangible assets, which – where present – are shown, as stated above, net of tax, in a specific caption amongst "non-current" income components.**

Below is an example of reconciliation between the income statement and reclassified income statement with reference to the interest margin compared with net interest income.

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(millions of euro)

Captions		2018 Restated	2017 Restated
Net interest income		7,276	7,265
Caption 30	Interest margin	7,342	6,705
- Caption 30 (partial)	Interest margin (Effect of purchase price allocation)	112	-10
+ Caption 80 (partial)	Components of profits (losses) on trading relating to net interest	-124	2
- Caption 30 (partial)	Charges related to the disposal of loans	19	-
+ Caption 130 a) (partial)	Net losses/recoveries on impairment of loans (Time value loans)	-	691
+ Caption 190 a) (partial)	Personnel expenses (Time value employee termination indemnities and other)	-27	-42
+ Caption 200 (partial)	Net provisions for risks and charges (Time value allowances for risks and charges)	-3	-
- Caption 30 (partial)	Intragroup transactions between Banks/Other companies and the Insurance Segment	-43	-81

7.4.2 Reclassified consolidated balance sheet

A condensed reclassified balance sheet is prepared to permit a more immediate understanding of the Group's assets and liabilities. Where necessary, comparative figures are restated to account for discontinued operations and changes in the scope of consolidation. In the reclassified balance sheet, certain aggregations and reclassifications are made relative to the template model provided in Circular 262/05 of the Bank of Italy.

The restated financial statements are obtained by making appropriate adjustments to historical data to reflect the significant effects of such changes retroactively. Any differences due to the possibility of choosing between different options provided for by IAS/IFRS or arising from the use of different methods or parameters to measure assets and liabilities are not considered as they are deemed irrelevant. Breakdowns of restatements, aggregations and reclassifications are provided in separate tables included in the attachments to the consolidated financial statements as required by the already indicated Consob Memorandum.

Set below is the reclassified balance sheet included in consolidated financial statements as at 31 December 2018. It must be pointed out that comparative figures are in this particular case from 1 January 2018 to include the effects of the first-time adoption of IFRS 9, permitting a comparison on a like-for-like basis. Full reconciliation with the figures as at 31 December 2017 published in the Annual Report 2017 are included in the specific chapter dedicated to the first-time adoption of IFRS 9 and also in the Attachment to the Financial statements.

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Reclassified balance sheet

(millions of euro)

Assets	31.12.2018	01.01.2018	Changes	
			amount	%
Due from banks	68,723	71,685	-2,962	-4.1
Loans to customers	393,550	399,539	*-5,989*	*-1.5*
Loans to customers measured at amortised cost	*392,945*	*399,152*	*-6,207*	*-1.6*
Loans to customers designated at fair value through other comprehensive income and through profit or loss	*605*	*387*	*218*	*56.3*
Financial assets measured at amortised cost which do not constitute loans	14,183	11,557	2,626	22.7
Financial assets at fair value through profit or loss	41,536	42,166	*-630*	*-1.5*
Financial assets at fair value through other comprehensive income	60,441	59,960	481	0.8
Financial assets pertaining to insurance companies measured at fair value pursuant to IAS 39	149,546	152,582	-3,036	-2.0
Financial assets pertaining to insurance companies measured at amortised cost pursuant	952	423	529	
Investments in associates and companies subject to joint control	943	678	265	39.1
Property, equipment and intangible assets	16,449	14,449	2,000	13.8
Tax assets	17,253	18,019	-766	-4.3
Non-current assets held for sale and discontinued operations	1,297	627	670	
Other assets	22,848	22,843	5	-
Total Assets	**787,721**	**794,528**	**-6,807**	**-0.9**

(millions of euro)

Liabilities	31.12.2018	01.01.2018	Changes	
			amount	%
Due to banks at amortised cost	107,815	99,992	7,823	7.8
Due to customers at amortised cost and securities issued	405,960	416,635	-10,675	-2.6
Financial liabilities held for trading	41,895	41,459	436	1.1
Financial liabilities designated at fair value	4	3	1	33.3
Financial liabilities pertaining to insurance companies measured at amortised cost pursuant to IAS 39	810	1,312	-502	-38.3
Financial liabilities pertaining to insurance companies measured at fair value pursuant to IAS 39	67,800	68,233	-433	-0.6
Tax liabilities	2,433	2,515	-82	-3.3
Liabilities associated with non-current assets held for sale and discontinued	258	264	-6	-2.3
Other liabilities	19,264	19,958	-694	-3.5
Technical reserves	80,797	82,926	-2,129	-2.6
Allowances for risks and charges	6,254	7,427	-1,173	-15.8
of which allowances for commitments and financial guarantees given	*510*	*535*	*-25*	*-4.7*
Share capital	9,085	8,732	353	4.0
Reserves	37,690	33,578	4,112	12.2
Valuation reserves	-913	-878	35	4.0
Valuation reserves pertaining to insurance companies	9	417	-408	-97.8
Equity instruments	4,103	4,103	-	-
Minority interests	407	536	-129	-24.1
Net income (loss)	4,050	7,316	-3,266	-44.6
Total liabilities and shareholders' equity	**787,721**	**794,528**	**-6,807**	**-0.9**

The amount of property and equipment and intangible assets for 2018 includes 975 million euro relating to concession rights, net of the financial component, connected with the motorway concession held by Autostrade Lombarde (through the subsidiary Brebemi), consolidated starting from 31 December 2018.
Figures restated, where necessary and material, considering the changes in the scope of consolidation and discontinued operations.

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As for the income statement, a detailed breakdown of reclassifications and aggregations made in accordance with respect to the layout established in Bank of Italy Circular 262 [3] is provided in separate tables included in the attachments to the financial statements. In brief, the reclassifications and aggregations of the consolidated balance sheet refer to:

- the inclusion of Cash and cash equivalents in the residual caption other assets;
- the separate presentation of financial assets constituting Due from banks and Loans to customers, regardless of the accounting portfolios to which they have been allocated;
- the separate presentation of financial assets not constituting loans, divided into financial assets measured at amortized cost, financial assets at fair value through profit or loss and financial assets at fair value through other comprehensive income, net of the amounts reclassified to Due from banks and Loans to customers;
- the separate presentation of financial assets and liabilities pertaining to the insurance business, measured in accordance with IAS 39, in application of the deferral approach, by the Group's insurance companies;
- the inclusion of Hedging derivatives and Fair value changes of financial assets/liabilities in hedged portfolios under other assets/liabilities;
- the inclusion of the technical insurance reserves reassured with third parties under other assets;
- the aggregation in one single caption of Property and equipment and Intangible assets;
- the separate presentation of Due to banks at amortized cost;
- the aggregation of Due to customers at amortized cost and Securities issued into one caption;
- the aggregation into one caption (Allowances for risks and charges) of allowances for specific purposes (Employee termination indemnities, Allowances for risks and charges, Allowances for commitments and financial guarantees given);
- the presentation of Reserves as an aggregate and net of any treasury shares.

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[3] See previous note 1.

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7.4.3 Other alternative performance indicators

In addition to reclassified income statement margins and aggregates used in the reclassified balance sheet, Intesa Sanpaolo used the following category of indicators.

Consolidated profitability ratios

- **Cost/income ratio –** The indicator is calculated comparing the operating costs (personnel expenses, administrative costs and adjustments to property, equipment and intangible assets) with the operating income in the reclassified income statement table.
- **ROE (Return on Equity) –** The indicator is calculated as the ratio between net profit and shareholders' equity. More specifically:
  - net income in the income statement is used for the numerator; only in exceptional cases can net profit be adjusted to consider non-recurring elements (for example, for Intesa Sanpaolo in 2017 profit was considered net of the 3.5 billion of state contributions received for acquisition of the Veneto banks). In interims, profit is the annualized net of any non-recurring components, identified case-by-case by management;
  - Shareholders' Equity: net equity considered is the end-of-period amount and does not take into account AT1 equity instruments and income for the period.
- **ROA (Return on Assets) –** The indicator is calculated comparing the net result to total assets. More specifically:
  - the net profit in the income statement used for the numerator; only in exceptional cases can net profit be adjusted to account for non-recurring elements (for example, in 2017 Intesa Sanpaolo's results were considered net of the 3.5 billion of state contributions received for the acquisition of the Veneto banks). In interims, profit is the annualized net of any non-recurring components.
  - for the denominator, total assets are those at the end of the period, conforming to the provisions of Art. 90 of Directive 2013/36/EU of the European Parliament and the European Council of 23 June 2013 (CRD IV)[4].

[4] Article 90 – *Public disclosure of return on assets: Institutions shall disclose in their annual report among the key indicators their return on assets, calculated as their net profit divided by their total balance sheet.*

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Consolidated profitability ratios (%)	2018	2017 (Income statement figures) / 31.12.2017 (Balance sheet figures)
Cost / Income	53.0	52.9
Net income / Shareholders' equity (ROE) (a)	8.8	7.9
Net income / Total assets (ROA) (b)	0.5	0.5

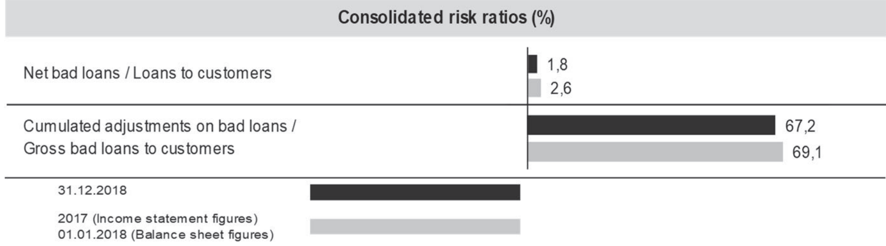
Figures restated, where necessary and material, considering the changes in the scope of consolidation and discontinued operations.

(a) Ratio of net income, less non-recurring components, to shareholders' equity at the end of the period. Shareholders' equity does not take account of AT 1capital instruments or the income for the period.

(b) Ratio of net income, less non-recurring components, to total assets.

Consolidated risk ratios

- **Net doubtful loans/Loans to customers –** The indicator compares doubtful/bad loans to the overall amount of loans to customers. The values are those in the reclassified balance sheet, that is, net of related accumulated adjustments.
- **Accumulated adjustments doubtful loans/Gross doubtful loans to customers –** The indicator compares the overall amount of accumulated adjustments to Loans to customers to the overall Loans to customers gross of accumulated adjustments.



Other Alternative Performance Indicators

- **Price/Book value –** The indicator that reflects the value attributed by the market to Intesa Sanpaolo and, therefore, indirectly to related assets, is calculated by comparing market capitalization to the shareholders' equity. The annual report and the half-yearly

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report publish the results based on the historic series of five periods, together with the calculation of values at the reporting date. More specifically:

- o the numerator applies the average capitalization for the reporting period/year. Average capitalization is calculated based on the average share price (annual arithmetic average of daily Borsaitaliana closing prices) multiplied by the weighted number of shares during the period/year;
- o in addition to the average capitalization, the end-of-period value is also published, used to calculate the price/book value on precise data. The accurate capitalization at end-of-period is calculated by multiplying the closing Borsaitaliana prices at the end of the period/year by the number of shares in existence at period/year end;
- o the denominator applies the Group's average shareholders' equity, calculated as half of equity at period beginning and end. In addition to average equity, the exact equity at period/year end is published to calculate the price/book value also in exact figures.

Price/book value

(millions of euro)

	31.12.2018	2018	2017	2016	2015	2014
Market capitalisation	33,965	44,947	44,820	37,152	51,903	38,096
Group's shareholders' equity	54,024	53,646	52,558	48,344	46,230	44,599
Price / book value	**0.63**	**0.84**	**0.85**	**0.77**	**1.12**	**0.85**

- **Pay-out ratio –** The indicator, published in the annual report, gives the ratio of the overall amount of profits produced to the quota of profits destined to the remuneration of stakeholders. More specifically:
- o the numerator applies the net income in the income statement, which is never adjusted for any non-recurring elements;
- o the denominator applies the sum of cash dividends proposed/decided to be distributed to stakeholders, including any amounts deriving from the distribution of available reserves.

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Pay-out ratio

(millions of euro)

	2018	2017	2016	2015	2014
Net income	4,050	7,316	3,111	2,739	1,251
Dividends (*)	3,449	3,419	2,999	2,361	1,185
Pay-out ratio	**85%**	**47%**	**96%**	**86%**	**95%**

(*) For 2017 and 2016, the amounts were partially assigned from reserves.

- **Dividend Yield –** The indicator, published in the annual report, measures the percentage return of the share valued at the market price in relation to the dividend. More specifically:
  - the numerator applies the amount of the proposed/deliberated unitary dividend;
  - the denominator applies the average share price, calculated as the annual arithmetic average of the daily Borsaitaliana closing price.

Dividend Yield

(in euro)

	2018	2017	2016	2015	2014
Ordinary share					
Dividend per share	0.197	0.203	0.178	0.140	0.070
Average stock price	2.567	2.678	2.220	3.109	2.288
Dividend yield	7.67%	7.58%	8.02%	4.50%	3.06%
Savings share					
Dividend per share	-	0.214	0.189	0.151	0.081
Average stock price	-	2.517	2.084	2.784	1.973
Dividend yield	-	8.50%	9.07%	5.42%	4.11%

7.5 Non-GAAP information: Responsibilities and internal controls

Intesa Sanpaolo's non-GAAP measures are determined by the company's departments (Consolidated and parent company financial reporting and other) according to the specific rules set in a dedicated Chapter of the Group Accounting Policies[5].

[5] The Group Accounting Policies represent the documentary framework of Intesa Sanpaolo Group for the definition and application of the accounting principles. The purpose of the document is to guide the work of administrative function, inform the Group's Corporate Governance Bodies, auditors and, where applicable, Supervisory Authorities, as well as to orient new staff or new entities to the Group, about the uniform application of international accounting standards.

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The processes and the controls over non-GAAP measures are the same ruling the financial statements and financial information and are therefore deemed to be adequate.

In particular, the “Guidelines on the disclosure of financial information to the market (financial statements and Pillar 3)” regulate, in compliance with reference laws and regulations (Par. 3, Art. 154-bis of the Consolidated Law on Finance), Intesa Sanpaolo's process for the preparation of the financial statements and any other interim accounting disclosures. The preparation of financial disclosures to the market, which is the object of the above-mentioned guidelines, falls among the processes subject to assessment pursuant to the “Guidelines for Administrative and Financial Governance” of Intesa Sanpaolo, as required by Art. 154-bis of the Consolidated Law on Finance, which has qualified by law the role of the manager responsible for preparing the company’s financial reports, assigning to this role specific responsibilities aimed at guaranteeing the presentation of a true and fair view of the information on balance sheet, income statement and financial position of the Group.

Financial disclosures are also subject to the provisions of the Organisational, Management and Control Model, adopted by the company pursuant to Legislative Decree No. 231 of 8 June 2001, since this is a sensitive area at risk of the so-called “corporate offences” with regard to false corporate reporting of listed companies, without prejudice to Civil Code provisions.

The main macro stages of the process of preparation and governance of accounting and financial data to be disclosed to the market are indicated below. The strictly operational aspects, the reference schedules, the contributing structures for the individual pieces of information, and the controls carried out are described in more detail in a specific document (Process Guideline).

The macro stages of the process regarding the financial disclosures, Pillar 3 Disclosures and Disclosures to the market, are the following:

1. Identification of the information to be disclosed;
2. Production, certification and consolidation of quantitative information;
3. Production of qualitative information;
4. Collection of quali-quantitative information and drafting of the disclosure;
5. Control of the Disclosure and approval by the Corporate Bodies;
6. Publication of the Disclosure.

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