

Reporting Non-GAAP Financial Measures

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

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

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.

PART I –

**NON-GAAP FINANCIAL MEASURES:
A THEORETICAL FRAMEWORK**

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 – APMs¹) 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

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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’.

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:

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

- 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

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.

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.

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
<i>Adjusted "organic" revenues</i>	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
<i>Gross profit</i>	intermediate measure equals total sales revenue minus the cost of goods sold (COGS)
<i>Profit from operations</i>	intermediate measure equals profit before income/expense from investments, finance income/expense and income tax
<i>EBIT</i>	intermediate measure derived from the net income but excludes taxes, financial income, financial expenses and the results from investments
<i>EBIT adjusted</i>	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
<i>Return on capital employed</i>	the ratio of underlying operating profit less taxation divided by average capital employed
<i>EBITDA</i>	equal to the EBIT, and excludes the amortization of intangible and depreciation of tangible assets
<i>EBITDA adjusted</i>	equal to the EBIT and excludes the amortization of intangible and depreciation of tangible assets as well as non-recurring and restructuring expenses
<i>EBITDA adjusted without start-up costs</i>	equal to the EBITDA adjusted but excludes the contribution of the start-up costs
<i>EBITDAR</i>	a variation of EBITDA whereby rent/restructuring costs are excluded
<i>EBITDARM</i>	a variation of EBITDA whereby both rent/restructuring costs and management fees are excluded
<i>Net income (loss) related to continuing operations adjusted</i>	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

	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
<i>Adjusted EPS</i>	adjusted profit after tax divided by the weighted average diluted numbers of shares
<i>Fixed charge cover</i>	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
<i>Net working capital</i>	non-interest-bearing current assets net of cash and cash equivalents less non-interest-bearing current liabilities
<i>Like-for-like working capital to sales</i>	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
<i>Net financial (liquidity)/debt position</i>	represented by the gross financial debt less cash and cash equivalents as well as financial receivables
<i>Net industrial (cash)/debt</i>	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
<i>Funds from operations</i>	cash flow generated (used) by operations, net of the component represented by changes in the working capital
<i>Industrial free cash flows</i>	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
<i>Free operating cash flows</i>	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

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.

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

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.

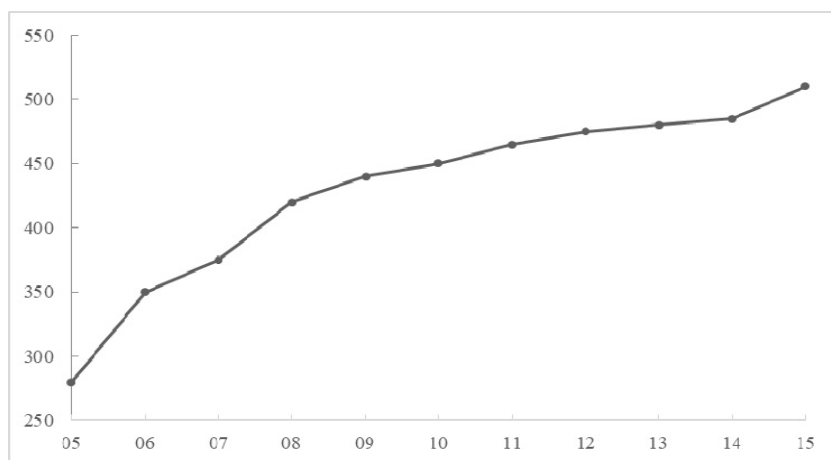
⁷ Audit Analytics, *Long-Term Trends in Non-GAAP Disclosures: A Three-Year*

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.

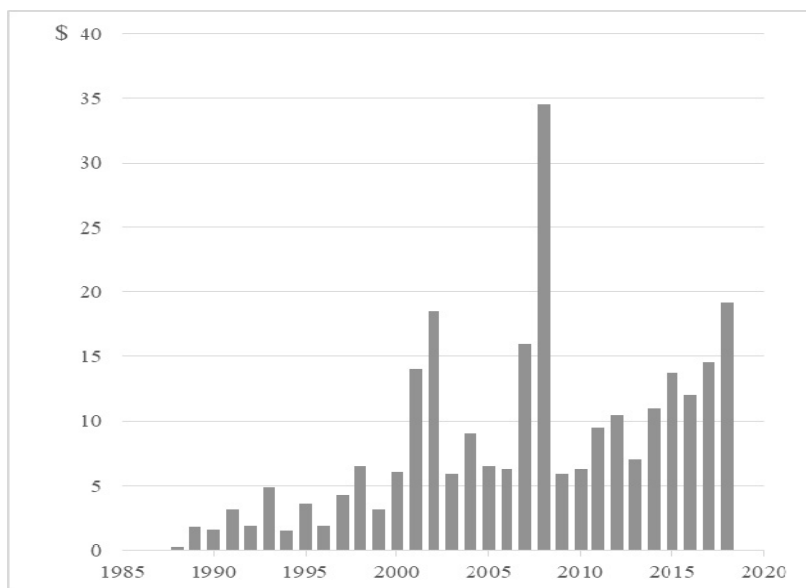
Figure 2: Line items added back by NASDAQ 100 (2005-2015)

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).

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

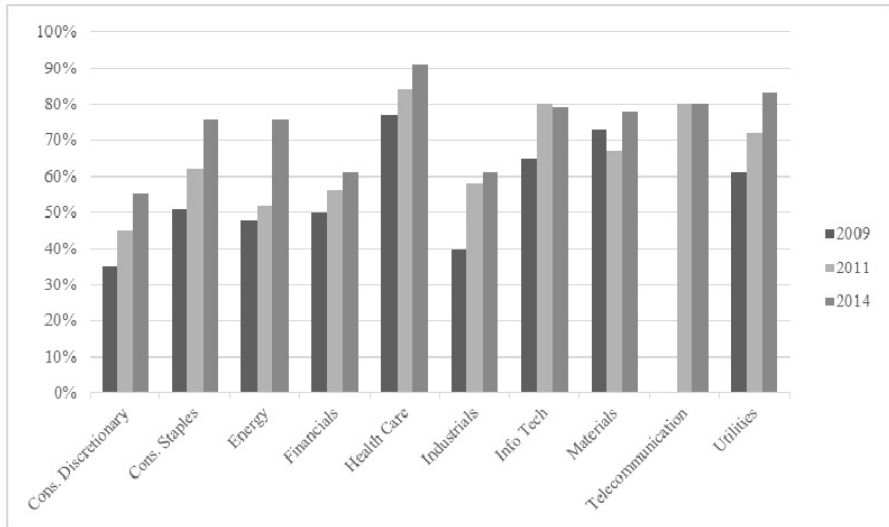


Source: S&P Dow Jones Indices for S&P 500 companies

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

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.

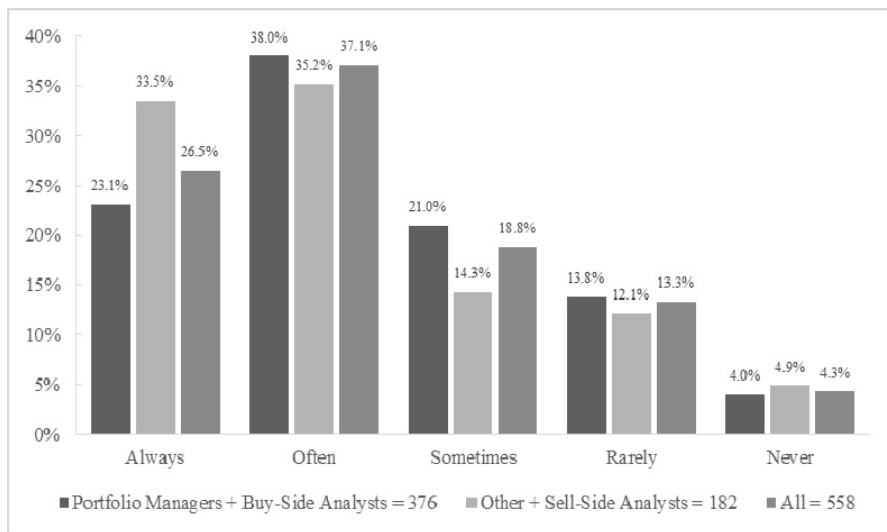
Likewise, as regards the use of non-GAAP indicators, Entwistle et al. (2005) observed a widespread use of alternative performance indicators in financial documents for the 2001 fiscal year, highlighting the use of non-GAAP indicators in 77% of the companies included in the US S&P 500 index. At the same 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.

(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).

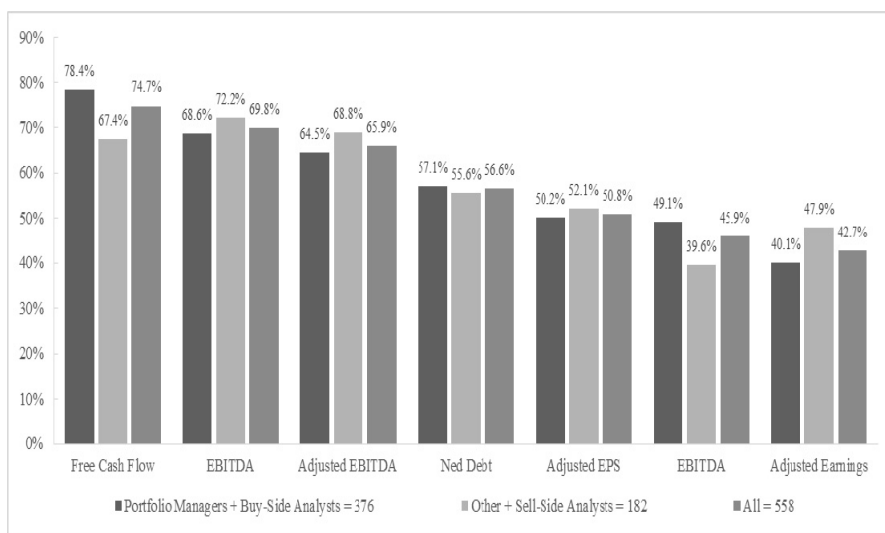
Figure 5: Percentage of financial analysts using non-GAAP metrics



Source: CFA Institute, 2016.

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.

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)
Adjustments:					
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

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