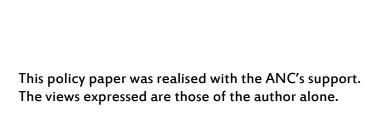# POLICY PAPER

Using pro forma to predict future cash-flows:

The impact of income statement presentation

Thomas Jeanjean (ESSEC Business School)
Isabelle Martinez (LGCO)
Grégoire Davrinche (Toulouse University)

Thomas Jeanjean, Isabelle Martinez, Grégoire Davrinche

What do we study?

In this paper, we test whether the usefulness of non-IFRS earnings reported in press releases depends on other sources of information available to investors to asses "core earnings". More precisely, we investigate if the ability of non-IFRS earnings to predict future cash-flows varies with the level of income statement aggregation.

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Introduction: in search for "core earnings"

The objective of financial statements is to provide information about the firm's performance that is useful to investors in making decisions. In this respect, net income is a key measure as it is audited and is intended to be a comparable measure of performance. However, from the point of view of sophisticated investors and financial analysts, net income suffers from a number of shortcomings: "*A bigger problem with GAAP is its emphasis on producing a single number, net income, that is supposed to be useful to the company, as well as its investors and creditors. But sophisticated investors don't care about reported net income. They want to know its components—or, specifically, to be able to distinguish operating items (sales to customers less the costs of those sales) from non-operating items (interest income or interest expense). They also want to know which items are likely to be recurring and which are likely to be nonrecurring (that is, restructuring charges). Finally, they want to know which items are real and which, like the amortization of intangibles, are merely accounting concepts*" (Mc Kinsey 2013)[1]. In other words, investors are more interesting in "recurring" or "core" earnings rather than in net income.

To provide such information, managers can use, at least, two means: income statement disaggregation and voluntary disclosure outside financial statements.

Income statement disaggregation

Concerning the first tool, standard setters require a presentation of total earnings for profit or loss (such as net income), subtotal or intermediate earnings (such as Ebitda - Earnings before interest, taxes, depreciation and amortization, and operating income) when relevant for the performance assessment (IAS 1:85). With this respect, firms may choose the format (by nature or by function) of income statement presentation (IAS 1: 99). A multiple step or disaggregated income statement gives intermediate earnings before the net income figure. According to the French accounting standards setter (ANC 2013) and the French Society of Financial Analysts (SFAF)[2], financial analysts express a strong preference for income statements presented by nature. In contrast, a single step income statement (generally prepared by function) is not disaggregated and net income is given by difference between the sum of revenues and gains and the sum of expenses and losses. The ANC (2013) recommends that a company choosing an income statement by function, shall disclose additional information on the nature of expenses, including depreciation and amortization expense and employee benefits expense.

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[1]http://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/building-a-better-income-statement

[2] www.focusifrs.com/content/.../IMA.20150929_SFAF-normalisation-comptable.pdf

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Non-GAAP information

Beyond the income statement presentation, management could also decide to disclose non-compliant or non-IFRS earnings, outside financial statements. Non-GAAP or non-IFRS earnings are created by companies to portray "core earnings". The most common adjustments made by managers remove from net income the effects of non-operating and/or non-recurring transactions (Ciesielski 2015). As noted by the CFA Institute (2017), a multitude of labels exists to refer to non-compliant earnings: non-GAAP or non-IFRS earnings, adjusted earnings, recurring earnings, cash earnings, street earnings and *Pro forma* earnings[3]. More broadly speaking, the terminology of "alternative performance measures" (noted APMs) is also used by the stock market authorities to define "*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)[4]. In this paper we refer to *Pro forma* earnings[5] to qualify adjusted earnings voluntarily disclosed by managers in press releases.

Recent research documents a proliferation of non-GAAP or non-IFRS earnings (for example Bentley 2016 or Black *et al.* 2016 in the US; Clinch *et al.* 2017 in an international perspective[6]). As a consequence, international standard setters and securities regulators have expressed concerns. Because these measures are not subject to any formal standard, they have been criticized for their lack of rigor and transparency. *Pro forma* disclosure also raises questions about management's motivations for this kind of disclosure (CFA Institute 2017). In addition, lack of consistency in comparability across firms and time is key weakness of non-IFRS disclosure. Consistent with these critics, the IASB has launched the revision of IAS 1 by releasing an Exposure-Draft (ED 2014/1) on the Disclosure Initiative proposed amendments to IAS 1 (IASB 2014) in order to reduce the proliferation of non-IFRS measures. However, despite this new IASB position concerning non-IFRS reporting, certain accounting standards contribute to the widespread use of non-IFRS measures. For instance, IFRS 8 on segment reporting encourages the provision of information "*through the eyes of management*", that may not be compliant with IFRS-based information.

Several initiatives have been launched to improve the usefulness of non-GAAP or non-IFRS earnings. For example the CESR (2005) recommends: respect the IFRS-principles for financial statements for all types of financial information; definition of APMs used; explanation of the differences between APMs and IFRS measures (reconciliation of figures); provision of comparative period information; indication of whether the APMs are audited.

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[3] Barth et al. (2012) distinguish between "Street earnings" (adjusted by analysts) and "*Pro forma* earnings" (adjusted by management).

[4] ESMA: European Securities and Markets Authority.

[5] The term "*Pro forma*" is also used in another way. From a standard setting perspective, changes in scope, accounting policy and/or accounting framework and error correction give rise to *Pro forma* information or to retrospective restatement of past data depending on their nature and the applicable accounting framework.

[6] The study conducted by Clinch *et al.* (2017) covers eight countries: Australia, France, Germany, Hong Kong, Italy, Singapore, Sweden and the UK. In 2013, the countries with the highest levels of APMs disclosure are the UK and France. In contrast, Hong Kong and Singapore are the countries with the lowest levels of APMs disclosure.

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Further, the IFAC[7] issued an exposure draft in 2014 in order to establish "*a benchmark for good practice for developing and reporting supplementary financial measures*". In 2016, the IOSCO[8] has also published recommendations references ("*Statement on Non-GAAP financial measures*") on the use of APMs by entities worldwide. It provides a global frame of references and states that local jurisdictions should develop and implement their own local requirements for the presentation of non-compliant earnings. For example, in Europe, the guidance entitled "*Guidelines on Alternative Performance Measures*" (ESMA 2015) contains detailed requirements on how APMs should be accompanied by sufficient information to be correctly used by investors. In France, two recommendations (DOC-2015-12 and DOC-2016-09) have been issued by the French Market Authority (or AMF).

The academic perspective on non-GAAP earnings

Academic research is generally inconclusive about the usefulness of *Pro forma* measures. On the one hand, *Pro forma* earnings provide private information to investors and help them to make an investment-decision. In other words, adjusted measures may have a signaling role. Under this perspective managers assist financial statements users in identifying the recurring and the non-recurring elements of performance to be included (or discarded) from the IFRS net income. Consequently, adjusted earnings implicitly reveal private information and, therefore, inform investors on the 'core earnings'. For example, Bradshaw and Sloan (2002), Brown and Sivakumar (2003), Battacharya *et al.* (2003), Johnson and Schwartz (2005), Marques (2006), Cormier *et al.* (2011), Venter *et al.* (2014), Black *et al.* (2016) and Bradshaw *et al.* (2016) conclude that non-GAAP or non-IFRS earnings are more relevant than net income for assessing firms' performance. However, Clinch *et al.* (2017) find that many adjustments items made by firms to IFRS earnings have no information content to predict earnings.

On the other hand, non-GAAP earnings are subject to management discretion and may mislead investors. This strand of literature argues that management "opportunistically" reports earnings (or strategically adjusts earnings) to highlight a better view of performance. For example, according to Doyle *et al.* (2003), Bhattacharya *et al.* (2004), Marques (2006), Choi *et al.* (2007), Isidro and Marques (2013), investors can be misled by non-GAAP or non-IFRS disclosure. Recently, Guillamon-Saorin *et al.* (2017) study the market's reaction to non-GAAP earnings disclosures that are combined with a desire to positively influence investors' perception (such a strategy is called "impression management"). They find that even if managers attempt to distort users' perception, sophisticated investors are able to penalize *Pro forma* earnings disclosed with the intent to alter their perception.

Black *et al.* (2016) point at methodological biases to explain such inconsistencies between these two streams of papers. Many of the early studies investigate the usefulness of GAAP *versus* non-GAAP earnings by examining whether earnings surprises garner a higher investor response. However, the GAAP earnings surprise is measured with error as the non-GAAP forecast is mainly used as the GAAP expectation. Consequently, main previous results have been biased showing evidence that investors prefer non-GAAP earnings.

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[7] IFAC: International Federation of Accountants
[8] IOSCO: International Organization of Securities Commissions

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Our thesis: income statement aggregation and non-IFRS disclosure interact

This research investigates the predictive ability of *Pro forma* earnings taking into account the income statement presentation (or the level of earnings disaggregation) chosen by French listed firms. Our objective is twofold. First, we study whether *Pro forma* earnings are more informative about future cash-flows than IFRS earnings. Second, we investigate whether or not the relative predictive ability of *Pro forma* earnings depends on the income statement presentation. According to the FASB and the IASB, the level of aggregation in current financial statements impairs financial statement users' ability to predict firms' future cash flows and to compare investment opportunities across firms. Consistent with this point of view, we expect that the usefulness of *Pro forma* earnings to predict future cash-flows should be higher for firms providing aggregated income statements than for firms providing disaggregated income statements with subtotal earnings.

Our evidence

Our empirical investigation is based on a sample of French listed firms over the period 2007-2015. The initial sample is composed by firms listed on the French Cac all tradable index (formerly known as SBF 250). Bank and financial institution were excluded as their income statement format is regulated and specific. We collected IFRS earnings from the *Infinancials* database. *Pro forma* earnings are hand collected from press releases extracted from *Factiva* database. Other variables are collected from "*Thomson Reuters Eikon*" database. Finally, after excluding data for which IFRS net income is missing, the final sample comprises 2,728 firm-year observations from 2007 to 2015. A proportion of 16% of the total sample (456 firm-year observations) discloses *Pro forma* earnings. We find that the proportion of firms disclosing non-GAAP earnings continuously increased from 9% in 2006 to 23% in 2015. We also find considerable variation across industries: whereas only 9% of the firms belonging to the "Oil and gas" sector disclose non-IFRS earnings, this proportion increases 35% in the construction sector. On average, non-IFRS earnings are 10% higher than net income. We also find evidence that non-IFRS earnings are less volatile over time than net income: non-IFRS earnings vary less over time than IFRS net income.

We implement a research design similar to Doyle et al. (2003) to assess the usefulness of non-GAAP earnings. Appendix 1 details our research design choices. Consistent with IASB conceptual framework, our methodology is based on the intuition that the more an earnings number (either IFRS net income or non-IFRS earnings) are associated with future cash-flows, the more they are useful.

Our results show that *Pro forma* earnings are useful to predict future operating cash-flows. Adjustments voluntarily made by managers to IFRS net income (i.e.: the difference between non-IFRS earnings and net income) give additional information to investors to assess financial performance but to a lesser extent than net income.

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In detail, 1€ of net income in a given year translates into 0,78€ of operating cash-flow (resp. 1,52€ and 2,20€) the following year (resp. over 2 and 3 years). By contrast 1€ of adjustments proposed by managers translates into only 0,10€ (resp. 0,24€ and 0,46€) of future cash-flows in the next year (resp. over 2 and 3 years). In other words, 100€ of net income in one year help investors to predict that operating cash-flows will be 78€. By contrast 100€ of *Pro forma* adjustments will just translate into 10€ of operating cash-flows in one year after.

However, *Pro forma* earnings have additional information content over IFRS net income *only when firms adopt a single step income statement*. More precisely, when firms use a multiple step income statement, the adjustments proposed by managers are not significantly associated with future cash-flows. In other words, when managers commit to provide additional items or subtotal earnings through a disaggregated income statement, *Pro forma* measures are considered not useful by users.

Our contributions

Our study contributes to the non-GAAP literature. It investigates the predictive ability of non-IFRS earnings by taking into account the presentation (aggregated or not) of income statements. The European context, and more specifically the French setting, is interesting as firms have the choice to provide an income statement by nature or by function with a varying level of detail (even if the recommendation by the ANC is to present a detailed income statement with sub-totals). It gives us a unique setting to investigate whether this choice impacts the relative usefulness of *Pro forma* earnings.

Finally, our study contributes to the debate on financial performance reporting. Such evidence is likely to be of interest both to regulators and practitioners. Since 2010, the FASB and the IASB jointly expressed concerns about the level of aggregation in financial statements and they have begun a joint project on *Financial Statement Presentation* (also known as *the Income Statement Project*) with the aim of increasing the level of disaggregation in financial statements to improve the usefulness of the information provided (IASB 2010). In 2013, the consulting firm Mc Kinsey echoed similar concerns and voiced the necessity to distinguish between operating items and non-operating items[9]. Our evidence highlights the usefulness of a multiple step income statements, showing subtotal earnings such as operating income. Our results are consistent with prior findings that disaggregation of information reduces information asymmetry and benefits to investors (e.g. Venter et al. 2013; Libby and Brown 2013; Anderson 2015).

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[9] http://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/building-a-better-income-statement

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Appendix 1: our research methodology

We implement a two-stage research design approach. In the first step, we investigate if non-IFRS earnings have additional information content (compared to IFRS net income) to predict future cash-flows. Consistent with Doyle *et al.* (2003), we use the association with future cash-flows and estimate the relation between future cash-flows, IFRS net income, and the difference between *Pro forma* earnings and IFRS net income (equation 1).

$$CFO_{t+x} = \alpha_1 IFRS\ net\ income + \alpha_2 Difference\ between\ Pro\ forma\ and\ IFRS$$
$$+ \alpha_3 Accruals_t + \alpha_4 Growth_t + \varepsilon_t$$

[Equation 1]

The dependent variable is the sum of future operating cash-flows over one, two or three years after the alternative measure of performance is announced (CFO_{t+x} is the sum of Future Cash-Flow from Operations over *x* years ahead from the current period with *x* =1, 2 or 3). We control for *Accruals*, as Dechow (1994), Dechow *et al.* (1998), and Barth *et al.* (2001) show that current period accruals predict future cash-flows. We also control for *Growth* (sales growth in percentage from last year sales) because growth firms have lower future cash-flows due to increases in working capital and long-term capital investments. All variables are scaled by lagged total assets and are trimmed at the 1% and 99% levels to limit the influence of outliers.

Estimating equation (1) in a pooled regression poses a serious econometric problem, because observations occur each year while the dependent variable aggregates over as many as 3 years. Consequently, the dependent variable has considerable overlap between observations. To control for this problem we estimate equation (1) separately for each year and report the mean of the resulting coefficient estimates. We then compute a t-statistic based on the yearly estimates (i.e., a Fama-MacBeth t-statistic), multiplying the traditional standard error by the Newey-West adjustment in order to account for the possible serial correlation in the yearly estimates.

Under this initial procedure, a significant α_2 can be interpreted in at least two different ways. A first interpretation is that non-GAAP adjustments (i.e.: the difference between Pro forma and net income) increases the ability of to predict future cash-flows. A second possibility is that the significance of α_2 is due to self-selection. We will cover in detail this possibility in the next paragraph.

There are two relevant benchmarks for the coefficient on *Difference between Pro forma and Net income* in Equation (1). If the excluded expenses are completely irrelevant, non-recurring elements have no cash consequences, and then α_2 should be zero. An alternative benchmark is the coefficient α_1 on *Net income*. If *Net income* is value relevant, we would expect α_1 to be much larger in absolute value than α_2. Further, since all variables are scaled by total assets per share, the coefficients in Equation (1) can be interpreted as the future cash-flow implications of a euro change in the unscaled independent variable.

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In the second step, we test the impact of income statement presentation on the usefulness of non-IFRS earnings. More precisely, we now partition our sample based on the format of the income statement (multiple income statement vs single step income statement). We estimate the following equation:

$$CFO_{t+x} = \alpha_1 IFRS\ net\ income\ if\ multiple\ step\ IS$$
$$+ \alpha_2 Difference\ between\ Pro\ forma\ and\ IFRS\ if\ multiple\ step\ IS$$
$$+ \alpha_3 IFRS\ net\ income\ if\ single\ step\ IS$$
$$+ \alpha_4 Difference\ between\ Pro\ forma\ and\ IFRS\ if\ single\ step\ IS$$
$$+ \alpha_5 Accruals_t + \alpha_6 Growth_t + \varepsilon_t$$

[Equation 2]

α_1 (resp. α_3) captures the association between future operating cash-flows and net income if the net income is reported in a multiple step (resp. single step) income statement. *A priori*, we do not expect that the association between net income and future cash-flow to be influenced by income statement disaggregation: therefore, α_1 and α_3 should be similar in terms of magnitude.

The coefficient α_3 (resp. α_4) captures the association between pro forma adjustments and futures cash-flows if a disaggregated (resp. single step) income statement if reported. If pro forma information is useful, then coefficients α_3 and α_4 should be significant and positive under the "signaling" perspective (negative under the "opportunistic" perspective). Our prediction is that income statement aggregation and *pro forma* disclosure are substitute. If correct then α_4 should be of higher magnitude than α_3. If α_3 and α_4 are similar in magnitude, it would imply that income statement disaggregation does not matter.

Factors associated with the disclosure of a *Pro forma* measure could be also associated with future cash-flows, creating a self-selection issue. Thus we control for this problem by using two different approaches. First, we estimate a logistic model for non-IFRS disclosure in which the dependent variable is the likelihood to disclose or not non-IFRS earnings and we add a bias correction variable in the form of the Inverse Mills ratio to the regression [1]. We also implement a propensity score matching procedure. Both approaches do not change the conclusions of our study.

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