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**Professional investors and  
the decision usefulness of financial reporting**



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and EFRAG (European Financial Reporting Advisory Group)

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In 2013 ICAS and EFRAG published a literature review *The use of information by capital providers*. This review was commissioned to provide independent evidence for the IASB's standard setting process, in particular for the revision of the Conceptual Framework. This work was undertaken by an exceptional team of international academics, and we were pleased that they were given the opportunity to present the findings of their review to the IASB members in early 2014.

The review highlighted the need for more research, particularly for new empirical research to investigate what information capital providers use, where and how this information is obtained and what additional information capital providers would like to have. EFRAG and ICAS therefore commissioned the same research team to undertake a large scale investor interview based study to address the following research questions:

- Does investors' information acquisition objective, valuation or stewardship, affect the assessed relevance of financial accounting information?
- Does the use of accounting information in compensation contracts affect investors' assessments of the representational faithfulness of financial accounting information?
- Do professional investors assess information presented in the income statement and statement of financial position to be equally relevant and faithfully represented for the purposes of valuation and stewardship?
- Does professional investors' decision objective influence the importance of financial reporting information relative to other information sources?
- Do professional investors' assessments of corporate governance mechanisms influence their judgements of the usefulness of financial reporting information and, if so, how?

This report presents the key findings of the research team's empirical investigation into these questions. The evidence is based on both quantitative and qualitative data obtained from a series of 81 face-to-face interviews with professional investors based in 16 countries. In order to solicit investors' assessments of decision usefulness, the interviews were structured around a short fictional case containing abridged financial statement information on a large private European manufacturing firm that holds a significant portion of financial investments.

The evidence of the research suggests that participants whose objective was to value the firm consistently assessed financial accounting information to be more relevant than participants whose objective was to assess the performance of the management. Subsequent analyses show that the latter result is potentially explained by professional investors viewing overall corporate governance, and not single aspects of corporate governance, as the key determinant of faithful representation. The findings indicate that investors view income statement line items as more relevant than statement of financial position line items, especially if their assigned information objective is to assess managerial performance.

The evidence strongly indicates that financial accounting information – regardless of its shortcomings – is seen as a key input factor to professional investors' decision-making. This finding is even more pronounced when professional investors were asked to assess the performance of management. The evidence also strongly confirms that accounting is not used in isolation, as professional investors place significant weight on alternative information sources. These alternative information sources include qualitative and quantitative non-financial information about the firm and its management, information about the industry and competitors, information about product markets, and, to a lesser extent, information about corporate governance and the general macro-economic situation. This information originates both from the firm's management and information intermediaries such as financial analysts and rating agencies.



Importantly, the research indicates that professional investors view the corporate governance of a firm as a (or even the) key determinant of the representational faithfulness of financial accounting data. Corporate governance comprises a complex, rich set of mechanisms that guarantee that the firm is managed in the best interest of its owners and includes elements such as ownership structure, auditing quality or board functioning and composition. Therefore, as corporate governance is generally beyond the control of financial accounting standard setters, that might be understood as a call for the standard setters to focus on the relevance of financial accounting information.

The findings of this study have important implications for various groups, including standard setters, academics, users and businesses as preparers of financial reporting information. The results may be relevant for standard setting in general and the current *Conceptual Framework for Financial Reporting* debate, in particular, in three main areas:

- First, the research finds that the information objective of financial statement users clearly matters for the design of financial accounting standards. When investors have the objective of assessing managerial performance, they focus on information reflecting managerial effort and tend to discard information that may be relevant for the value of a firm but is beyond the control of current management, such as valuation gains and losses on financial instruments or changes in pension liabilities due to macro-economic changes. This implies that standard setters need to make explicit statements about potentially conflicting information objectives. One size does not fit all and differing objectives appear to require different measurement approaches.
- Second, professional investors are strongly anchored on the income statement when making both valuation and stewardship decisions. They have strong reservations about the representational faithfulness of bottom line figures being negatively affected by managerial estimates and judgments triggered by re-valuations that relate to balance sheet line items.
- Third, the finding that professional investors view the corporate governance of a firm as highly influential over the representational faithfulness of financial reporting data needs to be borne in mind when designing standards to ensure that each complements the other.

It is pleasing that so many users who are involved in the user outreach activities of EFRAG and ICAS volunteered to be interviewed by the research team, and thereby have made an essential and valuable contribution to this research.

This independent academic research was supported by ICAS and EFRAG. Both bodies consider the findings as highly valuable input for their understanding of financial reporting users' needs. In addition, ICAS and EFRAG hope that the report will assist the IASB in its finalisation of the Conceptual Framework and more generally in the future evolution of IFRS.

Allister Wilson  
Convener of ICAS Research Committee  
March 2016

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EFRAG TEG Chairman  
March 2016

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### Study objectives and background

A recent review of the academic literature for ICAS and EFRAG (Cascino *et al.*, 2013) concluded that there are two main roles for financial reporting. The first is to provide information for estimating the future cash flows associated with both debt and equity capital, often referred to as the valuation role. The second is the stewardship role, where financial reporting information is used in the preservation of investors' capital and in the control and incentivisation of managers. The downgrading of stewardship as a primary objective in the joint 2010 International Accounting Standards Board (IASB) and Financial Accounting Standards Board (FASB) *Conceptual Framework for Financial Reporting* generated significant debate and disquiet in the professional, regulatory and academic accounting communities. Despite the significance of this debate, the 2013 ICAS and EFRAG sponsored review of the literature showed that there is a lack of direct empirical evidence on the stewardship role and whether it requires information with different properties to that required for estimating future cash flows. This report aims to address this gap by providing empirical evidence on professional investors' assessments of the usefulness of financial reporting information for both valuation and stewardship decisions. Evidence-based research on the decision usefulness of financial reporting information is particularly timely, given the current developments of the IASB *Conceptual Framework for Financial Reporting*.

The literature acknowledges that in many cases, setting valuation objectives for financial reporting results in information that is useful for stewardship decisions. For instance, investment value is of primary concern to capital providers and will also form an important part of managerial performance assessments. However, theoretical studies also show that the two objectives sometimes require information with different properties. This is particularly the case where information on future cash flows is relevant for valuation irrespective of whether it reflects the effort of managers, whereas a stewardship objective typically sees information reflecting events outside managers' control as irrelevant. Indeed, one of the arguments against share prices being included in managerial performance arrangements is that they are influenced by factors outside management control, such as macro-economic changes. Moreover, share prices contain significant forward looking information and are therefore influenced by expectations of future outcomes, not just realisations of actual outcomes. Because it can be more informative of managers' actions than share prices, financial reporting information is often used in executive compensation arrangements in an attempt to align the interests of shareholders and managers. However, these arrangements may threaten the neutrality of financial reporting information because those responsible for preparing the information are being rewarded on the basis of what they report. Managers therefore have incentives to produce information that serves their interests rather than faithfully informs investors about the firm's financial position and performance. In short, prior literature indicates that a stewardship objective prioritises financial reporting data that are informative about managerial performance and requires more verifiable information with enhanced credibility from independent certification by auditors. What remains unclear, however, is the extent to which the use of financial reporting information for incentivising management affects assessments of its decision usefulness, particularly its representational faithfulness.

Prior research comparing stewardship and valuation objectives often assumes that financial reporting systems are only capable of producing one 'signal' to investors. This is unrealistic because investors are presented with multiple measures of financial performance and financial position in the various financial statements companies prepare. The current mixed measurement model for financial reporting produces information across (and within) different financial statements with different properties (such as the level of managerial judgement involved and the degree of verifiability). Furthermore, an assessment of the decision usefulness of financial reporting for different objectives needs to recognise that investors have a range of information sources at their disposal, both within and outside the financial reporting system.



The literature also indicates that companies' corporate governance mechanisms can strongly influence the properties of financial reporting information. Mechanisms such as the external audit and having an independent board of directors have evolved over time to complement (and/or substitute for) financial reporting information. Hence, even where compensation arrangements may lead to incentives to produce financial reporting information that is not faithfully representative, professional investors may assess preparers' corporate governance characteristics to be sufficiently robust to guard against biased reporting.

## Research questions

This study addresses the following questions:

- Does investors' information acquisition objective, valuation or stewardship, affect the assessed relevance of financial accounting information?
- Does the use of accounting information in compensation contracts affect investors' assessments of the representational faithfulness of financial accounting information?
- Do professional investors assess information presented in the income statement and statement of financial position to be equally relevant and faithfully represented for the purposes of valuation and stewardship?
- Does professional investors' decision objective influence the importance of financial reporting information relative to other information sources?
- Do professional investors' assessments of corporate governance mechanisms influence their judgements of the usefulness of financial reporting information and, if so, how?


## Summary of research approach

In order to investigate these issues, a large international face-to-face interview study of 81 professional investors was conducted. Participants were provided with a short case study including summary financial reporting and corporate governance information on a fictional private (i.e., unlisted) European manufacturing company. They were then asked to provide numerical assessments of the usefulness of financial reporting (and other) information for their decision making and to explain their choices.

Participants were given the same case study but were randomly assigned to one of four 'conditions'. Specifically, half of the sample was given an objective of valuing the firm (the valuation objective), whereas the other half was asked to assess managerial performance (the stewardship objective). The sample was also randomly split in half according to whether managerial compensation in the case was awarded based on either accounting or non-accounting data. Hence, each investor was randomly assigned to the same case study under one of the following four conditions:

- (i) valuation objective with managerial compensation linked to non-accounting data
- (ii) stewardship objective with managerial compensation linked to non-accounting data
- (iii) valuation objective with managerial compensation linked to accounting data
- (iv) stewardship objective with managerial compensation linked to accounting data.





Providing investors with an identical case under these four different conditions should ensure that observed differences between their responses are attributable only to differences in the objectives of the information (i.e., valuation or stewardship) and/or whether or not accounting data are used for determining executive compensation.

The research design allowed for the collection of both quantitative and qualitative data. Quantitative data were collected through the use of 'Likert' scales where investors were asked on a scale of 1 to 7 whether they strongly agreed or strongly disagreed with statements about the relevance and representational faithfulness of various line items in the summary financial statements and about the case company's corporate governance. Qualitative data were collected when participants were prompted to discuss the rationales for their quantitative choices. Demographic data (e.g., on interviewees' occupation, experience and accounting qualifications) were also obtained in order to control for any possible effects on their responses. Finally, participants were asked for their views of alternative sources to financial reporting information.

## Findings

The results indicate that objectives do matter. Professional investors whose objective was to value the company assessed financial accounting information to be more relevant than those assessing the performance of management. This result pertains to financial reporting information overall and for individual line items in the financial statements. In contrast, the existence of accounting-based managerial compensation arrangements had no significant effect on professional investors' assessments of the representational faithfulness of financial reporting information.

In line with prior research, the study finds that professional investors view information in the income statement as more relevant than balance sheet line items, especially where investors' objective is to assess the performance of management. The qualitative analysis suggests that, regardless of their objective, investors are concerned with discretion and managerial judgement for certain balance sheet line items (such as fair values) and, consequently, information in the income statement as well (such as changes in fair values).

Turning to the alternative information sources that professional investors use, in line with prior studies and despite the major changes to the information environment in recent years, professional investors view financial reporting information as a primary input to their decisions, even though they are aware of its shortcomings. This judgement is even more pronounced when their objective is to assess managerial performance and where there are relatively fewer alternative information sources available. Alternative information sources are sometimes obtained directly from the firm and from third-party sources. Such sources include qualitative and quantitative non-financial information about the firm and its management, information about the industry and competitors, information about product markets, and, to a lesser degree, information about corporate governance and the general macro-economic environment.

Both qualitative and quantitative results from the study indicate that professional investors' assessments of corporate governance mechanisms significantly affect how they view financial reporting information. In particular, investors seem aware of the risks to representational faithfulness posed by linking managerial compensation to accounting data (e.g., that it may amplify preparers' tendencies to manage earnings), yet they are less concerned about these risks when they judge overall corporate governance mechanisms to be sound.


## Implications of findings and recommendations

The findings of this study have important implications for various groups, including standard setters, academics, users and preparers of financial reporting information. Results may be relevant for standard setting in general and the current *Conceptual Framework for Financial Reporting* debate, in particular, in three main areas. First, the research finds that the information objective of financial statement users clearly matters for the design of financial accounting standards. As is predicted by theory, when investors have the objective of assessing managerial performance, they focus on information reflecting managerial effort and tend to discard information that may be relevant for the value of a firm but is beyond the control of current management. Examples include valuation gains and losses on financial instruments or changes in pension liabilities that may be due to macro-economic changes. This implies that standard setters need to make explicit statements about potentially conflicting information objectives. One size does not fit all and differing objectives appear to require different measurement approaches.

Balancing these competing objectives of financial reporting, it seems relevant that professional investors require financial accounting information relatively more than other sources of information when they are assigned a stewardship objective. This indicates that financial accounting information may have a competitive advantage over other information sources when professional investors are assessing stewardship and that there are fewer alternatives to choose from for stewardship purposes. The properties of information used for stewardship, such as high levels of verifiability and informativeness about management effort therefore need promotion and protection.

Second, confirming the results of prior literature, professional investors are strongly anchored on the income statement when making both valuation and stewardship decisions. They have strong reservations about the representational faithfulness of bottom line figures being negatively affected by managerial estimates and judgements triggered by re-valuations that relate to balance sheet line items. This leads to increased reliance on non-GAAP measures (such as EBITDA), which in turn raises concerns about a lack of standardisation and comparability and supports a call for the development of a standardised set of performance measures to suit differing objectives.

Finally, the finding that professional investors view the corporate governance of a firm as highly influential over the representational faithfulness of financial reporting data needs to be borne in mind when designing standards to ensure that governance and financial reporting are complementary. For instance, different recognition and measurement rules have different governance 'costs' to ensure faithful representation: historical cost measures are comparatively easy to test for completeness and neutrality, whereas pension liabilities and level three fair value measurements (i.e. 'mark-to-model', where market prices cannot be obtained) of financial instruments may require a more complex and costly corporate governance regime to ensure that they are faithfully represented. Given that standard setters cater to a wide array of divergent preparers, from small and mid-sized private entities to global listed conglomerates, it seems reasonable to consider the potential requirements for corporate governance and enforcement when evaluating the desirability of potential accounting standards and concepts. Therefore, it might well be appropriate to cater to different firm types when developing standards.



In providing direct empirical evidence that different objectives of financial reporting affect professional investors' assessments of relevance and faithful representation, the study also contributes to the academic literature. It confirms theoretical research results that users consider the influence managers have over different types of information when making stewardship decisions. In particular, investors are aware that the changes in the accounting values of some items are beyond the control of management and they do not regard it as appropriate to reward or penalise managers on the basis of this information. The study also indicates that while accounting data are regarded as highly relevant in valuation, the lack of superior alternatives for assessing and compensating management makes accounting information particularly important to investors in making stewardship decisions. This latter finding is worthy of further research.

Finally, the study has important implications for preparers of financial reporting information. The findings suggest that providers of capital are well aware that managerial compensation can, *inter alia*, create incentives for earnings management; however, strong overall mechanisms of corporate governance – particularly audit – can ameliorate such concerns, meaning that investment in high quality governance may well pay.

## INTRODUCTION

A 2013 review of the academic literature (Cascino *et al.*, 2013) for ICAS and EFRAG concluded that financial reporting is generally regarded as performing two main roles. The first can be described as a valuation or pricing role, where financial reporting is used in predicting future cash flows, typically to arrive at an estimate of the fundamental value of the firm or its debt and/or equity securities (Beyer *et al.*, 2010). The second, usually labelled the stewardship or contracting role, is one involving control and accountability, where accounting information is employed in firms' contracts, monitoring and governance processes, often with a view to preserving capital and influencing future cash flows (e.g., Bushman and Smith, 2001; Lambert, 2001; 2010; Lennard, 2007). This typically takes place as part of assessments of managerial performance and accounting-based compensation arrangements.

In relegating the stewardship objective for financial reporting in their joint 2010 *Conceptual Framework for Financial Reporting*, the IASB and FASB reignited one of the most fundamental and enduring debates in accounting (see Murphy *et al.*, 2013 for a discussion). The 2015 Exposure Draft of the IASB's *Conceptual Framework for Financial Reporting* (Conceptual Framework Exposure Draft) devotes more attention to stewardship, though it is still not separately defined and remains a subset of a broader 'decision usefulness' objective. The decision usefulness objective is where information is designed to be useful for investment decisions, though these decisions are characterised as depending in part upon stewardship assessments. While some constituencies have been persuaded that a single decision usefulness objective for accounting can, at least to a reasonable extent, form the basis of a common set of standards that will satisfy most users of financial reporting information, others have argued that removing an emphasis on stewardship may have widespread economic implications (e.g., Kothari *et al.*, 2010).

The Conceptual Framework Exposure Draft deliberations have also drawn attention to the relative importance of the statement of financial position (or balance sheet) as compared with the income statement.<sup>1</sup> The IASB emphasises the former via the elementary primacy given to assets and liabilities over income and expenses.<sup>2</sup> An increased focus on the balance sheet has resulted in heightened concerns over the increased use of fair values and changes in reported performance measures, in particular whether comprehensive income is prioritised over profit or loss as the primary measure of performance (e.g., Thinggaard *et al.*, 2006; Dichev, 2008; Whittington, 2008a).

The aim of this study is to provide empirical evidence to help inform these important debates. It first investigates whether professional investors' assessments of financial accounting information are shaped by their use of the information to value the firm or to assess the performance of management. While there are many areas where the two objectives overlap, prior research points to areas where each may require information with different properties to the other (Lambert, 1993; 2001; Armstrong *et al.*, 2010). This research is discussed in more detail below.

According to the 2010 *Conceptual Framework for Financial Reporting*, relevance (information's capability to influence users' decisions) and faithful representation (information that is complete, neutral and free from errors) are the two fundamental qualities that make information decision useful. In addition to examining how investors judge both the relevance and representational faithfulness of financial reporting information overall, this study examines assessments of various financial statement line items, together with alternative sources of information. Finally, it investigates investors' assessments of the extent to which companies' corporate governance mechanisms reduce perceived limitations of accounting data.



The study involves a large-scale international face-to-face survey of professional investors, centred on a fictional case study designed to draw out patterns of information usage under valuation and stewardship conditions. The focus on professional investors reflects their importance both as major providers of capital and as target users of financial reporting information (Cascino *et al.*, 2013). The research uses both quantitative and qualitative data from the interview survey to address the following questions:

- Does investors' information acquisition objective, valuation or stewardship, affect the assessed relevance of financial accounting information?
- Does the use of accounting information in compensation contracts affect investors' assessments of the representational faithfulness of financial accounting information?
- Do professional investors assess information presented in the income statement and statement of financial position to be equally relevant and faithfully represented for the purposes of valuation and stewardship?
- Does professional investors' decision objective influence the importance of financial reporting information relative to other information sources?
- Do professional investors' assessments of corporate governance mechanisms influence their judgements of the usefulness of financial reporting information and, if so, how?

The next chapter of the report briefly outlines some of the academic literature on the relative importance of the valuation and stewardship objectives of financial reporting, the use of accounting and non-accounting information sources by professional investors and the importance of corporate governance. Chapter 3 presents the research design and methodology, followed by the results in Chapter 4. Finally, the report concludes with a summary and a discussion of the implications of the findings for accounting standard setters, preparers and academic researchers.

### BACKGROUND AND PRIOR LITERATURE

It is widely accepted in the academic literature that despite its inherent limitations, financial reporting is among the most influential sources of information used by capital providers. There is also recognition that the ways in which accounting information is used often varies by type of investor and sometimes for different decisions by the same type of investor (e.g., Holthausen and Watts, 2001; Armstrong *et al.*, 2010; Cascino *et al.*, 2013; 2014). Despite this theoretical literature, it remains unclear the extent to which investors in day-to-day situations demand information with different properties and, in particular, whether information designed for valuation and estimating future cash flows will, necessarily, be useful for informing stewardship decisions. While a wealth of evidence identifies cases where information needs differ, some studies point to a strong positive relationship between valuation and stewardship measures of accounting usefulness (e.g., Bushman *et al.*, 2006). The following sections outline and discuss in more depth some of the prior literature on these issues.

#### The use of financial reporting information in valuation

Given that valuation (sometimes referred to as ‘decision usefulness’)<sup>3</sup> is seen as the dominant role of contemporary financial reporting (e.g., Zeff, 2013), it is unsurprising that financial statements have consistently been found to be very useful to professional investors when valuing a firm and its securities. This finding prevails across time and countries, regardless of investor type and the research methodology used (see Cascino *et al.*, 2013; 2014 for a review). Even where investors do not use audited financial accounting data directly, they will often do so indirectly – for instance via sell-side analysts’ research (e.g., Brown *et al.*, 2014) or through data aggregators, such as Bloomberg, Thomson Reuters and others.

In general, accounting information represents one of the primary inputs into investors’ valuation models, whose purpose is to arrive at an estimate of the fundamental value of the firm and/or its securities. Such models typically require predictions of future earnings, book values and/or cash flows and despite its lack of timeliness and historical focus, accounting information usually forms the basis of such forecasts. However, research points to changes over time and to variation by firm type, with multi-period intrinsic models (such as those based on discounted cash flows) being more widely used in more recent years and in industries where accounting information (particularly the balance sheet) may not capture a large share of the firm’s operating activities, such as pharmaceuticals and technology firms (Demirakos *et al.*, 2004; Imam *et al.*, 2008).<sup>4</sup>

Despite the increased focus on the statement of financial position in standard setting, professional investors continue to rely more on earnings-based models, such as the price/earnings, EV/EBITDA and PEG multiples (e.g., Barker, 1999; Imam *et al.*, 2008; Brown *et al.*, 2014).<sup>5</sup> This suggests that investors (outside the financial services industry at least) are more focused on the income statement than on the statement of financial position; however, the extent to which particular accounting figures are used appears to depend not just on the industry of the company, but also on the measurement basis used to prepare the financial statements and the particular performance measure used. The limited available evidence shows that investors consider fair value to be more useful than historical cost for certain types of assets (especially for liquid and non-operating assets), though mark-to-model (i.e., level three) fair value measurement is viewed as significantly less useful (Gassen and Schwedler, 2010). Plantin *et al.* (2009) find that mark-to-market fair value measurement (i.e., where market prices can be obtained) can also be problematic in some cases, particularly for long-lived, illiquid and senior assets.





The focus of investors on the income statement is also dependent on the properties of the performance measure used. It is generally accepted that professional investors prefer profit measures that are ‘persistent’ or ‘recurring’ as this enhances the predictive value of the information (e.g., Kormendi and Lipe, 1987; Callen, 2009). On the other hand, the theoretical literature on earning-based models emphasises the need for income measures to conform to the clean surplus relation (e.g., Peasnell, 1982; Ohlson, 1995), where apart from transactions with owners, all balance sheet changes are captured in the income statement. This is known as ‘full articulation’ and is fulfilled by comprehensive or all-inclusive income.


Despite the conceptual appeal of comprehensive income, it is not as relevant as net income to professional investors because they prefer earnings measures which capture recurring performance and regard transitory items as uninformative (Thinggaard *et al.*, 2006; Rees and Shane, 2012).<sup>6</sup> Prior research also suggests that investors sometimes prefer non-GAAP to GAAP performance measures because they are seen to be more closely associated with cash flows (e.g., Barton *et al.*, 2010).

### The use of financial reporting information in stewardship

Early theoretical research posited that a stewardship demand for accounting generally manifests itself in information with properties different from that needed for valuation decisions. Information for stewardship prioritises objectivity and verifiability and should be informative about the actions and effort of management, which are typically unobservable by investors (e.g., Gjesdal, 1981; Kothari *et al.*, 2010). Information for valuation, on the other hand, is concerned with the amount, timing and uncertainty of future cash flows, regardless of whether or not these cash flows are attributable to managerial actions (Lambert, 2010; Beyer *et al.*, 2010).

Ijiri (1975) introduced the concept of ‘hardness’ of information. The property of hardness of a measure is where its construction leaves little scope for disagreement. ‘Soft’ measures, by contrast, are difficult to verify and can be easily ‘pushed’ in different directions. Recent theoretical research by Şabac and Tian (2015) finds that while soft information can be effective for stewardship (i.e., managerial performance evaluation), this information must be accompanied by (and correlated with) hard information. The latter can then be used to confirm the former. In such settings, therefore, it is typically seen as the role of more verifiable accounting information to provide confirmatory value and to augment the usefulness of softer, but potentially more timely and forward-looking sources, such as managerial forecasts (Gigler and Hemmer, 1998).

Many of the arguments in favour of a separate stewardship objective are driven by recognition of the differences in information between managers and investors and there is an acknowledgement that these differences can be exploited where preparers of information have incentives to do so (e.g., O’Connell, 2007). Such incentives may arise from the use of accounting data in contracts designed to control managerial actions and limit agency problems (e.g., Watts and Zimmerman, 1986). The two most common types are executive compensation contracts, where managers are rewarded on the basis of accounting (usually earnings) data (e.g., Bushman and Smith, 2001) and in debt contracts, where control of the firms’ assets can shift from borrowers to lenders depending on accounting ratios used in covenants (e.g., Holthausen and Watts, 2001; Armstrong *et al.*, 2010).



Accounting information is argued to be preferable to share prices in incentivising managers on the grounds that it is less likely to reward or penalise managers for events that are outside their control, such as macro-economic changes (e.g., Lambert, 1993). On the other hand, linking managers' wealth directly to accounting numbers that they themselves are responsible for preparing creates incentives for managers to prepare financial reports that influence bonuses, rather than faithfully represent the firms' performance and/or position (e.g., Healy, 1985).<sup>7</sup>

### Objectives and the properties of financial reporting information

While a demand for useful accounting information may arise from both stewardship and valuation decisions, different characteristics may be emphasised under each objective. In particular, relevance is often argued to be a dominant characteristic for the estimation of future cash flows, whereas representational faithfulness and/or reliability are argued to be more important for stewardship (e.g., Bauer *et al.*, 2014).<sup>8</sup>


To illustrate how this may manifest itself in different financial reporting information, consider two types of assets: property plant and equipment (PP&E) and financial assets valued according to a 'mark-to-model' approach (e.g., level 3 fair values).

Although PP&E may be valued using a revaluation approach, preparers do not usually exercise the option to use fair value (e.g., Cairns *et al.*, 2011), so it is typically measured at historical cost less accumulated depreciation. This often results in asset values that are based on transactions that took place several years before the balance sheet date (net of depreciation), making them less relevant for estimating future cash flows. On the other hand, such values are based on observed transaction prices, which are more easily verifiable by independent parties (particularly auditors).

In comparison, financial assets measured on a mark-to-model basis may produce more relevant information, since they are valued according to the present value of future cash flows (or some variant thereof) of the specific financial instrument. However, managers are responsible for determining the values of the model inputs, namely the estimated cash flows and discount rates, and these are ultimately unobservable. While managers may have the best information on these inputs, they may also have incentives to produce estimates which best serve their interests. The sensitivity of fair values to changes in assumptions is well-known, which makes them harder to verify and thus prone to errors or opportunistic managerial biases (e.g., Holthausen and Watts, 2001; Kothari *et al.*, 2010; Demerjian, 2011). There is therefore a risk that managers may abuse the discretion involved in the valuation of such assets and liabilities and prepare information that suits their own interests (such as higher compensation), but is less faithfully representative. Similar criticisms have been aimed at accounting for goodwill impairment using a fair value approach (Ramanna and Watts, 2011).

Under a mixed-measurement approach, therefore, the extent to which financial reporting information is regarded as relevant or representationally faithful potentially depends not just on whether the decision is a stewardship assessment or valuation, but also on which line items are being evaluated.

It is sometimes argued that stewardship implies a demand for historical cost information over current values, on the grounds that it is more verifiable and is based on actual, rather than predicted, data (e.g., Whittington, 2008b). For instance, Dutta and Zhang (2002) report that mark-to-market accounting is based on anticipated, rather than realised, performance.<sup>9</sup> Recent research by Anderson *et al.* (2015), however, challenges this



view using evidence from an experimental study. They find that fair value accounting can be more useful than historical cost because it enables investors to more accurately attribute responsibility for company performance to managers rather than to external events. However, the experimental setting in Anderson *et al.* (2015) constructs fair values with no inherent errors or bias, thus abstracting away from the limitations of fair values and does not clearly distinguish the stewardship decision from a valuation one (Emett and Nelson, 2015). Furthermore, Anderson *et al.* (2015) use MBA students, rather than actual professional investors, in their experiment.

Much of the existing empirical evidence on the stewardship role of accounting typically involves secondary data to test the strength of association between firm performance measures (particularly earnings) and executive compensation, sometimes referred to as ‘pay-performance sensitivity’. Significant associations have been found, indicating that accounting information does indeed have a stewardship role in evaluating and incentivising managers (e.g., Lambert and Larcker, 1987; Sloan, 1993; Core *et al.*, 2003); however, this finding varies across firms and such research is often subject to several technical limitations (Bushman and Smith, 2001). Interestingly, Ozkan *et al.* (2012) find that the introduction of IFRS increased the stewardship value of accounting (measured as pay-performance sensitivity) in Europe, though the overall effect is weak.

### The importance of corporate governance

A large body of academic literature views financial reporting information as being inextricably connected to companies’ corporate governance structures and processes. Armstrong *et al.* (2010) conduct a thorough review of this literature and report that while the evidence is not completely conclusive, several corporate governance mechanisms significantly influence the quality of financial reporting information,<sup>10</sup> including board structure and independence, the quality of the firm’s auditor and audit committee, ownership structure and the level of investor activity.

Armstrong *et al.* (2010) note that it is often difficult to identify the direction and nature of the relationship from statistical associations. Take for instance the case of auditor quality. Observed differences in the usefulness of accounting between firms with ‘high’ and ‘low’ quality audit (however measured) may be attributable to differences in capabilities or in the amount of effort expended by auditors, but may also be due to firms with a commitment to higher financial reporting quality choosing to spend more on audit. Similarly, while an active and concentrated ownership structure can reduce the manipulation of accounting data due to improved monitoring (Katz, 2009), other studies find a negative association between active ownership and accounting quality, suggesting that high quality corporate governance and high quality financial reporting are substitutes for one another (Bushman *et al.*, 2004).

Nevertheless, research that examines the direction of causality finds that better governed firms tend to have higher quality financial reporting (García Lara *et al.*, 2009).

Overall, what this research highlights is that it can be difficult to completely isolate financial reporting information from firms’ governance structures because the two are closely linked. This emphasises the need to properly control for governance effects in assessments of the usefulness of financial reporting information because a failure to do so risks attributing views about the quality of companies’ financial reporting to their governance.



## Summary

The existing literature demonstrates theoretically that valuation and stewardship decisions sometimes require the same types of information, but under some conditions, the two objectives are expected to place different demands on financial reporting. In particular, valuation decisions generally prioritise the relevance of information for estimating future cash flows, whereas stewardship tends to require more verifiable information that captures managerial effort. When financial accounting information is being used in contracts that incentivise managers, investors are expected to put more emphasis on faithful representation. Moreover, companies' corporate governance arrangements are assumed to ameliorate some of the problems associated with managerial bias. The next chapter of the report sets out the research methods employed in this study to test these expectations and describes the sample of professional investors who participated in the interviews.

## RESEARCH METHODS AND SAMPLE

### Introduction

To address the research questions set out in Chapter 1, a large sample of professional investors was interviewed. The interviews were structured around a simple case, where participants were asked to assume the role of one of the owners of a large European private manufacturing company. After reading the case, participants evaluated the usefulness of eight financial statement items (described below) as well as the usefulness of alternative information sources. The professional investors were given the same case study but were randomly assigned to one of four 'conditions.' These conditions were created by combining two different objectives of information acquisition (i.e., valuation or stewardship) and two different compensation-based incentives.<sup>11</sup>

At the beginning of the case, half of the participants were told that their objective was to 'assess the value of the firm', (valuation objective), whilst the other half were asked to 'assess the performance of the management for the current year' (stewardship objective). The case itself contained a summary balance sheet, annual income statement, and an outline of relevant IFRS accounting policies, as well as key points on areas where management may have exercised judgement in measuring and recognising financial statements items. Exhibit 1 provides the details of the case.<sup>12</sup>

#### Exhibit 1: Case study extract – Financial information

##### Financial information

Summary Balance Sheet (€ m)		Annual Income Statement (€ m)	
Cash	208	Revenue	2,185
Receivables	212	Cost of sales	(1,382)
Inventory	105	Other expenses	(416)
Financial investments	634	Investment income	148
Plant and equipment	416	EBITDA	535
Goodwill	443	Depreciation and amortization	(114)
Other intangible assets	432	Goodwill impairment	(58)
<b>Total assets</b>	<b>2,450</b>	EBIT	363
Trade payables	216	Interest expenses	(80)
Pension liabilities	435	Taxes	(123)
Long term debt	628	<b>Net income</b>	<b>160</b>
Equity	1,171		
<b>Total liabilities and equity</b>	<b>2,450</b>		

## Exhibit 1 (cont'd): Case study extract – Financial information

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### Accounting policy information

The financial statements are prepared using IFRS. The firm uses a historical cost basis except that financial instruments are measured at fair value and certain other assets and liabilities are included on an alternative basis – most significantly, pension liabilities.

#### *Summary of selected accounting policies*

Plant and equipment and other intangible assets are measured at cost. The value of goodwill is tested for impairment on an annual basis. Financial investments are measured at fair value, with changes in fair value directly reflected in net income. Pension liabilities are the net of the present value of defined benefit plan obligations and external plan assets.

#### *Key areas of judgement and estimation uncertainty*

The key areas of estimation uncertainty and of judgement required in applying the firm's accounting policies are:

- The firm holds a number of minority investments in firms that are not listed on public equity markets. These investments are measured at fair value, requiring the use of managerial estimates.
- The firm has significant intangible assets. Judgement is required to decide whether intangible assets should be recognised and in determining goodwill and intangible asset impairments.
- The accounting valuation of the pension liability is based on assumptions determined with independent actuarial advice and is assessed annually.

It is important to stress that all participants received the same information with respect to accounting numbers and policies, firm ownership and corporate governance. The case was intentionally kept simple, and contained no obvious 'red flags'. This decreased the likelihood that concerns about any specific line item detracted attention away from the case and the main task at hand.

The participants were also informed that the company was owned by a small group of closely cooperating professional institutional investors that monitor the management. The case company was also audited by a leading audit firm and its corporate governance was of a high standard. This was described as being of similar quality to that required of a publicly listed firm of the same size and assessed to be of a high standard by an independent agency (see Exhibit 2 for details). This information was introduced to help focus participants' attention on accounting issues, rather than on potential problems associated with the governance of the firm.



## Exhibit 2: Case study extract – Auditing and corporate governance information

### Auditing and corporate governance information

The firm is audited by a leading audit firm. The corporate governance is of a high standard and comfortably passes a quality level that would be required from a publicly-listed firm of the same size. In fact, the CGFA Institute, a well-reputed independent group that evaluates corporate governance and makes this information available to current and future investors, has rated the firm as an industry leader in corporate governance quality, assessing the quality of the firm corporate governance as seen below.

*Independent assessment of the firm's corporate governance quality*

1	2	3	4	5	6	7	8	9	10
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1 = Lowest standard

10 = Highest standard

At the end of the case, and within the ownership and compensation structure information, the participants were randomly split for a second time. (Recall that they had already been split by randomly assigning them to two different objectives). Half of the participants were told that the firm relied on non-accounting (i.e., internal) data for managerial incentivisation. Specifically, this half of the sample was informed that:

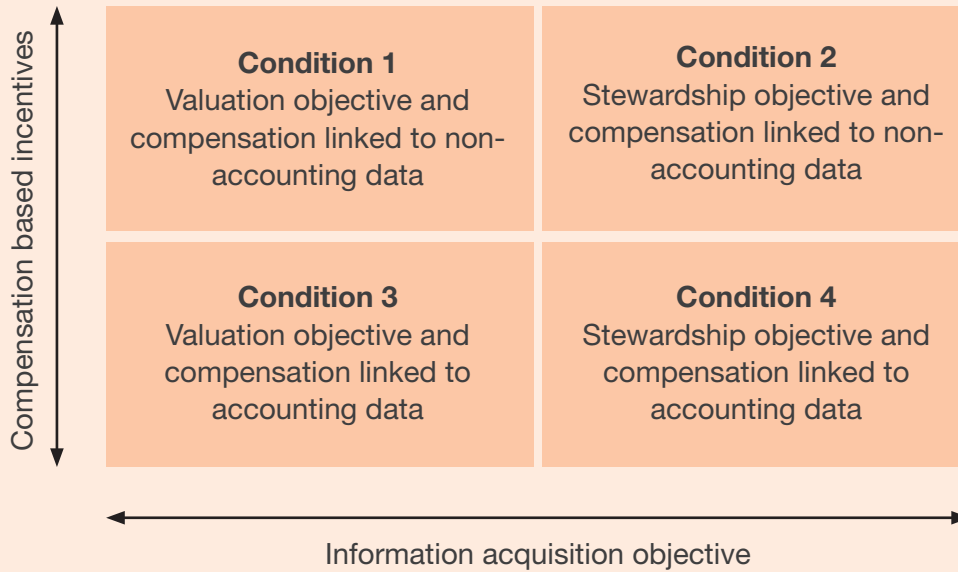
*[The current owners] rely on individually negotiated target plans based on internal production data for managerial incentivisation. This year, management will receive a generous bonus as they have exceeded their target production efficiency levels.*

By contrast, the other half of the sample was provided with the following information:

*[The current owners] rely on individually negotiated target plans based on financial accounting data for managerial incentivisation. This year, management will receive a generous bonus as they have exceeded their target net income levels.*


Therefore, participants were split first by assigning them different information acquisition objectives and second, by giving them different compensation incentive schemes. This process generated four distinct conditions that can be visualised in Figure 1. The upper left corner (condition 1) can be characterised as a prototypic valuation one because investors faces a valuation objective with no contracting use of accounting information. Conversely, the lower right corner (condition 4) resembles a prototypical contracting condition, where investors face a stewardship objective and financial accounting information is being used for managerial compensation.

**Figure 1: The four case conditions**



**Notes:**

This figure explains the experimental design of the interview study. Two aspects of the assignment were manipulated, the information acquisition objective and the compensation-based incentives of the case, generating four different (2 × 2) conditions. These conditions were administered to participants in a between subject design, meaning that each participant receives only one condition and is not aware that multiple conditions exist.



To facilitate completion of the task, interviewers provided a definition of usefulness and its components. Usefulness was defined as comprising relevance (defined as the ability of information to influence decision making, assuming that it is faithfully represented), and representational faithfulness (defined as information that is complete, neutral and free from error). Despite providing these definitions, participants could conceptually link relevance and representational faithfulness to the extent that if they perceived an item not to be faithfully represented, they also considered it to be less relevant (Kadous *et al.*, 2012). To address this issue, participants were asked to assess the usefulness of eight different items. The recognition and measurement of these items involve varying degrees of managerial judgement and estimation uncertainty. In particular, participants were asked to assess if the following items were relevant and faithfully represented (using a Likert scale ranging from 1=strongly agree, to 7=strongly disagree): revenue; EBITDA; net income; book value of property, plant and equipment; book value of financial instruments; book value of intangible assets (other than goodwill); book value of goodwill; and book value of pension liabilities.<sup>13</sup> To obtain a better understanding of the rationale behind the answers provided, participants were asked to freely explain what factors were important to them when thinking about the relevance and faithful representation of financial accounting information. This qualitative data reveals whether the rationale for a certain answer can be traced to relevance-related or representational faithfulness-related considerations.

Finally, participants were asked to identify three other sources of information, in addition to financial accounting information, that would be useful for their assigned objective. To assess the relative importance of these alternative sources, they were told that they had a €100,000 budget to obtain relevant information, and to indicate how they would allocate the money between the sources identified, and a fourth element - improving the decision usefulness of available financial information. The interviews ended with a number of open-ended questions to conclude the case. The specific questions asked can be seen in Appendix 1.

## Participants

The interviewees were professional investors who were expert users of financial accounting information and had experience of both valuing firms and in assessing managerial performance. They were contacted with the assistance of ICAS and EFRAG. In total, 81 investors were interviewed. Of these, 72 (89%) are male and 9 (11%) are female. Table 1 reports the distribution of the sample by age groups and geographic location. The sample is predominantly European and also includes interviewees in North America, thus constituting a much more geographically diverse snapshot of institutional investors than has been obtained in prior research. All participants hold at least a Bachelor's degree, while 53 have a Master's and 5 have a Ph.D. Out of the total 81, 45 are characterised as accounting experts since they either have an accounting degree or professional accounting qualification or they state that their occupational responsibilities involve some aspect of financial reporting from a preparer's perspective, as well as from a user's.

**Table 1: Personal demographics for full sample**

*Panel A: Country of work*

<b>Country of work</b>	<b>No.</b>	<b>Percentage</b>
Austria	2	2.5%
Belgium	5	6.2%
Canada	4	4.9%
Croatia	2	2.5%
Denmark	7	8.6%
France	3	3.7%
Germany	6	7.4%
Italy	3	3.7%
Norway	2	2.5%
Portugal	1	1.2%
Serbia	1	1.2%
Spain	3	3.7%
Sweden	3	3.7%
Switzerland	6	7.4%
United Kingdom	28	34.6%
United States	5	6.2%
<b>Total</b>	<b>81</b>	<b>100.0%</b>

*Panel B: Age group*

<b>Age group</b>	<b>No.</b>	<b>Percentage</b>
20-25	1	1.2%
26-30	5	6.2%
31-35	7	8.6%
36-40	11	13.6%
41-45	20	24.7%
46-50	16	19.8%
51-55	8	9.9%
56-60	8	9.9%
>60	5	6.2%
<b>Total</b>	<b>81</b>	<b>100.0%</b>

**Notes:**

This table reports key personal demographic information about the interviewees. It is based on the full sample of 81 interviews and responses received via the interview instrument documented in Appendix 1.

Details of participants' occupation are reported in Table 2. The majority (44 participants - 54%) characterise themselves as fund managers. Meanwhile, 34 are classified as analysts, of which 22 are sell-side. This implies that most participants (56 participants or 69%) have a buy-side focus. This can be regarded as a strength of the sample, since the research questions concern the information acquisition behaviour of professional investors and it is important that participants recognise the nature of both valuation and stewardship decisions. With respect to the asset, industry and geographic focus of our participants (Panel B of Table 2), most participants have a clear focus on equity instruments issued by publicly-listed firms. While a sizable portion of the sample has a stated geographic or industry focus, many participants have no such specialisation.

**Table 2: Occupational demographics for full sample**

*Panel A: Nature of occupation*

<b>Occupation</b>	<b>No.</b>	<b>Percentage</b>
Fund Manager	44	54.3%
Analyst (sell-side)	22	27.2%
Analyst (buy-side)	12	14.8%
Other	3	3.7%
<b>Total</b>	<b>81</b>	<b>100.0%</b>

*Panel B: Investment characteristics*

<b>Investment characteristic</b>	<b>No.</b>	<b>Percentage</b>
<i>Asset class</i>		
Equity only	69	85.2%
Debt only	9	11.1%
Equity and debt	3	3.7%
<b>Total</b>	<b>81</b>	<b>100.0%</b>
<i>Listing type</i>		
Public firms only	58	71.6%
Public and private firms	17	21.0%
Private firms only	6	7.4%
<b>Total</b>	<b>81</b>	<b>100.0%</b>
<i>Industry focus</i>		
None	36	44.4%
Non-financial	34	42.0%
Financial	11	13.6%
<b>Total</b>	<b>81</b>	<b>100.0%</b>
<i>Geographic focus</i>		
Europe	46	56.8%
World	27	33.3%
North America	6	7.4%
Asia	2	2.5%
<b>Total</b>	<b>81</b>	<b>100.0%</b>

**Table 2 (cont'd): Occupational demographics for full sample**

*Panel C: Investment experience*

<b>Variable</b>	<b>No.</b>	<b>Mean</b>	<b>SD</b>
No. of stocks monitored per year	77	61.1	70.0
Years of experience overall	81	20.1	8.6
Years of experience in current position	78	8.9	7.6

*Panel D: Characteristics of managed funds*


<b>Variable</b>	<b>No.</b>	<b>Mean</b>	<b>SD</b>
Value of funds under management (US-\$m)	38	1562.4	2864.6
No. of stocks held	38	82.3	138.4
Average holding period in years	38	3.7	4.7

**Notes:**

This table reports information about the investment background of the interviewees. It is based on the full sample of 81 interviews and responses received via the interview instrument documented in Appendix 1. Panels C and D present distributional properties of sample variables. Mean is the average value. SD is the standard deviation of the value. When SD is large, it indicates a large dispersion around the average value. When SD is small, it indicates a large concentration around the average value.

Panel C reports the investment experience of participants. They have an average of 20 years experience as professional investors in total, and about nine years in their current position. They regularly monitor an average of about 60 firms for their investment decisions. Three participants' occupations are classified as 'other' in Panel A. These participants are either retired, or they are currently employed in a position that cannot be unambiguously classified as a fund manager or as an analyst. All have significant prior experience as an institutional investor and deleting them from the sample has no material effect on the findings reported below.





For the sub-group of fund managers, basic statistics about individual funds under management are reported in Panel D of Table 2 (38 of the 44 fund managers provided this information). The mean (median) value of funds under individual management is roughly US\$1.6 billion (US\$400 million). These interviewees hold an average number of 82 different stocks and their average holding period is approximately 3.7 years. This indicates that the fund managers in the sample represent influential and sizable institutional investors. Asked to evaluate the size of their firm relative to its competitors, participants rank their institution from very large to very small, with most classifying their company as very large (23).

The subsequent analyses use the maximum sample of participants available for each test. All 81 interviews are used in the qualitative analyses as they contain valuable information on the rationales that underpin the quantitative findings. Out of the 81 interviewees, 76 provided complete answers to the quantitative survey. The descriptive evidence on the decision usefulness of different financial accounting items is based on this sample. Finally, for the quantitative analyses of the effects of objectives, only participants that provided full answers to the final quantitative instrument and passed the manipulation checks (i.e., two test questions which were included to check participants understood the facts of the case) were included. Five participants were excluded due to a different experimental design used at the pilot stage. Overall, 85% of participants passed both test questions on the case, indicating that the vast majority of participants fully understood their objective and the accounting and corporate governance characteristics of the company case, but 11 participants were discarded because they failed to pass the two test questions. This reduces the sample size from 76 to 60. An analysis of the various sub-samples revealed no significant demographic differences.

## RESEARCH FINDINGS

### Introduction

This chapter presents the results of the study. The main findings are presented according to the research questions, combining both quantitative and qualitative analyses. After presenting descriptive evidence on the usefulness of financial reporting, the results on the effects of objectives and accounting-based compensation arrangements on professional investors' assessments of the decision usefulness of financial reporting information overall are reported, before an analysis of separate line items in the income statement and the balance sheet. This is followed by an analysis of the usefulness of financial reporting relative to other information sources and how this is affected by the different conditions in the case. Finally, the chapter presents the results of the influence of companies' corporate governance mechanisms on professional investors' assessments of the decision usefulness of financial reporting information.

### The overall usefulness of financial reporting

Before examining differences between professional investors, it is informative to assess their views of the usefulness of financial reporting information overall. Table 3 shows that professional investors consider financial reporting data to be both relevant and faithfully represented overall, with an average rating of approximately five on the seven point scale, (where seven indicates strong agreement with the statement that the information is relevant/faithfully represented). Overall, the evidence reported in Table 3 suggests that financial information is assessed to be more relevant (average assessment of 5.05), than faithfully represented (average assessment of 4.69).

**Table 3: Decision usefulness of financial reporting information**

	Mean	SD
Average assessed relevance overall	5.05	1.05
Average assessed representational faithfulness overall	4.69	1.01

#### Notes:

This table is based on a sample of 76 interviews. It presents the numerical value obtained from averaging the responses provided to the question 'For my objective in the case, I assess the following financial accounting information items to be relevant / faithfully represented' across the eight items considered: revenue, EBITDA, net income, property plant & equipment, financial investments, intangible assets (other than goodwill), goodwill, and pension liabilities. The scale reported here ranks from 1 (very low) to 7 (very high). In the table, Mean is the average value. SD is the standard deviation of the value. When SD is large, it indicates a large dispersion around the average value. When SD is small, it indicates a large concentration around the average value.



The qualitative interview data also support the idea that financial reporting data are highly useful overall, as the following quotes illustrate:

*I would say, of [the other information sources used], the single most important is these financial accounts. (Fund manager, UK)*

*I think, [financial reporting information] is absolutely critical because ... to my mind the financial statements are the basis on which so much else falls. (Fund manager, UK)*

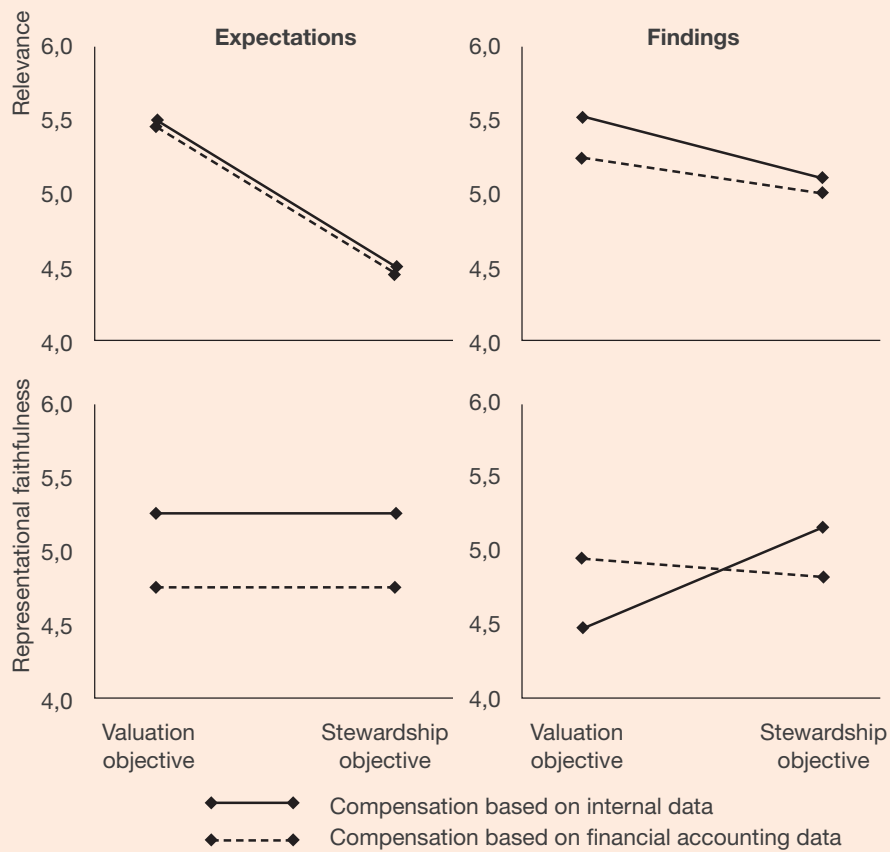
*And it gives us now insight as to what is happening in the future, or indeed, if trends are to be believed, what has happened in the past. And the story is the history and the future. (Fund manager, UK)*

### **Effects of objectives and accounting-based compensation incentives**

Figure 2 reports expectations and findings for the effects of objectives and accounting-based compensation on the assessed usefulness of financial reporting information. In line with the theoretical literature outlined earlier, investors are expected to assess financial reporting information to be more relevant when their objective is to value the firm. Also, the use of financial accounting in compensation is predicted to create concerns about its representational faithfulness, particularly with respect to its neutrality. No clear predictions are made for the effect of objectives on representational faithfulness or for the effect of accounting-based compensation on assessed relevance of financial reporting data.

As Figure 2 shows, the findings provide support for the prediction that objectives matter. More specifically, investors consider financial reporting information as more relevant for valuation decisions than for stewardship decisions. However, while the valuation objective affects the assessed relevance of financial reporting information, there is no clear effect of accounting-based compensation arrangements on professional investors' assessments of representational faithfulness.

**Figure 2: Effects of objectives and compensation arrangements**



**Notes:**

This figure reports the expected effects of our two experimental manipulations (information acquisition objective and managerial compensation base) on the assessed decision usefulness of financial accounting information (left column) as well as the empirical mean effects for a sample of 60 institutional investors (right column).


Table 4 presents a comparison of the average effects of investors' objective and the use of accounting in compensation contracts on their assessments of financial reporting information overall.

**Table 4: Effects of objective and compensation arrangements**

	Mean	SD
<i>Valuation objective/compensation based on non-accounting data (n=15)</i>		
Average assessed relevance overall	5.52	0.88
Average assessed representational faithfulness overall	4.46	1.10
<i>Valuation objective/compensation based on financial accounting data (n=15)</i>		
Average assessed relevance overall	5.24	0.76
Average assessed representational faithfulness overall	4.94	0.92
<i>Stewardship objective/compensation based on non-accounting data (n=11)</i>		
Average assessed relevance overall	5.10	1.15
Average assessed representational faithfulness overall	5.14	1.15
<i>Stewardship objective/compensation based on financial accounting data (n=19)</i>		
Average assessed relevance overall	5.01	1.16
Average assessed representational faithfulness overall	4.80	0.92

**Notes:**

This table is based on the sample of 60 interviews. It presents, for each condition, the numerical value obtained from averaging the responses provided to the question 'For my objective in the case, I assess the following financial accounting information items to be relevant / faithfully represented' across the eight items considered: revenue, EBITDA, net income, property plant & equipment, financial investments, intangible assets (other than goodwill), goodwill, and pension liabilities. The scale reported here ranks from 1 (very low) to 7 (very high). In the table, Mean is the average value. SD is the standard deviation of the value. When SD is large, it indicates a large dispersion around the average value. When SD is small, it indicates a large concentration around the average value. Conditions are presented in Figure 1. Sample participants are split twice. First, half of them are asked to use the case to value the firm (valuation objective), half of them are asked to use the case to assess the performance of management (stewardship objective). Second, half of them are told that managerial compensation is based on financial accounting data, and half of them are told that managerial compensation is based on non-financial accounting data.



While the differences between the means in Table 4 are not statistically significant at conventional levels, the average difference in relevance caused by the valuation objective is close to significant for overall relevance. Despite being large for an interview study, the sample size is still comparatively small, however, and this is likely to contribute to low statistical power.

Overall, participants with the objective of valuing the firm tend to consider financial accounting information to be more relevant than those charged with assessing the performance of the management. The results indicate a statistically weak but economically substantial effect of the objective of financial reporting information on its assessed relevance. To understand the economic effect, consider the following. Comparing the assessments made by participants presented with a valuation objective (overall relevance of 5.52 and 5.24 in Table 4), with the assessments made by those presented with the stewardship objective (overall relevance of 5.10 and 5.01), reveals an average difference of 0.34 points, which means a decrease of 7% in the assessed relevance of financial information for the stewardship objective compared to the valuation objective.

This question is also addressed using a multivariate analysis, which controls for various other characteristics of the participants (and the interviewer) that might lead to systematic differences in responses.<sup>14</sup> Specifically, the multivariate analysis controls for participants' experience, accounting expertise, gender, age, occupation and whether or not they specialise in the financial services industry.

The results from the multivariate analysis (not reported in the report but available from the authors on request) are consistent with the univariate results reported above and show that the valuation objective has a strong positive effect on the assessed relevance of financial accounting information. These results imply that professional investors assess financial accounting information in general to be more relevant for assessing company value than for the stewardship objective of assessing the performance of managers. The multivariate analysis reveals no robust evidence for the effect of the use of accounting information in management compensation on the assessed representational faithfulness of financial reporting information. Based on this, investors do not regard earnings management incentives triggered by the use of financial accounting information in managerial compensation to be so substantial that they impair the representational faithfulness of financial reporting information. However, this analysis does not take account of corporate governance mechanisms that may influence representational faithfulness more than relevance. This issue is explored in more detail in a separate section below on 'Corporate governance and the assessed usefulness of financial information'.

### Key points:

- Financial reporting information is regarded as highly useful to professional investors overall.
- Objectives do matter: professional investors' assessments of the usefulness of financial reporting information are affected by whether they are using the information for valuation or for stewardship.
- When given a valuation objective, investors assess financial accounting information to be more relevant than when they have a stewardship objective.
- Tying financial reporting information to managerial compensation has no significant effect on professional investors' assessments of representational faithfulness.

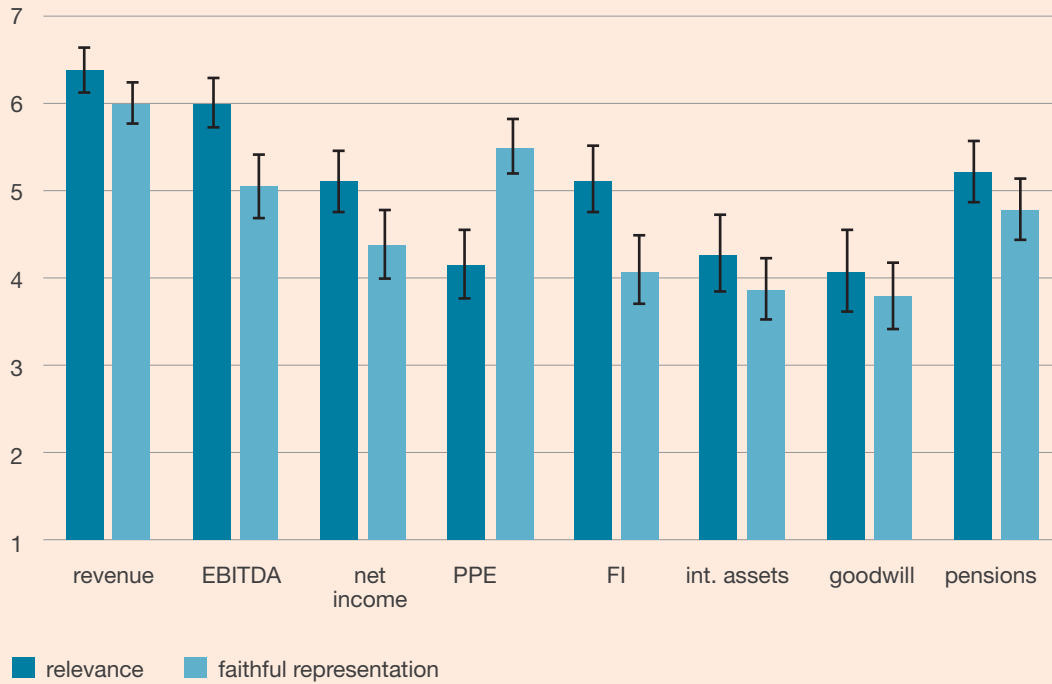
## Professional investors and the usefulness of the income statement and statement of financial position

The results in the previous section demonstrate that professional investors' assessments of the usefulness of financial reporting information overall are affected by their decision objective. The present mixed measurement financial reporting model produces line items with different properties, and the suitability of these line items may therefore vary for valuation and stewardship decisions. Moreover, the conceptual primacy given to the balance sheet by standard setters is not in accordance with prior research indicating investor preferences for the income statement. This section presents the results on assessed usefulness separated by financial statement and by line item.

Figure 3 shows the average scores for both relevance and representational faithfulness for the participants who provided answers to questions for all the balance sheet and income statement line items (76 participants).<sup>15</sup> As can be seen by the graph, participants generally rank income statement line items as more relevant and faithfully represented than balance sheet line items. Statistical tests showed these differences to be significant at the 0.01 level.<sup>16</sup> Also, income statement line items are assessed as significantly more relevant than faithfully represented (significant at the 0.01 level), while this is not generally the case for balance sheet line items (no significant difference). Looking at the individual balance sheet line items, it is clear that participants differentiate between different line items. While property plant and equipment is assessed to be more representationally faithful than relevant (significant at the 0.01 level), the opposite is true for financial instruments. Intangible assets (other than goodwill), goodwill and pension liabilities are also assessed to be more relevant than representationally faithful, but these differences are not significant at conventional levels.<sup>17</sup>



**Figure 3: Assessed decision usefulness of financial accounting information**



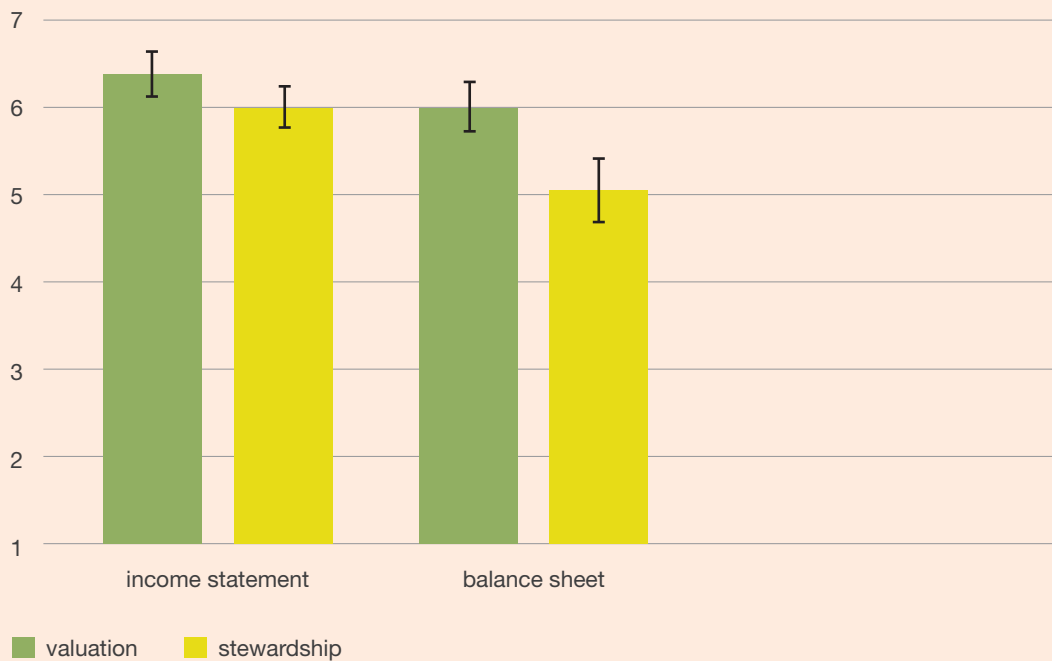
**Notes:**

This graph reports the assessed decision usefulness of financial accounting information for a sample of 76 institutional investors with complete data. It is based on the level of agreement with the statement ‘For my objective in the case, I assess the following financial accounting information items to be relevant/faithfully represented.’ The scale reported here ranks from 1 (strongly disagree) to 7 (strongly agree), so that higher values indicate higher levels of assessed relevance/representational faithfulness. The error indicators show the 95% confidence intervals of the respective means.

Abbreviations: PPE = Property, plant and equipment; FI = Financial instruments; Int. assets = Intangible assets (excluding goodwill).

When the effects of objectives and accounting compensation arrangements on the different financial statements and line items are examined, the valuation objective has a robust positive effect on the assessed relevance of financial accounting information and the effects are larger for balance sheet line items. The overall effects are presented in Figure 4, while the effects on individual line items are shown in Figure 5.<sup>18</sup>

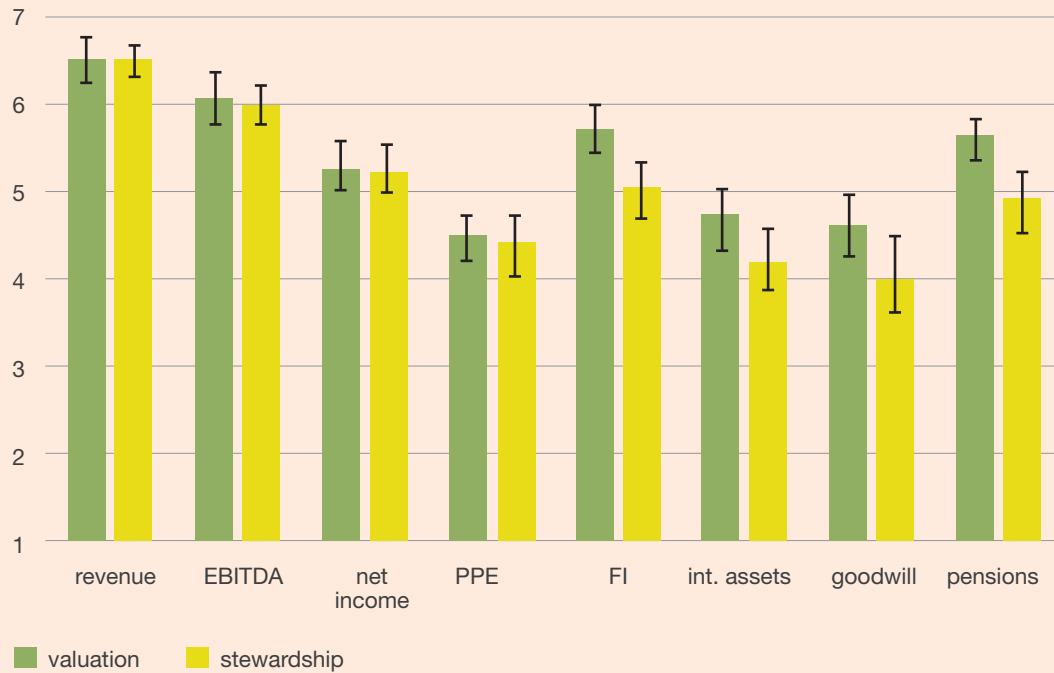
**Figure 4: Assessed relevance by information acquisition objective and financial statement type**



**Notes:**

This graph reports the assessed relevance of financial accounting information for a sample of 76 institutional investors with complete data. It is based on the level of agreement with the statement ‘For my objective in the case, I assess the following financial accounting information items to be relevant’, where the objective is either one of valuing the company (valuation) or assessing the performance of management (stewardship). The scale reported here ranks from 1 (strongly disagree) to 7 (strongly agree), so that higher values indicate higher levels of assessed relevance. Calculations are based on the average for all income statement and balance sheet items.


**Figure 5: Assessed relevance by information acquisition objective and line item**



**Notes:**

This graph reports the assessed relevance of financial accounting information for a sample of 76 institutional investors with complete data. It is based on the level of agreement with the statement 'For my objective in the case, I assess the following financial accounting information items to be relevant', where the objective is either one of valuing the company (valuation) or assessing the performance of management (stewardship). The scale reported here ranks from 1 (strongly disagree) to 7 (strongly agree), so that higher values indicate higher levels of assessed relevance.

Abbreviations: PPE = Property, plant and equipment; FI = Financial instruments; Int. assets = Intangible assets (excluding goodwill).



As expected, differences are particularly pronounced when the link between managerial effort and financial accounting outcome can be assumed to be low, as with financial instruments, goodwill, intangible assets and pension liabilities. These results confirm expectations about the effect of professional investors' objective on the assessed relevance of financial accounting information.

Taken together, these findings indicate that professional investors generally evaluate information from the income statement to be more decision useful for their assigned objective than balance sheet information. Moreover, the effects are larger for balance sheet line items.

Additional multivariate results (not reported here but available from the authors on request) suggest that the use of financial accounting information in managerial compensation contracts has a negative impact on the assessed representational usefulness of financial accounting information, but the effects are not statistically significant. In summary, the results indicate that the effect of the valuation objective is significant, whereas the use of accounting in compensation has no discernible effect. This latter result is explored further below.

Although these quantitative results are useful for assessing the magnitude of differences in assessed usefulness of different line items, they are uninformative about the reasons for such differences. Table 5 (Panels A and B) presents the qualitative results for the rationales given by participants to explain the assessed usefulness of each of the individual line items, as well as the financial statements overall.

Panel A summarises the rationales associated with 'relevance' and Panel B with 'representational faithfulness'. In both panels, the numbers reported indicate net tone (positive, negative or neutral). When the net perception is positive, green is used to colour the cell and when it is negative, red is used.<sup>19</sup> Overall, participants appear to be more willing to discuss in detail the rationales underpinning high scores than low scores for relevance, whereas the opposite is the case for representational faithfulness.

Table 5 suggests that line items are assessed as relevant when they help investors predict future outcomes, in particular, to predict cash flows and risk (i.e., they have a 'predictive role' or 'predictive role (risk)'), and also, when they help financial statement users understand the business of the firm (they provide 'business understanding'). Slightly less often, users perceive that items are relevant if they provide feedback about previous evaluations ('confirmatory role'). Finally, line items are regarded as relevant if they are useful to assess the performance of managers ('managerial performance'). Panel A contains a final category: 'relevance (general)', which is used when it is not possible to clearly identify any of the aforementioned individual rationales.

Table 5: Rationales for the usefulness of line items

Panel A: *Relevance (Red: low – Green: high)*

Theme \ Line item	Revenue	EBITDA	Net income	PP&E	Financial instruments	Intangibles	Goodwill	Pension liabilities	Overall
Predictive role	1	8	-1	-6	1	-3	-1		2
Predictive role (risk)		-1			1		1		
Business understanding	6	2	-1	2	-2	1			-1
Confirmatory role			1	0	1		0		3
Managerial performance	1	1	-4		0		-1	-4	-2
Relevance (general)	5	5	0	-1		-1	-2		1
<b>Total relevance</b>	<b>13</b>	<b>15</b>	<b>-5</b>	<b>-5</b>	<b>1</b>	<b>-3</b>	<b>-3</b>	<b>-4</b>	<b>3</b>

Panel B: *Representational faithfulness (Red: low – Green: high)*

Theme \ Line item	Revenue	EBITDA	Net income	PP&E	Financial instruments	Intangibles	Goodwill	Pension liabilities	Overall
Error (complexity)	0		-1	0	-2	-4	-1	-2	-2
Error (subjectivity)	2	-7	-13	0	-10	-10	-4	-3	-1
Bias (accounting rules)		-1	-1	0	-4	-6	-3	0	-1
Bias (management)	-8	-6	-7	-2	-14	-4	-8	-3	-9
Completeness	-9		-6	-3	-8	0	-4	-4	-5
Faithful representation (general)	4		-1	1	-3	-2	0	1	3
<b>Total faithful representation</b>	<b>-11</b>	<b>-14</b>	<b>-29</b>	<b>-4</b>	<b>-41</b>	<b>-26</b>	<b>-20</b>	<b>-11</b>	<b>-15</b>

**Notes:**

This table is based on 76 coded interviews and presents descriptive evidence on the themes identified by coding interview quotes. The coding process is described in the text. The scores presented in Panel A (Panel B) capture the tone of quotes related to each relevance (representational faithfulness) theme in combination with the different line items discussed. Cells highlighted in green portray high levels of relevance (representational faithfulness), while cells highlighted in red portray low levels of relevance (representational faithfulness).<sup>19</sup>

### *Professional investors' views of relevance of line items*

Panel A reveals that 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. This represents an interesting finding for at least two reasons. First, EBITDA is a non-GAAP measure with considerable managerial discretion over how it is calculated. Second, participants often criticised how EBITDA was constructed. This is because in the case, EBITDA incorporated investment income, which the participants regarded as problematic, due to concerns about the uncertainty over the income generation from subsidiaries, control over minority interests, earnings generated from financial investments in the past year, and fair value measurement. The following quotes are illustrative:

*So, in my mind, the key numbers in terms of relevance would always be the items that underpin cash flows or the core business model cash flows that are represented in the P&L account. And that is why I say, revenue is highly relevant. (Buy-side analyst, UK)*

*I consider the profitability to be of the greatest relevance. I am looking primarily at EBITDA, EBIT, EBIT margins. I typically adjust for the goodwill impairment as it is of more discretionary nature. (Fund manager, Sweden)*

*The reason we use EBITDA is because it is more of a proxy for the cash generation of the business. The sustainable cash generation. Because the only thing you are deducting from EBITDA to get to net profit is the depreciation, which is a non-cash-item, and amortisation, which is a non-cash-item, so ... you know, you could argue, well actually you should look at the cash-flow generation of the business over a period of time to assess its value, but the way the industry is developed, you typically look at the P&L of the business and specifically EBITDA. (Fund manager, UK)*

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While these findings are similar to the quantitative results presented in Figure 3, the reverse ordering of revenue and EBITDA is noteworthy. This may, to some extent, be driven by the quantitative relevance rank of EBITDA also reflecting some concerns with respect to faithful representation.

Net income is generally considered of low relevance in the qualitative data (negative score of -5). This finding is mainly driven by the low perceived usefulness for the stewardship objective (i.e., for assessing managerial performance), although the participants also noted concerns about net income incorporating items that are non-recurring in nature and not related to the core business. This is illustrated by the following quotes:

*Net income ... less important I would say, because there are taxes, one-offs ... yes. And also ... yes, financial income, that ... have ... might have less to do with the business model and so on, so I would put it then in the middle. (Buy-side analyst, Germany)*

*Well, the difference between EBITDA and net income is things that you cannot really ... Well, you can control it, but the non-cash items being depreciation and goodwill, so, they are a function of your capex policy and your balance sheet that you have ... where you are at. And your interest is a function of your balance sheet structure. As an equity shareholder, I have made a conscious decision presumably to have a certain level of equity and a certain level of borrowing. So if it is generating cash, paying down its debt, it is doing what it should be. So I am more ... the way I look at companies, I am more interested in the trading performance than the net income performance. (Fund manager, UK)*

Regarding the balance sheet, only financial instruments score positively on relevance. A UK fund manager explained why this was the case:

*Yes, I mean, financial instruments for this firm are clearly quite important because it is telling you about the success of their investments in their minorities. So, that would be the reason why. (Fund manager, UK)*

There were some reservations expressed about the relevance of this information for stewardship assessments, however:

*... because they have got minority interest in companies that have no influence or control over ... they are what they are, so they are not ... the management do not really ... cannot be judged on their performance and cannot control it. (Fund manager, UK)*

Property, plant and equipment (PP&E), intangibles, goodwill, and pension liabilities all have negative net values. PP&E is clearly regarded as the least relevant line item in terms of its predictive ability. The following quotes exemplify some of the reasons behind these results and also show that whether managers are responsible for a particular line item is important in assessing its relevance:

*Well, book value for plant and equipment measured at cost for me doesn't matter, because what I am trying to calculate is the real value of the firm based on future cash flows. (Sell-side analyst, Spain)*

*Not very relevant, because ... generally those intangible assets from memory ... tend to be internally generated assets. And it's very hard to assess the veracity of what management is telling you. So I just discount it really, I just ignore it, to be honest. (Fund manager, UK)*

*... how important, how relevant is [intangible assets] for the value of the company? On a cash basis, I do not think it is relevant at all. (Fund manager, US)*

*[Goodwill is] ... irrelevant to me ... again, because ... the managers may not necessarily be responsible for making those acquisitions. They may be done by the owners who have collected these things, and largely at some cost. (Fund manager, Canada)*

*... I put that [pension liabilities] as a six again, because it's outside the control ... largely outside the control of the management team. And if our goal is to assess their performance ... changes in income or interest rates et cetera is not something that they could be responsible for. (Fund manager, Canada)*

*Probably I'd say a five ... on the basis of ... you know, pension liabilities are often outside a management team's control. It's more a board level control or a wider issue. (Fund manager, UK)*

In the case of intangible assets, even when asked about the relevance of information, participants often cited concerns about faithful representation, as the following quote illustrates:

*Another point is, these intangible assets, what is this, why is this and how it is valued? So, if something is not priced or is illiquid, how is the price? So, you have this bookkeeping process to give them a price ... I don't trust this. (Buy-side analyst, Germany)*



In some circumstances, however, particularly for financial companies and where companies were considered more risky, the balance sheet was assessed to be more relevant, as indicated by the following quote:

*.... a lot of people don't actually place that much emphasis on these types of numbers, balance sheet numbers, because they are so concerned about profit margins, EBITDA margins, is top line growth still there, and that is the focus. And then you will look at the cash flow numbers ... [It] is only at extreme times of stress in the market where the balance sheets become important. ... And the balance sheet actually for a lot of people [is the] third thing they would look at. (Fund manager, UK)*

Overall, therefore, the qualitative evidence suggests that balance sheet line items are perceived as less relevant than income statement items, particularly in terms of predicting future cash flows. This evidence is in line with the quantitative findings reported above. A more detailed look at the quotes reveals that participants positively view financial instruments and goodwill as items that help users in predicting risk and that serve a confirmatory role. Participants also commented positively on goodwill and PP&E as containing historical information that is helpful when trying to understand the companies' growth history and return on capital employed.

There was, however, widespread acknowledgement of the lack of cash flow statement data by participants, as indicated below:

*In general, I think what I call the 'Holy Trinity': the income statement, balance sheet and the cash flow statement. I mean, that is a minimum that you need to make a serious assessment of the value of a company. Here you are obviously missing out on the cash flow side. (Fund manager, Sweden)*

#### *Professional investors' views of representational faithfulness of line items*

According to the guidance given to participants in the case, line items are faithfully represented if they are complete, neutral and free from error. The concerns expressed over faithful representation in Panel B of Table 5 are classified as follows.

Financial statements line items may contain errors. These errors may be caused because the underlying economic phenomena are inherently complex and/or difficult to estimate (denoted as 'error (complexity)'). Participants also cite managerial subjectivity and discretion in accounting rules as a potential source of errors ('error (subjectivity)'). Errors are different from biases. Biased items are not expected to be neutral, because they are systematically manipulated, slanted or weighted. Biases are coded into two categories: those introduced by accounting rules ('bias (accounting rules)'), and those introduced by management when, for example, they engage in earnings management, or optimism in making estimates ('bias (management)'). Quotes are also coded under 'completeness', where participants specifically mention that an item does not include all information, descriptions and explanations necessary to understand the phenomenon being depicted. As in Panel A, a final category is also created ('faithful representation (general)') for the cases where a single rationale for representational faithfulness cannot be readily identified.

With the exception of PP&E, participants expressed significant concerns about the representational faithfulness of all items. Participants requested additional information on revenue and expressed doubts over whether firms correctly apply revenue recognition criteria, in particular, with regards to timing issues. As the following quotes indicate, participants were concerned about subjectivity and manipulation when discussing revenue, EBITDA and particularly, net income.

*It is difficult actually, because revenue recognition, that is an art, as you know. (Fund manager, Sweden)*

*So it's really an opinion. EBITDA is an opinion, based on very subjective judgements to adjust that number. (Sell-side analyst, US)*

*[EBITDA] is a very untrustworthy figure. But it's very commonly used ... And ... there is no strict definition of the figure either. So there are different ways of defining it and deriving it. (Sell-side analyst, UK)*

*It is just the further you get down the list, the more error ... It is a bit like when you take a blank sheet of paper and put it in a copy machine and press copy, when you take that paper and put it in the copy machine and press copy, by the fifth generation it has amplified any errors that might have occurred, whereas the first sheet of paper was clean. So, you are starting with the revenue recognition policies, going through what gets you to EBITDA. But by the time you get to net income, you then have flowed through all of these things such as, you know, you are testing for goodwill and then impairing, changes in fair value for financial investments going to net income. So, by the time you get to net income, it is a less pure number. (Fund manager, Germany)*

Regarding the balance sheet line items, participants were less concerned about the measurement of PP&E, but were critical of the existing accounting criteria for the recognition and measurement of intangible assets and goodwill. In the case of goodwill, these concerns often extended to the assessed representational faithfulness of net income, as many of the participants mentioned the calculation of goodwill impairments as a particularly problematic area. As can be seen in Panel B of Table 5, financial instruments receive the most negative assessment of faithful representation. The financial instruments in the case were described as minority investments in private firms, measured at fair value and thus requiring the use of managerial estimates. This created concerns over subjectivity and potential managerial manipulation when calculating fair value level 3 estimates. The following quotes illustrate these findings:

*[When asked about representational faithfulness of PPE] Yes, I like that. Especially if things are based on cost, I like that. (Fund manager, Canada)*

*[When asked about representational faithfulness of financial instruments] That is one ... I could disagree more with this one, as it is marked to model. There are too many assumptions. Could it be worth 634, could it be worth 834 or 434? I bet any accountant can justify any of those answers. (Buy-side analyst, Switzerland)*

*Today, the fact of keeping [goodwill] in the balance sheet, unamortised, because that's the current policy, makes no economic sense to me. Carrying out a test is absolutely no guarantee that goodwill isn't impaired at a point in time, since it's the person who bought it who's doing the test. So that's bound to lead us into Snow White accounting. (Sell-side analyst, France)*

In the case of pension liabilities, while there was some concern about potential bias, many concerns revolved around the judgements involved, as the following quotes illustrate:

*Yes, that is also very complex to model. I would say ..., because we have so many assumptions ... [I strongly disagree that it is faithfully represented], because many companies are not very prudent on that one because... especially at the moment because of the low interest rates or decreasing interest rates. They try to not be forced to put more money on the table. So, I would say that is a very difficult one to get. (Fund manager, Germany)*

*Well, again [I strongly disagree it is faithfully represented] because ... I don't have any faith that that is really what the present value of their pension liabilities actually is. I think it is because, you know, the corporate bond rate at the moment might not reflect what it will be over the next ... over the life of the pension scheme. And there are so many moving parts in that ... the pension liability. I mean, you need to have a number, but I don't have a great deal of faith that the actual result is right. (Sell-side analyst, UK)*

Overall, the evidence provided in Table 5 reinforces the findings from the quantitative analysis and also offers some interesting insights into the reasons behind professional investors' assessments of the usefulness of financial reporting information.

#### **Key points:**

- Regardless of their objective, professional investors assess information in the income statement to be significantly more useful than information in the balance sheet.
- Revenue and EBITDA are assessed to be more relevant and more faithfully represented than net income.
- Revenue is assessed to be important for understanding the business, as well as for calculating and estimating growth and profit margins.
- Professional investors often rely on non-GAAP performance measures because they regard such measures as more informative about managerial performance and operating activities than net income.
- Concerns about line items in the balance sheet are often due to perceptions of subjectivity and managerial bias.
- Level three financial instruments and intangible assets are assessed to be more relevant and less faithfully represented than property, plant and equipment.
- The balance sheet is considered by some professional investors to be more relevant for financial companies and where company risk is high.

#### **Alternative information sources**

Besides assessing and discussing the decision usefulness of financial statement line items, participants were also asked to name three additional information sources that they would be using for their assigned information objective and to allocate a fictional budget amongst financial accounting information and these three additional information sources. Table 6 reports the weighted shares of the different information sources, while Figure 6 reports these results graphically. Participants were advised to bear in mind that the share for financial accounting had been prompted, while the other information sources were provided spontaneously. Nevertheless, participants stressed the paramount importance of financial reporting information for their objective.

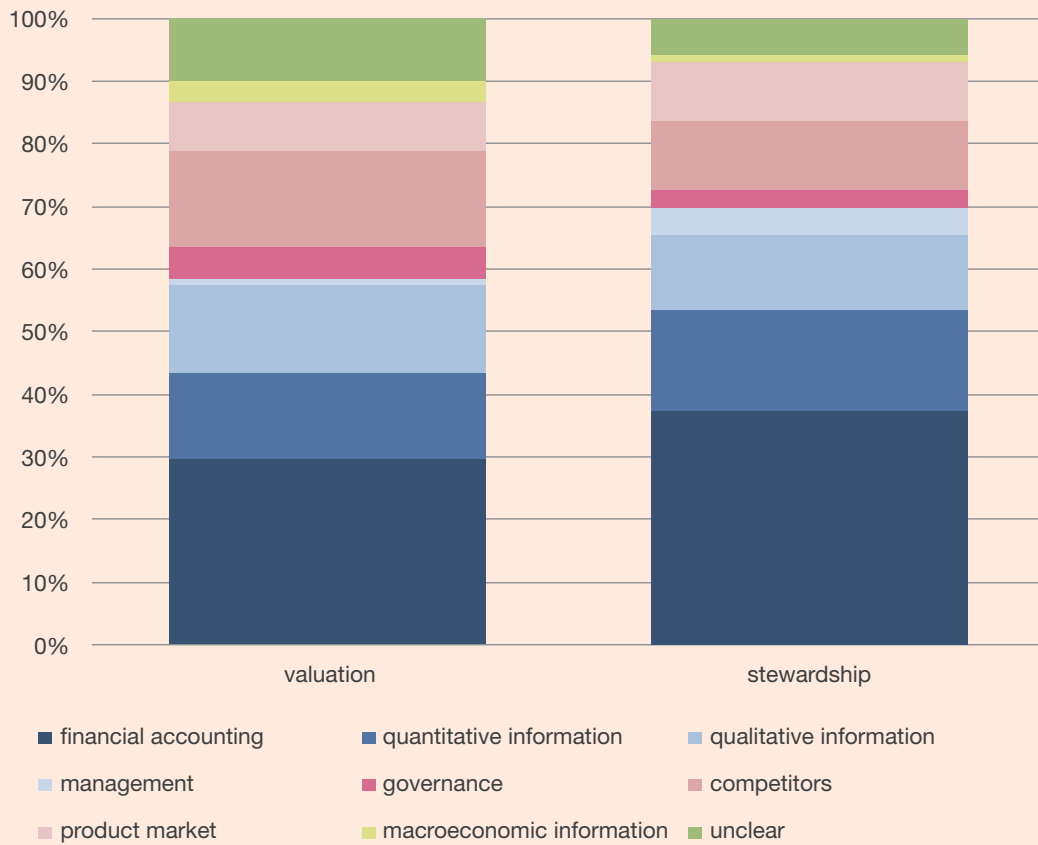
**Table 6: Requested additional information by content**

	<b>Weighted %</b>
Financial accounting information	34.8%
Qualitative data on business	13.7%
Non-financial quantitative data on business	13.4%
Data on competitors and industry	12.3%
Data on products and markets	8.1%
Information about corporate governance	3.9%
Information about management	2.7%
Macro-economic information	2.5%
General/unspecified	8.6%
<b>Total</b>	<b>100.0%</b>

**Notes:**


This table is based on the full sample of 81 interviews and classifies the additional information sources by content. Each information source is weighted by its individual budget share as specified by the interviewee. The weighted share of financial accounting information is added for the ease of comparison but should be interpreted with a degree of caution because it was prompted, whereas the other information sources were collected via an open-form question.

**Figure 6: Effects of investors' information acquisition objective on the usage of alternative information sources**



**Notes:**

This graph reports the assessed importance of financial accounting information and alternative information sources. It is based on responses provided by participants to the question ‘Besides financial accounting information, what kind of additional information would you like to obtain for your assigned case perspective? Please name the three most important sources.’ The percentages reported indicate the relative importance given to these three identified alternative sources and to financial information, and are obtained by averaging the responses given by participants when asked to allocate a budget of 100,000 EUR to obtain information on the three items identified as a well as to ‘improve the decision usefulness of available financial accounting information.’ The percentages therefore indicate the average budget assigned to each information source, by objective.



As can be seen in Table 6, participants allocated about 35% of their hypothetical budget on gathering and analysing financial accounting information, whereas the other information sources represented clusters of divergent information interests. While qualitative data on the firm (13.7%) and non-financial quantitative data about the firm (13.4%) can be considered to be direct complements or substitutes for financial accounting information, the other relevant information sources complement the firm-specific information that is being provided by the financial reporting system. Typically, the sources of information that are mentioned originate from both management of the respective firm and ‘in-house’, as well as external information intermediaries, such as financial analysts and rating agencies.

Taken together, qualitative and quantitative non-financial company-specific information produce a share that is roughly comparable with the magnitude of the share of financial accounting *per se*. This provides evidence that financial accounting provides about half of the company-specific information that professional investors claim to use when faced with typical investment-related decisions.

One might expect that the share awarded to financial reporting information would be higher for company valuation, given that participants view it to be more relevant when faced with this objective. On the other hand, the amount of budget allocated to a single information source depends not only on its quality, but also on the quality and availability of alternative information sources. While the quality of alternative information sources is not assessed directly in the research design, it is likely that participants have different views about the alternative information sources depending on their objective. It may be that alternative information sources are more readily available and of higher quality for the valuation rather than the stewardship objective. This may cause participants to assign a larger weight to financial accounting information when assessing the performance of management.

A multivariate analysis was conducted to explore whether the effect of the stewardship or valuation objective also affects the relative importance of financial accounting information compared with alternative information sources. This is measured as the relative share (out of 100% compared with their three top other non-accounting sources) that participants allocate to financial accounting information. The results of this analysis (not reported here but available from the authors on request) indicates that professional investors attach a larger weight to financial reporting information when their assigned objective is to assess the performance of management. This finding is consistent with expectations outlined above and indicates that, although they generally assess financial accounting information to be less suitable for assessing the performance of management, professional investors still rely on it more than other sources. This hints at a potential competitive advantage of financial accounting information in stewardship settings, even though it is not assessed to be optimal for this objective. There was also some evidence in the multivariate analysis that investors use financial accounting information relatively less when managerial compensation is linked to financial accounting data.

Because of the need to keep the interviews to a reasonable length of time, the case study lacked additional information that would normally be accessible to professional investors when studying financial reports. The qualitative data were therefore analysed in order to assess the usefulness of such additional information. The results are presented in Table 7: Panel A reports discussions of relevance of different items, while Panel B presents results on representational faithfulness.<sup>20</sup> The table presents, using a grey colouring scheme, how often certain elements were discussed as a means to improve the decision usefulness of financial information. The numbers in the cells indicate the number of times each item was mentioned.

**Table 7: Additional information discussed as a means to improve decision usefulness**

*Panel A: Relevance (Darker: higher frequency count)*

Theme \ Item	Cash flow	Segment reporting	Notes	Voluntary disclosure
Predictive role	2	1	1	1
Predictive role (risk)		1	1	
Business understanding		1	1	1
Confirmatory role				1
Managerial performance	1			2
Relevance (general)	4		3	1
<b>Total relevance</b>	<b>7</b>	<b>3</b>	<b>6</b>	<b>6</b>

*Panel B: Representational faithfulness (Darker: higher frequency count)*

Theme \ Item	Cash flow	Segment reporting	Notes	Voluntary disclosure
Error (complexity)			2	
Error (subjectivity)			1	
Bias (accounting rules)				
Bias (management)	1		1	2
Completeness	8	1	12	3
Faithful representation		1	2	
<b>Total faithful representation</b>	<b>9</b>	<b>2</b>	<b>18</b>	<b>5</b>

**Notes:**

This table is based on 76 coded interviews and presents descriptive evidence on the frequency of different topics discussed across the different themes pertaining to the relevance (Panel A) and representational faithfulness (Panel B) properties of financial accounting information. The coding process is described in the text. The score presented in both Panel A and B are frequency counts and capture the number of times a specific topic is mentioned as a potential remedy whenever a certain theme is discussed. Cells are highlighted in different shades of grey. Darker cells portray higher frequency counts.



The evidence reported in Table 7 Panel A reveals that the cash flow statement, segment reporting, the notes to the financial statements and voluntary disclosures are often cited by participants as having the ability to reinforce the relevance of financial statements. In Panel B, the footnotes to the financial statements (notes) are shown as being highly important in improving the extent to which the information provided is perceived to be complete. While professional investors noted the ever-increasing length and complexity of firm financial statements, this was generally not viewed as problematic. The following quotes may exemplify this concern as well as the general positive view of the information contained in the notes and additional disclosures:

*IAS are really super complex, you can find tons of information in the notes, there is a risk of information overload. (Buy-side analyst, Switzerland)*

*Actually I am not concerned about the length. Actually I ... because I want to get as much information as possible, and I actually do have time to go through it. So, I am not that concerned about the notes or the length or the disclosure. No, but I know that this is a huge issue. And if I were a little investor, I would say that the annual reports when we are reporting according IFRS are very complex. (Sell-side analyst, Denmark)*

Overall, these results complement those above where professional investors expressed concerns around the representational faithfulness of balance sheet items such as financial instruments, intangible assets and pension liabilities. The notes facilitate more informed judgements on the valuation of these items, particularly given the disclosures surrounding the inputs used in the valuation of such items.

### Key points:

- Financial reporting is considered to be the most valuable information source by professional investors.
- Non-financial information and data on the company's business, markets and industry are also highly important sources.
- Professional investors' information objective significantly affects how financial reporting information is used.
- Significantly more weight is attached to accounting information for stewardship purposes compared with company valuation.
- Additional disclosures such as notes, segments, and cash flow data are important in enhancing the decision usefulness of information in the income statement and balance sheet.

## Corporate governance and the assessed usefulness of financial information

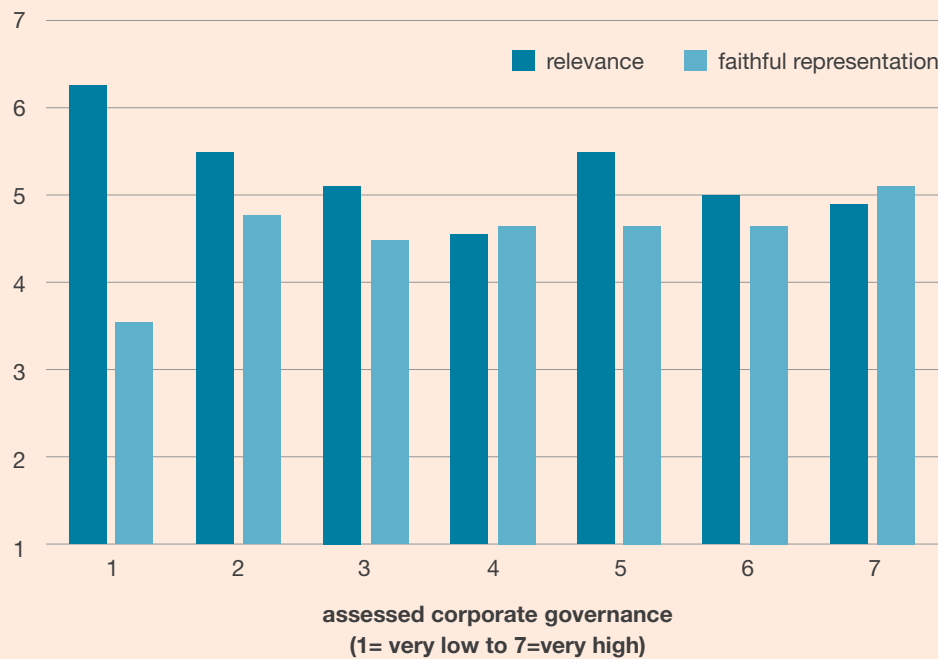
A key question addressed in the study is the extent to which professional investors' assessments of corporate governance quality influence their judgements of the usefulness of financial reporting information. Corporate governance constitutes the architecture of accountability, by providing the structures and processes that ensure firms are managed in the interests of their owners. Despite this, as noted in the Higgs (2003) report, architecture in itself does not deliver good outcomes, nor does accounting in itself. An ever-growing literature in accounting identifies important linkages between several corporate governance mechanisms and the quality of financial reporting information. Such mechanisms include board structure and independence, the quality of the firm's auditor and audit committee, ownership structure and the level of investor activity. However, as noted above, this evidence is often problematic, because identifying the direction and nature of the relationship from statistical associations is difficult (e.g., Armstrong *et al.* 2010). In particular, it is very difficult to completely isolate financial reporting information from corporate governance structures because the two are closely linked. Hence, financial reporting does not exist in a vacuum; instead, it is interlinked with a number of other firm mechanisms that are also likely to be assessed by professional investors when considering reported numbers.

Given this, it is important to understand the role of corporate governance in explaining the assessed relevance and representational faithfulness of financial accounting information. As discussed in the methodology chapter, the general corporate governance characteristics of the case company were the same across all interviewees (See Exhibits 1 and 2 for details). In particular, the case company was audited by a large audit firm, its corporate governance was assessed as being of high quality by an independent body and the owners were a group of closely cooperating institutional investors. Given that all participants received the same information, there is no scope for estimating causal effects of corporate governance on the decision usefulness of financial accounting information. Nevertheless, it is possible to explore whether the governance of the company, as evaluated by the participants (the assessed governance), is associated with their assessments of the decision usefulness of financial accounting information. That is, even though the case company had uniform quality of corporate governance, the case company's governance characteristics could have been viewed differently by participants. For example, while some participants may have been reassured by the independent assessment of the quality of the case firm's governance, others could remain sceptical on the grounds that they had limited information about the quality of that assessment.

Various analyses indicate that assessed governance is positively associated with assessed representational faithfulness. This means that professional investors have fewer concerns about representational faithfulness when they regard the corporate governance of the company as strong. Since the case portrays a company with relatively strong corporate governance this might also help to explain the previously discussed result that compensation-based incentives do not appear to affect the assessment of the decision usefulness of accounting.

Figure 7 provides a graphical representation of this finding. It presents, for each level of assessed corporate governance (from 1=very low to 7=very high), the assessed usefulness of accounting information, split into its two components: relevance and representational faithfulness. It is clear to see that as the assessed corporate governance increases (as one moves towards the right hand side of the graph), so does the assessed representational faithfulness of financial reporting information.

**Figure 7: Corporate governance and assessed decision usefulness of financial accounting information**




**Notes:**

This graph reports the assessed decision usefulness of financial accounting information, given the assessed corporate governance. It is based on the level of agreement with the statement ‘The firm in the case faces potentially serious corporate governance issues’. The scale reported here ranks from 1 (strongly agree) to 7 (strongly disagree), so that higher values indicate higher levels of assessed corporate governance. For each level of assessed corporate governance (from very low=1, to very high=7), it presents the average assessed decision usefulness of accounting information.

Figure 7 also presents the association between assessed corporate governance and assessed relevance. Here, the association is marginally negative, albeit weaker, and therefore, caution should be exerted when interpreting this result. Nevertheless, this is an interesting finding. This graphical evidence is consistent with financial reporting information generally being of slightly less relevance when corporate governance is strong, reducing the demand for monitoring.

The qualitative evidence gathered in the interviews aids understanding of these associations. As explained above, participants were encouraged to explain their assessments of the usefulness of financial statements. Consequently, the interviews provide an invaluable source of qualitative material to understand the different rationales underpinning the findings.



Following the same format of Table 7, Table 8 provides a summary of the topics discussed as a means to improve the decision usefulness of financial statements. In particular, it reports how often participants mentioned elements associated with the firm architecture of accountability and corporate governance (auditing, independent (actuarial) experts, management quality, ownership structure and other corporate governance elements (this category is used when participants refer to other elements of corporate governance such as boards, audit committees, etc., but also when participants simply refer to corporate governance, without isolating any specific element)). Here, and similar to Table 7, the focus is not on the tone, but on how frequently topics are discussed in association with the qualitative characteristics of relevance and faithful representation, as denoted by the grey colouring scheme.

The evidence reported in Panel A of Table 8 indicates that, overall, corporate governance variables are not discussed by the participants in relation to relevance. This is consistent with the graphical evidence presented in Figure 7. Indeed, only management quality appears to be associated with the assessed relevance of financial reporting information.

Perhaps as expected, given that half of the sample was asked to assess the performance of management, the discussion highlighted that professional investors do consider managerial quality and this perceived quality is important when assessing the usefulness of information. Participants sometimes considered it a vital part of the information needed to assess the usefulness of financial information, as illustrated by the quote below:

*Yes, it is difficult to assess because I don't know anything of the company management. So, how can I evaluate and assess these things?* (Sell-side analyst, Italy)

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However, such strong statements were rare. Most often, when managerial quality was mentioned, it was in the context of discussions with management being important when using accounting information for assessing the performance of management. For example, it was mentioned in relation to the confirmatory role of accounting, as can be seen in the quote below:

*I mean we will look at what management tell us, and we will look at what they have told us in the past. And what they actually did. So that can give us some degree of comfort over how reliable management are. And we can also look ... or what we do is also look at what they are telling perhaps compared to the way the company has performed historically, particularly if it's a cyclical business, if there are periods of high CAPEX, then what's ... you know: is what they are telling us consistent with where that company [is] in its cycle.* (Buy-side analyst, UK)

**Table 8: Corporate governance topics discussed as a means to improve decision usefulness**

*Panel A: Relevance (Darker: higher frequency count)*

Theme \ Topic	Auditing	Independent	Management quality	Ownership structure	Other corporate governance elements
Predictive role			2		
Predictive role (risk)					
Business understanding	1		1		
Confirmatory role			2		
Managerial performance			7		2
Relevance (general)	3				
<b>Total relevance</b>	<b>4</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>2</b>

*Panel B: Representational faithfulness (Darker: higher frequency count)*

Theme \ Topic	Auditing	Independent	Management quality	Ownership structure	Other corporate governance elements
Error (complexity)					
Error (subjectivity)	6		1		
Bias (accounting rules)					
Bias (management)	4	2	8	6	7
Completeness	1		1	1	1
Faithful representation (general)	31	6	4	4	5
<b>Total faithful representation</b>	<b>42</b>	<b>8</b>	<b>14</b>	<b>11</b>	<b>13</b>

**Notes:**

This table is based on 76 coded interviews and presents descriptive evidence on the frequency of different topic discussed across the different themes pertaining to the relevance (Panel A) and representational faithfulness (Panel B) properties of financial accounting information. The coding process is described in the text. The score presented in both Panel A and B are frequency counts and capture the number of times a specific topic is mentioned as a potential remedy whenever a certain theme is discussed. Cells are highlighted in different shades of grey. Darker cells portray higher frequency counts. 'Other corporate governance elements' refers to cases when participants mention elements of corporate governance unrelated to 'Auditing,' 'Independent (actuarial consultants),' 'Management quality,' and 'Ownership structure,' such as boards, audit committees, etc., and also to instances when participants simply refer to corporate governance, without isolating any specific element.





Table 8 Panel B provides comparative evidence for the representational faithfulness topics. Here, the results suggest that corporate governance is perceived as a major factor influencing the extent to which accounting information is considered faithfully represented. Auditing, management quality, ownership structure, and corporate governance are all important means that lead to a more positive assessment of the representational faithfulness of accounting information. Auditing in particular was discussed by participants as being a key element of firm corporate governance structure. Indeed, when asked to answer the question ‘It is very likely that the financial statements of the case are in full compliance with the relevant accounting standards’, a striking 15.79% of interviewees (12 in total) explicitly mentioned auditing (unprompted) as an important factor in assessing compliance and faithful representation. This quote from a fund manager may serve as an example of this perception:

*I have faith in the accounting firm, because it says that it is a well-respected accounting firm, so I don't assume they will make any errors. (Fund manager, Denmark)*

A theme that clearly emerged in the interviews is that corporate governance elements are not viewed in isolation. The qualitative evidence collected suggests that numerous factors are considered by expert investors when assessing the decision usefulness of accounting information. The following quote exemplifies this ‘holistic’ view of the company, accounting and its corporate governance:

*I think when you've got ... you said, an international [audit] firm, and you've got professional institutional investors, so the combination of those two things ... you probably see, yes, it's probably going ... probably quite a high-standard. (Fund manager, UK)*



Although the evidence indicates a strong positive association between the assessed quality of corporate governance and the assessed representational faithfulness, this does not imply that professional investors trust blindly or that they do not conduct their own assessments of firm corporate governance mechanisms. Indeed, the interviews revealed that it is not unusual for professional investors to withhold complete trust or to independently assess the quality of the different corporate governance mechanisms, implying a nuanced, detailed understanding of the links between the different corporate governance mechanisms, financial information usefulness and managerial incentives and quality. The following quotes provide some useful examples along these lines:

*I mean, I would have thought, let's say, two, based on it's a leading audit firm, high quality governance, you know, but then I wouldn't give it a one because I'd always assume there might be something in there that I hadn't seen. (Fund manager, UK)*

*Corporate governance is very important. We actually measure that, we have our own corporate governance measurement indicator, and we look at that very closely, and we actually discuss that with management. (Fund manager, Switzerland)*

*Auditing is extremely important. I look at the audited statements, I want to know who is doing it how long, how deep is the relationship, and I also want to know whether they are doing other things for them. (Buy-side analyst, Switzerland)*

Participants also pointed to auditors as being highly important in addressing problems of bias and subjectivity around particular line items in the case and in restraining earnings management in general. This was particularly when accounting data are implicated in compensation contracts, as the following quotes indicate:

*I haven't got a problem with 'fair value', obviously what I have got a problem with are the managerial estimates ... the managerial estimates being kind of robustly tested by the auditors. (Sell-side analyst, UK)*

*I still rely on the auditor to have done the job. If they assess this financial statement as being audited with no comments and they also give them a high mark on governance, so I think, [the link between earnings and compensation] is okay. (Credit analyst, Denmark).*

The latter point is important, because participants displayed a mixture of scepticism and acceptance when it came to the likelihood of company managers managing earnings:

*Well you have a bonus related to [net income] in this case so that you always have to remind. (Fund manager, Sweden)*

*I am not saying they are cooking the books but what I am saying is that of course you can ... by changing very little in your assumptions when making impairment tests on goodwill you can actually get the result that you want. (Fund manager, Switzerland)*



*They'd be fools if they didn't [manage earnings]. Of course, it's their business and it's a private company, so I strongly agree ..., and manipulate do I mean they are evil, nefarious people trying to do something? Probably not. But are they are human beings who would try to portrait things in the best light? Who would exploit the wiggle room that the standards provide to them? Who would exploit the auditors who are happy to look in the other direction with no fault being meant to them either? Yes, they would do all of these things. There would be manipulation, perhaps also for good reasons. To avoid stupidities in the standards ... managers could come up with a better disclosure than what the standard suggests.*  
(Fund manager, US)

Overall, the quantitative and qualitative evidence indicates that corporate governance matters to ensure faithful representation, while having a relatively lower influence on the relevance of financial accounting information *per se*.

#### **Key points:**

- The usefulness of financial reporting information is not assessed in isolation.
- Professional investors view the corporate governance of a firm as a key determinant of the representational faithfulness of financial reporting data.
- Corporate governance elements are perceived less important when assessing the value relevance of accounting information.
- Corporate governance quality, and particularly audit quality, is viewed as very important when assessing the level of compliance with accounting standards.
- Professional investors have a holistic view, whereby elements associated with the firm corporate governance, ownership structure, managerial quality, auditing and independent assessment by external experts are jointly considered in determining the usefulness of information.

In drawing the analysis chapter to a close, the following interpretation of the role of financial reporting in professional investors' decision making is fitting:

*I think that is a more philosophical one but accounts are not only for answering questions but equally as much for creating questions in my head. And yes, I get some good questions.* (Credit analyst, Denmark)

### SUMMARY AND IMPLICATIONS

#### Research questions addressed in the study

This report presents the key findings of an empirical investigation of the decision usefulness of financial reporting information for professional investors making valuation or stewardship decisions. The evidence is based on both quantitative and qualitative data obtained from a series of 81 face-to-face interviews with professional investors based in 16 countries. In order to solicit investors' assessments of decision usefulness, the interviews were structured around a short fictional case containing abridged financial statement information on a large private European manufacturing firm that holds a significant portion of financial investments. To derive inferences about the usefulness of financial information, the investors were randomly split, so that half of them were asked to use the information contained in the case with the objective of valuing the firm (valuation objective), and half of them with the objective of assessing the performance of management (stewardship objective). The investors were further divided in half by varying, between participants, how managerial compensation was structured: half of the participants were informed that managers in the case, were compensated based on accounting information, while the other half were told that managers were compensated based on other (non-accounting) information.

This design permitted causal tests of the following research questions:

- Does investors' information acquisition objective, valuation or stewardship, affect the assessed relevance of financial accounting information?
- Does the use of accounting information in compensation contracts affect investors' assessments of the representational faithfulness of financial accounting information?
- Do professional investors assess information presented in the income statement and statement of financial position to be equally relevant and faithfully represented for the purposes of valuation and stewardship?
- Does professional investors' decision objective influence the importance of financial reporting information relative to other information sources?
- Do professional investors' assessments of corporate governance mechanisms influence their judgements of the usefulness of financial reporting information and, if so, how?

#### Summary of key findings

The evidence suggests that investors whose objective was to value the firm assess financial accounting information to be more relevant than for assessing the performance of management. However, contrary to expectations, the existence of accounting-based compensation contracts has no discernible effect on representational faithfulness. Subsequent analyses show that the latter result is potentially explained by professional investors viewing overall corporate governance, and not single aspects of corporate governance, as the key determinant of faithful representation. In line with prior literature, the findings indicate that investors view income statement line items as more relevant than statement of financial position (or balance sheet) line items, especially if their assigned information objective is to assess managerial performance.




The study also shows that, regardless of the information objective, professional investors are very concerned with discretion and managerial judgement in financial accounting. It indicates that this discretion reduces the representational faithfulness of the statement of financial position line items and, consequently, of income statement line items. The in-depth discussions with participants revealed that aspects of a firm's overall corporate governance structure are of particular importance when assessing faithful representation. Specifically, compliance with accounting standards was often linked to auditing quality, whilst management quality, ownership structure and the overall architecture of accountability provided by a firm's corporate governance mechanisms, as well as by independent assessments from experts such as auditors, were all discussed in the context of assessing the representational faithfulness of financial statements information.

Regardless of financial reporting's shortcomings, the evidence strongly indicates that financial accounting information is seen as a key input factor to professional investors' decision making. This finding is even more pronounced when professional investors were asked to assess the performance of management. The evidence also strongly confirms that accounting is not used in isolation, as professional investors place significant weight on alternative information sources. These alternative information sources include qualitative and quantitative non-financial information about the firm and its management, information about the industry and competitors, information about product markets, and, to a lesser extent, information about corporate governance and the general macro-economic situation. This information originates both from the firm's management and information intermediaries such as financial analysts and rating agencies.

### Implications of the research for standard setters

The findings of the study have important implications for standard setting in general and the current debate about the *Conceptual Framework for Financial Reporting* in particular. First, the research clearly documents that the information objective of financial statement users matters for the design of financial accounting standards. As the theoretical literature predicts, when investors have the objective of evaluating the performance of management, they focus on information that reflects managerial effort and tend to discard information that is relevant for the value of a firm but is beyond the control of management, such as macro-induced valuation gains and losses of financial instruments or in pension liabilities. This implies that standard setters should make an explicit statement about potentially conflicting information objectives. One size does not therefore fit all and differing objectives require strategies for compromises, such as different measurement approaches in the balance sheet and the income statement, with other comprehensive income bridging the differences, or otherwise a clear prioritisation of objectives by the standard setter. While the latter is largely a political question (e.g., Murphy *et al.*, 2013), it is interesting to note that professional investors attach greater weight to financial reporting information when they are assigned a stewardship objective. This hints at a competitive advantage for financial reporting when information is demanded for stewardship purposes. Combined with the findings of prior research, the results also suggest that properties of information used for stewardship, such as high levels of verifiability and informativeness about management effort need promotion and protection by standard setters.

Second, confirming the results of prior literature, the findings indicate that professional investors strongly focus on the income statement when making decisions. They voice prominent concerns about the representational faithfulness of bottom line figures being negatively affected by managerial estimates and judgements triggered by valuations that relate to balance sheet line items. This finding should prompt standard setters to reconsider what appears to be a predominant elementary focus on the statement of financial position. Also, the general focus on the non-GAAP measure EBITDA, combined with concerns about its lack of standardisation and comparability, support calls for the development of a standardised set of performance measures for the income statement that reflect the differing information needs of users with divergent information objectives.



Third, professional investors view the corporate governance of a firm as a (or even the) key determinant of the representational faithfulness of financial accounting data. Corporate governance comprises a complex, rich set of mechanisms that guarantee that the firm is managed in the best interest of its owners and includes elements such as ownership structure, auditing quality or board functioning and composition. Therefore, because corporate governance is generally beyond the control of financial accounting standard setters, on the one hand, this might call for the standard setters to focus on the relevance of financial accounting information. The evidence suggests that, while a minority of investors raise concerns about complexity and information overload, the majority believe that additional information and disclosure can enhance the relevance of financial accounting information. On the other hand, each recognition and measurement rule has an effect on the ‘governance cost’ of faithful representation.

As an example, historical cost measures are easy to test for completeness and neutrality. Pension liabilities and level three fair value estimates of financial instruments, however, are a different story. Based on the findings in this study, it would take a far more complex and costly corporate governance regime to ensure representationally faithful measurement of the latter. Given that standard setters cater to a wide array of divergent preparers, from small and mid-sized private entities to global conglomerates, it seems reasonable to discuss the potential requirements for corporate governance and enforcement when evaluating the desirability of potential accounting standards and concepts. It might therefore be appropriate to cater to different firm types when developing standards.

### Implications of the research for preparers

The results of the study also have important implications for preparers of financial reporting information. The findings suggest that capital providers consider that accounting-based managerial compensation may create incentives for earnings management. Nevertheless, strong overall mechanisms of corporate governance – particularly high quality auditing – can ameliorate such concerns, meaning that companies investing in high quality governance may well recover their costs through lower perceived risk by key providers of capital.

### Implications of the research for academic researchers

From the perspective of academic research, this study addresses an important question by documenting that the assessed relevance of financial accounting information depends on whether the information is used for valuation or stewardship purposes, i.e., on the objective of information acquisition. This finding confirms predictions from contracting theory and complements prior empirical archival evidence. However, the study fails to provide conclusive evidence on the impact of incentives induced by executive compensation contracts on the representational faithfulness of financial accounting information. This represents an interesting finding in itself and is in line with some of the inconclusive prior empirical archival evidence on the inter-relatedness of managerial compensation incentives and earnings management behaviour. Based on the subsequent analysis conducted, it is possible that investors evaluate the whole corporate governance regime when assessing representational faithfulness and this explains why compensation does not impact the assessment of decision usefulness. Also, the study documents some level of basic trust in the representational faithfulness of financial accounting data. Finally, since it has been well documented that earnings management incentives exist outside compensation contracts, it is not possible to rule out the argument that investors are sceptical, regardless of whether managerial pay is based on earnings figures.



Future research could aim to provide causal evidence for the overall effect of corporate governance on the decision usefulness of financial accounting information. Also it seems worthwhile to explore the behavioural and rational determinants of trust by professional investors and to see whether the reported findings extend to other industries, investor groups and geographic settings. In terms of internal validity and methodological triangulation, it would be interesting to implement the study's research questions in a laboratory experiment where participants are incentivised to efficiently complete their objective and their actual use of information is observed and evaluated.



- <sup>1</sup> Throughout the report, the terms ‘statement of financial position’ and ‘balance sheet’ are used interchangeably.
- <sup>2</sup> Dichev (2008) notes that under the current approach, assets are regarded as having conceptual priority over income and argues that this is inconsistent with how businesses operate and how investors view companies.
- <sup>3</sup> The report avoids using the term decision usefulness in this narrow sense, choosing instead to use it to encapsulate both valuation and stewardship decisions.
- <sup>4</sup> For an illustration of how professional investors’ valuation approaches and models change over time, cf. Block (1999) with Brown *et al.* (2014).
- <sup>5</sup> The EV/EBITDA ratio is the ratio of enterprise value (i.e., the sum of the values of debt and equity) to earnings before interest, tax, depreciation and amortisation. The PEG ratio is the price earnings to growth ratio, calculated as the quotient of the price/earnings ratio to the expected earnings growth rate.
- <sup>6</sup> The CFA Institute (2015), however, argues that (other) comprehensive income should be used more by investors when assessing firm performance, particularly for banks and financial companies.
- <sup>7</sup> Interestingly, Healy (1985) shows how the structure of bonus plans means that incentives are not always to inflate earnings since some plans have upper and lower bounds which can motivate managers to use discretion over accruals to suppress earnings in a given period.
- <sup>8</sup> Although Bauer *et al.* (2014) discuss the differences between reliability and representational faithfulness, for the purposes of this empirical study this distinction is not maintained and the latter is used in the interest of consistency with more recent versions of the *Conceptual Framework*.
- <sup>9</sup> Dutta and Zhang (2002) also show that mark-to-market accounting can also be sub-optimal for stewardship purposes because it uses only public information rather than private information.
- <sup>10</sup> Financial reporting quality is measured in a variety of ways in the papers reviewed by Armstrong *et al.* (2010), including the number of enforcement actions by regulators, the level of discretionary accruals, level of accounting conservatism and the incidence of accounting errors and misstatements. These measures implicitly focus more on the representational faithfulness of financial reporting information than relevance, though some studies use the strength of stock market response to earnings as a measure more closely related to relevance.
- <sup>11</sup> Technically stated, the study employs a case-based experimental design, where two aspects of the assignment are manipulated: the information acquisition objective and the compensation-based incentives of the case, generating four different (2 × 2) conditions. These conditions are administered in a between subject design, meaning that each interviewee is randomly assigned to only one condition, and the professional investors interviewed are not aware that multiple conditions exist.
- <sup>12</sup> Due to the need to keep the interview and participants’ reading of the case materials to a reasonable length of time, the case information was based on one year’s data and did not include a cash flow statement or other comprehensive income (i.e., the assumption was that net income was not necessarily clean surplus income). Moreover, the financial instruments in the case were straightforward to understand (a portfolio of minority equity investments in unlisted firms), but not necessarily as common as (say) loans or derivatives for manufacturing firms.
- <sup>13</sup> For the subsequent presentation of the data, values are generally recoded so that higher values indicate higher values of decision usefulness. See Appendix 1 for the interview instrument.



- <sup>14</sup> Two minor changes were made to the interview guidelines as the study was conducted, neither of which affects the case or the experimental design *per se*. One was a minor change affecting the order of questions the other was where additional questions were added at the end of the interview.
- <sup>15</sup> Although this occurred rarely, in some instances, participants opted not to score items or chose not to use the range of values provided (from 1 to 7). This generally linked to concerns about lack of sufficient information to rank the item.
- <sup>16</sup> An important consideration in interpreting these results is that the information in the income statement is not independent (e.g., net income is partially dependent on values of revenue), whereas balance sheet items are independent of one another.
- <sup>17</sup> Table A1 in Appendix 2 provides the summary data to accompany Figure 3.
- <sup>18</sup> Table A2 in Appendix 2 includes the accompanying data for Figure 4.
- <sup>19</sup> To illustrate this scheme, for the case of property, plant and equipment (PP&E), Table 5 Panel A indicates a score of -6 under 'Predictive role.' There are eight quotes belonging to eight different interviewees discussing issues associated with the predictive role of PP&E. Of those, seven are quotes where participants discuss the usefulness of PP&E as being low because of its low predictive role, whilst one quote refers to PP&E as having a high predictive role. This leads to PP&E having a net score of -6.
- <sup>20</sup> It is important to emphasise that participants were not asked about these items specifically; rather, they were mentioned in the content of the general discussions.



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## Section 1: Experience and education

We would like to ask you a few questions about your experience and personal demographics. These data are important to help us understand potential differences in reported answers across groups.

Please briefly characterize your professional occupation \_\_\_\_\_

Number of years of professional experience overall \_\_\_\_\_

Number of years of experience in current occupation \_\_\_\_\_

Number of firms you analyse in the average year for investment-related decisions \_\_\_\_\_

Do you mainly analyse public (listed) companies or private companies? \_\_\_\_\_

Do your job responsibilities involve some aspect of financial reporting (besides using it for investment decision making)

YES	NO
-----	----

What is your current industry focus, if any? \_\_\_\_\_

What is your current geographic focus, if any? \_\_\_\_\_

Approximate value of funds under your direct management: \_\_\_\_\_

What is your typical investment holding period? \_\_\_\_\_

Approximately how many stocks do you hold? \_\_\_\_\_

Besides your occupation: Do you have any other relevant experience as a professional investor?

Now, we have some very few questions about the firm you are working for

Relative to the size of its competitors, do you consider your firm to be

VERY LARGE	LARGE	MEDIUM	SMALL	VERY SMALL
------------	-------	--------	-------	------------

Approximate value of funds under management for the whole firm \_\_\_\_\_

Finally, some questions about yourself, Formal background and qualifications (degree, professional qualifications)

Highest education \_\_\_\_\_

What is your highest accounting qualification? \_\_\_\_\_

Sex \_\_\_\_\_

Age	20-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	Over 60
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## Section 2: The case: evaluating the usefulness of financial accounting information

In the following, we will be asking you questions about the decision usefulness of financial accounting information. To structure your thoughts, consider the following terminology: usefulness comprises two main dimensions: relevance and representational faithfulness. Relevance is the information's ability to influence decision making, assuming that it is faithfully represented. Information is considered to be faithfully represented if it is complete, neutral and free from errors.

1. For my objective in the case, I assess the following financial accounting information items to be **relevant**:  
 1=strongly agree ...      4=neither agree nor disagree...      7=strongly disagree

Revenue	1	2	3	4	5	6	7
EBITDA	1	2	3	4	5	6	7
Net income	1	2	3	4	5	6	7
Property, plant & equipment	1	2	3	4	5	6	7
Financial investments	1	2	3	4	5	6	7
Intangible assets (not goodwill)	1	2	3	4	5	6	7
Goodwill	1	2	3	4	5	6	7
Pension liabilities	1	2	3	4	5	6	7

2. For my objective in the case, I assess the following financial accounting information items to be **faithfully represented**:  
 1=strongly agree ...      4=neither agree nor disagree...      7=strongly disagree

Revenue	1	2	3	4	5	6	7
EBITDA	1	2	3	4	5	6	7
Net income	1	2	3	4	5	6	7
Property, plant & equipment	1	2	3	4	5	6	7
Financial investments	1	2	3	4	5	6	7
Intangible assets (not goodwill)	1	2	3	4	5	6	7
Goodwill	1	2	3	4	5	6	7
Pension liabilities	1	2	3	4	5	6	7

3. Overall, for my objective in the case, I assess the financial accounting information overall to be:  
 1=strongly agree ...      4=neither agree nor disagree...      7=strongly disagree

Relevant	1	2	3	4	5	6	7
Faithfully represented	1	2	3	4	5	6	7

**Section 3: The case: additional information that you consider to be useful**

4. Besides financial accounting information, what kind of additional information would you like to obtain for your assigned case perspective? Please name the three most important sources:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

Given your above reply, if you had €100,000 to allocate to obtain this relevant information, please indicate how you would assign the money, allocating an amount to the items you identified above as well as to improve the decision usefulness of available financial accounting information.

If you identified fewer than three items, please allocate the €100,000 between the elements identified.

Amount in € allocated for obtaining first type of additional information	Amount in € allocated for obtaining second type of additional information	Amount in € allocated for obtaining third type of additional information	Amount in € allocated for improving the decision usefulness of available financial accounting information



#### Section 4: Additional questions

Thank you for addressing the questions. Please also answer this short list of additional questions.

5. It is very likely that the financial statements of the case are in full compliance with the relevant accounting standards.

1	2	3	4	5	6	7
---	---	---	---	---	---	---

1=strongly agree... 4=neither agree nor disagree... 7=strongly disagree

6. In the case, managers are likely to manipulate earnings information.

1	2	3	4	5	6	7
---	---	---	---	---	---	---

1=strongly agree... 4=neither agree nor disagree... 7=strongly disagree

7. The firm in the case faces potentially serious corporate governance issues.

1	2	3	4	5	6	7
---	---	---	---	---	---	---

1=strongly agree... 4=neither agree nor disagree... 7=strongly disagree

8. Is your objective in the case to:

a) Assess the value of the firm

b) Assess the performance of the management for the current year

9. Is managerial incentivisation in the case based on:

a) Internal production data

b) Financial accounting data

## 10. Relevance vs. faithful representation

Throughout the case, I have asked you to assess the relevance and faithful representation of different financial statement items. Relevance and faithful representation are the two key elements of 'decision usefulness' in the conceptual framework of the IFRS.

Could you describe the difference between these two elements for me, in your own words?

---

Do you find the two elements useful to assess the decision usefulness of financial accounting information?

---

## 11. Corporate governance

How important are the following aspects of corporate governance for you when assessing the decision usefulness of financial accounting information?

- Auditing

---

- Managerial Compensation

---

- Ownership structure

---

- Other governance aspects (please elaborate)

---

12. Is there any other issue related to the usage of information for decision making in general or the usefulness of financial accounting information for decision making in particular that you would like to elaborate on?

---

Thank you. This ends the structured interview.

**Table A1: Decision usefulness of financial accounting information: Descriptive evidence**

*Panel A: Relevance (1: very low – 7: very high)*

Variable	Mean	SD
Average income statement	5.84	0.88
Average balance sheet	4.58	1.34
Revenue	6.39	1.17
EBITDA	6.01	1.27
Net income	5.11	1.55
Property, plant and equipment	4.16	1.74
Financial instruments	5.12	1.70
Intangible assets (other than goodwill)	4.28	1.94
Goodwill	4.09	2.08
Pension liabilities	5.24	1.52

*Panel B: Representational Faithfulness (1: very low – 7: very high)*

Variable	Mean	SD
Average income statement	5.15	1.13
Average balance sheet	4.42	1.16
Revenue	6.00	1.06
EBITDA	5.05	1.62
Net income	4.39	1.73
Property, plant and equipment	5.51	1.35
Financial instruments	4.09	1.74
Intangible assets (other than goodwill)	3.88	1.53
Goodwill	3.80	1.69
Pension liabilities	4.79	1.54

**Notes:**

This table reports the assessed decision usefulness of financial accounting information for a sample of 76 professional investors with complete data. It is based on the level of agreement with the statement 'For my objective in the case, I assess the following financial accounting information items to be relevant/faithfully represented'. The scale reported here ranks from 1 (strongly disagree) to 7 (strongly agree), so that higher values indicate higher levels of assessed relevance/representational faithfulness. Mean is the average value. SD is the standard deviation of the value. When SD is large, it indicates a large dispersion around the average value. When SD is small, it indicates a large concentration around the average value.

**Table A2: Experimental results: univariate evidence**

Variable	Mean	SD
<i>Valuation objective/compensation based on internal data (n=15)</i>		
Relevance income statement	6.07	0.68
Relevance balance sheet	5.19	1.18
Representational faithfulness income statement	4.76	1.46
Representational faithfulness balance sheet	4.28	1.18
<i>Stewardship objective/compensation based on internal data (n=11)</i>		
Relevance income statement	5.97	0.94
Relevance balance sheet	4.58	1.38
Representational faithfulness income statement	5.76	1.17
Representational faithfulness balance sheet	4.76	1.32
<i>Valuation objective/compensation based on financial accounting data (n=15)</i>		
Relevance income statement	5.87	1.02
Relevance balance sheet	4.87	0.77
Representational faithfulness income statement	5.56	0.77
Representational faithfulness balance sheet	4.57	1.17
<i>Stewardship objective/compensation based on financial accounting data (n=19)</i>		
Relevance income statement	5.88	0.91
Relevance balance sheet	4.48	1.51
Representational faithfulness income statement	5.11	1.14
Representational faithfulness balance sheet	4.61	1.07

**Notes:**

This table reports the assessed decision usefulness of financial accounting information conditional on our 2x2 between subject manipulations (information acquisition objective and managerial compensation base) for a sample of 60 institutional investors. The values are based on the level of agreement with the statement 'For my objective in the case, I assess the following financial accounting information items to be relevant/faithfully represented'. The scale reported here ranks from 1 (strongly disagree) to 7 (strongly agree), so that higher values indicate higher levels of assessed relevance/representational faithfulness. Mean is the average value. SD is the standard deviation of the value. When SD is large, it indicates a large dispersion around the average value. When SD is small, it indicates a large concentration around the average value.

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