

**Stefano Cascino, Mark Clatworthy, Beatriz García Osma,  
Joachim Gassen, Shahed Imam & Thomas Jeanjean**  
**Who uses financial reports and for what  
purpose? Evidence from capital providers**

**Article (Accepted version)  
(Refereed)**

**Original citation:**

Cascino, Stefano, Clatworthy, Mark A., Osma, Beatriz Garcia, Gassen, Joachim, Imam, Shahed and Jeanjean, Thomas (2014) *Who uses financial reports and for what purpose? Evidence from capital providers*. Accounting in Europe, 11 (2). pp. 185-209. ISSN 1744-9480

DOI: [10.1080/17449480.2014.940355](https://doi.org/10.1080/17449480.2014.940355)

© 2014 [European Accounting Association](http://www.eaa.eu)

This version available at: <http://eprints.lse.ac.uk/57683/>

Available in LSE Research Online: August 2015

LSE has developed LSE Research Online so that users may access research output of the School. Copyright © and Moral Rights for the papers on this site are retained by the individual authors and/or other copyright owners. Users may download and/or print one copy of any article(s) in LSE Research Online to facilitate their private study or for non-commercial research. You may not engage in further distribution of the material or use it for any profit-making activities or any commercial gain. You may freely distribute the URL (<http://eprints.lse.ac.uk>) of the LSE Research Online website.

This document is the author's final accepted version of the journal article. There may be differences between this version and the published version. You are advised to consult the publisher's version if you wish to cite from it.

**Who uses financial reports and for what purpose?  
Evidence from capital providers<sup>1</sup>**

**Stefano Cascino**

Department of Accounting  
London School of Economics  
Houghton Street  
London WC2A 2AE  
United Kingdom  
s.cascino@lse.ac.uk

**Mark Clatworthy**

Department of Accounting and Finance  
School of Economics, Finance and Management  
University of Bristol  
8 Woodland Road  
Bristol BS8 1TN  
United Kingdom  
Mark.Clatworthy@bristol.ac.uk

**Beatriz García Osma**

Department of Accounting  
Faculty of Economics  
Universidad Autónoma de Madrid  
Fco Tomas y Valiente 5  
Madrid 28049 (Spain)  
beatriz.garcia@uam.es

**Joachim Gassen**

School of Business and Economics  
Humboldt-Universität zu Berlin  
10099 Berlin  
Germany  
gassen@wiwi.hu-berlin.de

**Shahed Imam**

Department of Accounting  
Warwick Business School  
The University of Warwick  
Coventry, CV4 7AL  
United Kingdom  
Shahed.Imam@wbs.ac.uk

**Thomas Jeanjean**

Department of Accounting and Management  
Control  
ESSEC Business School  
Avenue Bernard Hirsch  
BP 51050  
95021 Cergy-Pontoise  
France  
jeanjean@essec.edu

---

<sup>1</sup> This paper draws on the report 'The Use of Information by Capital Providers', prepared for ICAS (The Institute of Chartered Accountants of Scotland) and EFRAG (European Financial Reporting Advisory Group), by the same authors. We gratefully acknowledge the financial support and guidance of ICAS and EFRAG. Beatriz García acknowledges financial support by the AECA Chair in Accounting and Auditing and the UAM-Audidores Madrid Chair. We are also grateful for the helpful comments of the editor and an anonymous reviewer.

**Corresponding author:** Mark Clatworthy. Department of Accounting and Finance. School of Economics, Finance and Management. University of Bristol. 8 Woodland Road. Bristol, BS8 1TN. Tel.: +44 (0)117 3310914. E-mail: Mark.Clatworthy@bristol.ac.uk.

## **Who uses financial reports and for what purpose? Evidence from capital providers**

### **Abstract**

We review the academic literature on the use of financial reporting information by capital providers. We classify our findings by investor type and by information objective. While most capital providers use accounting information, our survey indicates that they do so in a variety of ways with financial reporting information competing with other sources of information. We also find that information intermediaries are influential in both credit and equity markets, making the identification of a typical target ‘user’ inherently difficult. Our main findings question the underlying objective of the Conceptual Framework to guide the development of standards for general-purpose financial statements to provide a typical knowledgeable investor with a true and fair view about the reporting entity. Finally, we identify gaps in the literature and suggest areas where future research can help inform important academic and policy debates.

*Keywords:* Capital providers; Conceptual Framework; Financial reporting information.

# Who uses financial reports and for what purpose? Evidence from capital providers

## 1. Introduction

This paper surveys the literature on the use of information by capital providers. The existing Conceptual Framework explicitly states that financial reporting should be designed to reflect the needs of capital providers as the primary users of financial accounting information, yet some have expressed concern about the lack of academic research used to support standard setters' assertions about user needs (Trombetta, Wagenhofer and Wysocki, 2012; Young, 2006). Moreover, recent debates suggest that the volume, dispersion and technical nature of empirical accounting research have contributed to a 'communications gap' between standard setters and academic accounting research (Singleton-Green, 2010) and that this gap may be difficult to address (Rutherford, 2011). Despite the significant volume of theoretical and empirical accounting research conducted in the last few decades, important questions remain largely unanswered.<sup>1</sup> Attempting to summarize the existing evidence on capital providers' use of financial accounting information and to identify potential (communication) gaps in the literature, we address the following three questions. First, who are the key capital providers of large European public companies? Second, what information objectives do these capital providers pursue? Finally, how do capital providers use information in general, and financial reporting information in particular?

The recent discussion paper (hereafter DP) published by the International Accounting Standards Board on the Conceptual Framework (IASB, 2013) makes a systematic review of relevant literature particularly timely. The DP called for initial views and comments on virtually all the critical elements of accounting,<sup>2</sup> and reopened the debate on fundamental and controversial issues, including subsuming the

---

<sup>1</sup> Research published in leading international accounting journals is sometimes perceived as technically sound, but relatively insular (Basu, 2012; Demski, 2007), focusing on narrow issues for where data availability is good, but where relevance for central accounting questions is low.

<sup>2</sup> The major issues include: definition of assets and liabilities, recognition and derecognition, the distinction between equity and liabilities, measurement, presentation and disclosure, and other comprehensive income.

stewardship objective of accounting within decision-usefulness, the decision to replace reliability with faithful representation, and removing the concept of prudence from the Conceptual Framework.

Answering the questions posed in the DP on the basis of existing evidence is far from straightforward. It requires an understanding of important interrelated issues, such as who the users of financial information are, how they use information, what decisions they are making, what fundamental characteristics of information are important, what alternative sources of information are useful to each class of users and how these sources relate to each other. While we cannot completely resolve all of these issues in our review, we place particular emphasis on the first two. In so doing, we examine the sources of information used by providers of capital to large European public companies, examining the use of financial reporting data in both valuation and in stewardship assessment decisions.

We focus, where possible, on research providing ‘direct’ evidence of what capital providers do; i.e., on studies that provide primary evidence based on surveys, experiments and interviews, rather than on studies based on secondary/archival data. Our review is not confined to research published in the English language, though most of the evidence we cover is published in English.<sup>3</sup> We also review how the information needs of various capital providers differ, considering the relationship between the valuation and stewardship roles of information. By focusing on the information needs of capital providers, we do not intend to imply that an accounting system solely designed for investors is necessarily socially desirable (Young, 2006). In addition, we recognize that not only is accounting shaped by the interests of capital providers, but also accounting regimes can influence capital structure (Bharath, Sunder and Sunder, 2008; Dhaliwal, Khurana and Pereira, 2011; Krishnaswami, Spindt and Subramaniam, 1999).

We identify outside professional equity investors, outside private/retail equity investors, inside equity investors, public and private debt providers and trade creditors as the main capital providers for public European companies. Our primary conclusions are that there is significant variety in different capital providers’ information needs. Capital providers use accounting information in different ways and

---

<sup>3</sup> In particular, our search extended to studies published in French, German, Italian and Spanish.

their objectives when using different sources of information sometimes compete. Financial reporting information has distinct characteristics that set it apart from other information sources and is generally regarded as highly important for both financial decision-making and for contracting/stewardship purposes; however, it is by no means the only source. Moreover, information intermediaries are influential in both credit and equity markets, which makes identification of a typical target ‘user’ inherently difficult.

Our findings imply that there is no clear prototypical user group on which standard setters can focus when developing standards. Also, capital providers use accounting information for different purposes, so it seems questionable whether a truly ‘general purpose’ financial accounting regime can exist. Finally, since financial accounting information is used in conjunction with other sources, it is not obvious that financial accounting should aim to present a holistic ‘true and fair’ view of the enterprise (i.e., a comprehensive assessment of the performance and financial position of the firm). Rather its design should exploit its competitive advantages: verifiability, objectivity, regularity and standardisation.

The remainder of the paper is structured as follows. Section two briefly introduces the different capital providers and their heterogeneous claims and information needs. Section three reviews the prior literature on the information used by each identified major group of capital providers. Finally, section four discusses the findings and presents the conclusions, placing particular emphasis on the implications of our findings for standard setters and the development of the Conceptual Framework.

## **2. Heterogeneity in claims and information needs across capital providers**

Prior research on the information needs of capital providers focuses predominantly on equity investors (Armstrong, Guay and Weber, 2010; Fields, Lys, and Vincent, 2001; Kothari, 2001;). However, on average, European countries have a debt market twice the size of their equity market, and debt is the most significant source of capital for the majority of European firms (Pagano and von Thadden, 2004). Indeed,

virtually all European companies rely on bank loans and trade creditors for capital and these jointly represent around 70 per cent of the total liabilities in the typical balance sheet. Other sources of debt - debentures, convertible debt and leases - are less significant.

### **Insert Table 1 about here**

The excessive concentration of prior research on equity market participants as the primary users of accounting information may lead to an incomplete understanding of the use of information by capital providers, both by academics and standard setters, since the evidence indicates that debt and equity providers may require different information and use it in different ways (Ball, Bushman and Vasvari, 2008a; Kothari, Ramanna and Skinner, 2010). Because of differences in their importance, characteristics and information needs, we separately examine the evidence on different capital providers' information usage, splitting them into equity investors, debt providers and trade creditors. Before we review the relevant literature, we briefly discuss how differences in claims may affect the information needs of capital providers and how they use information.

#### ***2.1 Information usage and differences in claims***

In elementary terms, equity and debt can be differentiated by the basic feature that debt providers' returns are limited on the downside and upside, whereas equity returns are only constrained on the downside. This gives different stakeholders different risk profiles and makes lenders and bondholders more sensitive to downside risk than equity providers.<sup>4</sup> The interests of debt holders and shareholders may therefore conflict, particularly where shareholders and directors aim to maximize the value of shareholders' equity rather than overall firm value.

Shareholders may, for instance, design firms' operations and financial structure in ways that increase equity value but which reduce both the value of the firm and its debt. This is known as the 'agency

---

<sup>4</sup> Some studies illustrate this difference via comparisons with options, noting that shareholders' claims are analogous to a call option on the value of the firm's assets, with an exercise price equal to the face value of debt ( Beaver, Correia and McNichols, 2010; Kothari *et al.*, 2010).

conflict of debt' (Jensen and Meckling, 1976; Myers, 1977) and Smith and Warner (1979) identify four potential conflicts: 1) *Dividend payments*: when debt is issued, the price incorporates an assumption of dividend payments and if dividends increase, the value of debt is reduced; 2) *Claim dilution*: if the firm issues new debt of the same or higher seniority, the value of initial debt holders' claim is reduced; 3) *Asset substitution*: if the firm issues debt to finance investment, the value of shareholders' equity rises by substituting projects which increase the firm's risk, whereas debt holders face a decline in the value of their claim; and 4) *Under-investment*: firms with outstanding debt may have incentives to reject projects with a positive net present value if the benefits from accepting the project accrue to debt holders.

These conflicts generate predictable behavior from the different parties as well as differences in how they use accounting information. Moreover, debt holders protect themselves through higher interest rates in anticipation of such conflicts. To avoid this, shareholders are willing to incorporate covenants into debt contracts constraining the issuance of additional debt and restricting dividend payments or the acquisition and disposal of assets (Armstrong *et al.*, 2010). Because the value of debt claims is generally more sensitive to decreases in firm value than to increases, debt contracts treat gains and losses asymmetrically: contracts usually include covenants triggered by falls in firm value, but not by increases. This potentially creates a stronger demand for conservatism in accounting from debt providers than equity providers. Furthermore, since many post-issuance contractual rights of lenders are specified in terms of financial statements alone, other sources of information are less valuable to them for contracting purposes. In the sections that follow we examine these issues in more detail.

## ***2.2 Financial decision making and stewardship roles***

Because of the recent revisions to the IASB Conceptual Framework, we consider both the 'decision usefulness' and 'stewardship' roles of information. Succinctly put, the former involves using information to make investment/valuation decisions and typically requires future-orientated information (that is, the *ex ante* role of information), while the latter entails using information to monitor management's use of

capital after it has been invested in the company (the *ex post* role). This often requires more emphasis on past actions and often implicates key financial statement information (such as earnings per share or leverage ratios) explicitly in contracts between equity investors, managers and lenders. Although the term stewardship is used extensively, there is considerable discomfort about its use both by standard setters<sup>5</sup> and by academics (e.g. Lambert, 2010); hence, the ‘contracting’ or ‘accountability’ roles are sometimes used as alternatives. Similarly, the ‘financial decision making’ role is sometimes referred to as the ‘valuation’ or ‘decision usefulness’ role of accounting information. In this paper, we understand ‘decision usefulness’ as a general term, encompassing both the ‘valuation’/‘financial decision making’ role as well as the ‘stewardship’/‘contracting’ role of accounting.<sup>6</sup>

The stewardship role of information receives far less attention in the literature than the financial decision making role (O’Connell, 2007). There is also much more *empirical* evidence on the role of information in financial or investment decisions, as much of the research on stewardship involves theoretical analyses. While there is no clear consensus on the relative importance of the two roles, there is serious concern over the relegation of stewardship in the Conceptual Framework (Lennard, 2007; Murphy, O’Connell and Ó hÓgartaigh, 2013; Whittington, 2008). In a study of the theory of standard setting, Kothari *et al.* (2010) argue that stewardship and performance measurement are the primary focus of financial statements, although Lambert (2010) challenges this view. There is a clear consensus, however, that while information for valuation is sometimes useful for stewardship purposes, the two roles are not always aligned (Bromwich, 1992; Lambert, 2001; 2010).

In a seminal contribution, Gjesdal (1981) theoretically derives a demand for a stewardship objective for accounting and shows that the financial decision making objective and stewardship objective are not always consistent. Lambert (1993) also distinguishes between the valuation role of earnings and their role for evaluating managers’ performance and emphasizes the central point that financial statement

---

<sup>5</sup> The IASB was particularly concerned about the translation of stewardship into other languages (see IASB 2010, BC1.28).

<sup>6</sup> Such an interpretation is not universal, however. See Scott (2011) for an alternative view where stewardship is not subsumed within decision usefulness.

information is useful for aligning investors' and managers' interest because unlike share prices (which are of primary concern to investors), accounting is not as affected by factors outside managers' control. For stewardship purposes, capital providers value information if it is informative about managers' effort (Holmstrom, 1979; Lambert and Larcker, 1987); for financial decisions, however, information is required on future cash flows regardless of whether they are due to managers' effort (Beyer, Cohen, Lys and Walther, 2010). Lambert (2010) notes that for financial decisions, investors use information for estimating future cash flows, while for stewardship purposes, they use the information to affect future cash flows. This is likely to affect the design of contracts to influence managers' actions in the current period to be in line with the interests of shareholders (Kothari *et al.*, 2010). Moreover, 'the simple act of recording a steward's exchanges creates accountability by causing her/him to modify her/his behaviour in light of this accounting' (Dickhaut and McCabe, 1997, p. 61).

Given these arguments, it should be unsurprising that the literature points to the desirable properties of accounting information differing under the two roles. In particular, conservatism is often preferred for stewardship and contracting purposes (due to a reluctance by managers to recognise bad news), whereas neutrality is usually preferred for valuation purposes (Bushman and Indjejikian, 1993; Dutta and Zhang, 2002; Kothari *et al.*, 2010; Wu and Zhang, 2009). Dutta and Zhang (2002) also report that mark-to-market accounting is desirable from a valuation perspective, but not from a stewardship perspective because of its focus on *anticipated* managerial performance rather than *delivered* performance. Whereas for financial decision making, non-recurring items are inconvenient and are often removed from profit figures (Barker, 2000; Barker and Imam, 2008), Christensen, Feltham and Şabac (2005) show that this is not always the case for stewardship. Importantly, however, both empirical market-based and theoretical studies report significant overlap between the stewardship and valuation roles (Banker, Huang, and Natarajan, 2009; Bushman, Engel and Smith, 2006; Drymiotis and Hemmer, 2013). In summary, the stewardship and valuation roles of financial statements overlap, but are far from identical, even for the same class of

investor. This supports the views of those arguing against omitting specific references to stewardship in the Conceptual Framework (e.g., see Lennard, 2007).

### **3. Information usage by capital providers**

Following the above discussion, we review the existing evidence on information usage by different types of capital providers, starting with equity investors, followed by debt providers, then trade creditors. In discussing equity providers, we distinguish between professional (or institutional) equity investors, private (or retail) investors and inside equity investors. We also separate ‘inside’ equity investors (e.g. family owners) with access to private information about the firm from ‘outside’ equity investors, who have no such access and therefore rely on information that is usually publicly available. In so doing, we highlight potential implications of the literature for the current Conceptual Framework project.

#### ***3.1 Outside professional equity investors***

Over the last three decades, the growth in institutional equity investment has been substantial. The average level of financial assets held by institutions in OECD countries rose from 110 percent of GDP to 163 percent between 1995 and 2005 and equity represents the majority of these assets (OECD, 2008). In 2009, institutional investors managed around \$22 trillion of equity in the OECD area (OECD, 2011) and even in Germany, where bank finance traditionally dominates, professional equity investors are now highly influential in investment and governance processes (Hewitt, 2011).

The literature largely ignores differences between institutional investor types (pension funds, insurance companies and investment funds), but does distinguish between fund managers (those responsible for investment decisions) and equity analysts (information intermediaries in the professional equity investment market; e.g., Barker, 1998). Equity analysts comprise sell-side analysts and buy-side analysts: the former are usually employed by investment banks and produce earnings forecasts, stock

recommendations and target prices, while the latter work in investment management firms and use information from sell-side analysts and elsewhere to support their portfolio investment decisions (Fogarty and Rogers, 2005; Schipper, 1991).

Professional equity investors' main aim is to maximize risk-adjusted stock returns relative to a benchmark or index and assess whether shares are over/undervalued with reference to uncertain future cash flows or earnings (Arnsward, 2001; Barker, 1999a). They therefore require information for estimating future cash flows and/or earnings and associated risk (or future returns). Such investors also have important stewardship assessments to make in holding managers to account for past performance. Accounting information that is not future-orientated may therefore be useful for management appointment and remuneration decisions (Bushman and Smith, 2001; Ittner, Larcker and Rajan, 1997).

Much of the survey evidence in this field is now dated, but there is significant consistency across studies. First, professional equity investors employ fundamental valuation models - particularly the price/earnings (P/E) ratio and, more recently, discounted cash flow (DCF) models (Barker, 1998; 1999b; Imam, Barker and Clubb, 2008). Second, across many countries, they are heavily reliant on financial statements. This is the case in France (Chambost, 2007); Germany (Ernst, Gassen and Pellens, 2005; 2009; Gassen and Schwedler, 2010; Glaum and Friedrich, 2006; Marton, 1998; Pike, Meerjanssen and Chadwick, 1993); the Netherlands (Vergoossen, 1993); Spain (Rojo Ramírez and García Pérez de Lema, 2006); Sweden (Olbert, 1994) and the UK (Campbell and Slack, 2008; Clatworthy and Jones, 2008; Imam *et al.*, 2008). Third, direct contact with company personnel is very influential and sometimes more important than financial reporting data (Barker, 1998; Barker, Hendry, Roberts and Sanderson, 2012; Glaum and Friedrich, 2006; Holland, 1998). There is little consensus on the relative importance of other information sources, however. The fact that professional equity investors use multiple alternative information sources besides financial statements suggests the Conceptual Framework should acknowledge financial reporting as one of many information sources. This may lead to the development of financial reporting based on on the competitive advantages of the financial accounting process.

## Use of valuation models

One of the reasons accounting information is so widely used by professional equity investors is the prevalence of valuation models or heuristics that use accounting data as inputs. The most prominent models in the theoretical accounting literature are the residual income valuation model (Feltham and Ohlson 1995; Ohlson, 1995; Peasnell, 1982) and, more recently, the abnormal earnings growth model (Ohlson and Juettner-Nauroth, 2005). Both have accounting foundations: the former being based on the book value of equity, abnormal earnings and growth in book value of equity, and the latter being anchored on the price/earnings ratio and abnormal earnings growth (Penman, 2010).

Early evidence (Pike *et al.*, 1993; Vergoossen, 1993; Barker, 1999a) shows the Price/Earnings ratio is widely used by analysts and fund managers, with DCF models being less influential. However, more recent evidence shows DCF models are used more than earnings models, particularly in growth industries (Demirakos *et al.*, 2004; Glaum and Friedrich, 2006). Based on equity research reports and interviews with sell-side and buy-side analysts, Imam *et al.* (2008) find DCF models to be more important than early research suggests. Valuation models are not used mechanically and are often employed on a relative, rather than an absolute basis. Glaum and Freidrich (2006) find that UK and German telecommunications analysts use multiples to compare with other firms and to prompt further investigation of within-industry differences. Hence, models often represent an initial screening device (Barker, 1999b) used to communicate earnings valuations efficiently (Imam *et al.*, 2008). The widespread use of valuation models indicates that changes in recognition and measurement rules may well affect the outcome of such valuation exercises. This becomes relevant for standard setters if professional investors fail to adjust their valuation techniques to rule changes and supports the importance of cross-sectional and cross-temporal comparability of financial accounting information.

## **Information sources used by professional equity investors**

European surveys show that the financial statements, and direct company contact are important to professional equity investors. The income statement is perceived as most useful, while management contact is most important overall (Gassen and Schwedler, 2010; Ernst, Gassen and Pellens, 2009). Recent international comparisons are rare and tend to reinforce these conclusions, though Ernst *et al.* (2005), find that Anglo-Saxon investors focus more on cash flow statements than German investors.

A limitation of the survey evidence is its assumption that information sources are used independently. Financial reporting information is used in conjunction with other sources, particularly management contact (Holland, 1999; Marton, 1998). Barker *et al.* (2012, p. 219) find that management meetings are used to ‘frame or make sense of the plethora of hard data provided by the companies themselves and by analysts’ and even though management discussion covers information outside the financial statements (e.g. strategic information and managers’ ability to implement strategy - Glaum and Friedrich, 2006; Roberts, Sanderson, Barker and Hendry, 2006), management meetings would be less informative without audited financial statements. Non-accounting information is important to professional equity investors, but is used to add meaning to more verifiable accounting data (Barker and Imam (2008). Standard setters therefore need to consider the perceived strengths of accounting by investors.

The importance attached to information sources sometimes appears to transcend economic considerations. In a study of UK fund managers, Barker *et al.* (2012) report that management meetings provide information that is useful, but not price sensitive. Fund managers use meetings to develop personal relationships, to acquire tacit knowledge and to form subjective opinions of managements’ capabilities, not merely to acquire short-term value-relevant information.

Various surveys show that the notes to financial statements are important to professional equity investors (e.g., Clatworthy, 2005; Fülbier, Niggemann and Weller, 2008; Gassen and Schwedler, 2010; Marton, 1998; Olbert, 1994), but the extent to which professional investors conduct detailed analyses of accounting data seems surprisingly low (Barker, 2000; Breton and Taffler, 1995). In addition, analysts’

interpretation and use of earnings information is not always based on a complete understanding of accounting issues of recognition and measurement. Lachmann, Wöhrmann and Wömpener (2011) find that German investors are misled by fair value accounting for liabilities; interestingly, however, Nelson and Tayler (2007) report that disclosures in notes are not given the same degree of importance as recognized figures but when analysts go through the process of adjusting the footnote data *as if it were* recognized, they attach greater weighting to it. These findings seem to be particularly relevant for conceptual standard setting debates about recognition, measurement and disclosure as they show that the choice to disclose certain information in the notes or to recognized it on the face of the financial statements is important. In addition, they suggest that there is a limit to the level of complexity that can be reasonably imposed on even the most sophisticated users of financial reporting data.

The extensive related literature on sell-side analysts mainly focuses on earnings forecasts. Studies report that analysts fail to incorporate all publicly available information in their forecasts (Abarbanell and Bernard, 1992; Lys and Sohn, 1990) and are prone to over- and under-reaction (DeBondt and Thaler, 1990; Easterwood and Nutt, 1999). European evidence is generally consistent with US findings (Capstaff, Paudyal and Rees, 1995; 1998; Hodgkinson, 2001; Wallmeier, 2005) but there is unsystematic variation between European countries (Capstaff *et al.*, 2001). Analysts' earnings forecasts are optimistic on average, which is often attributed to them maintaining good relationships with management and to investment-banking ties between issuers and analysts' employers (Das, Levine and Sivaramakrishnan, 1998; Groysberg, Healy and Maber, 2011; Hunton and McEwen, 1997; Lim, 2001; Lin and McNichols, 1998; O'Brien, McNichols and Hsiou-Wei, 2005). Analysts also produce biased recommendations and target prices on average (Bradshaw, 2011; Mokoaleli-Mokoteli, Taffler and Agarwal, 2009), but despite this, professional investors still rely on analysts' outputs (Barker, 1998; Clement and Tse, 2003) and are well aware of potential biases (Clatworthy, 2005). Brown (1993), Ramnath, Rock and Shane (2008) and Bradshaw (2011) provide comprehensive reviews of the sell-side analysts' literature.

Turning to specific recognition and measurement rules, theoretical studies (e.g. Callen, 2009; Kormendi and Lipe, 1987; Walker and Wang, 2003) indicate that transient profits are less highly valued than persistent profits. Accordingly, other comprehensive income is less relevant to analysts than net income (Mechelli and Cimini, 2014; Thinggaard *et al.*, 2006) and analysts find ‘pro-forma’ earnings useful because they exclude transient items (Gu and Chen, 2004). Experimental research suggests pro-forma earnings may mislead professional analysts (Andersson and Hellman, 2007) while buy-side and sell-side analysts from Germany, Spain and the UK rely on EBITDA - earnings before interest, tax, depreciation and amortization (Clatworthy and Jones, 2008; Glaum and Friedrich, 2006; Martinez Conesa and Ortiz Martinez, 2004).

Empirical evidence on professional investors’ views of accounting valuation bases is scarce. Gassen and Schwedler (2010) find a preference for fair value for liquid non-operating assets when based on mark-to-market, but not for non-liquid operating assets. Such a conclusion is consistent with the theory of Hitz (2007), who concludes that fundamental problems with the validity of fair value are most pronounced for model-based valuations. Plantin, Sapra and Shin (2008) demonstrate that mark-to-market accounting is theoretically most problematic when assets are long-lived, illiquid, and senior.

Why then are financial statements considered useful when they are published infrequently and are less timely and less future-orientated than other sources, such as analysts’ forecasts and information from company personnel? Analysts appear to recognise these limitations of accounting data (Campbell and Slack, 2008; Glaum and Friedrich, 2006) and emphasize the importance of the annual report as a reference document, both as the basis for forecasts of future earnings, and for resolving uncertainty about the present and recent past (Marton, 1998). Ball and Shivakumar (2008) argue that earnings provide little new information to stock markets, and have more of a ‘disciplining’ or verification role of confirming prior information. Beyer *et al.* (2010) find that US mandatory accounting information explains a low proportion of equity returns, but represents a ‘benchmark’ against which more timely and relevant

disclosures can be assessed. Whether accounting information is less influential than other information sources is, however, strongly contested by Basu, Truong Xuan Duong, Markov and Tan (2013).

### **Professional equity investors' use of information to assess stewardship**

Empirical research into professional equity investors' use of information for assessing stewardship is sparse. Most studies examine the use of accounting data in executive compensation contracts, recognising that accounting information is sometimes preferable to share prices for assessing management performance and captures managers' effort better (Lambert, 2001). Accounting information is used extensively for compensation (Bushman and Smith, 2001; O'Connell, 2007; Sloan, 1993), but reliance on share-based compensation and option plans may have reduced the association between pay and earnings (Core, 2002). The definition of earnings used is unclear, but Lambert (2010) conjectures that few contracts use 'bottom line' earnings. Ozkan, Singer and You (2012) report a stronger relationship between earnings and compensation for European countries after the introduction of IFRS.

A primary purpose of UK management meetings with professional equity investors is holding company management to account and monitoring financial performance (Roberts *et al.*, 2006). Hence, Barker (1998) finds that UK fund managers use accounting information in meetings with management to assess their performance track record, while Holland (1999) finds that financial statements are used in assessments of performance relative to previous year's objectives.

Overall, professional equity investors rely on accounting information and management contact for investment and for stewardship purposes, but the literature lacks recent evidence, particularly for stewardship assessment decisions. There is also relatively little evidence on investors based in European countries outside the UK. What little evidence there is on stewardship points to professional investors using accounting information for monitoring and control purposes, further strengthening the case for a more prominent role for stewardship in the Conceptual Framework.

### ***3.2 Private/retail equity investors***

Retail investors use public media, advice by financial institutions, friends or family, and financial statements as information sources for their decisions as capital providers. Early research by Anderson and Epstein (1996), Epstein and Pava (1993), and Lee and Tweedie (1975) reveals a preference for financial advice by brokers and other financial institutions, whereas more recent evidence shows that public media plays a major role (Ernst *et al.*, 2005; 2009; Pellens and Schmidt 2014). Both sources provide ‘filtered’ information, where the underlying accounting information has been selected, condensed and interpreted. A survey of US investors by Elliott, Hodge and Jackson (2008) indicates that the use of unfiltered, ‘raw’ financial accounting information by retail investors is linked to lower returns on investment, particularly for less experienced investors. Accordingly, more experienced and better-educated retail investors rely relatively more on unfiltered quantitative information (Ernst *et al.*, 2009; Elliot *et al.*, 2008).

With respect to financial statements retail investors focus on the balance sheet, the income statement and (to a lesser extent) the cash flow statement and seem to discard the notes to the financial statements almost entirely (Ernst *et al.*, 2009: 31). There is also evidence that retail investors prefer audited to non-audited information (Cohen, Holder-Webb, Nath and Wood, 2011; Ernst *et al.*, 2009; Hodge, Hopkins and Wood, 2010). Overall, retail investors recognise the agency problems related to their investment: around 50 percent assume that managers manage earnings opportunistically (Hodge, 2003. p. 42). Also, Ernst *et al.* (2009, p. 43) show that more than 40 percent fear being exploited by other stakeholders. This view is more pronounced among inexperienced investors.

Experimental evidence indicates that retail investors tend to ignore relevant information even if it is targeted at their needs and provided free of charge (Bhattacharya, Hackethal, Kaesler, Loos and Meyer, 2012). In addition, they are more easily misled by pro-forma earnings disclosures and often use overly simplistic valuation models (Elliot, 2006; Frederickson and Miller, 2004). As is the case for professional investors, accounting presentation matters for retail investors’ information analysis and different weights

are assigned depending on location in the financial statements (Hodge *et al.*, 2010; Lachmann *et al.*, 2011; Maines and McDaniel, 2000).

Archival evidence generally finds that retail investors fail to incorporate available financial reporting information when making investment decisions. Battalio and Mendenhall (2005) show that retail investors systematically under-estimate the implication of earnings announcements for future earnings. Malmendier and Shanthikumar (2007) report that retail investors fail to adjust bias in analysts' recommendations. Hirshleifer, Myers, Myers and Teoh (2008), using personal trade data provided by a discount broker, document that retail investors tend to be net buyers around earnings announcements with extreme earnings surprises, regardless of whether these surprises are positive or negative. Finally, Chiyachantana, Jiang, Taechapiroontong and Wood (2004) find that retail trading increased relative to institutional trading around earnings announcements after Regulation Fair Disclosure was introduced in the US, consistent with retail investors abstaining from trading when they fear institutional investors have better information. Similarly, Lawrence (2013) provides evidence based on brokerage data that retail investors invest more and obtain higher returns in firms with more detailed and more readable annual reports and that these associations are less pronounced for investors with a professional background.

There is some evidence that private investors use financial statements and the annual report for stewardship assessment purposes. In a study of Swedish annual general meetings, Carrington and Johed (2007) find that private shareholders are often concerned with financial accounting issues, management compensation and past performance of the firm. Consequently, financial statement-related issues seem to form an important part of the dialogue at the annual general meeting.

In summary, retail investors prefer filtered information provided to them by information intermediaries (financial advisors and public media) to unfiltered information. Limited information processing capabilities and behavioural biases explain sub-optimal demand for and processing of information. The fact that reducing information asymmetries between investor types causes increased trading by retail investors (Kelly and Ljungqvist, 2012) suggests that poorly informed retail investors lead

to lower liquidity. This latter finding may motivate standard setters and regulators to also focus on the divergent information needs of retail investors and their intermediaries when developing standards.

### **3.3 The use of accounting information by inside equity investors**

In many European countries, large public companies have significant levels of inside equity investment. Inside investors are equity investors with an active involvement in company management. The most common type of inside investors is entrepreneurial families. According to Shleifer and Vishny (1986), family firms are very common: even in the US, around 33 percent of the largest firms are companies where founding families are blockholders and control a considerable portion of board seats.

Salvato and Moore (2010) provide a concise survey of the role of accounting information in family firms, highlighting important peculiarities that distinguish families and inside investors from other investor types in their use financial reporting information. The overlap of ownership and control characterizing family firms means that inside investors are simultaneously users and producers of financial reporting information. Because of their incentive structure and investment horizon, inside investors have specific information needs that require accounting information to be useful for managerial control, executive compensation and strategic planning.

Direct evidence for these information needs is scarce as research predominantly focuses on the information production by inside investors. A rare study providing survey evidence is Upton, Teal, and Felan (2001), which documents, based on a survey of high-growth family firms, that financial reports are prepared with a clear intention to tie the information to written formal plans. Inside investors therefore primarily require a sufficient level of detail to link strategic planning to actual performance and to connect management compensation with financial results (Tiscini and Raioli, 2012).

These limited insights into the use of information by inside equity investors nevertheless highlight a very important aspect that may also generalize to firms that are manager-run: financial accounting information is often useful for internal decision-making. This use tends to be overlooked by standard

setters and also seems to play only a minor role in the current debates around the Conceptual Framework. However, especially in settings where managerial accounting and internal reporting systems are underdeveloped, like in firms operating in developing and emerging economies and in smaller entities, financial accounting may perform a highly influential role in guiding business decisions. The lack of attention paid to inside capital providers perhaps reflects – as does the Conceptual Framework – that in determining how user demands shape financial reporting, one needs to consider not just the amount of capital provided by different user groups, but also the ability of users to require entities to provide information directly to them.

### ***3.4 Public and private debt providers***

Existing research suggests debt providers are sophisticated users of financial statements data, and that accounting is used extensively for assessing financial distress and in debt contracting. This holds both for public (e.g., bonds) and private debt (e.g., individual or syndicated bank loans) and so, to simplify, we do not distinguish between them in this review. However, as explained in Bharath *et al.* (2008) and summarized in Table 2 there are important differences between these types of financing.

#### **Insert Table 2 about here**

In private lending, lenders have superior information-processing abilities and better access to private information, which can be used both in designing the contract and in subsequent monitoring (Bhattacharya and Chisea, 1995; Fama, 1985). In addition, co-operation among private lenders is easier, resulting in more effective monitoring (Diamond, 1984; 1991). Accounting information is therefore more important for public debt issues. In private borrowing, where firms often develop relationships with their lenders, financial intermediaries can obtain information from other sources and from repeated interactions, thereby reducing the value of accounting.

## **The use of accounting information to predict financial distress and credit ratings**

Debt investors are particularly interested in assessing financial distress to decide how much to lend, and on what (price and non-price) terms. Much evidence exists on the usefulness of financial statement data to predict financial distress, although there is no clear unifying theory. The early work of Beaver (1966) suggests up to 30 ratios in six categories: cash flow; income; debt to total assets; liquid assets to total assets; liquid assets to current debt; and turnover ratios. Subsequent research confirms the usefulness of accounting ratios in predicting distress (Altman, 1968; Ohlson, 1980; Shumway, 2001; Taffler, 1983; Zmijewski, 1984). Beaver *et al.* (2005, 2010) summarize this literature and show that the three key ratios are: 1) ROA (profitability of assets); 2) EBITDA to total liabilities (ability of cash flow to service the payments); and 3) Total liabilities to total assets (a measure of assets available to repay debt).

Alternative approaches to predicting financial distress using option pricing theory also exist (e.g., Black and Scholes, 1973). These studies use market value-based variables,<sup>7</sup> and challenge the accuracy of accounting models on the grounds that distress prediction is concerned with the likelihood of future events and financial statements measure past performance, are formulated under the going-concern principle (limiting their ability to assess distress), are less timely than other sources of information and do not provide estimates of volatility. Which models perform best is still unresolved (Campbell *et al.*, 2008; Hillegeist, Keating, Cram and Lundstedt, 2004), but the work of Beaver *et al.* (2010) suggests that the information not reflected in accounting adds little explanatory power.

A related literature studies bond/credit analysts. These analysts collect and interpret information about public corporate bond securities, ultimately providing recommendations. Prior research shows that accounting data can predict credit ratings reasonably well (Horrigan, 1966; Kaplan and Urwitz, 1979; West, 1970). In fact, simple models using as explanatory variables return-on-assets, debt-to-assets, firm size, dividend payment, and indicators on whether the firm has subordinated debt or negative ROA, can

---

<sup>7</sup> See, e.g., Bharath and Shumway (2008), Campbell *et al.* (2008), Chava and Jarrow (2004), Hillegeist *et al.* (2004); Vassalou and Xing (2004).

explain up to 66 per cent of the cross-sectional variation in S&P credit ratings (Barth, Beaver and Landsman, 1998; Barth, Hodder and Stubben, 2008). This suggests that accounting information is a major input, but also that credit analysts gather other information (Graham, Maher, and Northcut 2001; Jorion, Liu and Shi, 2005; Lee, 2002).

There is very little research into how properties of accounting affects credit analysts. The limited available evidence suggests they adjust accounting figures by incorporating off balance-sheet financing (Kraft, 2011), but they sometimes fail to incorporate all accounting information into their recommendations, particularly for taxes (Ayers, Laplante, and McGuire, 2010), or asset securitizations (Barth, Ormazabal and Taylor., 2012). Overall, credit analysts seem to prefer predictable earnings (Crabtree and Maher, 2005) and demand negative information more than positive information (De Franco, Vasvari and Wittenberg-Moerman, 2009; Easton, Monahan and Vasvari, 2009), consistent with the well-established Merton (1974) finding that the sensitivity of debt to changes in the value of the company's assets increases when the company is in financial distress. Taken together, these findings lend support to an emphasis on bad news indicators and earnings predicatbility when developing the Conceptual Framework.

### **The use of accounting information in debt contracts**

Audited accounting information plays a crucial role in debt contracting, both at the time of the initial provision of capital and during subsequent renegotiations (Smith and Warner, 1979; Watts and Zimmerman, 1978). Many features of debt contracts can be affected by accounting attributes or require accounting data in their calculations.<sup>8</sup> Research unequivocally demonstrates that financial covenants based on accounting variables are commonly used in debt contracts (Bradley and Roberts, 2004; Beneish and Press, 1993; Chava and Roberts, 2008; Leftwich, 1983; Nini, Smith and Sufi, 2009), particularly

---

<sup>8</sup> These include: the interest rate; loan size and maturity; level of collateral; the presence and nature of performance-pricing provisions; financial covenants; restrictions on investment; dividend and the borrowing base; and whether ('frozen GAAP') or not ('rolling GAAP') the accounting principles used are fixed at loan initiation (Armstrong *et al.*, 2010).

when agency conflicts are high and there is a risk that debt-holders' investment will be expropriated, such as in small, high-growth firms (Billet, King and Mauer, 2007) and where leverage is high (Citron, 1992a). On average, debt contracts contain around three financial covenants (Ball *et al.*, 2008a; Christensen and Nikolaev, 2012).

The most common financial covenants are those based on net worth, working capital, leverage, interest coverage, and cash flow (Bradley and Roberts, 2004; Citron, 1992b; Gârleanu and Zwiebel, 2009), though debt/EBITDA covenants are increasingly popular (Demiroglu and James, 2010). In a recent study, Demerjian (2011) suggests that from 1996 to 2007, the use of covenants based on balance sheet variables and ratios has declined compared with income statement ratios due to the broader adoption of fair value measurement by standard setters. However, Skinner (2011) questions this view, and Christensen and Nikolaev (2012) present conflicting evidence in a study of balance sheet (capital) and income and cash flow statement (performance) covenants. They show that as accounting becomes less informative (or contractible), capital covenants are preferred to performance covenants.

An important question in this literature is whether or not debt contracts use GAAP numbers (Guay and Verrecchia 2006; Schipper, 2005). The evidence suggests that GAAP numbers are an important reference point, but that lenders often make adjustments to both to balance-sheet and particularly, income-statement numbers. Indeed, observed measurement rules may differ markedly from GAAP. For example, net worth covenants are adjusted for subsequent equity build up (Beatty, Weber and Yu, 2008; Dichev and Skinner, 2002), and sometimes eliminate intangible assets (Citron, 1992b; Frankel, Seethamraju and Zach, 2008). Income-statement based covenants usually use adjusted earnings numbers such as EBIT or EBITDA that are more insulated from the effect of GAAP changes, while comprehensive income is hardly ever used (Li, 2010). There is also evidence that modifications are made to debt covenants when accounting rules change (Frankel *et al.*, 2008) and higher interest rates are charged when contracts retain discretion to select amongst accounting treatments (Beatty *et al.*, 2002). Overall, firms with more opaque accounting have more restrictive covenants (Chava *et al.*, 2010), while firms with restated financial

statements agree to additional covenants in subsequent contracts to appease the concerns of lenders (Graham, Li and Qiu, 2008). Despite this, Citron (1992a) finds that banks impose few costs on borrowers when covenant breaches are caused by changes to accounting standards.

The evidence on conservative adjustments leads to a fundamental question related to the development of the Conceptual Framework: Are there specific accounting measurement bases that improve debt contracting? If lenders prefer conservatism, they could in principal write conservative debt contracts, without requiring biased reporting. However, designing and monitoring these adjustments to standard debt contracts is costly and may require unaudited private information. The literature suggests a certain role for conservatism in contracting, generally suggesting improvements in contracting efficiency are associated with greater conservatism (Beatty *et al.*, 2008; 2012; Caskey and Hughes, 2012; Nikolaev, 2010; Vasvari, 2012).

### **Accounting information, access to debt capital and the cost of debt**

Prior research also examines debt providers' use of information by examining the association between financial reporting attributes, firm access to debt capital and the cost of debt. The fundamental prediction and finding in this literature is that firms making timely and informative disclosures are less likely to withhold bad news relevant to debt providers and as a result, can obtain better credit terms (e.g., Ashbaugh, Collins and LaFond, 2006; Francis, Khurana and Pereira, 2005; Sengupta, 1998).<sup>9</sup> This literature is thus based on the important premise that lenders consider borrowers' accounting policies when estimating default risk. A related literature argues that debt-holders demand conservative accounting (Ball *et al.*, 2008b; Watts, 2003a; 2003b) and explores the association between conservatism and debt financing. This literature predicts that conservatism, by requiring timely recognition of losses and deferred recognition of gains, reduces the cost of debt (Ahmed, Billings, Morton and Stanford-Harris, 2002; Wittenberg-Moerman, 2008; Zhang, 2008) and maximizes the *ex ante* probability of obtaining

---

<sup>9</sup> Armstrong *et al.* (2010) provide an excellent summary of this literature.

financing (Göx and Wagenhofer, 2009). In summary, the literature shows that credit markets rely heavily on accounting information for multiple purposes and their demands on the information reflect the nature of their claims. The extent to which their demands on accounting result in changes to GAAP figures (as opposed to resulting in post-reporting adjustments) remains a question of significant interest.

### ***3.5 Trade creditors***

As shown in Table 1, trade credit is a fundamental component of European firms' financing. A 2006 survey by the University of Leeds on 2,000 businesses in ten European countries, most EU companies sell their goods and services on credit (between 32 days - in Norway, to 110 days - in Greece) and experience late payments from customers (Intrum Justitia, 2011). Despite this, academic research into the information used by firms to extend trade credit is surprisingly scarce. Most of the evidence points to two principal conclusions. First, non-financial factors explain a significant portion of trade credit terms (Giannetti, Burkart and Ellingsen, 2011; Klapper, Laeven and Rajan, 2011; Petersen & Rajan, 1994), giving little importance to accounting information accounting. Second, information intermediaries (particularly credit bureaus) play a key role in processing and sharing information about companies' credit quality (Japelli and Pagano, 2002; Jones, 2010). Their ratings rely both on non-accounting information such as company visits and information from other firms that have extended credit to the company (Pertesen, 2004), and on financial statement data (Arrunada, 2011; Kallberg and Udell, 2003).

#### **Information use by credit managers**

Those who decide on the terms in a trade credit contract are credit managers or sales personnel, assisted by a credit bureau to assess credit risk according to Pike and Cheng (2003). A credit bureau is a formal exchange mechanism of credit information by lenders. The bureau collects and consolidates information about borrowers and in Europe, most credit bureaus also offer credit insurance.

Arrunada (2011) analyses the uses of information provided credit information services. Based on a large survey of users of an online credit information service, 90 per cent use the service to obtain information about SMEs, mainly for new clients (60 per cent) and for decisions about credit terms (67 per cent). Information sources relied upon to make these decisions are accounting information (83 per cent) and past history of judicial incidents (55 per cent).

Once the new customer acceptance decision is made, credit terms are largely determined by non-financial factors. Cheng and Pike (2003) argue that industry standards determine credit terms for UK firms, though Gill (2012) finds that credit terms are largely determined by firm-specific factors. Klapper *et al.* (2011) find that large, investment-grade buyers get long terms from small suppliers consistent with relatively untrusted suppliers extending longer terms to buyers to guarantee product quality. There is therefore little role for accounting information in setting credit terms.

### **Information use by credit bureaus**

Credit bureaus play an essential role in Europe (and in the US). The most important credit bureaus in Europe are Euler Hermes, Atradius and COFACE (Jones, 2010). Their main role is the production of a comprehensive report that is sold to lenders (Kallberg and Udell, 2003). Both negative (defaults including the amounts of the outstanding at default and the date of last payment) and positive (credit history information on current and closed accounts) information appears in such reports. A condition for these items to be collected is that they are standardized, to permit storage in databases and use in subsequent analyses of default (Petersen, 2004). Credit providers use credit reports to conduct credit risk analysis of prospective borrowers in order to mitigate credit risk.

Kallberg and Udell (2003) provide a rare empirical analysis of the information used by credit bureaus when issuing their reports. They find that the value of the information bureaus generate goes beyond information that is otherwise available to lenders, including information contained in borrowers' financial statements. This suggests that if accounting information is a necessary ingredient for credit

bureaus it constitutes only a small part of the inputs actually used. Again these hint at the complementary role of financial accounting information in decision-making and its co-existence with other sources.

#### **4. Discussion of findings and conclusions**

The objective of this paper is to survey the evidence on the use of financial accounting information by capital providers of public interest entities across Europe. Based on this evidence, we reach four main conclusions.

First, we document that capital providers are heterogeneous and that their information needs, as well as their demand for information, differ systematically. Information can be used to affect firm behaviour and cash flows via contractual arrangements (i.e., the stewardship role of accounting) and to value claims to reporting firms (i.e., the valuation role of accounting). While both accounting objectives yield similar information needs in some circumstances, theoretical studies identify areas where both objectives produce divergent information demands. To the extent that some capital providers have the opportunity to influence their contractual relationships with firms (i.e., inside investors, institutional outside investors and influential lenders), we can expect a significant demand for stewardship-related accounting information, while other investors (individual investors, public lenders, trade creditors) usually lack the opportunity to engage in contractual design. Their demand for financial accounting information can therefore be expected to be shaped predominantly by the valuation objective of financial accounting.

Second, we find clear evidence that capital providers use multiple information sources and that these information sources interact. Institutional equity investors use financial accounting information predominantly as a verified, standardized and objective anchor to evaluate more timely (although less reliable) information from other sources. In addition, they use financial reporting to evaluate and discipline management when voluntarily providing additional information. Individual investors and trade creditors tend to use filtered information provided to them by information intermediaries, while private

lenders have access to information via direct communication channels. Nevertheless, the latter use audited financial reporting information extensively in contractual arrangements with borrowers.

Third, direct, experimental and archival evidence clearly documents that investors tend to ignore or “miss-evaluate” relevant information. For example, even apparently benign presentational differences can have significant effects on capital providers’ decisions. While these behavioural aspects are extremely pronounced for individual investors, even professional equity investors seem to base their decisions on sub-optimal information and decision rules. This in turn implies that information-processing costs are relevant even for sophisticated capital providers.

Fourth, we know surprisingly little about the actual information usage by capital providers. Direct evidence is scarce and many inferences are based on archival data that reflect aggregate investor behaviour and not their information gathering activities. The direct evidence that is available tends, to a large degree, to be dated and, in many instances, based on survey instruments and/or on artificial experimental settings.

These findings have far-reaching implications for the current discussions surrounding the Conceptual Framework for financial reporting. The heterogeneity of users of financial accounting information makes it difficult to identify a dominant user group *ex ante*. On the other hand, since heterogeneous users have heterogeneous demands, the notion of ‘general purpose financial reporting’ seems questionable. Perhaps even more important, it seems unclear why financial accounting information should be designed to provide a holistic ‘true and fair view’ of the reporting entity. In a setting where capital providers use information from various sources for their decisions, it seems conceptually appealing to optimize financial accounting information conditional on the other information sources being available. Based on the literature, one can conclude that the competitive advantage of financial reporting information lies with its verifiability, objectivity, standardization and regularity. Finally, the observation that capital providers use information intermediaries and have limited information processing skills justifies further study into the recipients of financial accounting information as increasingly complex

accounting information induces substantial risks of miscommunication. To conclude, since different users have different information needs, information processing skills and alternative information sources, the development of a Conceptual Framework ultimately involves making political decisions. This implies that preferring the information need of one capital provider group over the information needs of other capital providers will imply distributional effects.

For future research this review opens up a range of opportunities. First, there is a need for more recent direct evidence on the use of financial accounting information by different users for different objectives. Ideally, this evidence would be field-based. Alternative settings with similar information problems but easier access to information gathering activities for the researcher can be helpful. Second, our review highlights the need for refined theories about information usage in decision-making and contractual design. These models should reflect the observed information behaviour of the first step and incorporate information processing skills and bounded rationality of the economic agents. Third, the predictions of these models should be evaluated using experimental designs optimized for internal validity and real-life settings to gauge the external validity of the experimental findings. Fourth and finally, the evidence collected in the first three steps should help to provide ‘engineering’ support for standard setters who wish to establish, and maintain, a system of evidence-based financial accounting regulation. This process should help close the ‘communications gap’ (Singleton-Green, 2010) and may result in academic research being less underutilized by accounting standard setters and policy makers (cf. Trombetta *et al.*, 2012).

## References

- Abarbanell, J. S., and Bernard, V. L. (1992). Tests of analysts' overreaction/underreaction to earnings information as an explanation for anomalous stock price behaviour. *The Journal of Finance*, 47(3), 1181-1207.
- Ahmed, A. S., Billings, B. K., Morton, R. M., and Stanford-Harris, M. (2002). The role of accounting conservatism in mitigating bondholder-shareholder conflicts over dividend policy and in reducing debt costs. *The Accounting Review*, 77(4), 867-890.
- Ali, A., Chen, T. Y., and Radhakrishnan, S. (2007). Corporate disclosures by family firms. *Journal of Accounting and Economics*, 44(1), 238-286.
- Altman, E. I. (1968). Financial ratios, discriminant analysis and the prediction of corporate bankruptcy. *The Journal of Finance*, 23(4), 589-609.
- Amir, E., and Lev, B. (1996). Value-relevance of nonfinancial information: The wireless communications industry. *Journal of Accounting and Economics*, 22, 3-30.
- Anderson, R. H., and Epstein, M. (1996) *The usefulness of corporate annual reports to shareholders in Australia, New Zealand and the United States: An international comparison*, Greenwich, CT.
- Andersson, P., and Hellman, N. (2007). Does pro-forma reporting bias analyst forecasts? *European Accounting Review*, 16(2), 277-298.
- Armstrong, C. S., Guay, W. R., and Weber, J. P. (2010). The role of information and financial reporting in corporate governance and debt contracting, *Journal of Accounting and Economics*, 50(2), 179-234.
- Arnsward, T. (2001). Investment behaviour of German equity fund managers-an exploratory analysis of survey data. *Discussion Paper*, Economic Research Centre of the Deutsche Bundesbank.
- Arrunada B. (2010). Mandatory accounting disclosure by small private companies, *European Journal of Law and Economics*, 32(3), 377-413
- Ashbaugh, H., Collins, D. W., and LaFond, R. (2006). The effects of corporate governance on firms credit ratings, *Journal of Accounting and Economics*, 42(1), 203-243.
- Ayers, B. C., Laplante, S. K., and McGuire, S. T. (2010). Credit ratings and taxes: the effect of book-tax differences on ratings changes, *Contemporary Accounting Research*, 27(2), 359-402.
- Ball, R., Bushman, R. M., and Vasvari, F. P. (2008a). The debt contracting value of accounting information and loan syndicate structure, *Journal of Accounting Research*, 46(2), 247-287.
- Ball, R., Robin, A., and Sadka, G. (2008b). Is financial reporting shaped by equity markets or by debt markets? An international study of timeliness and conservatism, *Review of Accounting Studies*, 13(2), 168-205.
- Ball, R., and Shivakumar, L. (2008). How much new information is there in earnings, *Journal of Accounting Research*, 46(5), 975-1016.
- Banker, R. D., Huang, R. and Natarajan, R. (2009). Incentive contracting and value relevance of earnings and cash flows, *Journal of Accounting Research*, 47, 647-678.
- Barker, R., Hendry, J., Roberts, J., and Sanderson, P. (2012). Can company-fund manager meetings convey informational benefits? Exploring the rationalisation of equity investment decision making by UK fund managers, *Accounting, Organizations and Society*, 37(4), 207-222.
- Barker, R. G. (1998). The market for information - evidence from finance directors, analysts and fund managers, *Accounting and Business Research*, 29(1), 3-20.
- Barker, R. G. (1999a). Survey and market based evidence of industry dependence in analysts preferences between the dividend yield and price earnings ratio valuation models, *Journal of Business Finance and Accounting*, 26(3-4), 393-418.
- Barker, R. G. (1999b). The role of dividends in valuation models used by analysts and fund managers, *European Accounting Review*, 8(2), 195-218.

- Barker, R.G. (2000). FRS 3 and analysts' use of earnings, *Accounting and Business Research*, 30(3), 95-109.
- Barker, R.G. and Imam, S. (2008). Analysts' perceptions of 'earnings quality, *Accounting and Business Research*, 38(4), 313-329.
- Barth, M. E., Beaver, W. H., and Landsman, W. R. (1998). Relative valuation roles of equity book value and net income as a function of financial health, *Journal of Accounting and Economics*, 25(1), 1-34.
- Barth, M. E., Hodder, L. D., and Stubben, S. R. (2008). Fair value accounting for liabilities and own credit risk, *The Accounting Review*, 83(3), 629-664.
- Barth, M. E., Ormazabal, G., and Taylor, D. J. (2012). Asset securitizations and credit risk, *The Accounting Review*, 87(2), 423-448.
- Basu, S. (2012). How can accounting researchers become more innovative? *Accounting Horizons*, 26(4), 851-570.
- Basu, S. Truong Xuan Duong, T.X., Markov, S. and Tan, E.J. (2013). How important are earnings announcements as an information source?, *European Accounting Review*, 22(2), 221-256,
- Battalio, R. H., and Mendenhall, R. R. (2005). Earnings expectations, investor trade size, and anomalous returns around earnings announcements, *Journal of Financial Economics*, 77(2), 289-319.
- Beatty, A., Petacchi, R., and Zhang, H. (2012). Hedge commitments and agency costs of debt: evidence from interest rate protection covenants and accounting conservatism, *Review of Accounting Studies*, 17(3), 700-738.
- Beatty, A., Ramesh, K., and Weber, J. (2002). The importance of accounting changes in debt contracts: the cost of flexibility in covenant calculations, *Journal of Accounting and Economics*, 33(2), 205-227.
- Beatty, A., Weber, J., and Yu, J. J. (2008). Conservatism and debt, *Journal of Accounting and Economics*, 45(2), 154-174.
- Beaver, W. H. (1966). Financial ratios as predictors of failure, *Journal of Accounting Research*, 4(3), 71-111.
- Beaver, W. H., Correia, M., and McNichols, M. F. (2010). Financial statement analysis and the prediction of financial distress, *Foundations and Trends in Accounting*, 5, 99-173.
- Beaver, W. H., McNichols, M. F., and Rhie, J. W. (2005). Have financial statements become less informative? Evidence from the ability of financial ratios to predict bankruptcy, *Review of Accounting Studies*, 10(1), 93-122.
- Beneish, M. D., and Press, E. (1993). Costs of technical violation of accounting-based debt covenants, *Accounting Review*, 68, 233-257.
- Berle A.A. Jr., and Means, G.C. (1932). *The modern corporation and private property*. Macmillan, New York, NY.
- Beyer, A., Cohen, D. A., Lys, T. Z., and Walther, B. R. (2010). The financial reporting environment: Review of the recent literature *Journal of Accounting and Economics*, 50(2), 296-343.
- Bharath, S. T., and Shumway, T. (2008). Forecasting default with the Merton distance to default model, *Review of Financial Studies*, 21(3), 1339-1369.
- Bharath, S. T., Sunder, J., and Sunder, S. V. (2008). Accounting quality and debt contracting, *The Accounting Review*, 83(1), 1-28.
- Bhattacharya, S., and Chiesa, G. (1995). Proprietary information, financial intermediation, and research incentives, *Journal of Financial Intermediation*, 4(4), 328-357.
- Bhattacharya, U., Hackethal, A., Kaesler, S., Loos, B. and Meyer, S., (2012). Is unbiased financial advice to retail investors sufficient? Answers from a large field study, *Review of Financial Studies*, 25 (4), 975-1032.

- Billet, M. T., King, T. D., and Mauer, D. C. (2007). Growth opportunities and the choice of leverage, debt maturity, and covenants, *The Journal of Finance*, 62(2), 697-730.
- Black, F., and Scholes, M. (1973). The pricing of options and corporate liabilities, *The Journal of Political Economy*, 81, 637-654.
- Block, S. B. (1999). A study of financial analysts: practice and theory, *Financial Analysts Journal*, 55(4), 86-95.
- Bradley, M. and Roberts, M. (2004). The structure and pricing of corporate debt covenants, *Working paper*, Duke University.
- Bradshaw, M. (2011). Analysts' Forecasts: What Do We Know After Decades of Work?, *Available at SSRN 1880339*.
- Bradshaw, M. T. (2002). The use of target prices to justify sell-side analysts' stock recommendations, *Accounting Horizons*, 16(1), 27-41.
- Breton, G. and Taffler, R. J. (1995). Creative accounting and analyst response, *Accounting and Business Research*, 25(98), 81-92.
- Bromwich, M. (1992). *Financial Reporting, Information and Capital Markets*, Pitman: London.
- Brown, L. D. (1993). Earnings forecasting research: Its implications for capital markets research, *International Journal of Forecasting*, 9(3), 295-320.
- Brüggemann, H., Hitz, J.-M. and Sellhorn, T. (2013). Intended and unintended consequences of mandatory IFRS adoption: review of extant evidence and structure for future research, *European Accounting Review*, forthcoming.
- Bushman, R. M. and Indjejikian, R. J. (1993). Accounting income, stock price and managerial compensation, *Journal of Accounting and Economics*, 3-23.
- Bushman, R.M. and Smith, A.J. (2001). Financial accounting information and corporate governance, *Journal of Accounting and Economics*, 32, 237-333.
- Bushman, R.M., Engel, E. and Smith, A. (2006). An analysis of the relation between the stewardship and valuation roles of earnings, *Journal of Accounting Research*, 44(1), 53-83.
- Callen, J. L. (2009). Shocks to shocks: A theoretical foundation for the information content of earnings, *Contemporary Accounting Research*, 26(1), 135-166.
- Campbell, D. and Slack, R. (2008). *Narrative reporting: analysts' perceptions of its value and relevance*, London: Association of Chartered Certified Accountants. Report No. 104.
- Campbell, J. Y., Hilscher, J. and Szilagyi, J. (2008). In search of distress risk, *The Journal of Finance*, 63(6), 2899-2939.
- Capstaff, J., Paudyal, K. and Rees, W. (1995). The accuracy and rationality of earnings forecasts by UK analysts, *Journal of Business Finance and Accounting*, 22(1), 67-85.
- Capstaff, J., Paudyal, K. and Rees, W. (1998). Analysts' forecasts of German firms' earnings: A comparative analysis, *Journal of International Financial Management and Accounting*, 9(2), 83-116.
- Carrington, T. and Johed, G. (2007). The construction of top management as a good steward: A study of Swedish annual general meetings, *Accounting, Auditing and Accountability Journal*, 20(5), 702-728.
- Caskey, J. and Hughes, J. S. (2012). Assessing the impact of alternative fair value measures on the efficiency of project selection and continuation, *The Accounting Review*, 87(2), 483-512.
- Chambost, I. (2007). *Contribution à l'analyse de la formation du jugement des analystes financiers*, Doctorat en sciences de gestion, CNAM, Paris.
- Chava, S., Kumar, P. and Warga, A. (2010). Managerial agency and bond covenants, *Review of Financial Studies*, 23(3), 1120-1148.
- Chava, S. and Jarrow, R. A. (2004). Bankruptcy prediction with industry effects, *Review of Finance*, 8(4), 537-569.

- Chava, S. and Roberts, M. R. (2008). How does financing impact investment? The role of debt covenants, *The Journal of Finance*, 63(5), 2085-2121.
- Chen, S., Chen, X. and Cheng, Q. (2008). Do family firms provide more or less voluntary disclosure?, *Journal of Accounting Research*, 46(3), 499-536.
- Chiyachantana, C. N., Jiang, C. X., Taechapiroontong, N. and Wood, R. A. (2004). The impact of regulation fair disclosure on information asymmetry and trading: An intraday analysis, *Financial Review*, 39(4), 549-577.
- Christensen, H. B. and Nikolaev, V. V. (2012). Capital versus performance covenants in debt contracts, *Journal of Accounting Research*, 50(1), 75-116.
- Christensen, P. O., Feltham, G. A. and Şabac, F. (2005). A contracting perspective on earnings quality, *Journal of Accounting and Economics*, 39(2), 265-294.
- Citron, D. B. (1992a). Financial ratio covenants in UK bank loan contracts and accounting policy choice, *Accounting and Business Research*, 22(88), 322-335.
- Citron, D. B. (1992b). Accounting measurement rules in UK bank loan contracts, *Accounting and Business Research*, 23(89), 21-30.
- Clatworthy, M. (2005). *Transnational equity analysis*, Chichester: John Wiley and Sons
- Clatworthy, M. and Jones, M. J. (2008). Overseas equity analysis by UK analysts and fund managers, *The British Accounting Review*, 40(4), 337-355.
- Clement, M. B. and Tse, S. Y. (2003). Do investors respond to analysts' forecast revisions as if forecast accuracy is all that matters?, *The Accounting Review*, 78(1), 227-249.
- Cohen, J., Holder-Webb, L., Nath, L. and Wood, D. (2011). Retail investors' perceptions of the decision-usefulness of economic performance, governance, and corporate social responsibility disclosures, *Behavioral Research in Accounting*, 23(1), 109-129.
- Core, J.E. (2002). Discussion of The roles of performance measures and monitoring in annual governance decisions in entrepreneurial firms, *Journal of Accounting Research*, 40(2), 519-527.
- Crabtree, A. D. and Maher, J. J. (2005). Earnings predictability, bond ratings, and bond yields, *Review of Quantitative Finance and Accounting*, 25(3), 233-253.
- Das, S., Levine, C. B. and Sivaramakrishnan, K. (1998). Earnings predictability and bias in analysts' earnings forecasts, *The Accounting Review*, 73, 277-294.
- De Bondt, W. F. and Thaler, R. H. (1990). Do security analysts overreact?, *The American Economic Review*, 80(2), 52-57.
- De Franco, G., Vasvari, F. P. and Wittenberg-Moerman, R. (2009). The informational role of bond analysts, *Journal of Accounting Research*, 47(5), 1201-1248.
- Demerjian, P. R. (2011). Accounting standards and debt covenants: Has the "balance sheet approach" led to a decline in the use of balance sheet covenants?, *Journal of Accounting and Economics*, 52(2), 178-202.
- Demirakos, E. G., Strong, N. C. and Walker, M. (2004). What valuation models do analysts use?, *Accounting Horizons*, 18(4), 221-240.
- Demiroglu, C. and James, C. M. (2010). The information content of bank loan covenants, *Review of Financial Studies*, 23(10), 3700-3737.
- Demsetz H. (1983). The structure of ownership and the theory of the firm, *Journal of Law and Economics*, 26, 375-390.
- Demski, J. S. (2007). Is accounting an academic discipline? *Accounting Horizons*, 21, 153-157.
- Dhaliwal, D. S., Khurana, I. K. and Pereira, R. (2011). Firm disclosure policy and the choice between private and public debt, *Contemporary Accounting Research*, 28(1), 293-330.
- Diamond, D. W. (1984). Financial intermediation and delegated monitoring, *The Review of Economic Studies*, 51(3), 393-414.

- Diamond, D. W. (1991). Monitoring and reputation: The choice between bank loans and directly placed debt, *Journal of Political Economy*, 99(4), 689-721.
- Dichev, I. D. and Skinner, D. J. (2002). Large-sample evidence on the debt covenant hypothesis, *Journal of Accounting Research*, 40(4), 1091-1123.
- Dickhaut, J. W. and McCabe, K. A. (1997). The behavioural foundations of stewardship accounting and a proposed program of research: What is accountability? , *Behavioral Research in Accounting*, 9, 60-87.
- Drymiotis, G. and Hemmer, T. (2013). On the stewardship and valuation implications of accrual accounting systems, *Journal of Accounting Research*, forthcoming.
- Dutta, S. and Zhang, X.-J. (2002). Revenue recognition in a multiperiod agency setting, *Journal of Accounting Research*, 40(1), 67-83.
- Easterwood, J. C. and Nutt, S. R. (1999). Inefficiency in analysts' earnings forecasts: systematic misreaction or systematic optimism?, *The Journal of Finance*, 54(5), 1777-1797.
- Easton, P. D., Monahan, S. J. and Vasvari, F. P. (2009). Initial evidence on the role of accounting earnings in the bond market, *Journal of Accounting Research*, 47(3), 721-766.
- Elliott, W. B. (2006). Are investors influenced by pro forma emphasis and reconciliations in earnings announcements?, *The Accounting Review*, 81(1), 113-133.
- Elliott, W. B., Hodge, F. D. and Jackson, K. E. (2008). The association between nonprofessional investors' information choices and their portfolio returns: the importance of investing experience, *Contemporary Accounting Research*, 25(2), 473-498.
- Epstein, M. J. and Pava, M. L. (1993). *The shareholder's use of corporate annual reports*, Greenwich, CT: JAI Press.
- Ernst, E., Gassen, J. and Pellens, B. (2005). Verhalten und Präferenzen deutscher Aktionäre: eine Befragung privater und institutioneller Anleger zu Informationsverhalten, Dividendenpräferenz und Wahrnehmung von Stimmrechten, *Studien des Deutschen Aktieninstituts*, 29, Frankfurt am Main.
- Ernst, E., Gassen, J. and Pellens, B. (2009). Verhalten und Präferenzen deutscher Aktionäre: Eine Befragung von privaten und institutionellen Anlegern zum Informationsverhalten, zur Dividendenpräferenz und zur Wahrnehmung von Stimmrechten, *Studien des Deutschen Aktieninstituts*, Heft 42, Frankfurt am Main.
- Euler Hermes, (2006). Credit management practice in ten European economies *Working paper*, *Credit Management Research Centre, Leeds University Business School*.
- Fama, E. F. (1985). What's different about banks?, *Journal of monetary economics*, 15(1), 29-39.
- Feltham, G. A. and Ohlson, J. A. (1995). Valuation and clean surplus accounting for operating and financial activities, *Contemporary Accounting Research*, 11(2), 689-731.
- Fields, T. D., Lys, T. Z. and Vincent, L. (2001). Empirical research on accounting choice, *Journal of Accounting and Economics*, 31(1), 255-307.
- Fogarty, T. J. and Rogers, R. K. (2005). Financial analysts' reports: an extended institutional theory evaluation, *Accounting, Organizations and Society*, 30(4), 331-356.
- Francis, J. R., Khurana, I. K. and Pereira, R. (2005). Disclosure incentives and effects on cost of capital around the world, *The Accounting Review*, 80(4), 1125-1162.
- Frankel, R., Seethamraju, C. and Zach, T. (2008). GAAP goodwill and debt contracting efficiency: evidence from net-worth covenants, *Review of Accounting Studies*, 13(1), 87-118.
- Frederickson, J. R. and Miller, J. S. (2004). The effects of pro forma earnings disclosures on analysts' and nonprofessional investors' equity valuation judgments, *The Accounting Review*, 79(3), 667-686.
- Fülbier, R. U., Niggemann, T. and Weller, M. (2008). Verwendung von Rechnungslegungsdaten durch Aktienanalysten—Eine fallstudienartige Auswertung von Analystenberichten zur Automobilindustrie, *Finanzbetrieb*, 10(12), 806-813.

- Gassen, J. and Schwedler, K. (2010). The decision usefulness of financial accounting measurement concepts: Evidence from an online survey of professional investors and their advisors, *European Accounting Review*, 19(3), 495-509.
- Gârleanu, N., and Zwiebel, J. (2009). Design and renegotiation of debt covenants. *Review of Financial Studies*, 22(2): 749-781.
- Giannetti, M, Burkart, M. and Ellingsen, T. (2011). What you sell is what you lend? Explaining trade credit contracts, *Review of Financial Studies*, 24(4), 1261-1298.
- Gill, B. S. (2012). Is accounts-receivable industry-specific or firm-specific?, *Ghent University Department of Economics and Business Administration Working Paper*.
- Gjesdal, F. (1981). Accounting for stewardship, *Journal of Accounting Research*, 19(1), 208-231.
- Glaum, M. and Friedrich, N. (2006). After the “bubble”: valuation of telecommunications companies by financial analysts, *Journal of International Financial Management and Accounting*, 17(2), 160-174.
- Göx, R. F. and Wagenhofer, A. (2009). Optimal impairment rules, *Journal of Accounting and Economics*, 48(1), 2-16.
- Graham, A., Maher, J. J. and Northcut, W. D. (2001). Environmental liability information and bond ratings, *Journal of Accounting, Auditing and Finance*, 16(2), 93-116.
- Graham, J. R., Li, S. and Qiu, J. (2008). Corporate misreporting and bank loan contracting, *Journal of Financial Economics*, 89(1), 44-61.
- Groysberg, B., Healy, P. M. and Maber, D. A. (2011). What drives sell side analyst compensation at high status investment banks?, *Journal of Accounting Research*, 49(4), 969-1000.
- Gu, Z. and Chen, T. (2004). Analysts’ treatment of nonrecurring items in street earnings, *Journal of Accounting and Economics*, 38, 129-170.
- Guay, W. and Verrecchia, R. (2006). Discussion of an economic framework for conservative accounting and Bushman and Piotroski (2006), *Journal of Accounting and Economics*, 42(1), 149-165.
- Hewitt, P. (2011) *The exercise of shareholder rights: Country comparison of turnout and dissent*, *OECD Corporate Governance Working Papers*, OECD Publishing.
- Hillegeist, S. A., Keating, E. K., Cram, D. P. and Lundstedt, K. G. (2004). Assessing the probability of bankruptcy, *Review of Accounting Studies*, 9(1), 5-34.
- Hirshleifer, D. A., Myers, J. N., Myers, L. A. and Teoh, S. H. (2008). Do individual investors cause post-earnings announcement drift? Direct evidence from personal trades, *The Accounting Review*, 83(6), 1521-1550.
- Hitz, J.-M. (2007). The decision usefulness of fair value accounting – A theoretical perspective, *European Accounting Review*, 16(2), 323-362.
- Hodge, F. D. (2003). Investors’ perceptions of earnings quality, auditor independence, and the usefulness of audited financial information, *Accounting Horizons-Supplement*, 17, 37-48.
- Hodge, F. D., Hopkins, P. E. and Wood, D. A. (2010). The effects of financial statement information proximity and feedback on cash flow forecasts, *Contemporary Accounting Research*, 27(1), 101-133.
- Hodgkinson, L. (2001). Analysts’ forecasts and the broker relationship, *Journal of Business Finance and Accounting*, 28(7&8), 943-961.
- Holland, J. B. (1998). Private disclosure and financial reporting, *Accounting and Business Research*, 28(4), 255-269.
- Holland, J. B. (1999). Financial reporting, private disclosure and the corporate governance role of financial institutions, *Journal of Management and Governance*, 3(2), 161-187.
- Holmstrom, B. (1979). Moral hazard and unobservability, *Bell Journal of Economics*, 10(1), 74-91.
- Horrigan, J. O. (1966). The determination of long-term credit standing with financial ratios, *Journal of Accounting Research*, 4, 44-62.

- Hunton, J. E. and McEwen, R. A. (1997). An assessment of the relation between analysts' earnings forecast accuracy, motivational incentives and cognitive information search strategy, *The Accounting Review*, 497-515.
- International Accounting Standards Board (2010). *The Conceptual Framework for financial reporting – accompanying documents*, IFRS Foundation.
- International Accounting Standards Board (2013). *A review of the Conceptual Framework for financial reporting*, IFRS Foundation, Discussion Paper DP/2013/1.
- Imam, S., Barker, R. and Clubb, C. (2008). The use of valuation models by UK investment analysts, *European Accounting Review*, 17(3), 503-535.
- Intrum Justitia, (2011). *European Payment Index 2011* Intrum Justitia.
- Ittner, C. D. and Larcker, D. F. (1998). Are non-financial measures leading indicators of financial performance? An analysis of customer satisfaction, *Journal of Accounting Research*, 36, 1-35.
- Ittner, C., Larcker, D., and Rajan, M., (1997). The choice of performance measures in annual bonus contracts, *The Accounting Review* 72, 231–255.
- Jappelli, T. and Pagano, M. (2002). Information sharing, lending and defaults: Cross-country evidence, *Journal of Banking and Finance*, 26, 2017–2045.
- Jensen, M. C. and Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure, *Journal of Financial Economics*, 3(4), 305-360.
- Jones, M. P. (2010). Trade credit insurance, *World Bank Series on Non-Bank Financial Institutions group: Primer Series in Insurance*
- Jorion, P., Liu, Z. and Shi, C. (2005). Informational effects of regulation FD: Evidence from rating agencies, *Journal of Financial Economics*, 76(2), 309-330.
- Kallberg, J. and Udell, G. F. (2003). The value of private sector credit information sharing: The U.S. case, *Journal of Banking and Finance*, 27, 449–469.
- Kaplan, R. S. and Urwitz, G. (1979). Statistical models of bond ratings: A methodological inquiry, *Journal of Business*, 52(2), 231-261.
- Kelly, B., and Ljungqvist, A. (2012). Testing asymmetric-information asset pricing models, *Review of Financial Studies*, 25(5), 1366-1413.
- Klapper, L.F., Laeven, L. and Rajan, R. (2011). Trade credit contracts, *NBER Working Paper 17146*.
- Kormendi, R. and Lipe, R. (1987). Earnings innovations, earnings persistence, and stock returns, *Journal of Business*, 60(3), 323-345.
- Kraft, P. (2011). Rating agency adjustments to GAAP financial statements and their effect on ratings and bond yields, *Working paper*, New York University.
- Krishnaswami, S., Spindt, P. A. and Subramaniam, V. (1999). Information asymmetry, monitoring, and the placement structure of corporate debt, *Journal of Financial Economics*, 51(3), 407-434.
- Kothari, S. (2001). Capital markets research in accounting, *Journal of Accounting and Economics*, 31(1), 105-231.
- Kothari, S., Ramanna, K. and Skinner, D. J. (2010). Implications for GAAP from an analysis of positive research in accounting, *Journal of Accounting and Economics*, 50(2), 246-286.
- Lachmann, M., Wöhrmann, A. and Wömpener, A. (2011). Acquisition and integration of fair value information on liabilities into investors' judgments, *Review of Accounting and Finance*, 10(4), 385-410.
- Lambert, R.A. (1993). The use of accounting and security price measures of performance in managerial compensation contracts: a discussion, *Journal of Accounting and Economics*, 16, 101-123.
- Lambert, R. A. (2001). Contracting theory and accounting, *Journal of Accounting and Economics*, 32(1), 3-87.

- Lambert, R. A. (2010). Discussion of “Implications for GAAP from an analysis of positive research in accounting”, *Journal of Accounting and Economics*, 50(2), 287-295.
- Lambert, R.A. and Larcker, D.F. (1987). An analysis of the use of accounting and market measures of performance in executive compensation contracts, *Journal of Accounting Research*, 25(Supplement), 85-125.
- Lawrence, A. (2013). Individual investors and financial disclosure, *Journal of Accounting and Economics*, 56(1), 130-147.
- Lee, T. A. and Tweedie, D. P. (1975). Accounting information: an investigation of private shareholder usage, *Accounting and Business Research*, 5(20), 280-291.
- Lee, P. (2002). Credit analysts get back to fundamentals, *Euromoney*, 396, 72-76.
- Leftwich, R. (1983). Accounting information in private markets: Evidence from private lending agreements, *The Accounting Review*, 58(1), 23-42.
- Lennard, A. (2007). Stewardship and the objectives of financial statements: A comment on IASB’s preliminary views on an improved Conceptual Framework for financial reporting: The objective of financial reporting and qualitative characteristics of decision-useful financial reporting information. *Accounting in Europe*, 4(1), 51-66.
- Li, N. (2010). Negotiated measurement rules in debt contracts, *Journal of Accounting Research*, 48(5), 1103-1144.
- Lim, T. (2001). Rationality and analysts’ forecast bias, *The Journal of Finance*, 56(1), 369-385.
- Lin, H.-w. and McNichols, M. F. (1998). Underwriting relationships, analysts’ earnings forecasts and investment recommendations, *Journal of Accounting and Economics*, 25(1), 101-127.
- Lys, T. and Sohn, S. (1990). The association between revisions of financial analysts’ earnings forecasts and security-price changes, *Journal of Accounting and Economics*, 13(4), 341-363.
- Maines, L. A. and McDaniel, L. S. (2000). Effects of comprehensive-income characteristics on nonprofessional investors’ judgments: The role of financial-statement presentation format, *The Accounting Review*, 75(2), 179-207.
- Malmendier, U. and Shanthikumar, D. (2007). Are small investors naive about incentives?, *Journal of Financial Economics*, 85(2), 457-489.
- Martínez Conesa, I. and Ortiz Martínez, E. (2004). International financial analysis and the handicap of accounting diversity, *European Business Review*, 16(3), 272-291.
- Marton, J. (1998). *Accounting and Stock Markets. A Study of Swedish Accounting for International Investors and Analysts*, unpublished thesis, Gothenburg School of Economics and Commercial Law.
- Mechelli, A. and Cimini, R. (2014). Is comprehensive income value relevant and does location matter? *Accounting in Europe* 11(1), 59-87.
- Merton, R. C. (1974). On the pricing of corporate debt: The risk structure of interest rates, *The Journal of Finance*, 29(2), 449-470.
- Mokoaleli-Mokoteli, T., Taffler, R. J. and Agarwal, V. (2009). Behavioural bias and conflicts of interest in analyst stock recommendations, *Journal of Business Finance and Accounting*, 36(3-4), 384-418.
- Murphy, T., O’Connell, V. and Ó hÓgartaigh, C. (2013). Discourses surrounding the evolution of the IASB/FASB Conceptual Framework: What they reveal about the “living law” of accounting, *Accounting, Organizations and Society*, 38 (1), 72-91.
- Myers, S. C. (1977). Determinants of corporate borrowing, *Journal of Financial Economics*, 5(2), 147-175.
- Nelson, M. W. and Tayler, W. B. (2007). Information pursuit in financial statement analysis: Effects of choice, effort, and reconciliation, *The Accounting Review*, 82(3), 731-758.
- Nikolaev, V. V. (2010). Debt covenants and accounting conservatism, *Journal of Accounting Research*, 48(1), 51-89.

- Nini, G., Smith, D. C. and Sufi, A. (2009). Creditor control rights and firm investment policy, *Journal of Financial Economics*, 92(3), 400-420.
- O'Brien, P. C., McNichols, M. F. and Hsiou-Wei, L. I. N. (2005). Analyst impartiality and investment banking relationships, *Journal of Accounting Research*, 43(4), 623-650.
- O'Connell, V. (2007). Reflections on stewardship reporting, *Accounting Horizons*, 21(2), 215-227.
- OECD (2008). *Recent Trends in Institutional Investors Statistics*, OECD Publishing.
- OECD (2011). *The Role of Institutional Investors in Promoting Good Corporate Governance*, OECD Publishing.
- Ohlson, J. A. (1980). Financial ratios and the probabilistic prediction of bankruptcy, *Journal of Accounting Research*, 18(1), 109-131.
- Ohlson, J. A. (1995). Earnings, book values, and dividends in equity valuation, *Contemporary Accounting Research*, 11(2), 661-687.
- Ohlson, J. and Juettner-Nauroth, B. E. (2005). Expected EPS and EPS growth as determinants of value, *Review of Accounting Studies*, 10, 349-365.
- Olbert, L. (1994). Stock valuation methods of financial analysts in a thin stock market in Sweden, with comparisons to the United Kingdom and the United States, *International Journal of Accounting*, 29(2), 123-135.
- Ozkan, N., Singer, Z. and You, H. (2012). Mandatory IFRS adoption and the contractual usefulness of accounting information in executive compensation, *Journal of Accounting Research*, 50(4), 1077-1107.
- Pagano, M. and von Thadden E.L. (2004). The European Bond Markets under EMU, *Oxford Review of Economic Policy* 20 (4), 531-554.
- Peasnell, K.V. (1982). Some formal connection between economic values and yields and accounting numbers, *Journal of Business Finance and Accounting* 9(3): 361-381.
- Pellens, B. and Schmidt, A. (2014). Verhalten und Präferenzen deutscher Aktionäre - Eine Befragung von privaten und institutionellen Anlegern zum Informationsverhalten, zur Dividendenpräferenz und zur Wahrnehmung von Stimmrechten, *Studien des deutschen Aktieninstituts*, Frankfurt am Main.
- Penman, S. H. (2001). Discussion of "Back to Basics: Forecasting the Revenues of Internet Firms" and "A Rude Awakening: Internet Shakeout in 2000", *Review of Accounting Studies*, 6(2/3), 361-364.
- Penman, S.H. (2010). *Financial statement analysis and security valuation*, 4th ed., New York, NY: McGraw-Hill.
- Petersen, M.A. (2004). Information: hard and soft, *Working Paper Kellogg School of Management & NBER*.
- Petersen, M.A., and Rajan, R.G. (1994). The benefits of firm-creditor relationships: Evidence from small business data, *Journal of Finance*, (49), 3-37.
- Pike, R., and Cheng, N. S. (2003). Credit management: an examination of policy choices, practices and late payment in UK companies, *Journal of Business Finance & Accounting*, 28(7-8), 1013-1042.
- Pike, R., Meerjanssen, J. and Chadwick, L. (1993). The appraisal of ordinary shares by investment analysts in the UK and Germany, *Accounting and Business Research*, 23(92), 489-499.
- Plantin, G., Sapra, H. and Shin, H. S. (2008). Marking-to-market: Panacea or Pandora's box?, *Journal of Accounting Research*, 46(2), 435-460.
- Pope, P. F. and McLeay, S. J. (2011). The European IFRS experiment: objectives, research challenges and some early evidence, *Accounting and Business Research*, 41(3), 233-266.
- Ramnath, S., Rock, S. and Shane, P. (2008). The financial analyst forecasting literature: A taxonomy with suggestions for further research, *International Journal of Forecasting*, 24(1), 34-75.
- Roberts, J., Sanderson, P., Barker, R. and Hendry, J. (2006). In the mirror of the market: The disciplinary effects of company/fund manager meetings, *Accounting, Organizations and Society*, 31(3), 277-294.

- Rojo Ramírez, A.A., and García Pérez de Lema, D. (2006). La Valoración de Empresas en España: Un estudio empírico. *Revista Española de Financiación y Contabilidad*, 132, 913-934.
- Rutherford, B.A. (2011). Accounting research and accounting policy: What kind of gap?, *Accounting in Europe*, 8:2, 141-154.
- Salvato C. and Moores, M. (2010). Research on accounting in family firms: Past accomplishments and future challenges, *Family Business Review*, 23(3), 193-215.
- Schipper, K. (1991). Analysts' forecasts, *Accounting Horizons*, 5(4), 105-121.
- Schipper, K. (2005).. Fair values in financial reporting , available: <http://fars.org/2005AAAFairValue>.
- Scott, W.R. (2011). *Financial Accounting Theory*. (6<sup>th</sup> ed.). Toronto: Pearson.
- Sengupta, P. (1998). Corporate disclosure quality and the cost of debt, *Accounting Review*, 73, 459-474.
- Shleifer A. and Vishny R.W. (1986). Large shareholders and corporate control, *The Journal of Political Economy*, 94(3), 461-488.
- Shumway, T. (2001). Forecasting bankruptcy more accurately: A simple hazard model, *Journal of Business*, 74(1), 101-124.
- Singleton-Green, B. (2010). The communication gap: Why doesn't accounting research make a greater contribution to debates on accounting policy?, *Accounting in Europe*, 7:2, 129-145.
- Skinner, D. J. (2011). Discussion of “Accounting standards and debt covenants: Has the “balance Sheet Approach” led to a decline in the use of balance sheet covenants?”, *Journal of Accounting and Economics*, 52(2), 203-208.
- Sloan, R. G. (1993). Accounting earnings and top executive compensation *Journal of Accounting and Economics*, 16, 55-100.
- Smith Jr, C. W. and Warner, J. B. (1979). On financial contracting: An analysis of bond covenants, *Journal of Financial Economics*, 7(2), 117-161.
- Taffler, R. J. (1983). The assessment of company solvency and performance using a statistical model: A comparative UK-based study, *Accounting and Business Research*, 13(52), 295-308.
- Thinggaard, F., Wagenhofer, A., Evans, L., Gebhardt, G., Hoogendoorn, M., Marton, J., Di Pietra, R., Mora, A. and Peasnell, K. (2006). Performance Reporting–The IASB’s Proposed Formats of Financial Statements in the Exposure Draft of IAS 1, *Accounting in Europe*, 3(1), 35-63.
- Tiscini, R. and Raoli, E. (2012). I piani di stock options nelle imprese di famiglia quotate: l’approccio dei benefici privati remunerativi, *Rivista Italiana di Ragioneria e di Economia Aziendale*.
- Trombetta, M., Wagenhofer, A. and Wysocki, P. (2012). The usefulness of academic research in understanding the effects of accounting standards, *Accounting in Europe*, 9, 127-145.
- Upton, N., Teal, E. J. and Felan, J. T. (2001). Strategic and business planning practices of fast growth family firms, *Journal of Small Business Management*, 39(1), 60-72.
- Vassalou, M. and Xing, Y. (2004). Default risk in equity returns, *The Journal of Finance*, 59(2), 831-868.
- Vasvari, F. P. (2012). Discussion of “Hedge commitments and agency costs of debt: evidence from interest rate protection covenants and accounting conservatism”, *Review of Accounting Studies*, 17(3), 739-748.
- Vergoossen, R. G. (1993). The use and perceived importance of annual reports by investment analysts in the Netherlands, *European Accounting Review*, 2(2), 219-244.
- Walker, M. and Wang, P. (2003). Towards an understanding of profitability analysis within the residual income valuation framework, *Accounting and Business Research*, 33(3), 235-246.
- Wallmeier, M. (2005). Gewinnprognosen von Finanzanalysten: ein europäischer Vergleich, in: *Finanzbetrieb.*, 7, 744-750.
- Warfield, T. D., Wild, J. J. and Wild, K. L. (1995). Managerial ownership, accounting choices, and informativeness of earnings, *Journal of Accounting and Economics*, 20(1), 61-91.

- Watts, R. L. (2003a). Conservatism in accounting part I: Explanations and implications, *Accounting Horizons*, 17(3), 207-221.
- Watts, R. L. (2003b). Conservatism in accounting part II: Evidence and research opportunities, *Accounting Horizons*, 17(4), 287-301.
- Watts, R. L. and Zimmerman, J. L. (1978). Towards a positive theory of the determination of accounting standards, *Accounting Review*, 53, 112-134.
- West, R. R. (1970). An alternative approach to predicting corporate bond ratings, *Journal of Accounting Research*, 8(1), 118-125.
- Wittenberg-Moerman, R. (2008). The role of information asymmetry and financial reporting quality in debt trading: Evidence from the secondary loan market, *Journal of Accounting and Economics*, 46(2), 240-260.
- Wu, J. S. and Zhang, I. X. (2009). The voluntary adoption of internationally recognized accounting standards and firm internal performance evaluation, *The Accounting Review*, 84(4), 1281-1309.
- Wyatt, A. (2008). What financial and non-financial information on intangibles is value-relevant? A review of the evidence, *Accounting and Business Research*, 38(3), 217-256.
- Young, J. J. (2006). Making up users, *Accounting, Organizations and Society*, 31(6), 579-600.
- Zhang, J. (2008). The contracting benefits of accounting conservatism to lenders and borrowers, *Journal of Accounting and Economics*, 45(1), 27-54.
- Zmijewski, M. E. (1984). Methodological issues related to the estimation of financial distress prediction models, *Journal of Accounting Research*, 22, 59-82.

**Table 1 Capital providers of European firms**

Country	N	Shareholders' equity	Non-current liabilities	Current liabilities	Trade creditors		Debt		Bank loans		Debentures & convertible debt		Lease liabilities	
					% have	% TL	% have	% TL	% have	% TL	% have	% TL	% have	% TL
Austria	61	44.17%	24.92%	30.91%	100%	17%	85%	23%	59%	50%	20%	13%	39%	7%
Belgium	87	45.51%	19.11%	35.38%	100%	25%	89%	23%	68%	53%	20%	11%	48%	14%
Denmark	101	50.41%	19.08%	30.51%	99%	19%	84%	26%	57%	59%	11%	3%	27%	14%
Finland	104	44.61%	20.27%	35.12%	99%	16%	92%	26%	76%	60%	23%	11%	61%	13%
France	491	43.79%	18.94%	37.27%	100%	24%	90%	20%	59%	45%	21%	14%	38%	8%
Germany	539	48.61%	21.55%	29.84%	98%	19%	71%	18%	52%	55%	13%	11%	25%	7%
Greece	189	38.21%	22.82%	38.97%	99%	15%	87%	22%	50%	42%	0%	0%	35%	14%
Ireland	50	53.24%	22.61%	24.15%	94%	21%	62%	22%	40%	58%	2%	0%	32%	14%
Italy	174	35.12%	24.08%	40.81%	100%	27%	94%	22%	91%	89%	0%	0%	3%	1%
Luxembourg	40	52.60%	24.07%	23.32%	95%	18%	85%	27%	50%	42%	5%	3%	45%	11%
Netherlands	92	45.51%	18.87%	35.62%	99%	21%	77%	21%	42%	40%	10%	9%	30%	9%
Portugal	33	26.63%	33.58%	39.79%	100%	16%	100%	35%	94%	74%	3%	1%	21%	3%
Spain	100	34.43%	30.47%	35.09%	100%	20%	97%	30%	94%	81%	0%	0%	22%	3%
Sweden	292	51.77%	15.85%	32.39%	100%	20%	66%	18%	44%	58%	12%	10%	14%	7%
UK	1,065	57.28%	15.51%	27.20%	97%	23%	57%	16%	40%	57%	5%	5%	27%	15%
All Countries	3,418	48.80%	19.24%	31.95%	98%	21%	74%	20%	53%	56%	10%	7%	28%	10%

Notes:

Table 1 provides average data on the capital structure of publicly listed, industrial EU15 firms that present consolidated accounts and have data available for the year ending December 2011 in the ORBIS database. We exclude firms if the total assets figure does not equal the sum of shareholders' equity plus current and non-current liabilities, or if they have negative shareholders' equity. The columns labeled '% have' report the percentage of firms in a given country that have that type of liability. The columns labeled '% TL' report the average percentage of that type of liability over the total liabilities of firms in that given country.

**Table 2**      **Differences between public and private debt**

	<i>Private debt</i>	<i>Public debt</i>
Access to information	High	Low
Ability to monitor the firm	High	Low
Flexibility in resetting contract terms	High	Low
Costs of renegotiating the contract	Low	High