Title:
The Use of Financial Information by Capital Providers

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Abstract

In this brief literature review paper, we explore four areas of the theoretical and empirical literature to discuss the use of financial information by capital providers: (i) Who are capital providers to companies, including all forms of debt, equity, grants, soft-loans, trade credit, and so on? (ii) How do equity holders and their agents use financial statements as information sources in their own right and in their models and other metrics? (iii) How do debt holders and their agents use financial statements of their own accord and in their models and other metrics? (iv) What is the overall use of financial statement information and how does such financial information compare with that required by users? The review draws out key issues in relation to each of these questions, focusing on precisely where and how the literature tackles the use of information by capital providers, whether this is a primary or subsidiary consideration in the literature, how information usage relates to other issues such as governance, disclosure, performance and risk management, and so on, and how key developments in financial reporting have changed the way in which the information is employed.
1. Introduction

In this brief literature review paper, we explore four areas of the theoretical and empirical literature: (i) Who are capital providers, including all forms of debt, equity, grants, soft-loans, trade credit, and so on? (ii) How do equity holders and their agents use financial statements as information sources in their own right and in their models and other metrics? (iii) How do debt holders and their agents use financial statements of their own accord and in their models and other metrics? (iv) What is the overall use of financial statement information and how does such financial information compare with that required by users? In so doing, we tackle the associated issues of the differing uses of financial statement information across users, the way in which such information is gathered, processed and used in decision making, the models developed from such financial information, the interaction implicit between the investor and the company, the issues of governance and stewardship which arise, and perceived common gaps in the availability of that information required by stakeholders.

2. Who are the capital providers, including all forms of debt, equity, grants,
soft-loans, trade credit, and so on?

Capital providers to companies in the European Union employ panoply of instruments and financing arrangements including: private and public equity, bank and securitised debt, convertibles and other hybrids, soft and quasi-commercial loans, government grants, leases, project bonds, derivatives, venture capital, business angels, hire purchase, and asset-backed finance. Further, a proportion of shorter-term financing is conventionally treated by many
companies as a component of longer-term capital, and such financing can include: trade credit, overdrafts, lines of credit, short-term loans, debt factoring, invoice discounting, and a range of short-term debt securities.

At the level of small and medium sized enterprises (SMEs), Tucker and Lean (2001) explore the range of financing sources for UK companies in the face of adverse selection and moral hazard, drawing upon survey evidence which suggests that external finance derives predominantly from conventional sources for smaller companies, and that an equity gap rather than a debt gap exists for such companies. A study by the Competition Commission (2002) shows that the chief sources of finance for UK SMEs are loans (38%), overdrafts (24%), hire purchase (22%) and leasing (22%), with other forms such as factoring and invoice discounting involving a much smaller proportion of companies. Hewitt (2003) examines asset finance in the UK and observes it to be a significant form of finance for SMEs, with such finance notably focusing on balance sheet values rather than on the cash flows. More recently, Kramer-Eis and Schillo (2011) focus on the equity finance gap by studying business angels in Europe with a particular focus on Germany, and find that there is significant excess demand for early-stage financing in the absence of a highly developed market for venture capital. To illustrate the link between SME financing and accounting standards in transition economies, Barth et al. (2011) find that companies using International Accounting Standards and which engage external auditors enjoy easier access to cheaper bank finance.

At the level of the larger listed company, Beattie et al. (2006) survey UK companies and find that they are heterogeneous in their capital structure decisions, that financing decisions are the result of complex group processes and that both the trade-off and the pecking order
theory can help to explain observed financing behaviour. Peek et al. (2010) find that the
claimholders of public companies in Western European countries have a greater demand for
publicly reported accounting information than the claimholders of private companies, and
that creditors from countries with strong creditor protection demand more timely
accounting recognition of economic losses than of economic gains, whilst shareholders from
countries with strong investor protection do not. In a theory study, Dutordoir and Van de
Gucht (2007) question why large European companies characterised by large scale and small
capital issue costs tend to issue convertible debt rather than engage in more conventional
financing. Their security choice model illustrates that convertibles are employed as
‘sweetened debt’ rather than as delayed equity, in contrast to the US experience.

With regard to financing patterns in Europe more generally, Murinde et al. (2004) model
empirically European company patterns of corporate financing and find evidence of a
convergence of EU financial systems towards the Anglo-Saxon model, thereby illustrating a
strong reliance on internal financing and financial markets-based debt and equity capital,
with bank debt diminishing in importance. Deeg (2009) studies internal diversity within
national models of European capitalism and finds that few companies have moved to a new
and more international institutional context and away from domestic institutions and rules.
Whilst he observes evidence of increasing diversity since the early 1990s, some persistence is
evident in national financing patterns. In terms of the equity market, a European Commission
RICAFE report (2005) finds that risk capital provision can create more value in the presence
of greater accounting information comparability and that the venture capital market in
Europe requires further development. In contrast, Bodie and Brière (2011) argue that
conventional equity has become less appropriate for the needs of long-term investors in the
western world, and that the focus of investors should instead be on inflation-linked bonds, very long-dated bonds, project bonds or even new derivative products on the basis that such investors can no longer assume all of the risks in more turbulent markets.

Thus, the key literature on capital providers tends to focus on issues of capital structure mix, the presence or otherwise of a finance gap, scale effects on capital provision, and differences in financing patterns across countries. Financial reporting issues are often embedded in variable definitions and measurement.

3. How do equity holders and their agents use financial statements of their own accord and in their models and other metrics?

The IASB Conceptual Framework (1989) identifies equity investors as the main user group for whom the financial statements are prepared. As much as their role involves assessing the stewardship of the management, the main focus of equity investors is to make a decision about their investments in deciding whether to buy, hold, or sell. This is the ex-ante or valuation role of accounting information (Beyer et al., 2010).

Literature on the valuation role of accounting information generally assesses how different accounting based information affects the valuation of stock. From the early evidence of Ball and Brown (1968), who studied the impact of accounting earnings on the abnormal returns, to the theoretical model of Ohlson (1995), who completed a framework relating share prices to book values and earnings, many studies have been conducted in this area. In recent years, studies on value relevance have focused on international differences and the effects of
different types accounting information on value relevance (Harris et al., 1994; Collins et al., 1997; Ali and Hwang, 2000; Bartov et al., 2005).

The adoption of International Financial Reporting Standards (IFRS) as an event has triggered many studies that investigate the effects of such adoption and the use of IFRS-based accounting numbers by investors and their agents. Daske et al. (2008) find that IFRS adoption increases market liquidity and equity valuations, and decreases the cost of capital in countries where firms have incentives to be transparent and where legal enforcement is strong. IFRS disclosures are also a crucial source of information for investors and analysts as they decrease asymmetric information. Hodgdon et al. (2008) find that compliance with the disclosure requirements of IFRS improves analyst forecast accuracy. The benefits of IFRS adoption for analysts is also dependent on enforcement regimes and firm incentives as Byard et al. (2010) find that analysts’ forecast errors and forecast dispersion decrease for mandatory IFRS adopters domiciled in countries with both strong enforcement regimes and domestic accounting standards that differ significantly from IFRS. Their study reveals that if the enforcement regime is weak and domestic standards are not significantly different from IFRS, forecast errors and dispersion decrease for firms with stronger incentives to engage in transparent financial reporting. A recent study by Landsman et al. (2012) finds that the information content of earnings announcements increases for mandatory IFRS adopting countries by reducing the reporting lag, increasing analyst following, and increasing foreign investment.

Analysts who act as information intermediaries for investors also use accounting information to generate their stock recommendation and valuations. An early study by Govindarajan
(1980) finds that the focus of analysts is more on earnings than cash flows, a finding confirmed in later studies. In their seminal study, Previts et al. (1994) in their content analysis study find that analysts: base their recommendations largely on the income statement in preference to the balance sheet and cash flow statement; disaggregate the company into its segments; and place EPS, core earnings variability and earnings momentum at the centre of their analysis. Further, they find that analysts evaluate assets and liabilities on a cost rather than a market value basis, that non-GAAP cash flow schedules are common, and that non-financial information such as company risk and strategy is prevalent. Barker and Imam (2008) find that accounting-based information relating to earnings quality exerts a significant influence on the analysis and recommendations in analysts’ reports. This is later confirmed by Orens and Lybaert (2010) who find that greater non-financial information is employed when earnings are less informative.

Thus, the key issues here tend to focus on stewardship, the value-relevance of accounting information, the impact of IFRS adoption on investors, and the contribution of financial reporting and related information to equity investment recommendations.

4. How do debt holders and their agents use financial statements of their own accord and in their models and other metrics?

Traditionally, providers of debt capital and their agents have used accounting information for a plethora of purposes. Arguably, initial and ongoing assessment of a potential and/or existing borrower’s creditworthiness has been the most important issue (Beaulieu, 1994). At the same time, lenders and especially banks also use financial statement data for specifying
covenants in debt agreements, the majority of which rely upon reported balance sheets and income statements (Smith and Warner, 1979; Leftwich, 1983).

Principally, banks and other providers of debt capital use accounting information to predict the probability of corporate default with a view to informing their lending decisions. In the context of expert systems, where lending officers are responsible for the ultimate granting of a loan, both quantitative and qualitative risk factors are taken into account (Carey, 2001). The quantitative factors are primarily extracted from audited financial statements and provide an overview of the profitability, liquidity, capital structure and cash flow generating capacity of the potential borrower. Meanwhile, the qualitative factors, such as management experience and industry perspectives, are either obtained directly from the borrower or arrived at as a result of the lending officer’s judgement.

However, due to the lack of consistency and cost considerations relating to expert systems, debt capital providers quickly turned to quantitative models to assess the creditworthiness of firms for financing purposes (Balcaen and Ooghe, 2006). The majority of information used in those early models consisted entirely of accounting data and financial ratios extracted from the audited financial statements of defaulted and surviving companies for the purpose of establishing a reference model that could classify firms accurately (Beaver, 1966; Altman, 1968; Ohlson, 1980; Taffler, 1982). Interestingly, the predictive ability of financial ratios has not declined considerably over time; that decline, however, is offset by an improvement in the incremental predictive ability of market-related risk factors, thus highlighting the ever increasing reliance on market-based risk ratios (Beaver et al., 2005).
Nevertheless, the more stringent capital requirements imposed by regulators resulted in capital providers producing more accurate credit assessment models so as to optimise capital allocation and ultimately increase profitability. These models started incorporating non-financial risk factors. For example, German banks use qualitative factors in their in-house lending models; with most of them arguing that the inclusion of “soft” factors clearly improves default prediction (Günther and Grüning, 2000). This is also the case in big US banks. More specifically, the models incorporate a company’s positioning in the industry (market share), the quality of management, the quality of collateral or guarantees for specific financing structures, market positioning and even the exposure to litigation or environmental liability (Treacy and Carey, 2000; Grunert et al., 2005). This interaction of quantitative (financial) and non-quantitative (non-financial) information in internal rating models generally improves their performance, regardless of the specification of those models (Mählmann, 2004).

In the context of SMEs, information opaqueness is more prominent (Binks and Ennew, 1997). In such situations, information of both a quantitative and qualitative manner can flow from the firm to the capital provider without the intermediation of the published financial statements. Equally, lenders will request information that might go above and beyond what companies would reveal in their financial reports. Indeed, many banks request and have access to detailed accounts of aged debt, receivables and payables, which helps them to assess their customers’ cash flow generating capacity and debt coverage (Berger and Udell, 1995; Sinnett and Graziano, 2006; Chang et al., 2009).
Meanwhile, the quality of financial information is also crucial to debt providers. A conservative approach to financial reporting allows firms to recognise bad news in a timely manner, thus reducing any agency costs associated with debt financing and ultimately achieving a lower cost of capital (Guay, 2008). Equally, timely incorporation of economic losses in financial statements increases their credibility and brings about many benefits, such as advantageous debt agreements with financial institutions and effective corporate governance mechanisms (Ball, 2001; Arvanitidou et al., 2010). In addition, financial information, in conjunction with the internal control mechanisms observed directly by lenders, dictates to a great extent the use of financial covenants, with lenders decreasing their use of financial statement based covenants for companies experiencing material internal control weaknesses (Costello and Wittenberg-Moeman, 2010). There is a documented trend of bank lenders imposing less balance sheet covenants due to the use of the balance sheet approach (Demerjan, 2011).

Finally, credible financial information also benefits capital providers as reliable financial reports are necessary for banks to raise capital, but the reliability of those reports depends on investors’ perceptions. Thus, there is an incentive for banking institutions, particularly small specialised ones, to engage in (sometimes costly) exercises of verifying the credibility of their financial statements with the help of external audits. Hence, the presence of audited financial statements in itself communicates credible information which in turn helps small banks lower financing frictions when attempting to obtain external financing, especially in times of monetary tightening and exogenous liquidity constraints (Lo, 2011).
Thus, the key issues in the debt capital literature are the use of financial reporting information to establish the degree of creditworthiness of potential borrowers and in the estimation of default probability, the use of quantitative versus qualitative information to gauge risk, and tackling the information asymmetry problem implicit in debt investment, and particularly evident for SMEs.

5. **What is the overall use of financial statement information and how does this compare with user needs?**

In the last 90 years the evolution of accounting theory has been dramatic. The purpose of accounting as the matching of costs with revenues (Paton, 1922; Littleton, 1940) has evolved to the adoption of market-based accounting, i.e. fair value accounting. Today the primary focus on financial reporting, which can be described as the communication of accounting data about an entity to user groups (Higson 2005, p.19), is to provide useful financial information about the reporting entity to capital providers (investors and creditors) in decision making, and to help them to assess the future net cash flows of the entity (IASB, 2010).

The demand for fair value accounting can be explained by equity value information needs. Shareholders use market-based accounting information for a better understanding of what equity is worth (Penman, 2007). A significant number of empirical studies indicate that fair value is the most relevant accounting measure for decision making relative to historical cost accounting (Barth, 1994; Nelson 1996; Barth *et al.*, 1996; Eccher *et al.*, 1996; Aboody *et al.*, 1999; Khurana and Kim, 2003; Landsman, 2007). In addition, the demands for such financial information can differ from professional users (such as financial analysts) to the individual
investors (Beaver, 1998). Future-orientated disclosures and predictive values are now core components of financial statements for the purposes of decision making.

However, investors usually delegate decision making to managers (GJesdal, 1981). The relationship between managers and investors is discussed within stewardship theory, which requires managers to act in the interests of shareholders as a productive agent, risk bearer, and information supplier (Beaver, 1998). It is argued that there is a preference for historical cost accounting over future-orientated information under the stewardship objective in earlier studies (GJesdal, 1981). But today fair values are argued to augment the stewardship role for financial reporting as the values of assets at disposal are reflected in the financial statements (Barth, 2006). Furthermore, fair value accounting provides information about equity value and the stewardship of the management to investors (Penman, 2007). Even though financial statements provide useful information for decision making and various control mechanisms, the use of accounting information may be affected by numerous endogenous and exogenous factors (Ball, 2006).

Riistama and Vehmanen (2004) argue that the needs of SME users differ from those in multinational enterprises. The value of equity in SMEs is less important than their profitability or liquidity (Evans et al., 2005). These findings provide some evidence regarding how SME financial statements are utilised differently. For example Evans et al. indicate that research conducted in the UK (ICAS, 1998; Collis et al., 2001) and Italy (Paoloni and Demartini, 1997) reveals that the tax authorities, banks, creditors and managers are the major users of the financial statements of SMEs. The value of financial statements in SMEs may be different
from market-based companies as the latter are subject to monitoring requirements for their operational and financial activities.

Thus, the key issues here include the underlying role of financial reporting from a stakeholder perspective, the evolution of accounting information to arrive at fair value, differences in use of such information by different stakeholders, and the drivers of financial reporting information and its ultimate use. The relevance and reliability of financial information encapsulate much of the literature in a summative sense.

6. Summary and conclusions

This brief literature review paper set out to explore the theoretical and empirical literature which examines the use of financial information by capital providers by identifying the scope and nature of such capital providers, focusing in particular on equity and debt investors and their use of financial statement and related data, but also considering in a more general sense the supply of, and demand for, such financial information. The key literature on capital providers tends to focus on issues of capital structure mix, the presence or otherwise of a finance gap, scale effects on capital provision, and differences in financing patterns across countries. Importantly, financial reporting issues are often embedded in variable definitions and measurement merely as a precursor to more detailed methodological considerations. The key issues regarding equity holders relate to stewardship, the value-relevance of accounting information, the impact of IFRS adoption on investors, and the contribution of financial reporting and related information to equity investment recommendations. In contrast, the key issues in the debt holder literature focus on the use of financial reporting information to establish the degree of creditworthiness of potential borrowers and in the
estimation of default probability, the use of quantitative versus qualitative information to
gauge risk, and tackling the information asymmetry problem implicit in debt investment, and
particularly evident for SMEs. The focus of the financial reporting literature appears to be the
underlying role of financial reporting from a stakeholder perspective, the evolution of
accounting information to arrive at fair value, differences in the use of such information by
different stakeholders, and the drivers of financial reporting information and its ultimate use.

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