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Credit ratings and disclosure channels

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ABSTRACT

We study the relation between analysts' ratings of firms' credit worthiness and ratings of the quality of firms' (1) annual report disclosures, (2) quarterly and other disclosures, and (3) manager-analyst communications. We find that credit ratings are better for firms with higher rated annual report disclosures. We also find that marked increases in analyst ratings of annual report quality are accompanied by improvements in credit ratings. We find no relation between credit ratings and analysts' ratings of either quarterly report disclosures or management-analyst communications. Overall, the results suggest that a commitment to better annual report disclosure is related to a lower cost of credit capital.

Introduction

Considerable research suggests that better-quality disclosures are related to lower equity capital costs. Much less studied, however, is the relation between disclosure quality and the cost of credit capital.[3] In fact, unexamined is whether some types of disclosures are more important in reducing credit capital costs than other types of disclosures. The issue is important because disclosure takes many forms (such as annual reports, quarterly reports, voluntary announcements, and non-financial disclosures), and these disclosures are guided by different reporting regulations. Regulators, practitioners, and researchers are all likely interested in identifying which forms of disclosure are most important in reducing capital costs. In this study, we provide evidence on the relation between the quality of financial disclosures and analyst credit ratings and, in particular, the types of disclosures that are most important to creditors.

The notion of *estimation risk*, examined in studies of the relation between disclosure and equity capital costs, guides our analyses (as background, see Barry & Brown, 1985; Clarkson, Guedes, & Thompson, 1996; Coles & Loewenstein, 1988; Klein & Bawa, 1976). This research suggests better quality disclosures can reduce the risk that equity capital suppliers err in estimating the parameters of the distribution of the firm's future net cash flows. We posit that creditors also face estimation risk as they too must estimate the parameters of the distribution of the firm's future net cash flows. The implication is important: if creditors face estimation risk, then some types of disclosures might be more useful in reducing this risk than others.[4]

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[3] For direct evidence regarding equity capital costs, see Botosan (1997) and Botosan and Plumlee (2002). Indirect evidence from studies of bid-ask spreads (theoretically, a cost of equity capital component) can be found in Welker (1995), Healy, Hutton, and Palepu (1999), Brown and Hillegeist (2007) and Heflin, Shaw, and Wild (2005). For arguments against a connection between disclosure and the cost of equity capital, see Hughes, Liu, and Liu (2007) and Cohen (2006). For evidence regarding credit capital costs, see Sengupta (1998), Bharath, Sunder, and Sunder (2008), and Francis, LaFond, Olsson, and Schipper (2005).

[4] As an example, quarterly reports provide more timely information, but annual reports provide considerably more detail with more audit assurance. Alternatively, communications with management might provide better information than accounting reports. Ex ante, it is unclear which of these disclosure types is more useful in reducing estimation risk.

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We proxy the cost of credit capital with Standard & Poor's (S&P) long-term issuer credit ratings.[5] We measure the quality of firms' disclosures with financial analysts' ratings of the quality of firms' (1) annual reports, (2) quarterly reports and other information, and (3) management-analyst communications.[6] Accounting regulations differ across these alternative disclosure channels: annual reports are audited by independent auditors and managers face many decisions regarding how to satisfy the annual report's disclosure requirements. Quarterly reports (and other information) require that managers construct disclosures about far fewer items and the disclosures are unaudited. Currently, management-analyst communications are guided by Regulation FD, but as our sample period predates Regulation FD, our results speak to a more unregulated environment for management-analyst communications.

The results reveal several important new findings. First, we find that firms with higher-rated annual report disclosures have better credit ratings. We also explore, motivated by arguments in Healy et al. (1999), how *changes* in disclosure relate to *changes* in credit ratings. Those results reveal that improvements in annual report quality are associated with improved credit ratings. We find no relation between credit ratings or changes in credit ratings and the quality of either quarterly report information or management-analyst communications.

Our paper has potential regulatory implications. Of long-standing concern to accounting regulators is what disclosures should be required in financial reports (beyond the basic financial statements). Our results suggest that regulations aimed at improving the disclosures by firms with low-quality annual report disclosures would be of interest to creditors. Our (lack of) results concerning quarterly and other disclosures could be because quarterly and other disclosures are unaudited and therefore credit raters do not believe they are reliable enough for their purposes. If so, regulators could perhaps improve the usefulness of quarterly and other disclosures to creditors with steps that enhance the disclosures' reliability. Another potential explanation is that quarterly and other reports do not currently contain information that credit raters are interested in, but could contain such information if regulators required it. Alternatively, credit raters may be simply uninterested in quarterly and other disclosures, regardless of their reliability. If so, regulator efforts to improve quarterly and other disclosures would likely be of little interest to creditors. This is an area that could be fruitful for future research.

Our study provides several additional contributions. First, we enhance understanding of credit ratings and the credit ratings process. Understanding credit ratings is particularly important in light of recent criticisms of the major credit ratings agencies.[7] This study extends continuing research on the determinants and consequences of bond and credit ratings; recent examples are Avramov, Chordia, Jostova, and Philipov (2007), Livingston, Naranjo, and Zhou (2007), Boot, Milbourn, and Schmeits (2006), Bhojraj and Sengupta (2003), Dichev and Piotroski (2001), and Kliger and Sarig (2000). Importantly, our results suggest credit rating agencies recognize differences in annual report quality, providing economic incentives for firms to provide high-quality annual report disclosures. While our analyses are based on the arguably more rules-based reporting regime under US GAAP, these economic incentives would likely also motivate high-quality reporting under a more principles-based regime.

Second, while prior research (such as Bharath et al., 2008; Sengupta, 1998) suggests better disclosures are associated with lower credit capital costs, our study documents which type of disclosure is related to lower credit capital costs. Understanding the factors that influence credit ratings, and in particular, the inputs credit raters utilize may help regulators refine regulation of credit raters, may help investors better understand ratings, and can provide insights into methods by which firms might access credit capital at lower cost. Knowledge of the type of disclosure that reduces the cost of credit capital (1) is of interest to managers, as it provides insights into methods by which firms can potentially access credit capital at lower cost, (2) can aid regulators in developing accounting and capital market regulations, and (3) can help researchers better model and empirically investigate the role of accounting information in the cost of capital (see Verrecchia, 2001).

Third, this study is the first to document that sustained increases in disclosure quality are associated with credit rating improvements. As Healy et al. (1999) emphasize, the lack of theoretical development regarding accounting disclosures and capital costs makes specifying and interpreting cross-sectional analyses difficult. Importantly, both our "levels" and "changes" analyses support the dominance of annual report quality, relative to the other disclosure types we consider, in reducing credit capital costs.

Fourth, our results extend prior research on disclosure channels. Both our results and those in Botosan and Plumlee (2002) suggest that high quality annual report disclosures can lower the cost of capital (credit and equity respectively), while higher quality management-analyst communications have no impact on the cost of either equity or debt capital. Nonetheless, separate analyses of the costs of debt and equity capital and their relations with disclosure are important because the factors influencing

[5] While this is an indirect measure of credit capital cost, it allows a larger sample collected over a longer time-span than previous research (such as with Sengupta, 1998). Also, existing research (e.g. Ederington, Yawitz, & Roberts, 1987; Liu & Thakor, 1984; Ziebart & Reiter, 1992) suggests strong relations between credit ratings and both interest rates and debt yields. In sensitivity tests we employ yield spreads on new debt issues with similar results.

[6] There are other types of disclosures which these ratings do not capture. However, use of these ratings allows a much larger sample size over a longer time period than if we developed our own ratings of various disclosures. Further, these disclosure ratings have been used in considerable research, and so seem likely to capture meaningful variation in disclosure quality.

[7] Credit rating agencies have been criticized for failing to accurately portray the credit risk of several companies that suffered financial trauma and collapse during the first half of the 2000's (see the SEC U.S. Securities, 2003 staff report for a discussion) and, more recently for failing to accurately portray the credit risk of subprime mortgage investment vehicles (see Verschoor, 2007).