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Credit ratings and excess value of diversification

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ABSTRACT

We investigate the impact of credit ratings on the valuation of diversification. Our empirical results indicate that the existence and level of credit ratings are associated with a lower negative effect of diversification. Further analysis reveals that the mitigating effect of credit ratings on the diversification discount is more pronounced for firms with more severe information asymmetry. In addition, both a change in firm status from no rating to being rated and a change in rating level from low to high lead to a significant reduction in the diversification discount. An event study on diversification buttresses the findings by showing that the market has a less negative reaction to rated and higher-rated firms around the announcement of diversifying mergers. Our results are robust to alternative techniques used to control for potential endogeneity bias, to controlling for corporate governance, and to different sample periods. Overall, the evidence suggests that credit ratings reduce information asymmetry problems and thus mitigate the diversification discount.

1. Introduction

This paper examines the relation between firm credit ratings and the valuation of diversification. Prior research finds that credit ratings can convey information on a firm's prospects beyond that publicly available, thereby reducing information asymmetry. The corporate finance literature indicates that the typical multi-segment firm trades at a discount relative to a benchmark portfolio of single-segment firms, and that this "diversification discount," or "negative excess value," is partially attributable to information asymmetry among market participants. Based on the findings of these two streams of research, we hypothesize that credit rating can play an important role in reducing the negative value impact of diversification.

Credit rating agencies, such as Moody's and Standard & Poor's (S&P), collect and analyze information to rate a firm's overall financial strength and the level of business risk it faces. They ultimately provide opinions in the form of credit ratings. Credit ratings can incorporate and transmit private information to financial markets beyond other publicly available information (Ederington and Goh, 1998). On the other hand, firms can choose to communicate sensitive information to investors through confidential discussions with rating agencies rather than through public disclosure. Agencies can thus incorporate private information into the ratings without fully revealing specific details to the public so as to avoid benefiting competitors (Tang, 2009).

During the rating process, firms provide a considerable amount of detailed inside information to the agencies, such as five-year forecasts, pro forma statements, and other internal reports. Rating agencies specialize in evaluating a firm's business position, industry and competitive factors, as well as the consequences of its strategic programs, and can thereby provide reliable assessments of a firm's financial creditworthiness over the foreseeable future. Thus, the rating figures can be interpreted as certifying the value of a firm that is evaluated based on insightful information (Millon and Thakor, 1985), leading to lower information

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asymmetry and higher transparency in financial markets. An extensive literature has confirmed that credit ratings release new information to capital markets by empirically investigating the market reactions to announcement of ratings.

By focusing on the valuation implications of diversification, this paper contributes to the growing literature on whether credit ratings affect the market pricing of listed firms. For example, An and Chan (2008) and Liu and Malatesta (2006) find evidence that equity-issuing firms with credit ratings are less vulnerable to underpricing than those without ratings. This study shifts their work from issuing firms to diversified firms because we believe that the latter provide a different powerful setting for evaluating the economic consequences of credit ratings. The complex organizational structures and opaque financial information of diversified firms result in higher information asymmetry relative to focused firms. The potential informational benefits attributable to credit ratings are likely to be relatively significant for diversified firms.

To examine the impact of credit ratings on the value of diversified firms, we split our sample into rated and non-rated subsamples and test the association separately for each subsample. We find that, after controlling for endogenous concerns of diversification, diversified firms in the rated subsample have a less negative valuation than those in the non-rated subsample. Further evidence indicates that higher ratings are associated with a further decrease in the negative impact of diversification. The findings suggest that the diversification discount decreases with both the existence and level of credit ratings. In addition, credit ratings reduce the diversification discount to a greater extent for firms that are subject to more information asymmetry, indicating that their mitigating effect on information asymmetry problems leads to higher valuation. We employ an alternative definition of excess value and estimation methods and obtain similar results.

To evaluate the robustness of our results, we conduct several additional analyses. First, we predict and find that our measure of excess value increases across time as firms change status from being non-rated to being rated, and as rated firms change rating level from low to high. Second, we verify that our inferences are robust to the dynamic generalized method of moments (GMM) estimation technique used to control for the endogeneity of both firm diversification decisions and credit ratings. Third, after controlling for the governance factor, we continue to find that diversification discount is a function of credit ratings, consistent with our hypotheses. Fourth, when we use mean annual regressions to avoid cross-sectional dependence problems driving our results, the empirical findings remain qualitatively similar.

Finally, in order to provide a more complete picture of how credit ratings relates to the stock price effects of diversification, we additionally conduct an event study for diversifying mergers, where information asymmetry and investor demand for supplemental information are likely to be heightened (Kimbrough and Louis, 2011). Specifically, we examine whether or not diversifying merger announcement abnormal returns are different for firms with versus without credit ratings. Our results show less unfavorable market reaction to diversifying merger announcements for firms with credit ratings as compared to stock market response for firms without ratings. Furthermore, we also find a positive relation between credit rating level and stock price response to diversifying announcements. This complementary evidence again supports the informational role of credit ratings in increasing firm value in diversification decisions.

Our study contributes to two streams of literature. First, we add to the recent literature examining the beneficial role of credit ratings in the capital markets. For example, Whited (1992) and Kaplan and Zingales (1997) argue that the presence of credit ratings is taken as an important indicator of the firm's ability to access external debt financing at lower cost. Faulkender and Petersen (2006) show that credit ratings reduce the credit constraints faced by firms by enabling highly rated firms to raise more debt. Sufi (2009) confirms that ratings reduce information asymmetry between borrowers and uninformed lenders. Note that much of this literature studies the role of ratings in the debt markets. Our evidence suggests that obtaining credit ratings is not only an entry ticket to debt markets, but also an important corporate decision with real implications in terms of firm equity valuation. Second, we contribute to the growing literature that offers alternative explanations for value-destroying diversification (e.g., Aggarwal and Samwick, 2003; Jensen, 1986; Rajan et al., 2000; Shin and Stulz, 1998). Our results provide further evidence to support the information asymmetry explanation of diversification discount.

The remainder of this paper is organized as follows. Section 2 provides an overview of the literature on credit ratings and diversification discounts. Section 3 develops the hypotheses. Section 4 explains the data sources, sample selection, and variable measurements. Section 5 provides descriptive statistics, discusses our empirical evidence, and examines robustness issues. Section 6 presents our conclusions.

2. Literature review

2.1. Corporate diversification and valuation

It has been well documented that the average diversified firm is valued less relative to comparable non-diversified, focused firms.[1] The extant literature has attempted to explain the causes of the diversification discount in several ways. One strand of research considers the inefficient use of resources by managers, wherein poorly performing divisions of diversified firms are often subsidized by efficient ones (Lamont, 1997; Rajan et al., 2000; Shin and Stulz, 1998). A second explanation is agency-driven managerial entrenchment. Managers can derive some private benefit, such as reducing idiosyncratic risk (May, 1995), receiving higher compensation, or improving career prospects (Aggarwal and Samwick, 2003; Jensen, 1986), from diversifying their

[1] Related research includes Lang and Stulz (1994), Berger and Ofek (1995), Servaes (1996), Lamont (1997), Shin and Stulz (1998), and Lamont and Polk (2002).