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## Private debt, unused credit lines, and seasoned equity offerings<sup>☆</sup>

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### ABSTRACT

We study a sample of SEOs to examine the impact of private debt and unused credit lines on SEO underpricing and long-run stock and operating performance. We do not find significant effects of private debt financing on SEO underpricing and long-run stock underperformance. However, firms with more bank debt and unused lines of credit exhibit significantly better pre-issue operating performance. Changes in operating performance from the pre-issue year to the post-issue period are negatively related to the size of unused credit lines. Capital spending decreases with the size of unused credit lines in the year prior to SEOs, but increases following SEOs. Our overall evidence suggests that the post-issue operating performance we observed may be a result of overinvestment, which is enhanced by unused credit lines.

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### 1. Introduction

We study a sample of seasoned equity offerings (SEOs) from 1996 to 2000 to test whether SEO firms benefit substantially from private debt financing. We examine the effects of private debt and unused credit lines on SEO underpricing and long-run stock and operating performance. Although theoretical models have provided the benefits of private debt financing, existing empirical studies have focused on small and young firms. It is not clear empirically whether firms at the SEO stage still benefit from having private debt. Furthermore, for firms with unused credit lines, the decision to issue seasoned equities violates the pecking order hypothesis.<sup>1</sup> To our knowledge, we provide the first empirical evidence on the effect of private debt and unused credit lines on SEOs.

We do not find evidence that private debt financing benefits SEO firms. Although there is weak evidence that SEO underpricing decreases with the size of private debt and unused lines of credit, the relations become insignificant when control variables are included. Private debt does not improve long-run post-SEO stock performance either, indicating that private debt lenders are not excellent stock pickers. It is understandable as private debt lenders are more concerned about a firm's ability to pay its debt, not its stock performance.

Our results show that private debt and unused credit lines have a significant impact on post-SEO operating performance. Operating performance of SEO firms both prior to and after the offering is monotonically increasing from the lowest to the highest private debt quartiles. SEO firms in the highest private debt quartile outperform their industry peers both prior to and after the issuance. We also find that the size of unused credit lines is positively related to the pre-issue operating performance but negatively related to the change in operating performance from the pre-issue year to the post-issue period. Equity offerings by firms that have sufficient unused credit lines violate the pecking order hypothesis, suggesting that SEOs could be driven by market timing or managerial discretion.

We study the capital expenditure and R&D expenses both prior to and after the issuance to investigate whether the post-offering operating underperformance is related to overinvestment. We find that firms with higher unused credit lines are associated with less

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<sup>1</sup> For evidence of other violations of pecking order hypothesis, please see Fama and French (2005).

industry-adjusted capital spending in the year prior to the offering but more changes in industry-adjusted capital spending from the pre-issue year to the post-issue period. This result suggests that SEO firms with debt capacity prior to the offering may not have valuable investment opportunities. It is plausible that these firms overinvest after the offering because managers issue equity to pursue their own objectives such as empire-building at the expense of shareholders. Such overinvestment is intensified for firms with more unused credit lines because managers have more free cash flows at their discretion.

We contribute to the literature by distinguishing the different effects between bank and non-bank private debt. Non-bank private debt differs from bank debt in several ways. First, non-bank lenders do not offer checking accounts to borrowers and thus do not have the information advantage enjoyed by banks. Second, probably due to different regulatory requirements, Carey, Post, and Sharpe (1998) show that non-bank private lenders tend to serve riskier borrowers, particularly more leveraged ones. In line with this finding, Denis and Mihov (2003) observe that firms with low credit quality borrow from non-bank private lenders. Since non-bank private debt exhibits different characteristics than bank loans, it is important to separate non-bank private debt from bank debt. However, only a small number of studies have made this distinction.<sup>2</sup>

We also contribute to the literature by studying the effect of unused credit lines. Credit lines are not examined as extensively as private debt. James (1987) finds statistically significant positive excess returns for recipient firms when bank lines of credit are announced. Sufi (2009) shows that bank lines of credit are a viable liquidity substitute only for firms that maintain high cash flow. Liu (2006) finds that unused credit lines exhibit different characteristics than outstanding private debt. For instance, unused credit lines are the only type of private debt that serves as a substitute for cash reserves. Our results that overinvestment is intensified for SEO firms with more unused credit lines support Liu's (2006) finding. Managers of those firms have more free cash flows at their discretion to pursue empire-building activities because unused credit lines can be viewed as cash reserves.

The remainder of this paper is organized as follows. Section 2 provides the related literature and our hypothesis development. Section 3 describes the sample and our methodology. Section 4 discusses the regression results. Section 5 presents the robustness checks and Section 6 concludes.

## 2. Related literature and hypothesis development

Bank debt can be valuable. Diamond (1984) and Fama (1985) argue that banks have a comparative advantage in screening and monitoring corporate clients over other investors. Diamond (1991) further models that banking relations allow firms to acquire reputation needed to counter adverse selection and moral hazard problems. Empirically, Slovin, Johnson, and Glascock (1992) show that small firms benefit from bank screening and monitoring services. Examining a sample of first public straight debt offers, Datta, Iskandar-Datta, and Patel (1999) report that the existence of bank debt lowers the at-issue yield spreads by about 68 basis points. Slovin and Young (1990), James and Wier (1990), and Barry and Mihov (2006) also find that initial public offerings (IPOs) with previously established banking relations have substantially less underpricing than other IPOs. Moreover, Schenone (2004) shows that firms having a pre-IPO banking relationship with a prospective

underwriter face less underpricing than firms without such banking relationships. Gonzalez and James (2007) further find a positive relationship between pre-IPO relationships and improvements in post-IPO operating performance.

Bank debt can be costly. First of all, borrowers pay higher interest on bank loans than on other securities of equivalent risk. Sharpe (1990) also argues that inside information generated by the history of bank-firm interactions creates ex-post monopoly power for banks. Rajan (1992) claims that banks could extract extra rent from borrowers because of their information monopoly. It is often referred to as the hold-up problem. Moreover, Diamond (1991) suggests that monitoring from banks can be costly for firms with established reputation and these firms may choose to issue public debt. If bank debt is costly, the existence of bank debt in SEO firms implies that it may be the only short-run borrowing solution or bank monitoring may still be beneficial to these firms.

Although information asymmetry is less severe in SEO firms than IPO firms, SEO firms may still have prominent information asymmetry between investors and managers. Several theoretical models developed to explain capital structure decisions are based on information asymmetry (e.g., Brennan & Kraus, 1987; Myers & Majluf, 1984). For instance, Myers and Majluf (1984) suggest that new equity issuance is a negative signal of firm value with the presence of asymmetric information. Empirical studies, such as Masulis and Korwar (1986) and Mikkelsen and Partch (1986), find negative stock price reactions to new equity issues and confirm the theoretical prediction. Slovin, Sushka, and Hudson (1990) also report that external monitoring from banks and auditors mitigates information asymmetry and reduces the magnitude of stock price reactions to SEO announcements. If information asymmetry in SEO firms is still severe and private lenders continue to play a certification role for these firms, private debt will reduce ex ante uncertainty and thus underpricing of SEOs.

Private debt may affect the long-run stock underperformance of SEO firms. Loughran and Ritter (1995) and Spiess and Affleck-Graves (1995) show that SEO firms have poor post-issue stock performance and attribute the underperformance to the effects of investor sentiment – investors who purchase shares of SEO firms systematically overvalue the shares at the time of the offerings. Brav, Geczy, and Gompers (2000) show that underperformance in SEO firms' stocks is concentrated in only small firms and those with low book-to-market ratios. Since smaller firms and firms with lower book-to-market ratios are believed to have larger information asymmetry and more likely to be misvalued, their results also suggest that post-SEO stock performance is due to misvaluation of SEO firms at the offerings. If private debt help reduce information asymmetry and hence misvaluation of SEO firms, post-SEO stock performance will be better in firms with private debt financing.

It is also possible that post-SEO stock underperformance is due to mismeasurement of risks, not misvaluation of SEO firms. Fama (1998) argues that long-run abnormal return measures are vulnerable to incorrect estimation of expected returns due to the mismeasurement of risks. Particularly, he concludes that previously documented abnormal returns following SEOs are a manifestation of risk mismeasurement. Brav et al. (2000) and Eckbo, Masulis, and Norli (2000) find supporting evidence that long-term abnormal stock returns are generally insignificant following SEOs with their respective models of expected stock returns that better control for risk. We include documented factors in our regressions to address this issue.

Private debt financing may help SEO firms improve their operating performance through monitoring. Loughran and Ritter (1997) document that operating performance of issuing firms shows substantial improvement prior to the offering and then deteriorates in the following years. They report that SEO firms continue to invest

<sup>2</sup> In addition to Denis and Mihov (2003), James (1987), Johnson (1997), and Carey et al. (1998) are the known studies that distinguish between bank and non-bank private debt.

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