

**Industry Effects and Banking Relationship as Determinants  
of Small Firm Capital Structure Decisions<sup>‡</sup>**

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## **Introduction**

This work examines the leverage ratios of firms covered by the 1998 SSBF Survey. We find that small firms in general are significantly more levered than their larger counterparts in an industry-matched Compustat sample, but the difference is at least partially explained by differences in industry distributions of the two samples. Our regression results provide some interesting contrasts to previous studies. In examining the effects of relationship banking on deviations from industry leverage norms, we find that a close banking relationship is related to a lower leverage, even after controlling for industry medians, and also that firms with a closer primary banking relationship adhere more closely to industry norms. Counter to previous research, we also find that small business leverage is negatively correlated with total assets.

While the field of empirical capital structure studies is very actively researched, the large majority of studies have been conducted on samples of large firms. The relative shortage of research into private small firm capital structure is troubling because small firms provide about half of private sector employment and produce about half of private sector output in the United States (Vinturella and Erickson, 2004). Even their aggregate importance as users of financing has recently surpassed that of better-known large-firm markets (Denis, 2004).

Small firms face a very different financial market compared to large public firms. Due to the dominance of private equity financing and bank lending in the field, small business owners face less competitive, perhaps less informationally efficient, and therefore more restrictive financial markets (Berger and Udell, 1998).

This study examines capital structure decisions in a small and medium enterprise (SME) setting. Specifically, we look at two main issues. First, we test whether industry median leverage, which has been found to affect large firm capital structure decisions (e.g. Hovakimian, 2004), also guide financing patterns of SMEs. This adherence to industry norms could be explained either by industry-specific variation in ability (and willingness) to carry debt, or, especially in small business setting, by financiers' use of industry medians as a guideline in their lending decisions. We find that while SMEs in general are more levered than larger firms, at least some of that difference is explained by SMEs being in industries that tend to use more leverage. SME capital structure is strongly affected by median industry leverage obtained from Compustat.

Second, we study the effects that the geographic proximity of the firm's banking relationship has on its use of financial leverage. Recent research (Brick, et.al., 2004, Berger and Udell, 2002, Berger, et.al., 2005) suggests that in small business lending, that is dominated by bank lending, smaller banks that are geographically closer to their customer firms are better able to use "soft" qualitative information about their customers' credit quality<sup>1</sup>. Since industry ratios represent "hard" information often used by lenders, we expect banks with a closer relationship to their customers to deviate more from industry norms when making lending decisions. Moreover, we expect that the soft information and the closeness of the relationship between the bank and the firm allows the bank to extend credit more readily to the firm. Our findings are surprising. First, controlling for industry medians from Compustat, we find that SME leverage is positively related to the distance from the firm's main bank, and negatively related to the duration of the firm's relationship with their main bank. Also, firms that only use

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<sup>1</sup> Berger and Udell (2004) list the character and reliability of the entrepreneur, and past financial performance gathered from transaction history with the institution and from communications with the entrepreneur's suppliers, customers, and neighbors, as examples of soft information.