

7-2009

How Strong is the Link between Internal Finance & Small Firm Growth? Evidence from Survey of Small Business Finances

George W. Haynes
Montana State University-Bozeman

James R. Brown
Iowa State University, jrbrown@iastate.edu

Follow this and additional works at: http://lib.dr.iastate.edu/finance_pubs

 Part of the [Finance and Financial Management Commons](#)

The complete bibliographic information for this item can be found at http://lib.dr.iastate.edu/finance_pubs/7. For information on how to cite this item, please visit <http://lib.dr.iastate.edu/howtocite.html>.

This Book Chapter is brought to you for free and open access by the Finance at Iowa State University Digital Repository. It has been accepted for inclusion in Finance Publication by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.

How Strong Is the Link Between Internal Finance and Small Firm Growth? Evidence from the Survey of Small Business Finances

George W. Haynes¹
Montana State University at Bozeman

James R. Brown
Iowa State University

While a vast literature exists examining the link between firm investment and cash flow, few studies have examined the link between firm growth and internal funds, and those that exist have focused exclusively on publicly traded firms. This study posits that internal funds are critically important to small firm growth. While other studies have utilized Compustat and other databases containing responses from publicly traded firms, this study utilizes the Federal Reserve Board's Survey of Small Business Finances, a database containing responses from non-publicly traded firms with fewer than 500 employees. We show that small growth firms are more likely than non-growth firms to have lines of credit, motor vehicle loans, capital leases, equipment loans, and loans from both commercial banks and finance companies. We find a strong, positive relationship between internal funds and employment growth across small, private firms. In addition, we find that the relationship between internal funds and employment growth is especially important for very small and women-owned firms. These results highlight the importance of programs that effectively reduce the costs of borrowing and increase net profits in foster-

¹ Research performed under contract number SBAHQ-07-M-0381. The statements, findings, conclusions, and recommendations are those of the authors and do not necessarily reflect the views of the Office of Advocacy, the U.S. Small Business Administration, or the U.S. government.

ing the growth of small businesses, especially for very small and women-owned firms. For the practitioner working with small businesses, this study suggests that while outside capital is often needed, internal capital is critically important for the growth of small businesses.

1. Introduction

Compared to the vast literature that examines the link between firm investment and the availability of internal funds, few studies examine the link between finance and firm growth, and those that do focus exclusively on publicly traded firms (e.g., Carpenter and Petersen, 2002). In this study we provide new evidence on the financing of small, private growth firms using data from the Federal Reserve Board's 1993 and 2003 Surveys of Small Business Finances (SSBF). We show that small growth firms are more likely than non-growth firms to have lines of credit, motor vehicle loans, capital leases, equipment loans, and loans from both commercial banks and finance companies. We also find a strong positive relation between the level of internal funds and the likelihood that small firms report positive employment growth. Though exploratory in nature, our results are consistent with a model of firm growth in which firm expansion is constrained by the availability of internal and external funds.

Our study has several important implications. First, our results suggest that the strong link between finance and real firm behavior documented extensively for publicly traded firms also holds for smaller firms with limited access to public equity markets. In particular, small growth firms are more likely to rely on key external sources for credit (e.g., commercial banks and finance companies), and hence the impact of improved (or reduced) access to such sources could be expected to have the greatest impact on small *growth* firms. Second, the very strong relation between internal finance and the likelihood that small firms report positive growth suggests that small firms in the United States may face economically important financing frictions. Data limitations temper the conclusions we can confidently draw from this finding, but our findings at least suggest that financing constraints may be particularly important for the growth of very small firms (those with fewer than 20 employees and less than \$1 million in sales) and firms with women-owners. This finding highlights two key firm characteristics that public policy efforts to address small firms' financing difficulties might emphasize.

In the next section provides a brief survey of the literature on financing constraints and small firms. In section three we discuss the growth of firms in a model with binding financing frictions. In section four we discuss our data source and empirical strategy, and we present the sample summary statistics. Section five contains finance-growth regressions, and section six concludes the paper.

2. Literature Review

The literature discusses several reasons why small growth firms might face a high cost of external capital. First, asymmetric information problems may be especially severe for smaller firms, which can lead to both adverse selection and moral hazard,² and potentially even to credit rationing (e.g., Stiglitz and Weiss, 1981). In addition, smaller ventures may have difficulty obtaining debt finance because their returns are uncertain and highly volatile, and creditors do not share in firms' returns in the good states (Stiglitz, 1985). Smaller firms also may possess limited collateral which is often necessary for obtaining debt financing, particularly for risky firms (Berger and Udell, 1990). Finally, external equity financing is likely even more expensive than debt for almost all small firms, due to both high floatation costs associated with public issues (Lee, Lockhead, Ritter and Zhao, 1996), and the "lemons premium" that any potential equity supplier may demand due to asymmetric information problems (Myers and Majluf, 1984).

Several recent studies present evidence suggesting that financing constraints are important for small firm investment and growth. In the paper most closely related to our study, Carpenter and Petersen (2002) find strong evidence that the growth of small, publicly traded firms in the United States is constrained by internal funds. Evans and Jovanovic (1989) show that "most individuals who enter self-employment face a binding liquidity constraint and as a result use a suboptimal amount of capital to start up their businesses" (p. 810). Holtz-Eakin, Joulfaian, and Rosen (1994a) find evidence suggesting that liquidity constraints impact entrepreneurial success and growth.³ Hennessy and Whited (2007) present a structural model indicating that equity floatation costs are high for small firms. Tsoukalas (2006) presents evidence suggesting that the inventory investment of small firms is constrained by internal funds.⁴ Finally, Hadlock and Pierce (2008) compare a large number of proxies for the likelihood that firms face financing frictions and conclude that firm size and age are very strong predictors of a firm's financial constraint status.⁵

Recent work utilizing the SSBF found that African-American business owners may face discrimination in the market for financial credit. Cavalluzzo, Cavalluzzo and Wolken (2002) found that, after controlling for business characteristics, substantial differences in denial rates between firms owned by African Americans and white males still existed. These results have been supported by more complex econometric work completed by Blanchflower, Levine and Zimmerman (2003) who found that black-owned

² Defined as the lack of incentive to guard against a risk when you are protected against it (as by insurance).

³ Also see Holtz-Eakin, Joulfaian, and Rosen (1994b).

⁴ A comprehensive survey of the large literature on financing constraints for physical investment is provided by Hubbard (1998).

⁵ We note that some recent studies conclude small firm access to credit may have improved in recent years, including Petersen and Rajan (2002) and Vos, Yeh, Carter, and Tagg (2007).

small businesses are about twice as likely to be denied credit, even after controlling for differences in creditworthiness and other factors.

And finally, a comparison of the earlier editions of the SSBF with the most recent 2003 SSBF by Mach and Wolken (2006) suggests that non-depository institutions have become more important to small business owners, although commercial banks have remained the dominant supplier of most financial services.

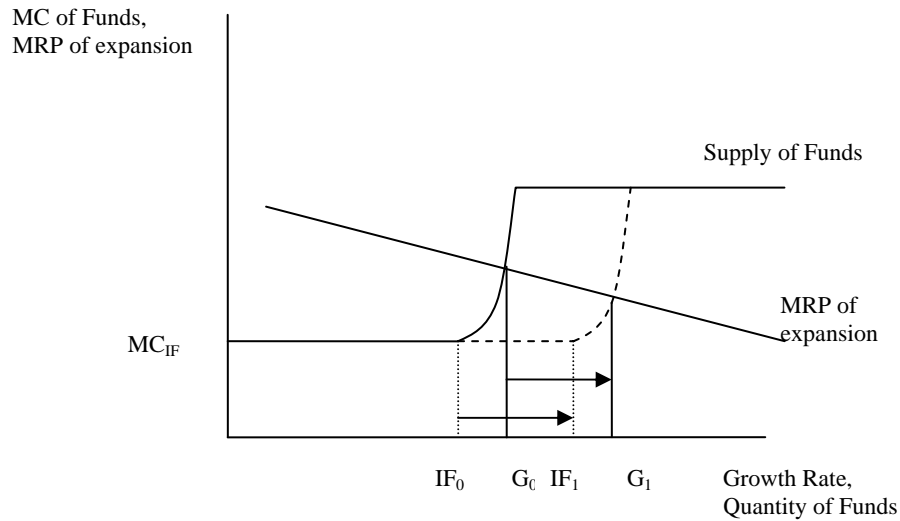
3. Theoretical Framework: A Model of Finance Constrained Growth

The discussion above suggests that small firms may face a financial pecking-order when financing their growth, wherein they first exhaust internal funds before turning to debt, and then perhaps to external equity, if demand for funds is sufficiently high (Myers, 1984). Alternative theories of capital structure include the trade-off theory, which focuses on the choice of a debt level that balances the tax benefits of debt with the costs of financial distress, and the market timing theory (Baker and Wurgler, 2002), which argues that the timing of stock issues to correspond to high stock prices will have a persistent impact on firm capital structure. Almost all studies that attempt to evaluate these theories of capital structure focus on publicly traded firms, and, obviously, the market timing theory is only relevant for such firms. There appears to be no consensus from this literature on which theory best rationalizes the observed capital structure of public firms (Shyam-Sunder and Myers, 1999; Frank and Goyal, 2003; and Fama and French, 2002 and 2005). More importantly for our purposes, however, a recent study by Cole (2008) shows that the capital structure of small, private firms is consistent with the predictions of the pecking-order theory.

A financing hierarchy based on these ideas is illustrated below. The model is taken directly from Carpenter and Petersen (2002) and Hubbard (1998). The change in firm size and quantity of finance are measured on the horizontal axis, and the marginal cost of funds and marginal revenue product (MRP) of expansion are measured on the vertical axis. The quantity of available internal finance is IF , and the marginal opportunity cost of internal finance is MC_{IF} . The firm exhausts internal finance first, and then, if the marginal returns from expansion are high enough, turns to debt (the upward sloping portion of the supply curve). To see that such a firm is “constrained” at the margin, note that an increase in available internal funds from IF_0 to IF_1 shifts the entire supply schedule out and leads to an increase in the firm’s rate of growth from G_0 to G_1 . Note as well that as financing constraints are relaxed the upward sloping portion of the supply of funds schedule becomes more elastic (closer to a supply of funds schedule consistent with per-

fect capital markets) and the sensitivity of firm growth to the availability of internal funds declines.

Figure 1. Financing Hierarchy Model



Data, Estimation Strategy, and Summary Statistics

We construct the sample from the 1993 and 2003 SSBFs. The SSBF is a cross-sectional survey of small, private firms in the United States designed to generate representative samples of economy-wide small firm activity. We exclude firms in the following industries from the sample: utilities (two-digit SIC code 49); finance, insurance and real estate (two-digit SIC code 60-69); and public administration and unclassified (two-digit SIC code of 91 or greater). We also exclude the relatively few firms that report being publicly traded (32 firms in the 1993 sample and 9 firms in 2003 sample).

The SSBF in both 1993 and 2003 asks firms whether employment growth over the past three years has been positive, unchanged, or negative. We consider all firms that report positive employment growth to be “growth” firms and all other firms to be “non-growth” firms. Given this measure of firm growth, firms that have not been in business for three years are necessarily excluded from the sample. The primary measure of internal finance we use is the natural log of firm profits (plus one). Because a sizeable number of firms report negative profits, we “scale up” reported profits in each sample year by adding the minimum profits value reported that year to all reported profit values. Obviously,

profits is an imperfect measure of internal funds, so in Appendix A we report results with the log level of internal equity (total assets minus total liabilities) used in place of profits. The final sample consists of 3,905 firms from the 1993 survey and 3,447 firms from the 2003 survey, or 7,352 total firm-year observations. For all the descriptive statistics and regression results reported in the paper, we apply the appropriate sampling weights as provided in the 1993 and 2003 SSBFs. The 2003 SSBF contains five separate data implicates and we use the first implicate.

4. Empirical Strategy

We begin by considering whether growth and non-growth firms differ in the type and sources of external credit they obtain. To evaluate how financing sources are associated with growth and non-growth firms after controlling for various firm and owner characteristics, we estimate logistic regressions of the following form:

$$\Pr(\text{Credit_Type})_i = \alpha_1 \text{PositiveGrowth}_i + \beta \mathbf{FirmCharacteristics} + \delta \mathbf{OwnerCharacteristics} + \sigma_t + \varepsilon_i.$$

We estimate separate regressions for major types and sources of credit, so *Credit_Type* is a dummy variable equal to one if the firm has a particular type of credit (e.g., a capital lease) or obtains credit from a particular source (e.g., a finance company). *PositiveGrowth_i* is a dummy variable equal to one if the firm reports positive employment growth over the prior three years. The vector of firm characteristics includes age, sales and industry; while the owner characteristics include age, education, experience, race (minority dummy variable), gender (women dummy variable), and a dummy variable equal to one if the owner recently filed for bankruptcy.

Our second, more exploratory interest is the link between internal finance and growth across firms. Empirically, the model developed in the previous section suggests a baseline specification like the following:

$$\text{PositiveGrowth}_i = \alpha_1 \text{Internal Funds}_i + \gamma_j + \sigma_t + \varepsilon_i.$$

Given data availability in the SSBF, we define *PositiveGrowth_i* as a dummy variable equal to one if firm *j* reports positive employment growth over the previous three

years and, as noted above, we proxy for Internal Funds with the log of firm profits.⁶ γ_j is an industry-specific fixed effect, σ_t is a year-specific fixed effect, and ε is a random disturbance.

Similar specifications have been used to draw inferences about the importance of financing frictions for small firm growth among samples of publicly traded firms (e.g., Carpenter and Petersen, 2002). One concern with using this regression to draw strong conclusions about financing constraints among small firms in the SSBF is that internal funds are measured at the end of the survey year (1993 or 2003), while firm growth is measured over the prior three years. Consequently, it is difficult to determine the direction of *causality* between internal funds and growth: Do small firms grow faster because they have more internal funds, or do they have more internal funds because of their fast growth? While the available data limits our ability to conclusively deal with this issue, we do note that if the regression is merely capturing the fact that high growth firms end the period with greater profits, then we should find similar correlations between internal funds and growth for all groups of firms, irrespective of the *a priori* likelihood that they face financing frictions.

A related concern is that internal funds and firm growth may be positively related for reasons *other than* financing constraints. In particular, internal funds are likely to be positively correlated with firm growth opportunities across firms, so if the regression does not adequately control for growth opportunities we may find a positive internal finance-growth link even for firms that face no financing constraints. Though the industry and year dummies in the baseline specification will capture all growth opportunities at the industry and year level, we take two additional steps to address this concern. First, we add additional controls for growth opportunities to the baseline specification. In some specifications we include the log of firm age, the log of new credit obtained, the log of new equity acquired, and, in a particularly strong test of robustness, a dummy variable equal to one if the firm reports positive sales growth over the previous three years. Sales growth is widely used to control for growth opportunities and, not surprisingly, it is strongly correlated with both employment growth and internal funds at the firm level. Though still speculative, the inferences we can draw about the importance of internal funds for small firm growth are much stronger if we continue to find a positive link between internal funds and employment growth after including sales growth in the regression. Second, we estimate the growth regression separately for groups of firms that are *a priori* more or less likely to face binding financing constraints. This approach has been used in the financing constraint literature since Fazzari, Hubbard, and Petersen (1988). If the regression results reveal information about financing frictions, then firms which are *a priori* more likely to face binding constraints should exhibit a stronger link between in-

⁶ Of course, firm profits is not a perfect proxy for the availability of internal funds, but we know of no perfect proxy provided in the SSBF. Furthermore, profits will be a sufficient proxy for internal funds in this framework as long as it is highly correlated with the “true” measure, which we expect it to be.

ternal funds and growth, whereas the link between internal funds and growth should be similar across groups if profits simply proxy for growth opportunities, or if growth firms systematically have higher profits at the end of the sample period. The primary split we use is based on firm size, which has been widely used as a proxy for the degree of financing frictions (e.g., Gilchrist and Himmelberg, 1995; Almeida, Campello, and Weisbach, 2004).

Summary Statistics

Tables 1, 2 and 3 describe the key features of our data. Table 1 reports mean and median values for the key regression variables. Several interesting facts emerge from Table 1. First, note that Table 1 shows substantial variation in firm size across the firms covered by the SSBF. In particular, the firms we classify as “smaller” are significantly smaller in terms of both employees and sales than the firms we classify as “larger.” Second, the median firm in the pooled sample is thirteen years old and is thus *not* a new start-up enterprise (recall that firms younger than four years old are dropped from the sample). Perhaps not surprisingly, smaller firms are slightly younger than larger firms at both the mean and the median. Third, positive employment growth for firms in the SSBF database is the exception rather than the norm: 28 percent of firms in the pooled sample report positive employment growth over the prior three years; a larger fraction of firms in the 1993 sample report positive growth than in the 2003 sample. Fourth, note that larger firms are more likely to report positive employment growth. Finally, both small and large firms are more likely to report positive sales growth than they are to report positive employment growth.

Table 2 provides detailed evidence on average employment growth by firm age, size, and industry. First, note that employment growth over the previous three years is clearly increasing with both with the current level of employees (this is true in both 1993 and 2003) and the current level of sales. Second, employment growth is more likely for younger firms, consistent with the large empirical literature that has studied firm growth over the life cycle. Third, employment growth is similar across industries; in both 1993 and 2003 growth was highest in transportation. Finally, services and retail trade account for the largest share of firms in our data.

Table 3 reports characteristics of “growth” and “non-growth” firms. Growth firms tend to be larger and older than non-growth firms, and they have higher profits. In addition, growth firms obtain, on average, more total credit, more commercial bank credit, and more finance company credit. Furthermore, a significantly larger fraction of growth firms have lines of credit, motor vehicle loans, capital leases, and equipment loans. A larger fraction of growth firms also have loans from commercial banks, savings and loans, finance companies, and leasing companies. Overall, this table shows that external credit is particularly important for the small private firms that are expanding.

5. Regression Results

Financing Characteristics and Small Firm Growth

While growth firms are, on average, more reliant on external credit than non-growth firms, they differ in other important ways (e.g., size and age) that might explain the differences we observe in Table 3. So, in Table 4 we explore whether the relation between reporting positive growth and relying on external credit persists after controlling for other key firm and owner characteristics. For different types and sources of credit, we estimate the logistic regression discussed above and report the coefficient estimate on the “PositiveGrowth” dummy variable in Table 4.

The findings in Table 4 show that growth firms are significantly more likely to use some sources of external credit than non-growth firms, after controlling for firm and owner characteristics. In particular, we find that firm growth is positively related to having a line of credit, a motor vehicle loan, a capital lease, an equipment loan, a loan from a commercial bank, and a loan from a finance company. We find no significant differences between growth and non-growth firms in the likelihood that they have a mortgage loan, a loan from a savings and loan institution, a loan from a credit union, credit from a brokerage or mutual fund, credit from a leasing company, or credit from an insurance or mortgage company. These findings suggest that firm growth is a potentially important characteristic for understanding the use of external credit by small firms.

The Internal Finance-Growth Relation: Baseline Estimates

Table 5 reports estimates of the internal finance-growth regression discussed above. Column one includes only the level of internal funds (log of profits) and industry and year dummies as dependent variables and shows a strong positive link between internal funds and the likelihood of employment growth across small firms. In column two, we add firm age to control for the widely documented fact that firm growth rates (and growth opportunities) are a function of firm age (Sutton, 1997). The estimated coefficient on age is negative and highly significant, showing that older firms are less likely to exhibit positive employment growth, and the coefficient on internal funds remains positive and significant.

In column three, we add a dummy variable indicating whether the firm reports positive sales growth over the prior three years. As discussed above, sales growth is widely employed as a control for firm growth opportunities and should be positively correlated with both employment growth and the level of internal funds. Indeed, the coefficient on sales growth is positive and large, reflecting a strong positive relation between sales growth and employment growth. More importantly, however, the estimated coefficient on internal funds remains positive and significant even after controlling for sales

growth. Finally, in column four we include the amount of new external finance raised by the firm. Credit raised from traditional sources is positively related to firm growth (as expected given the findings in Tables 3 and 4), but equity raised is not related to likelihood of firm growth. (Recall from the descriptive statistics that small firms raise very little external equity.) Including the external finance variables reduces the estimated coefficient on internal funds slightly, but it remains positive and significant.

At a minimum, the findings in Table 5 provide the first empirical evidence we are aware of on the correlation between internal finance and growth among small private firms. More speculatively, these findings are consistent with the finance-constrained model of small firm growth developed above. In particular, we find a strong positive link between internal funds and the likelihood of growth across small firms even after controlling for firm age and sales growth. The results with sales growth are especially valuable for interpreting the internal finance-growth relationship. If the positive relation between internal funds and employment growth simply reflects the fact that firms with high growth opportunities also have more internal funds, then including sales growth in the regression should substantially reduce or eliminate the positive coefficient on internal funds. The fact that the coefficient on internal funds remains positive, large, and significant after controlling for sales growth is consistent with an interpretation that the growth of small firms is constrained by internal funds.

As discussed above, profits is not a perfect proxy for the level of internal funds. In Table 6 we therefore report a set of regressions identical to those in Table 5, except that we replace profits with the level of internal equity (assets minus liabilities). Across all specifications we find a significant positive correlation between the level of internal equity and the likelihood that the firm reports positive employment growth.

Split Sample Estimates

Table 7 reports results from splitting the sample into “smaller” and “larger” categories. The smaller firms have fewer than 20 employees and less than \$1 million in sales, while larger firms have at least 20 employees or at least \$1 million in sales. This split into size categories follows Berger and Udell (1998). In general, the results in Table 7 show a particularly strong link between internal funds and growth among the smallest firms (though the estimate in column two is imprecise and just misses statistical significance at the 10 percent level). This finding is potentially important because larger firms are more profitable and are more likely to report positive employment growth (see Table 1), suggesting that the growth regression is not simply capturing the fact that firms with positive growth over the past three years also end the period with more internal funds. Again, though speculative, these results are consistent with a world in which the growth of firms most likely to face financing frictions (very small firms) is constrained by the availability of internal funds.

Results by Year

In Table 8, we consider whether the correlation between internal funds and growth differs between 1993 and 2003. First, we use the concatenated data and include an interaction term between internal funds and a year 2003 dummy. Second, we estimate separate regressions for the 1993 and 2003 sample periods. Overall, the results show a positive link between internal finance and growth in both 1993 and 2003. Furthermore, the internal finance-growth link may have weakened over time. If so, this would be consistent with recent studies citing improved access to finance for small firms in recent years (e.g., Petersen and Rajan, 2002).

Results by Owner Characteristics: Race and Gender

In Table 9, we estimate the finance-growth regression separately for minority- and women-owned firms. Columns one and two show a very strong relation between internal funds and growth for non-minority-owned firms. Columns three and four show a positive relation between internal finance and growth for both women- and men-owned small firms, though the link appears particularly strong in the sample of women-owned firms. Again, though these findings should be interpreted with caution, they are at least consistent with minority- and women-owned firms having, on average, more limited access to external finance than other firms. We continue to find a significant positive correlation between growth and internal funds among the non-minority- and men-owned firms.

Results by Firm Characteristics: Legal Organization and Location

Table 10 shows separate estimates of the baseline finance-growth regression based on potentially important firm characteristics. In columns one and two, we split firms into separate categories based on whether or not the firm is legally incorporated. We find a positive and significant link between growth and internal funds for both incorporated and non-incorporated firms. However, the coefficient on internal funds is substantially larger for the non-incorporated firms.

In columns three and four in Table 10, we split firms into “urban” and “non-urban” groups based on their geographic location. We find positive and significant coefficients on internal finance for both groups of firms, though the relation appears particularly strong for firms located in non-urban areas.

Results by Riskiness: Dun and Bradstreet Credit Score

In Table 11, we split firms based on the Dun & Bradstreet credit score, which is only available in the 2003 SSBF. We find positive and significant coefficients on internal

finance for both “more” and “less” risky firms, though the relation appears particularly strong for the more risky firms.

6. Conclusions

We provide new evidence on small firm finance and growth using the 1993 and 2003 Surveys of Small Business Finances. We find significant differences in the financing of growth and non-growth firms. *In particular, we find that growth firms are more reliant than non-growth firms on the external finance supplied by commercial banks and finance companies.* We also show a strong, positive relation between the level of internal funds and the likelihood of employment growth across small firms covered by the SSBF. The relation between internal finance and growth is especially strong for the smallest firms, firms with women owners, firms that are not incorporated, firms in non-urban locations, and firms with risky credit ratings. Though we are cautious in the conclusions, our findings are consistent with a model of firm growth in which the growth of firms most likely to face financing frictions is constrained by the availability of finance.

While this evidence would suggest that firm growth is dependent upon internal funds, the firm growth story may be simply a firm recovery story. The three years prior to 1993 and 2003 were moderate recession years; therefore, when firms were asked to compare sales with the previous year, the increase in sales may have been recovery from decreased sales, rather than growth. This analysis is constrained by the data available to distinguish between a recovery and growth story. If a community variable, such as the County Business Patterns sales information, could be added to the SSBF, then an adequate proxy for recovery could be included in the analysis and enable the recovery and growth stories to be more carefully examined. Unfortunately, county locations are not identified in the SSBF.

While an extensive literature exists for publicly traded firms on the relationship between internal financing and growth utilizing Compustat and other databases, few studies have used the SSBF or other small business databases to address this issue. This study has made an important contribution to the literature by recognizing that small publicly traded firms face similar binding internal financing constraints as non-publicly traded firms, even though publicly traded firms have more access to external funds. This study provides important information for public policymakers addressing financing constraints for small business owners. Most importantly, this study finds a strong, positive relationship between internal funds and employment growth across small, privately held firms. In addition, it suggests that most severe internal funds constraints may be realized by very small firms and women-owned firms. These results highlight the importance of programs that effectively reduce the costs of borrowing (and increase net profits) in fostering the

growth of small businesses, especially for very small and women-owned firms. For the practitioner working with small businesses, this study suggests that while outside capital is often needed, internal capital is critically important for the growth of small businesses.

7. References

- Almeida, H., Campello, M., and Weisbach, M.S. (2004). The cash flow sensitivity of cash, *Journal of Finance*, 59(4), 1777-1804.
- Baker, M., and Wurgler, J. (2002). Market timing and capital structure, *Journal of Finance*, 57(1), 1-32.
- Berger, A.N., and Udell, G.F. (1990). Collateral, loan quality, and bank risk, *Journal of Monetary Economics*, 25(1), 21-42.
- Berger, A.N., and Udell, G.F. (1998). The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle," *Journal of Banking and Finance*, 22(6), 613-673.
- Blanchflower, D.G., Levine, P.B., and Zimmerman, D.J. (2003). Discrimination in the small business credit market, *Review of Economics and Statistics*, 85(4), 930-943.
- Carpenter, R.E., and Petersen, B.C. (2002). Is the growth of small firms constrained by internal finance, *The Review of Economics and Statistics*, 84(2), 298-309.
- Cavalluzzo, K.S., Cavalluzzo, L.C., and Wolken, J.D. (2002). Competition, small business financing and discrimination: Evidence from a new survey, *The Journal of Business*, 75(4), 641-679.
- Cole, R.A. (2008). What Do We Know About the Capital Structure of Privately Held Firms? Evidence from the Surveys of Small Business Finances, U.S. Small Business Administration, Office of Advocacy. <http://www.sba.gov/advo/research/rs324.pdf>.
- Evans, D.S., and Jovanovic, B. (1989). An estimated model of entrepreneurial choice under liquidity constraints, *Journal of Political Economy*, 97(4), 808-827.
- Fama, E.F., and French, K.R. (2002). Testing trade-off and pecking-order predictions about dividends and debt, *Review of Financial Studies*, 15(1), 1-33.
- Fama, E.F., and French, K.R. (2005). Financing decisions: Who issues stock? *Journal of Financial Economics*, 76(3), 549-582.
- Fazzari, S.R., Hubbard, G., and Petersen, B. (1988). Financing constraints and corporate investment," *Brookings Papers on Economic Activity*, 2, 141-206.
- Frank, M. and Goyal, V. (2003). Testing the pecking order theory of capital structure. *Journal of Financial Economics*, 67(2), 217-248.

- Gilchrist, S., and Himmelberg, C.P. (1995). Evidence on the role of cash flow, *Journal of Monetary Economics*, 36(3), 541-572.
- Hadlock, C.J., and Pierce, J.R. (2008). Does the KZ index provide a useful measure of financial constraints? Working paper.
- Hennessy, C.A., and Whited, T.M. (2007). How costly is external financing? Evidence from a structural estimation, *Journal of Finance*, 62(4), 1705-1745.
- Holtz-Eakin, D., Joulfaian, D., and Rosen, H.S. (1994a). Sticking it out: Entrepreneurial survival and liquidity constraints, *Journal of Political Economy*, 102(1), 53-75.
- Holtz-Eakin, D., Joulfaian, D., and Rosen, H.S. (1994b). Entrepreneurial decisions and liquidity constraints, *RAND Journal of Economics*, 25(2), 334-347.
- Hubbard, R.G. (1998). Capital market imperfections and investment, *Journal of Economic Literature*, 36(1), 193-225.
- Lee, I., Lockhead, S., Ritter, J., and Zhao, Q. (1996). The costs of raising capital, *Journal of Financial Research*, 19(1), 59-74.
- Mach, T. L., and Wolken, J.D. (2006). Financial services used by small businesses: Evidence from the 2003 Survey of Small Business Finances, *Federal Reserve Bulletin*, October, 167-195.
- Myers, S.C. (1984). The capital structure puzzle, *Journal of Finance*, 39(3), July, 575-592.
- Myers, S.C., and Majluf, N.S. (1984). Corporate financing and investment decisions when firms have information that investors do not, *Journal of Financial Economics*, 13(2), 187-221.
- Petersen, M., and Rajan, R. (2002). Does distance still matter: The information revolution in Small business lending, *Journal of Finance*, 57(6), 2533-2570.
- Shyam-Sunder, L., and Myers, S.C. (1999). Testing static tradeoff against pecking order models of capital structure, *Journal of Financial Economics*, 51(2), 219-244.
- Stiglitz, J. (1985). Credit markets and capital control, *Journal of Money, Credit and Banking*, 17(2), 133-52.
- Stiglitz, J.E., and Weiss, A. (1981). Credit rationing in markets with imperfect information, *American Economic Review*, 71(3), 393-410.
- Sutton, J. (1997). Gibrat's Legacy, *Journal of Economic Literature*, 35(1), 40-59.
- Tsoukalas, J.D. (2006). Financing constraints and firm inventory investment: A reexamination, *Economics Letters*, 90(2), 266-271.
- Vos, E., Yeh, A.J., Carter, S., and Tagg, S. (2007). The happy story of small business financing, *Journal of Banking and Finance*, 31(9), 2648-2672.

8. Tables

Table 1. Sample Descriptive Statistics

The sample is constructed from the 1993 and 2003 Surveys of Small Business Finances. The sample excludes publicly traded firms and firms located in SIC 49 (utilities), SIC 60-69 (finance, insurance and real estate), and SIC 91-98 (public administration). “Smaller” firms have fewer than 20 employees and less than \$1 million in sales. Firms must report positive, zero or negative employment growth since 1990 for the 1993 sample and since 2000 for the 2003 sample, meaning firms in business three years or less are excluded from the sample. All values are in 2003 dollars.

		<i>1993</i>			<i>2003</i>			<i>Pooled</i>		
<i>Size Category:</i>		<i>Smaller</i>	<i>Larger</i>	<i>All</i>	<i>Smaller</i>	<i>Larger</i>	<i>All</i>	<i>Smaller</i>	<i>Larger</i>	<i>All</i>
Employ-ees	<i>mean</i>	3.009	33.486	8.291	3.289	30.660	8.912	3.156	31.856	8.623
	<i>median</i>	2	20	3	2	18	3	2	18	3
Sales	<i>mean</i>	254592	5376137	1142314	228883	4829399	1174054	241089	5060659	1159297
	<i>median</i>	172380	2354735	229840	140000	2000000	217000	151000	2165093	224094
Age	<i>mean</i>	14.487	18.852	15.243	15.928	18.278	16.411	15.244	18.521	15.868
	<i>median</i>	12	15	12	14	16	14	13	15	13
Profits	<i>mean</i>	32725	218209	64876	46344	627286	165698	39878	454254	118823
	<i>median</i>	17238	77080	21064	19000	121000	24535	18000	100795	22984
Em- ployment Growth	<i>mean</i>	0.287	0.474	0.319	0.187	0.471	0.246	0.235	0.472	0.280
	<i>median</i>	0	0	0	0	0	0	0	0	0
Sales Growth	<i>mean</i>	0.566	0.692	0.588	0.453	0.654	0.494	0.506	0.670	0.537
	<i>median</i>	1	1	1	0	1	0	1	1	1
Tradi- tional Credit	<i>mean</i>	29663	548816	119648	55284	633979	174176	43119	597957	148825
	<i>median</i>	1149	76691	3677	500	93430	6000	919	86000	4660
Equity Raised	<i>mean</i>	8081	72253	19204	1368	17141	4608	4555	40452	11394
	<i>median</i>	0	0	0	0	0	0	0	0	0

Table 2. Growth Statistics by Size, Age, and Industry

Table 2 reports average employment growth for firms in different size, age and industry groupings. The sample is described in Table 1. Employment growth is a dummy variable equal to one if the firm reports positive employment growth over the prior three years, and zero otherwise.

Category	Pooled		1993		2003	
	Avg. Employment Growth	<i>n</i>	Avg. Employment Growth	<i>n</i>	Avg. Employment Growth	<i>n</i>
Any Firm	0.280	7352	0.319	3905	0.246	3447
<i>Number of Employees</i>						
0-1	0.099	1737	0.157	1000	0.036	737
2-4	0.279	1443	0.352	770	0.219	673
5-9	0.403	999	0.442	545	0.371	454
10-19	0.439	654	0.478	338	0.413	316
20-99	0.549	1775	0.524	872	0.567	903
100 or more	0.628	744	0.696	380	0.574	364
<i>Total Sales</i>						
Less than 25,000	0.118	559	0.223	264	0.046	295
25,000-49,999	0.135	454	0.186	233	0.098	221
50,000-99,999	0.177	616	0.272	357	0.086	259
100,000-249,999	0.257	1158	0.300	691	0.210	467
250,000-499,999	0.299	859	0.312	497	0.287	362
500,000-999,999	0.379	777	0.391	404	0.370	373
1 million-2,499,999	0.420	922	0.440	470	0.407	452
2,500,000-4,999,999	0.498	608	0.461	323	0.529	285
5 million-9,999,999	0.518	577	0.498	283	0.533	294
10 million or more	0.565	822	0.569	383	0.561	439
<i>Age</i>						
Less than 4	n/a	n/a	n/a	n/a	n/a	n/a
4-9	0.341	2326	0.374	1404	0.306	922
10-19	0.268	2593	0.300	1404	0.239	1189
20 or more	0.221	2433	0.264	1097	0.193	1336
<i>Industry</i>						
Mining/Construction	0.290	906	0.320	515	0.258	391
Manufacturing	0.309	962	0.393	518	0.228	444
Transportation	0.352	284	0.428	144	0.304	140
Wholesale Trade	0.349	642	0.412	388	0.272	254
Retail Trade	0.265	1600	0.261	910	0.270	690
Services	0.262	2958	0.310	1430	0.228	1528

Table 3. Characteristics of Growth Firms

Table 3 reports key characteristics of growth and non-growth firms for the sample described in Table 1. Firms are considered growth firms if they report positive employment growth over the prior three years, and non-growth firms otherwise. All values are in 2003 dollars.

Category		All Firms	Growth Firms	Non-Growth Firms	Difference <i>p-value</i>
Employees	<i>mean</i>	8.623	15.430	5.977	0.000
	<i>median</i>	3	6	2	
Sales	<i>mean</i>	1159297	2056466	810469	0.000
	<i>median</i>	224094	453865	172380	
Age	<i>mean</i>	15.868	14.182	16.524	0.000
	<i>median</i>	13	11	14	
Profits	<i>mean</i>	118823	210010	83369	0.007
	<i>median</i>	22984	34476	20000	
Traditional Credit (Total)	<i>mean</i>	148825	269235	102008	0.000
	<i>median</i>	4660	17238	1007	
Commercial Bank Credit	<i>mean</i>	89407	162484	60994	0.000
	<i>median</i>	0	0	0	
Finance Company Credit	<i>mean</i>	27218	50582	18134	0.019
	<i>median</i>	0	0	0	
Share with Line of Credit		0.313	0.410	0.276	0.000
Share with Mortgage Loan		0.097	0.106	0.094	0.108
Share with Motor Vehicle Loan		0.266	0.325	0.243	0.000
Share with Capital Lease		0.093	0.141	0.074	0.000
Share with Equipment Loan		0.132	0.188	0.110	0.000
Share with Other Traditional Loan		0.105	0.135	0.094	0.000
Share with Any Traditional Loan		0.595	0.710	0.551	0.000
Share with Commercial Bank Loans		0.415	0.525	0.372	0.000
Share with S&L Loans		0.047	0.057	0.043	0.012
Share with Credit Union Loans		0.029	0.034	0.026	0.077
Share with Any Depository Credit		0.461	0.572	0.418	0.000
Share with Finance Company Credit		0.182	0.240	0.159	0.000
Share with Brokerage or Mutual Fund Credit		0.006	0.006	0.006	0.717
Share with Leasing Company Credit		0.063	0.088	0.053	0.000
Share with Insurance or Mortgage Company Credit		0.015	0.014	0.015	0.911
Share with Any Non-Depository Credit		0.241	0.313	0.213	0.000

Table 4. Likelihood of Growth Firms Using Credit, by Source and Type

Table 4 reports estimates from logistic regressions that examine how the likelihood of obtaining different types and sources of external credit differs across growth and non-growth firms after controlling for key firm and owner characteristics. The table reports coefficient estimates on a dummy variable equal to one if the firm reports positive employment growth over the prior three years, and zero otherwise. The sample is described in Table 1. Robust standard errors are in italics. *, **, *** denote significance at the 10%, 5% and 1% levels.

Type or Source of Credit	Coefficient on Growth Dummy	<i>Robust Standard Error</i>	Log Likelihood
Line of Credit	0.196	<i>0.082**</i>	-3905.07
Mortgage Loan	-0.010	<i>0.121</i>	-2230.40
Motor Vehicle Loan	0.154	<i>0.081*</i>	-3997.47
Capital Lease	0.297	<i>0.118**</i>	-2060.34
Equipment Loan	0.226	<i>0.103**</i>	-2606.07
Other Traditional Loan	0.157	<i>0.115</i>	-2376.53
Any Traditional Loan	0.253	<i>0.082***</i>	-4339.09
Commercial Bank Loan	0.212	<i>0.077***</i>	-4363.77
S&L Loan	0.200	<i>0.168</i>	-1358.22
Credit Union Loan	0.258	<i>0.212</i>	-926.737
Any Depository Credit	0.233	<i>0.077***</i>	-4456.50
Finance Company Credit	0.245	<i>0.097**</i>	-3188.47
Brokerage or Mutual Fund Credit	-0.469	<i>0.433</i>	-233.97
Leasing Company Credit	0.052	<i>0.132</i>	-1569.86
Insurance or Mortgage Company Credit	-0.044	<i>0.377</i>	-535.25
Any Non-Depository Credit	0.156	<i>0.086*</i>	-3730.74

Table 5. Internal Finance and Growth – Pooled Regression Results

Table 5 reports logistic regressions showing the correlation between internal finance and the likelihood of growth across firms. The sample is described in Table 1. The variable “PositiveGrowth” takes the value of one if the firm reports positive employment growth (since 1990 for the 1993 SSBF; since 2000 for the 2003 SSBF) and zero otherwise. InternalFunds is the natural log of net profits as described in the paper. Age is the natural log of firm age. Sales growth takes the value of one if the firm reports positive sales growth (since 1990 for the 1993 SSBF; since 2000 for the 2003 SSBF) and zero otherwise. CreditRaised is the natural log of total borrowing from traditional sources. EquityRaised is the natural log of new external equity raised. Industry and year fixed effects are included in each specification. Robust standard errors are in parentheses. *, **, *** denote significance at the 10%, 5% and 1% levels.

<i>Dependent Variable: (PositiveGrowth)_j</i>				
	(1)	(2)	(3)	(4)
(InternalFunds)_j	5.501 (1.157)***	6.037 (1.553)***	4.876 (1.309)***	4.124 (1.190)***
(Age)_j		-0.457 (0.059)***	-0.329 (0.061)***	-0.335 (0.062)***
(SalesGwth)_j			1.177 (0.078)***	1.133 (0.079)***
(CreditRaised)_j				0.059 (0.007)***
(EquityRaised)_j				-0.004 (0.011)
Industry Effects	yes	yes	yes	yes
Year Effects	yes	yes	yes	yes
Log Likelihood	-4298.81	-4245.18	-3962.28	-3897.29
Observations	7352	7352	7230	7230

Table 6. Internal Equity and Growth – Pooled Regression Results

Table 6 reports logistic regressions showing the correlation between internal equity and the likelihood of growth across firms. The sample is described in Table 1. The variable “PositiveGrowth” takes the value of one if the firm reports positive employment growth (since 1990 for the 1993 SSBF; since 2000 for the 2003 SSBF) and zero otherwise. InternalEquity is the natural log of firm equity (total assets minus total liabilities). Age is the natural log of firm age. Sales growth takes the value of one if the firm reports positive sales growth (since 1990 for the 1993 SSBF; since 2000 for the 2003 SSBF) and zero otherwise. CreditRaised is the natural log of total borrowing from traditional sources. EquityRaised is the natural log of new external equity raised. Industry and year fixed effects are included in each specification. Robust standard errors are in parentheses. *, **, *** denote significance at the 10%, 5% and 1% levels.

<i>Dependent Variable: (PositiveGrowth)_j</i>				
	(1)	(2)	(3)	(4)
(InternalEquity)_j	2.485 (1.261)**	3.534 (1.374)***	2.818 (1.399)**	1.899 (1.362)***
(Age)_j		-0.466 (0.059)***	-0.334 (0.061)***	-0.335 (0.063)***
(SalesGwth)_j			1.184 (0.078)***	1.142 (0.079)***
(CreditRaised)_j				0.060 (0.007)***
(EquityRaised)_j				-0.004 (0.011)
Industry Effects	yes	yes	yes	yes
Year Effects	yes	yes	yes	yes
Log Likelihood	-4312.43	-4255.21	-3970.05	-3905.85
Observations	7352	7352	7230	7230

Table 7. Internal Finance and Growth – Regression Results by Firm Size

Table 7 examines whether the correlation between internal finance and the likelihood of growth differs across firms in different size classes. The sample is described in Table 1. “Smaller” firms have fewer than 20 employees and less than \$1 million in sales. “Larger” firms have at least 20 employees or at least \$1 million in sales. The variable “PositiveGrowth” takes the value of one if the firm reports positive employment growth (since 1990 for the 1993 SSBF; since 2000 for the 2003 SSBF) and zero otherwise. InternalFunds is the natural log of net profits. Age is the natural log of firm age. Sales growth takes the value of one if the firm reports positive sales growth (since 1990 for the 1993 SSBF; since 2000 for the 2003 SSBF) and zero otherwise. CreditRaised is the natural log of total borrowing from traditional sources. EquityRaised is the natural log of new external equity raised. Robust standard errors are in parentheses. *, **, *** denote significance at the 10%, 5% and 1% levels.

<i>Dependent Variable: (PositiveGrowth)_j</i>				
	(1)	(2)	(3)	(4)
<i>Firm Size</i>	<i>Smaller</i>		<i>Larger</i>	
(InternalFunds)_j	21.847 (9.128)**	13.898 (8.569)	1.291 (0.614)**	1.005 (0.582)*
(Age)_j	-0.599 (0.076)***	-0.463 (0.078)***	-0.451 (0.101)***	-0.351 (0.109)***
(SalesGwth)_j		0.913 (0.093)***		1.533 (0.144)***
(CreditRaised)_j		0.045 (0.009)***		0.034 (0.013)***
(EquityRaised)_j		-0.005 (0.013)		-0.012 (0.017)
Industry Effects	yes	yes	yes	yes
Year Effects	yes	yes	yes	yes
Log Likelihood	-2207.00	-2074.08	-2130.31	-1921.93
Observations	4207	4123	3145	3107

Table 8. Internal Finance and Growth – Regression Results by Year

Table 8 reports logistic regressions showing the correlation between internal finance and the likelihood of growth across firms separately for the 1993 and 2003 sample years. The sample is described in Table 1. The variable “PositiveGrowth” takes the value of one if the firm reports positive employment growth (since 1990 for the 1993 SSBF; since 2000 for the 2003 SSBF) and zero otherwise. InternalFunds is the natural log of net profits. Age is the natural log of firm age. Sales growth takes the value of one if the firm reports positive sales growth (since 1990 for the 1993 SSBF; since 2000 for the 2003 SSBF) and zero otherwise. CreditRaised is the natural log of total borrowing from traditional sources. EquityRaised is the natural log of new external equity raised. IF*2003 is the interaction between InternalFunds and a year 2003 dummy variable. Industry and year fixed effects are included in each specification. Robust standard errors are in parentheses. *, **, *** denote significance at the 10%, 5% and 1% levels.

<i>Dependent Variable: (PositiveGrowth)_j</i>			
	(1)	(2)	(3)
<i>Sample</i>	<i>Pooled</i>	<i>1993</i>	<i>2003</i>
(InternalFunds)_j	42.900 (17.069)**	32.696 (15.518)**	3.591 (1.133)***
(Age)_j		-0.326 (0.078)***	-0.356 (0.100)***
(SalesGwth)_j		0.722 (0.098)***	1.557 (0.129)***
(CreditRaised)_j		0.039 (0.009)***	0.081 (0.011)***
(EquityRaised)_j		-0.005 (0.011)	0.007 (0.025)
(IF*2003)_j	-37.513 (17.128)**		
Industry Effects	yes	yes	yes
Year Effects	yes	yes	yes
Log Likelihood	-4296.70	-2261.80	-1647.77
Observations	7352	3788	3442

Table 9. Internal Finance and Growth – Regression Results by Owner Characteristics

Table 9 examines whether the correlation between internal finance and the likelihood of growth differs by characteristics of firm owners. The sample is described in Table 1. The variable “PositiveGrowth” takes the value of one if the firm reports positive employment growth (since 1990 for the 1993 SSBF; since 2000 for the 2003 SSBF) and zero otherwise. InternalFunds is the natural log of net profits. Age is the natural log of firm age. Sales growth takes the value of one if the firm reports positive sales growth (since 1990 for the 1993 SSBF; since 2000 for the 2003 SSBF) and zero otherwise. CreditRaised is the natural log of total borrowing from traditional sources. EquityRaised is the natural log of new external equity raised. Robust standard errors are in parentheses. *, **, *** denote significance at the 10%, 5% and 1% levels.

<i>Dependent Variable: (PositiveGrowth)_j</i>				
	(1)	(2)	(3)	(4)
<i>Owner Characteristic</i>	<i>Minority</i>	<i>Not Minority</i>	<i>Women</i>	<i>Men</i>
(InternalFunds)_j	7.229 (4.423)	3.983 (1.206)***	7.550 (4.404)*	3.698 (1.166)***
(Age)_j	-0.178 (0.191)	-0.346 (0.066)***	-0.376 (0.154)**	-0.337 (0.069)***
(SalesGwth)_j	1.346 (0.253)***	1.120 (0.083)***	1.137 (0.175)***	1.137 (0.089)***
(CreditRaised)_j	0.044 (0.021)**	0.060 (0.007)***	0.048 (0.015)***	0.061 (0.008)***
(EquityRaised)_j	0.054 (0.027)**	-0.008 (0.011)	-0.020 (0.026)	-0.001 (0.012)
Industry Effects	yes	yes	yes	yes
Year Effects	yes	yes	yes	yes
Log Likelihood	-472.54	-3411.15	-704.26	-3193.84
Observations	905	6323	1401	5829

Table 10. Internal Finance and Growth – Regression Results by Firm Characteristics

Table 10 examines whether the correlation between internal finance and the likelihood of growth differs by characteristics of the firm. The sample is described in Table 1. The variable “PositiveGrowth” takes the value of one if the firm reports positive employment growth (since 1990 for the 1993 SSBF; since 2000 for the 2003 SSBF) and zero otherwise. InternalFunds is the natural log of net profits. Age is the natural log of firm age. Sales growth takes the value of one if the firm reports positive sales growth (since 1990 for the 1993 SSBF; since 2000 for the 2003 SSBF) and zero otherwise. CreditRaised is the natural log of total borrowing from traditional sources. EquityRaised is the natural log of new external equity raised. Robust standard errors are in parentheses. *, **, *** denote significance at the 10%, 5% and 1% levels.

<i>Dependent Variable: (PositiveGrowth)_j</i>				
	(1)	(2)	(3)	(4)
<i>Firm Characteristic</i>	<i>Incorporated</i>	<i>Not Incorporated</i>	<i>Urban</i>	<i>Not Urban</i>
(InternalFunds)_j	1.362 (0.652)**	17.294 (4.336)***	3.406 (1.096)***	12.292 (5.949)**
(Age)_j	-0.282 (0.081)***	-0.443 (0.101)***	-0.387 (0.071)***	-0.161 (0.127)
(SalesGwth)_j	1.312 (0.104)***	0.852 (0.123)***	1.174 (0.090)***	0.974 (0.167)***
(CreditRaised)_j	0.050 (0.009)***	0.051 (0.011)***	0.061 (0.008)***	0.054 (0.015)***
(EquityRaised)_j	-0.000 (0.013)	-0.018 (0.019)	0.007 (0.012)	-0.050 (0.026)*
Industry Effects	yes	yes	yes	yes
Year Effects	yes	yes	yes	yes
Log Likelihood	-2634.87	-1287.77	-3063.50	-820.792
Observations	4484	2746	5703	1527

Table 11. Internal Finance and Growth – Regression Results by Dun & Bradstreet Credit Score (2003 only)

Table 11 examines whether the correlation between internal finance and the likelihood of growth differs by the DB credit score. The sample is described in Table 1. The variable “PositiveGrowth” takes the value of one if the firm reports positive employment growth (since 1990 for the 1993 SSBF; since 2000 for the 2003 SSBF) and zero otherwise. InternalFunds is the natural log of net profits. Age is the natural log of firm age. Sales growth takes the value of one if the firm reports positive sales growth (since 1990 for the 1993 SSBF; since 2000 for the 2003 SSBF) and zero otherwise. CreditRaised is the natural log of total borrowing from traditional sources. EquityRaised is the natural log of new external equity raised. Robust standard errors are in parentheses. *, **, *** denote significance at the 10%, 5% and 1% levels.

<i>Dependent Variable: (PositiveGrowth)_j</i>		
	(1)	(2)
<i>Firm Type</i>	<i>DB More Risky</i>	<i>DB Less Risky</i>
(InternalFunds)_j	6.197 (2.361)***	2.456 (1.097)**
(Age)_j	-0.457 (0.167)***	-0.325 (0.125)***
(SalesGwth)_j	1.380 (0.215)***	1.675 (0.159)***
(CreditRaised)_j	0.085 (0.018)***	0.076 (0.014)***
(EquityRaised)_j	0.005 (0.041)	0.023 (0.029)
Industry Effects	yes	yes
Year Effects	n/a	n/a
Log Likelihood	-553.61	-1084.61
Observations	1197	2231