

Home > [Handbook of Entrepreneurship Research](#) > Chapter

Small Business and Debt Finance

| Chapter

| pp 299–328 | [Cite this chapter](#)



[Handbook of Entrepreneurship Research](#)

[Allen N. Berger](#) & [Gregory F. Udell](#)

Part of the book series: [International Handbook Series on Entrepreneurship](#) ((IHSE, volume 1))

2504 Accesses 31 [Citations](#)

This is a preview of subscription content, [log in via an institution](#) to check access.

Access this chapter

[Log in via an institution](#) →

| | | | |
|----------------|---|--------------|---|
| Chapter | EUR 29.95 Price includes VAT (Poland) | eBook | EUR 96.29 Price includes VAT (Poland) |
|----------------|---|--------------|---|

- | | |
|---|---|
| <ul style="list-style-type: none">● Available as PDF● Read on any device | <ul style="list-style-type: none">● Available as PDF● Read on any device |
|---|---|

- Instant download
- Own it forever

Buy Chapter→

- Instant download
- Own it forever

Buy eBook→

^ Softcover Book

EUR 128.39

Price includes VAT (Poland)

- Compact, lightweight edition
- Dispatched in 3 to 5 business days
- Free shipping worldwide - [see info](#)

Buy Softcover Book→

Tax calculation will be finalised at checkout

Purchases are for personal use only

[Institutional subscriptions](#) →

Preview

Unable to display preview. [Download preview PDF.](#)

References

Acs, Z.A. (1999). The development and expansion of secondary markets for small business loans. In J.L. Blanton, A. Williams and S.L.W. Rhine (eds.), *Business Access to Capital and Credit*. A Federal Reserve System Research Conference, pp. 625–643.

[Google Scholar](#)

Allen, L., A. Saunders and G.F. Udell (1991). The pricing of retail deposits:

Concentration and information. *Journal of Financial Intermediation*, **1**, 335–361.

[Article](#) [Google Scholar](#)

Amihud, Y. and B. Lev (1981). Risk reduction as a managerial motive for conglomerate mergers. *Journal of Economics*, **12**(2), 605–617.

[Google Scholar](#)

Ang, J.S. (1992). On the theory of finance for privately held firms. *Journal of Small Business Finance*, **1**, 185–203.

[MathSciNet](#) [Google Scholar](#)

Ang, J.S., J.W. Lin and F. Tyler (1995). Evidence on the lack of separation between business and personal risks among small businesses. *Journal of Small Business Finance*, **4**, 197–210.

[Google Scholar](#)

Angelini, P., Salvo, R.D., Ferri, G. (1998). Availability and cost for small businesses: Customer relationships and credit cooperatives. *Journal of Banking and Finance*, **22**, 929–954.

[Google Scholar](#)

Avery, R.B. (1999a). Access to credit for minority-owned businesses. In J.L. Blanton, A. Williams and S.L.W. Rhine (eds.), *Business Access to Capital and Credit*. A Federal Reserve System Research Conference, pp. 277–286.

[Google Scholar](#)

Avery, R.B. (1999b). Access to credit for minority-owned businesses. In J.L. Blanton, A. Williams and S.L.W. Rhine (eds.), *Business Access to Capital and Credit*. A Federal Reserve System Research Conference, pp. 362–389.

[Google Scholar](#)

Avery, R., R.W. Bostic and K.A. Samolyk (1998). The evolution of small business finance: The role of personal wealth. *Journal of Banking and Finance*, **22**.

[Google Scholar](#)

Avery, R.B. and K.A. Samolyk (2000). Bank consolidation and the provision of banking services: The case of small commercial loans, Federal Deposit Insurance Corporation Working Paper.

[Google Scholar](#)

Berger, A.N., S.D. Bonime, L.G. Goldberg and L.T. White, forthcoming. The dynamics of market entry: The effects of mergers and acquisitions on entry in the banking industry. *Journal of Business*.

[Google Scholar](#)

Berger, A.N., W.S. Frame and N.H. Miller (2002). Credit scoring and the availability, price, and risk of small business credit, Federal Reserve Board working paper.

[Google Scholar](#)

Berger, A.N., L.G. Goldberg and L.J. White (2001). The Effects of Dynamic Changes in Bank Competition on the Supply of Small Business Credit. *European Finance Review*, **5**, 115-139.

[Article](#) [Google Scholar](#)

Berger, A.N., A.K. Kashyap and J.M. Scalise (1995). The transformation of the U.S. banking industry: What a long, strange trip it's been. *Brookings Papers on Economic Activity*, Vol. 2, pp. 55-218.

[Article](#) [Google Scholar](#)

Berger, A.N., L.F. Klapper and G.F. Udell (2000). The ability of banks to lend to informationally opaque small businesses. *Journal of Banking and Finance*, **25**, 2127-2167.

[Article](#) [Google Scholar](#)

Berger, A.N., M.K. Kyle and J.M. Scalise (2001). Did U.S. bank supervisors get tougher during the credit crunch? Did they get easier during the banking boom? Did it matter to bank lending? In F.S. Mishkin (ed.), *Prudential Supervision: What Works and What Doesn't*, National Bureau of Economic Research (Chicago, IL: University of Chicago Press), 301-349.

[Google Scholar](#)

Berger, A.N., A. Saunders, J.M. Scalise and G.F. Udell (1998). The effects of bank mergers and acquisitions on small business lending. *Journal of Financial Economics*, **50**, 187-229.

[Article](#) [Google Scholar](#)

Berger, A.N. and G.F. Udell (1990). Collateral, loan quality, and bank risk. *Journal of Monetary Economics*, **25**, 21-42.

[Article](#) [Google Scholar](#)

Berger, A.N. and G.F. Udell (1992). Some evidence on the empirical significance of credit rationing. *Journal of Political Economy*, **100**, 1047-1077.

[Article](#) [Google Scholar](#)

Berger, A.N. and G.F. Udell (1993). Securitization, risk, and the liquidity problem in banking. In M. Klausner and L.J. White (eds.), *Structural Change in Banking*. Homewood, IL: Irwin Publishing, pp. 227-291.

[Google Scholar](#)

Berger, A.N. and G.F. Udell (1994). Did risk-based capital allocate bank credit and cause a “credit crunch” in the U.S.? *Journal of Money, Credit and Banking*, **26**, 585–628.

[Article](#) [Google Scholar](#)

Berger, A.N. and G.F. Udell (1995). Relationship lending and lines of credit in small firm finance. *Journal of Business*, **68**, 351–382.

[Article](#) [Google Scholar](#)

Berger, A.N. and G.F. Udell (1996). Universal banking and the future of small business lending. In A. Saunders and I. Walter (eds.), *Financial System Design: The Case for Universal Banking*. Burr Ridge, IL: Irwin Publishing, pp. 559–627.

[Google Scholar](#)

Berger, A.N. and G.F. Udell (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**, 613–673.

[Article](#) [Google Scholar](#)

Berkovitch, E. and S.I. Greenbaum (1991). The loan commitment as an optimal financing contract. *Journal of Financial and Quantitative Analysis*, **26**, 83–95.

[Article](#) [Google Scholar](#)

Berkowitz, J. and M.J. White (1999). The effect of personal bankruptcy law on small firms' access to credit. In *Business Access to Capital and Credit*. In J.L. Blanton, A. Williams and S.L.W. Rhine (eds.), *A Federal Reserve System Research Conference*, pp. 445–466.

[Google Scholar](#)

Berlin, M. and J. Loeys (1988). Bond covenants and delegated monitoring. *Journal of Finance*, **43**, 397-412.

[Google Scholar](#)

Berlin, M. and L.J. Mester (1993). Debt covenants and renegotiation. *Journal of Financial Intermediation*, **2**, 95-133.

[Article](#) [Google Scholar](#)

Berlin, M. and L.J. Mester (1997). Why is the banking sector shrinking? Core deposits and relationship lending. Working Paper No. 96-18R. Federal Reserve Bank of Philadelphia.

[Google Scholar](#)

Berlin, M. and L.J. Mester (1998). On the profitability and cost of relationship lending. *Journal of Banking and Finance*, **22**, 873-897.

[Article](#) [Google Scholar](#)

Berlin, M. and L.J. Mester (1999). Deposits and relationship lending. *Review of Financial Studies*, **12**, 579-607.

[Article](#) [Google Scholar](#)

Bernanke, B. (1983). Non-monetary effects of the financial crisis in the propagation of the great depression. *American Economic Review*, **73**, 257-276.

[Google Scholar](#)

Bernanke, B.S. and A. Blinder (1988). Credit, money, and aggregate demand. *American Economic Review*, **78**, 435-439.

[Google Scholar](#)

Bernanke, B.S. and M. Gertler (1995). Inside the black box: The credit channel of monetary policy transmission. *Journal of Economic Perspectives*, **9**, 27–48.

[Google Scholar](#)

Bernanke, B., M. Gertler and S. Gilchrist (1996). The financial accelerator, and the flight to quality. *Review of Economics and Statistics*, **78**, 1–15.

[Article](#) [Google Scholar](#)

Bernanke, B.S. and C. Lown (1991). The credit crunch. *Brookings Papers on Economic Activity*, 205–248.

[Google Scholar](#)

Besanko, D. and A.V. Thakor (1987a). Collateral and rationing: Sorting equilibria in monopolistic and competitive markets. *International Economic Review*, **28**, 671–689.

[MathSciNet](#) [Google Scholar](#)

Besanko, D. and A.V. Thakor (1987b). Competitive equilibrium in the credit market under asymmetric information. *Journal of Economic Theory*, **42**, 167–182.

[Article](#) [MathSciNet](#) [Google Scholar](#)

Bester, H. (1985). Screening vs. rationing in credit markets with imperfect information. *American Economic Review*, **75**, 850–855.

[Google Scholar](#)

Biais, B. and C. Gollier (1997). Trade credit and credit rationing. *Review of Financial Studies*, **10**, 903–937.

[Article](#) [Google Scholar](#)

Billett, M.T., M.J. Flannery and J.A. Garfinkel (1995). The effect of lender identity on a borrowing firm's equity return. *Journal of Finance*, **50**, 699–718.

[Google Scholar](#)

Bizer, D.S. (1993). Regulatory discretion and the credit crunch. Working paper, U.S. Securities and Exchange Commission, Washington DC (April).

[Google Scholar](#)

Blackwell, D. and D.B. Winters (1997). Banking relationships and the effect of monitoring on loan pricing. *Journal of Financial Research*, **20**, 275–89.

[Google Scholar](#)

Bolton, P. and D.S. Scharfstein (1996). Optimal debt structure and the number of creditors. *Journal of Political Economy*, **104**, 1–25.

[Article](#) [Google Scholar](#)

Bonaccorsi di Patti, E. and G. Gobbi (2000). The effects of bank consolidation on small business lending: Evidence from market and firm data, Bank of Italy working paper.

[Google Scholar](#)

Boot, A.W.A. (2000). Relationship banking: What do we know? *Journal of Financial Intermediation*, **9**, 7–25.

[Article](#) [Google Scholar](#)

Boot, A.W.A. and A.V. Thakor (1994). Moral hazard and secured lending in an infinitely repeated credit market game. *International Economic Review*, **35**, 899–920.

[Google Scholar](#)

Boot, A.W.A., A.V. Thakor and G. Udell (1987). Competition, risk neutrality and loan commitments. *Journal of Banking and Finance*, **11**, 449-471.

[Article](#) [Google Scholar](#)

Boot, A.W.A., A.V. Thakor and G.F. Udell (1991). Secured lending and default risk: Equilibrium analysis and policy implications and empirical results. *Economic Journal*, **101**, 458-472.

[Google Scholar](#)

Booth, J.R. (1992). Contract costs, bank loans, and the cross-monitoring hypothesis. *Journal of Financial Economics*, **31**, 2-41.

[Article](#) [Google Scholar](#)

Booth, J.R. and L. Chua (1996). Loan collateral decisions and corporate borrowing costs. Arizona State University working paper.

[Google Scholar](#)

Bostic, R.W. and K.P. Lampani (1999). Racial differences in patterns of small business finance: The importance of local geography. In J.L. Blanton, A. Williams and S.L.W. Rhine (eds.), *Business Access to Capital and Credit*. A Federal Reserve System Research Conference, pp. 149-179.

[Google Scholar](#)

Brennan, M., V. Maksimovic and J. Zechner (1988). Vendor financing. *Journal of Finance*, **43**, 1127-1141.

[Google Scholar](#)

Canner, G.B. (1999). Evaluation of CRA data on small business lending. In J.L.

Blanton, A. Williams and S.L.W. Rhine (eds.), *Business Access to Capital and Credit*. A Federal Reserve System Research Conference, pp. 53–84.

[Google Scholar](#)

Carey, M. (1996). Financial covenants, private debt, and financial intermediation. Board of Governors of the Federal Reserve working paper.

[Google Scholar](#)

Carey, M., M. Post and S.A. Sharpe (1998). Does corporate lending by banks and finance companies differ? Evidence on specialization in private debt contracting. *Journal of Finance*, **53**, 845–878.

[Article](#) [Google Scholar](#)

Carey, M., S. Prowse, J. Rea and G.F. Udell (1993). The economics of private placements: A new look. *Financial Markets, Institutions and Instruments*, **2**.

[Google Scholar](#)

Cavalluzzo, K. and L. Cavalluzzo (1998). Market structure and discrimination: The case of small business. *Journal of Money, Credit and Banking*.

[Google Scholar](#)

Cavalluzzo, K., L. Cavalluzzo and J. Wolken (2000). Competition, small business financing, and discrimination: Evidence from a new survey. Federal Reserve Board working paper.

[Google Scholar](#)

Chan, Y.-S. and G. Kanatas (1985). Asymmetric valuation and the role of collateral in loan agreements. *Journal of Money, Credit and Banking*, **17**, 85–95.

[Article](#) [Google Scholar](#)

Cole, R.A. (1998). The importance of relationships to the availability of credit. *Journal of Banking and Finance*, **22**.

[Google Scholar](#)

Cole, R.A., L.G. Goldberg and L.J. White (1999). Cookie-cutter versus character: The microstructure of small business lending by large and small banks. In J.L. Blanton, A. Williams and S.L.W. Rhine (eds.), *Business Access to Capital and Credit*. A Federal Reserve System Research Conference, pp. 362-389.

[Google Scholar](#)

Cole, R.A. and J.D. Wolken (1995). Sources and uses of financial services by small businesses: Evidence from the 1993 National Survey of Small Business Finances. *Federal Reserve Bulletin*, **81**, 629-670.

[Google Scholar](#)

Conigliani, C., G. Ferri and G. General (1997). The impact of bank-firm relations on the propagation of monetary policy squeezes: An empirical assessment for Italy. *Banca Nazionale del Lavoro Quarterly Review*, **50**, 271-299.

[Google Scholar](#)

Cook, L. (1999). Trade credit and bank finance: Financing small firms in Russia. *Journal of Business Venturing*, **14**, 493-518.

[Article](#) [Google Scholar](#)

Cornet, M.M. and A. Saunders (1991). *Fundamentals of Financial Institutions Management*. Boston, MA: Irwin McGraw-Hill.

[Google Scholar](#)

Craig, B.R. and J.C.D. Santos (1997). Banking consolidation. Impact on small business lending. Working Paper, Federal Reserve Bank of Cleveland.

[Google Scholar](#)

Degryse, H. and P.V. Cayseele (2000). Relationship lending within a bank-based system: Evidence from European small business data. *Journal of Financial Intermediation*, **9**, 90–109.

[Article](#) [Google Scholar](#)

Dewatripont, M. and E. Maskin (1995). Credit and efficiency in centralized and decentralized economies. *Review of Economic Studies*, **62**, 541–555.

[Google Scholar](#)

Diamond, D.W. (1984). Financial intermediation and delegated monitoring. *Review of Economic Studies*, **51**, 393–414.

[MATH](#) [MathSciNet](#) [Google Scholar](#)

Diamond, D.W. and R. Rajan (1999). Liquidity risk, liquidity creation and financial fragility: A theory of banking working paper, University of Chicago.

[Google Scholar](#)

Duca, J.V. and S.S. Rosenthal (1993). Borrowing constraints, household debt, and racial discrimination in loan markets. *Journal of Financial Intermediation*, **3**, 77–103.

[Article](#) [Google Scholar](#)

Dunkelberg, W. (1998). Credit, banks and small business in America. *Journal of Banking and Finance*, **22**, 1085–1088.

[Article](#) [Google Scholar](#)

[Article](#) [Google Scholar](#)

Dunkelberg, W.C. and W.J. Dennis, Jr. (1992). The small business “credit crunch”. The NFIB Foundation, Washington DC.

[Google Scholar](#)

Elliehausen, G.E. and J.D. Wolken (1990). Banking markets and the use of financial services by small and medium-sized businesses. *Federal Reserve Bulletin*, **76**, 801–817.

[Google Scholar](#)

Elliehausen, G.E. and J.D. Wolken (1993). The demand for trade credit: An investigation of motives for trade credit by small businesses. Staff study 165, Board of Governors of the Federal Reserve System, Washington DC.

[Google Scholar](#)

Elsas, R. and J.P. Krahnen (1997). Is relationship lending special? Evidence from credit-file data in Germany. *Journal of Banking and Finance*, **22**, 1283–1316.

[Article](#) [Google Scholar](#)

Emery, G.W. (1984). A pure financial explanation for trade credit. *Journal of Financial and Quantitative Analysis*, **19**.

[Google Scholar](#)

Emery, G.W. (1987). An optimal financial response to variable demand. *Journal of Financial and Quantitative Analysis*, **22**, 209–225.

[Article](#) [Google Scholar](#)

Feldman, R. (1997). Banks and a big change in technology called credit scoring. The Region, Federal Reserve Bank of Minneapolis, September, pp. 19–25.

Fenn, G.W., N. Liang and S. Prowse (1997). The private equity market: An overview. *Financial Markets, Institutions and Instruments*, **6**, 1–106.

[Article](#) [Google Scholar](#)

Ferri, G. and M. Messori (2000). Bank-firm relationships and allocative efficiency in northeastern and central Italy and in the south. *Journal of Banking and Finance*, **24**, 1067–1095.

[Article](#) [Google Scholar](#)

Ferris, J.S. (1981). A transactions theory of trade credit use. *Quarterly Journal of Economics*, **96**, 243–270.

[Article](#) [Google Scholar](#)

Frame, W.S., A. Srinivasan and L. Woosley (2001). The effect of credit scoring on small business lending. *Journal of Money, Credit and Banking*, **33**, 813–825.

[Article](#) [Google Scholar](#)

Freear, J., J.E. Sohl, W.E. Wetzel, Jr. (1994). The private investor market for venture capital. *Financier*, **1**, 7–19.

[Google Scholar](#)

Gertler, M. and S. Gilchrist (1994). Monetary policy, business cycles, and the behavior of small manufacturing firms. *Quarterly Journal of Economics* **109**, 309–340.

[Article](#) [Google Scholar](#)

Goldberg, L.G. and L.J. White (1998). De novo banks and lending to small businesses. *Journal of Banking and Finance*, **22**, 851–867.

[Article](#) [Google Scholar](#)

Gorton, G. and J. Kahn (1997). The design of bank loan contracts, collateral, and renegotiation. University of Pennsylvania Working Paper.

[Google Scholar](#)

Greenbaum, S.I., G. Kanatas and I. Venezia (1989). Equilibrium loan pricing under the bank-client relationship. *Journal of Banking and Finance*, **13**, 221–235.

[Article](#) [Google Scholar](#)

Hancock, D., A. Laing and J.A. Wilcox (1995). Bank balance sheet shocks and aggregate shocks: Their dynamic effects on bank capital and lending. *Journal of Banking and Finance*, **19**, 661–677.

[Article](#) [Google Scholar](#)

Hancock, D. and J.A. Wilcox (1993). Has there been a “capital crunch” in banking? The effects on bank lending of real estate market conditions and bank capital shortfalls. *Journal of Housing Economics*, **3**, 31–50.

[Article](#) [Google Scholar](#)

Hancock, D. and J.A. Wilcox (1994a). Bank capital and the credit crunch: The roles of risk-weighted and unweighted capital regulations, *AREUEA*, **22**, 59–94.

[Google Scholar](#)

Hancock, D. and J.A. Wilcox (1994b). Bank capital, loan delinquencies, and real estate lending. *Journal of Housing Economics*, **4**, 121–146.

[Article](#) [Google Scholar](#)

Hancock, D. and J.A. Wilcox (1997). Bank capital, nonbank finance, and real estate activity. *Journal of Housing Research*, **8**, 75–105.

[Google Scholar](#)

Hancock, D. and J.A. Wilcox (1998). The “Credit crunch” and the availability of credit to small business. *Journal of Banking and Finance*, **22**, 983–1014.

[Article](#) [Google Scholar](#)

Harhoff, D. and T. Körting (1998a). Lending relationships in Germany: Empirical results from survey data. *Journal of Banking and Finance*, **22**, 1317–1354.

[Article](#) [Google Scholar](#)

Harhoff, D. and T. Körting (1998b). How many creditors does it take to tango? Discussion paper. Conference on Industrial Structure and Input Markets, Center for Economic Policy Research, Deutsche Forschungsgemeinschaft, Zentrum für Europäische Wirtschaftsforschung, Mannheim, Germany.

[Google Scholar](#)

Hart, O. and J. Moore (1989). Default and renegotiation: A dynamic model of debt. London School of Economics Discussion Paper, 57.

[Google Scholar](#)

Haubrich, J. and P. Wachtel (1993). Capital requirements and shifts in commercial bank portfolios. *Federal Reserve Bank of Cleveland Economic Review*, **29** (Quarter 3), 2–15.

[Google Scholar](#)

Hester, D. (1979). Customer relationships and terms of loans: Evidence from a

pilot survey. *Journal of Money, Credit and Banking*, **11**, 349–357.

[Article](#) [Google Scholar](#)

Huck, P., S.L.W. Rhine, R. Townsend and P. Bond (1999). A comparison of small business finance in two Chicago minority neighborhoods. In J.L. Blanton, A. Williams and S.L.W. Rhine (eds.), *Business Access to Capital and Credit*. A Federal Reserve System Research Conference, pp. 467–502.

[Google Scholar](#)

Immergluck, D. (1999). Intraurban patterns of small business lending: Findings from the new community reinvestment act. In J.L. Blanton, A. Williams and S.L.W. Rhine (eds.), *Business Access to Capital and Credit*. A Federal Reserve System Research Conference, pp. 123–138.

[Google Scholar](#)

Jayaratne, J. and Wolken, J.D. (1999). How important are small banks to small business lending? New evidence from a survey to small businesses. *Journal of Banking and Finance*, **23**, 427–458.

[Article](#) [Google Scholar](#)

Jensen, M.C. and W.H. Meckling (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, **3**, October, 305–360.

[Article](#) [Google Scholar](#)

John, K., A.W. Lynch and M. Puri (1997). Collateral and perquisite consumption: Theory and evidence. New York University working paper.

[Google Scholar](#)

Kallberg, J. and G.F. Udell (2000). The value of private sector credit information: The U.S. case, Indiana University working paper.

[Google Scholar](#)

Kanatas, G. (1987). Commercial paper, bank reserve requirements, and the informational role of loan commitments. *Journal of Banking and Finance*, **11**, 425-448.

[Article](#) [Google Scholar](#)

Kashyap, A.K. and J.C. Stein (1997). The role of banks in monetary policy: A survey with implications for the European Monetary Union. *Economic Perspectives*, Federal Reserve Bank of Chicago, September/October, pp. 3-18.

[Google Scholar](#)

Keeton, W.R. (1995). Multi-office bank lending to small businesses: Some new evidence. *Federal Reserve Bank of Kansas City Economic Review*, **80**(2), 45-57.

[Google Scholar](#)

Keeton, W.R. (1996). Do bank mergers reduce lending to businesses and farmers? New evidence from tenth district states. *Federal Reserve Bank of Kansas City Economic Review*, **81**(3), 63-75.

[Google Scholar](#)

Keeton, W.R. (1997). The effects of mergers on farm and business lending at small banks: New evidence from tenth district states. Working Paper, Federal Reserve Bank of Kansas City.

[Google Scholar](#)

Klapper, L. (1998). Short-term collateralization: Theory and evidence. New York

University working paper.

[Google Scholar](#)

Kolari, J. and A. Zardkoohi (1997a). The impact of structural change in the banking industry on small business lending. Report to the Small Business Administration.

[Google Scholar](#)

Kolari, J. and A. Zardkoohi (1997b). Bank acquisitions and small business lending. Working paper, Texas A&M University.

[Google Scholar](#)

Kwan, S.H. and W.T. Carleton (1993). The structure and pricing of private placement corporate loans. University of Arizona working paper.

[Google Scholar](#)

Kwast, M., M. Starr-McCluer and J.D. Wolken (1997). Market definition and antitrust in banking. *Antitrust Bulletin*, **42**, Winter, 973-995.

[Google Scholar](#)

Lazere, M.R. (1968). Commercial financing. National Commercial Finance Conference.

[Google Scholar](#)

Levonian, M. and J. Soller (1995). Small banks, small loans, small business. Federal Reserve Bank of San Francisco working paper.

[Google Scholar](#)

Long, M.S., I.B. Malitz and S.A. Ravid (1994). Trade credit, quality guarantees, and product marketability. *Financial Management*, **22**, 117-127.

[Google Scholar](#)

Longhofer, S.D. and J.A.C. Santos (2000). The importance of bank seniority for relationship lending. *Journal of Financial Intermediation*, **9**, 57-89.

[Article](#) [Google Scholar](#)

Machauer, A. and M. Weber (2000). Number of bank relationships: An indicator of competition, borrower quality, or just size? University of Mannheim working paper.

[Google Scholar](#)

Meltzer, A.H. (1960). Mercantile credit, monetary policy, and size of firms. *Review of Economics and Statistics*, **42**, 429-437.

[Article](#) [Google Scholar](#)

Mester, L.J. (1997). What's the point of credit scoring? *Business Review*, Federal Reserve Bank of Philadelphia, September/October, pp. 3-16.

[Google Scholar](#)

Mester, L.J. (1999). Credit scoring and securitization of small business loans. In J.L. Blanton, A. Williams and S.L.W. Rhine (eds.), *Business Access to Capital and Credit*. A Federal Reserve System Research Conference, pp. 650-664.

[Google Scholar](#)

Mester, L.J., L.I. Nakamura and M. Renault (1998). Checking accounts and bank monitoring. Federal Reserve Bank of Philadelphia working paper.

[Google Scholar](#)

Mian, S. and C. Smith (1992). Accounts receivable management policy: Theory and evidence. *Journal of Finance*, **47**, 169-200.

[Google Scholar](#)

Miller, M. (2000). Credit reporting systems around the globe: The state of the art in public and private credit registries. World Bank working paper.

[Google Scholar](#)

Myers, S. (1977). Determinants of corporate borrowing. *Journal of Financial Economics*, **5**, 147-175.

[Article](#) [Google Scholar](#)

Myers, S. (1984). Presidential address: The capital structure puzzle. *Journal of Finance*, **39**, 575-592.

[Google Scholar](#)

Myers, S.C. and N.C. Majluf (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, **13**, 187-221.

[Article](#) [Google Scholar](#)

Nachman, D.C. and T.H. Noe (1994). Optimal design of securities under asymmetric information. *Review of Financial Studies*, **7**, 1-44.

[Article](#) [Google Scholar](#)

Nakamura, L.I. (1993). Commercial bank information: Implications for the structure of banking. In M. Klausner and L.J. White (eds.), *Structural Change in Banking*. Homewood, IL: Irwin, pp. 131-160.

Nilsen, J.H. (1994). Trade credit and the bank lending channel of monetary policy. Working paper, Princeton University.

[Google Scholar](#)

Ongena, S. and D.C. Smith (2000). What determines the number of bank relationships? *Journal of Financial Intermediation*, **9**, 26–56.

[Article](#) [Google Scholar](#)

Ongena, S. and D. Smith (forthcoming). The duration of banking relationships. *Journal of Financial Economics*, **61**, 449–475.

[Google Scholar](#)

Orgler, Y. (1970). A credit scoring model for commercial loans. *Journal of Money, Credit and Banking*, **2**, 435–445.

[Article](#) [Google Scholar](#)

Padhi, M.S., L.W. Woosley and A. Srinivasan (1999). Credit scoring and securitization of small business loans. In J.L. Blanton, A. Williams and S.L.W. Rhine (eds.), *Business Access to Capital and Credit*. A Federal Reserve System Research Conference, pp. 587–624.

[Google Scholar](#)

Peek, J. and E.S. Rosengren (1994). Bank real estate lending and the New England capital crunch. *AREUEA*, **22**, 33–58.

[Google Scholar](#)

Peek, J. and E.S. Rosengren (1995a). The capital crunch: Neither a borrower nor

a lender be. *Journal of Money, Credit and Banking*, **27**, 625–638.

[Article](#) [Google Scholar](#)

Peek, J. and E.S. Rosengren (1995b). Bank regulation and the credit crunch. *Journal of Banking and Finance*, **19**, 679–692.

[Article](#) [Google Scholar](#)

Peek, J. and E.S. Rosengren (1996). Small business credit availability: How important is size of lender? In A. Saunders and I. Walter (eds.), *Financial System Design: The Case for Universal Banking*. Burr Ridge, IL: Irwin Publishing.

[Google Scholar](#)

Peek, J. and E.S. Rosengren (1998). Bank consolidation and small business lending: It's not just bank size that matters. *Journal of Banking and Finance*, **22**, 799–819.

[Article](#) [Google Scholar](#)

Petersen, M.A. and R.G. Rajan (1994). The benefits of firm-creditor relationships: Evidence from small business data. *Journal of Finance*, **49**, 3–37.

[Google Scholar](#)

Petersen, M.A. and R.G. Rajan (1995). The effect of credit market competition on lending relationships. *Quarterly Journal of Economics*, **110**, 407–443.

[Article](#) [Google Scholar](#)

Petersen, M.A. and R.G. Rajan (1997). Trade credit: Theories and evidence. *The Review of Financial Studies*, **10**, 661–669.

[Article](#) [Google Scholar](#)

Petersen, M.A. and R.G. Rajan (2002). Does distance still matter? The information revolution in small business lending. *Journal of Finance*.

[Google Scholar](#)

Pratt, E.S. and J.K. Morris (1987). Pratt's guide to venture capital sources. Venture Economics, Inc., Wellesley.

[Google Scholar](#)

Rajan, R.G. (1992). Insiders and outsiders: The choice between informed and arm's-length debt. *Journal of Finance*, **47**, 1367-1399.

[Google Scholar](#)

Rajan, R.G. and A. Winton (1995). Covenants and collateral as incentives to monitor. *Journal of Finance*, **50**, 1113-1146.

[Google Scholar](#)

Ravid, S.A. (1996). Debt maturity a survey. *Financial Markets, Institutions and Instruments*, **5**(3), 1-68.

[Google Scholar](#)

Saunders, A. (2000). *Financial Institutions Management*. Boston, MA: Irwin McGraw-Hill.

[Google Scholar](#)

Schwartz, R.A. (1974). An economic model of trade credit. *Journal of Financial and Quantitative Analysis*, **9**, 643-657.

[Article](#) [Google Scholar](#)

Schwartz, R.A. and D. Whitcomb (1979). The trade credit decision. In J. Bicksler (ed.), *Handbook of Financial Economics*. Amsterdam: North Holland.

[Google Scholar](#)

Scott, J.A. and Dunkelberg, W.C. (1999). Bank consolidation and small business lending: A small firm perspective. In J.L. Blanton, A. Williams and S.L.W. Rhine (eds.), *Business Access to Capital and Credit*. A Federal Reserve System Research Conference, pp. 328-361.

[Google Scholar](#)

Scott, J.A. and T.C. Smith (1986). The effect of the Bankruptcy Reform Act of 1978 on small business loan pricing. *Journal of Financial Economics*, **16**, 119-140.

[Article](#) [Google Scholar](#)

Seelig, S.A. and T. Critchfield (1999). Determinants of de novo entry in banking. Federal Deposit Insurance Corporation Working Paper, 99-101.

[Google Scholar](#)

Sharpe, S.A. (1990). Asymmetric information, bank lending, and implicit contracts: A stylized model of customer relationships. *Journal of Finance*, **45**, 1069-1087.

[Google Scholar](#)

Shrieves, R.E. and D. Drew (1995). Regulation, recession, and bank lending behavior: The 1990 Credit Crunch. *Journal of Financial Services Research*, **9**, 5-30.

[Article](#) [Google Scholar](#)

Smith, C. and J. Warner (1979). Bankruptcy, secured debt, and optimal capital

structure: Comment. *Journal of Finance*, **34**, 247-251.

[Google Scholar](#)

Smith, J.K. (1987). Trade credit and information asymmetries. *Journal of Finance*, **42**, 863-872.

[Google Scholar](#)

Squires, G.D. and S. O'Connor (1999). Access to capital: Milwaukee's small business lending gaps. In J.L. Blanton, A. Williams and S.L.W. Rhine (eds.), *Business Access to Capital and Credit*. A Federal Reserve System Research Conference, pp. 85-122.

[Google Scholar](#)

Stiglitz, J. and A. Weiss (1981). Credit rationing in markets with imperfect information. *American Economic Review*, **71**, June, 393-410.

[Google Scholar](#)

Stiglitz, J. and A. Weiss (1987). Credit rationing: Reply. *American Economic Review*, **77**, March, 228-231.

[Google Scholar](#)

Strahan, P.E. and J. Weston (1996). Small business lending and bank consolidation: Is there cause for concern? *Current Issues in Economics and Finance*. Federal Reserve Bank of New York, 2, 1-6.

[Google Scholar](#)

Strahan, P.E. and J. Weston (1998). Small business lending and the changing structure of the banking industry. *Journal of Banking and Finance*, **22**, 821-845.

[Article](#) [Google Scholar](#)

Stulz, R. and H. Johnson (1985). An analysis of secured debt. *Journal of Financial Economics*, **14**, 501–522.

[Article](#) [Google Scholar](#)

Swary, I. and G.F. Udell (1988). Information production and the secured line of credit. New York University working paper.

[Google Scholar](#)

Thakor, A.V. and G.F. Udell (1987). An economic rationale for the pricing structure of bank loan commitments. *Journal of Banking and Finance*, **11**, 271–289.

[Article](#) [Google Scholar](#)

Townsend, R. (1979). Optimal contracts and competitive markets with costly state verification. *Journal of Economic Theory*, **21**, 265–93.

[Article](#) [MATH](#) [Google Scholar](#)

Udell, G.F. (1986). Pricing returned check charges under asymmetric information. *Journal of Money, Credit, and Banking*, **18**, 495–505.

[Article](#) [Google Scholar](#)

Wagster, J.D. (1999). The Basle Accord of 1988 and the International Credit Crunch of 1989–1992. *Journal of Financial Services Research*, **15**, 123–143.

[Article](#) [Google Scholar](#)

Wagster, J.D. (1997). The Basle Accord of 1988 and the International Credit Crunch of 1989–1992. Working paper, Wayne State University.

[Google Scholar](#)

Walraven, N. (1997). Small business lending by banks involved in mergers. Finance and Economics Discussion Series 97-25, Board of Governors of the Federal Reserve.

[Google Scholar](#)

Welch, I. (1997). Why is bank debt senior? A theory of asymmetry and claim priority based on influence costs. *Review of Financial Studies*, **10**, 1203-1236.

[Article](#) [Google Scholar](#)

Wilson, P.F. (1993). The pricing of loans in a bank-borrower relationship. Indiana University working paper.

[Google Scholar](#)

Wolken, J.D. (1998). "New" data sources for research on small business finance. *Journal of Banking and Finance*, **22**, 1067-1076.

[Article](#) [Google Scholar](#)

Yezer, A.M.J. (1999). Studies of CRA data on small business lending. In J.L. Blanton, A. Williams and S.L.W. Rhine (eds.), *Business Access to Capital and Credit*. A Federal Reserve System Research Conference, pp. 139-148.

[Google Scholar](#)

Zardkoohi, A. and J. Kolari (1997). The effect of structural changes in the U.S. banking industry on small business lending. Working paper, Texas A&M University.

[Google Scholar](#)

Author information

Authors and Affiliations

Board of Governors of the Federal Reserve System and Wharton Financial Institutions Center, USA

Allen N. Berger

Indiana University, Indiana

Gregory F. Udell

Editor information

Editors and Affiliations

University of Baltimore, Baltimore

Zoltan J. Acs

Indiana University, Indiana

David B. Audretsch

Rights and permissions

[Reprints and permissions](#)

Copyright information

© 2003 Kluwer Academic Publishers

About this chapter

Cite this chapter

Berger, A.N., Udell, G.F. (2003). Small Business and Debt Finance. In: Acs, Z.J., Audretsch, D.B. (eds) Handbook of Entrepreneurship Research. International Handbook Series on Entrepreneurship, vol 1. Springer, Boston, MA. https://doi.org/10.1007/0-387-24519-7_13

DOI

https://doi.org/10.1007/0-387-24519-7_13

Publisher Name

Springer, Boston, MA

Print ISBN

978-0-387-24080-0

Online ISBN

978-0-387-24519-5

eBook Packages

[Springer Book Archive](#)

Publish with us

[Policies and ethics](#)

Search

Search by keyword or author



Navigation

Find a journal

Publish with us

Track your research