

## Partnership, Entity Shielding and Credit Availability

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*Abstract:* Legal and economic historians have long placed corporate limited liability as the central innovation in organizational law. Without it, the modern industrial firm would not have appeared. An emergent “entity” literature, while not dismissing the importance of limited liability, focuses instead on a firm’s ability to shield itself from the personal creditors of its owners. One implication of the entity approach is that firms that could shield its assets from claims of personal creditors should have received credit on better terms than firms not afforded the legal separation of business and personal assets. This paper provides evidence that entity shielding was important. Partnerships and corporations accessed larger pools of credit on better terms than proprietorships. Entity shielding was as important an innovation as limited liability in the evolution of the modern firm.

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## Partnership, Entity Shielding and Credit Availability

### 1. Introduction

After decades of treating the firm as a nexus of contracts, economic and legal historians are increasingly treating the firm as a separate and meaningful entity that may be something more than implicit contracting between productive agents.<sup>1</sup> A firm is a meaningful legal entity separate from the legal personalities of its owners and employees and the available entity forms, such as proprietorship, partnership and corporation, may be constrained by statute or legal tradition. If the firm is a distinct entity and entities can adopt a limited number of different forms, a fundamental question arises: What is the most efficient form a firm's owners can adopt to achieve a particular end? If the menu of alternative forms is limited and alternative forms imply different legal rights and responsibilities, it may not be possible for firms to contract into or out of certain rights and duties toward their stakeholders. Nineteenth century Anglo-American jurists, for example, considered firms

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<sup>1</sup> The nexus approach is formulated in Ronald Coase, "A Theory of the Firm," *Economica* 4:16 (November 1937), 386-405 and institutionalized in Armen Alchian and Harold Demsetz, "Production, Information Costs, and Economic Organization," *American Economic Review* 62:5 (December 1972), 777-795; Michael C. Jensen and William H. Meckling, "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure," *Journal of Financial Economics* 3:4 (October 1976), 305-360; and Steven N. S. Cheung, "The Contractual Nature of the Firm," *Journal of Law and Economics* 26:1 (April 1983), 1-21. The entity approach appears in Henry Hansmann and Reinier Kraakman, "The Essential Role of Organizational Law," *Yale Law Journal* 110:3 (December 2000), 387-440; Henry Hansmann, Reinier Kraakman and Richard Squire, "Law and the Rise of the Firm," *Harvard Law Review* 119 (2006), 1333-; Paul G. Mahoney, "Contract or Concession: An Essay on the History of Corporate Law," *Georgia Law Review* 34:2 (Winter 2000), 873-893; and Naomi R. Lamoreaux and Jean-Laurent Rosenthal, "Entity Shielding and the Development of Business Forms: A Comparative Perspective," *Harvard Law Review Forum* 119 (2006), 238-245.

that looked like partnerships to be partnerships regardless of the organizers' intent or contractual maneuvering.<sup>2</sup> Nineteenth century statutory and common law forced firms to choose from a small number of standard forms.

An economic argument in favor of standard-form or off-the-rack entity forms is that limiting alternatives reduces the costs of negotiating and drafting routine agreements among firm owners.<sup>3</sup> Hansmann and Kraakman argue that a second important element of off-the-rack structures is they establish well recognized alternative forms of creditors' rights and priorities.<sup>4</sup> Limiting the number of alternative firm structures may be doubly efficient when negotiating among owners over rights as well as between owners and creditors over priority is costly. Default rules, for example, that imposed on all firms that looked like partnerships the rights and duties of partnerships reduced contracting costs between firms and their creditors.

Nineteenth century common law established two partnership default rules. The first was the much-discussed rule of unlimited partner liability. The second and less discussed rule was the common law doctrine that provided partnerships with weak protections against claims of creditors on its individual partners. This second feature meant that creditors of the firm held a prior claim on the assets of the firm relative to the owners' personal creditors. If this priority structure was

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<sup>2</sup> Naomi Lamoreaux, "Constructing Firms: Partnerships and Alternative Contractual Arrangements in Early Nineteenth-Century American Business," *Business and Economic History* 24:2 (March 1995), 43-71; and Margaret Blair, "Locking in Capital: What Corporate Law Achieved for Business Organizers in the Nineteenth Century," *UCLA Law Review* 51: (2003), 419.

<sup>3</sup> Robert Cooter and Thomas Ulen, *Law and Economics* 4<sup>th</sup> edition (Boston: Pearson-Addison Wesley, 2004 ), 287-89 discuss the economics of standard-form contracts.

<sup>4</sup> Hansmann and Kraakman, "Essential Role," 394.

meaningful, partnerships should have received credit on better terms than proprietorships because the partnership's assets were weakly protected against the partners' personal creditors whereas a proprietor's personal creditors had the same standing as the proprietor's business creditors. A testable hypothesis generated by the entity approach is that partnerships received credit on better terms than proprietors as a result of the prior claim business creditors held on a partnership's assets. Lenders offering business credit to proprietors do not hold a prior claim and will be forced to stand in line with all the defaulting proprietor's creditors, including his or her personal creditors, which diminishes the attractiveness of lending to sole proprietors.

Using individual loan records from a nineteenth century bank, this paper tests the hypothesis that partnerships and corporations received credit on more liberal terms than proprietors. The results are broadly consistent with the entity hypothesis. Partnerships received larger loans than proprietorships and offered fewer personal guarantees. The results for corporations are mixed. Corporations generally received larger loans than proprietors. Moreover, the limited liability afforded corporate owners, which ostensibly lowered the cost of raising equity capital, had the opposite effect in debt markets. Before corporations acquired bank loans, principal officers and members of the board accepted personal liability in the event of corporate default. The results provide a richer, more nuanced interpretation of the costs and benefits of partnership versus incorporation. In hindsight, incorporation appears a superior alternative. To contemporaries, the choice was not so obvious. Bankers attitudes and practices surely influenced the form chosen by owners.

## **2. Entity Shielding and Partnerships**

The literature comparing alternative business organizational structures – proprietors,

partnerships and corporations – is preoccupied with the liability status of the owners, especially the unlimited liability of partners and proprietors and the limited liability of corporate shareholders.<sup>5</sup> The long-standing preoccupation with unlimited versus limited liability pushed research down a path that hindered a complete understanding of the rise and nature of the firm. Traditional interpretations focus on the ability of limited liability firms’ abilities to accumulate large pools of equity capital, which encouraged the development of large-scale transportation and manufacturing enterprises in the late nineteenth and twentieth centuries. Limited liability increased the attractiveness of equity investment because investors placed only a small fraction of their total wealth at risk, because it facilitated diversification and because it increased the liquidity of ownership shares.

In a series of papers, Lamoreaux and Rosenthal argue that the apparent advantages of incorporation to modern scholars were not so obvious to nineteenth and early twentieth century entrepreneurs.<sup>6</sup> Despite the opportunity to incorporate, most firms, including manufacturing

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<sup>5</sup> Larry E. Ribstein, “The Illogic and Limits of Partners’ Liability in Bankruptcy,” *Wake Forest Law Review* 32:1 (1997), p. 31 states: “One of the most important features of partnership is the partners’ personal liability for the debts of the partnership.” Similarly, Per Samuelson, “A New Age? On the Evolution of Corporate Forms,” *University of Illinois Law Review* 2005:1 (2005), p. 20 notes that “The general opinion of every legal scholar used to be that limited personal liability for partners/owners is the historically most significant innovation in the field of association law, as well as being one of the cornerstones of the modern market economy.” Similar opinions are expressed by Frank H. Easterbrook and Daniel R. Fischel, “Limited Liability and the Corporation,” *University of Chicago Law Review* 52:1 (Winter 1985), 89-117; and Kevin F. Forbes, “Limited Liability and the Development of the Business Corporation,” *Journal of Law, Economics & Organization* 2:1 (Spring 1986), 163-77. In their study of Irish banks, Graeme C. Acheson and John D. Turner, “The Impact of Limited Liability on Ownership and Control: Irish Banking, 1877-1914,” *Economic History Review* 59:2 (2006), 320-346, find that the shift from unlimited to limited liability attracted more and smaller shareholders, but weakened corporate governance.

<sup>6</sup> Naomi Lamoreaux and Jean-Laurent Rosenthal, “Legal Regime and Contractual Flexibility: A Comparison of Business Organizational Choices in France and the United States during the Era of Industrialization,” *American Law and Economics Review* 71 (2005), 28-61; and

enterprises, organized as proprietorships or partnerships. How, Lamoreaux and Rosenthal ask, could so many entrepreneurs be so mistaken in their choice of organizational form? The answer, of course, is that they were not mistaken. Although incorporation provided greater protection against untimely dissolution of the firm and improved access to equity capital, most corporations did not raise much equity capital from public offerings. Even when firms attracted outside investors, shares traded infrequently in illiquid markets. Incorporation locked in owner capital, but illiquid markets may have locked it in over longer than preferred horizons for at least some investors.<sup>7</sup> Moreover, limited liability sometimes increased rather than diminished the firm's overall cost of capital. Lenders were wary of limited liability enterprises and typically asked key officers and shareholders to personally endorse loans or offer additional guarantees, which increased the costs of negotiating loan terms and monitoring collateral.<sup>8</sup> Finally, incorporation implied a different internal governance structure than partnerships. It is not obvious that corporate structures consistently reduced transaction costs and mitigated other governance costs, such as management appropriation or exploitation of minority by majority stakeholders. Despite its oft-noted shortcomings, partnership sometimes dominated incorporation as an organizational form.<sup>9</sup>

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“Contractual Tradeoffs and SME’s Choice of Organizational Form: A View from U.S. and French History, 1830-2000,” NBER working paper 12455 (August 2006).

<sup>7</sup> Blair, “Locking in Capital,” discusses the virtues of locking in capital, but lock-in is potentially costly when markets for shares are thin.

<sup>8</sup> Naomi R. Lamoreaux, “The Partnership Form of Organization: Its Popularity in Early Nineteenth-Century Boston.” In *Entrepreneurs: The Boston Business Community, 1700-1850*, pp. 269-295. Edited by Conrad E. Wright and Katheryn P. Viens. (Boston: Northeastern University Press, 1997) at p. 275.

<sup>9</sup> Lamoreaux and Rosenthal, “Contractual Tradeoffs,” 5-8.

According to an emergent entity literature, a potentially more important development than limited owner liability was the recognition of the multiple owner firm as a legal entity separate from its owners and the legal shielding of the entity's assets from the private creditors of its owners.<sup>10</sup> According to the entity approach firms have two characteristics. First, firms establish clear lines of decision-making authority such that managers have the power to contract with outsiders in ways that bind the firm. Second, managers have the ability to credibly bond the firm's promises, typically by committing a pool of assets that collateralize the firm's obligations.<sup>11</sup> A proprietorship or natural person has these two attributes because the owner is the manager and the owner/manager bonds the firm with both business and personal assets, which the law treats as one and the same. Firms or legal entities differ from natural persons in that the assets of the firm are separate from the assets of its owners. Under partnership law, for example, the firm's creditors have prior claims on the firm's assets and personal creditors of its owners have prior claims on the owners' personal assets. The partnership priority rule may be efficient because it creates incentives for personal creditors to monitor personal assets and business creditors to monitor business assets.<sup>12</sup>

Hansmann, Kraakman and Squire label the protection of business assets from personal creditors as "entity shielding" and identify two versions.<sup>13</sup> Weak entity shielding is that associated

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<sup>10</sup> Hansmann and Kraakman, "Essential Role" and Mahoney, "Contract or Concession" use the term "asset partitioning;" Hansmann, Kraakman and Squire, "Law and the Rise," and "New Business Entities," as well as Lamoreaux and Rosenthal, "Entity Shielding," use the term "entity shielding." Throughout I adopt the latter term.

<sup>11</sup> Hansmann and Kraakman, "Essential Role," 392.

<sup>12</sup> Henry Hansmann, Reinier Kraakman and Richard Squire, "The New Business Entities in Evolutionary Perspective," *University of Illinois Law Review* 2005:1 (2005), 5-14.

<sup>13</sup> Hansmann, Kraakman and Squire, "Law and the Rise of the Firm."

with traditional partnerships and provides a partnership's creditors a prior claim on the partnership's assets. Weak entity shielding protects the partnership as a going concern in the event of an individual owner's default on a personal debt. Under an entity shielding rule, the owner's personal creditors cannot make a claim on the partnership assets until the defaulting owner's individual assets are exhausted. Personal creditors may ultimately have recourse to partnership assets, but the rule delays the attachment of the firm's assets and provides a partner with an opportunity to meet personal obligations without threatening the firm's continued operation. In the early nineteenth century, strong entity shielding was available only to corporations.<sup>14</sup> Strong entity shielding provided the firm with an absolute protection against the claims of its owners and its owners' creditors. Neither owners nor their creditors could demand liquidation of the firm to satisfy the owner's personal obligations.

Although it was subject only to weak asset shielding, the partnership offered an advantage unavailable to a proprietor: the ability to bond its obligations with a prior claim on the business's assets. That partners could offer this prior claim may have allowed partnerships to borrow on better terms than proprietors.<sup>15</sup> In the event of partnership failure, the banker did not have to compete with shopkeepers and service providers who may have held personal claims on the owner. Protected by

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<sup>14</sup> Lamoreaux and Rosenthal, "Contractual Tradeoffs," 25 note that several states passed limited partnership laws in the 1820s and 1830s, but few firms took advantage of these laws, mostly because statutory restrictions and conservative interpretations by U.S. courts failed to provide limited partners with true limited liability.

<sup>15</sup> Lucian Arye Bebchuk and Jesse M. Fried, "The Uneasy Case for the Priority of Secured Claims in Bankruptcy," *Yale Law Journal* 105:4 (January 1996), 857-934 argue that prior or secured claims can create inefficiencies when secured creditors enter into agreements with a borrower after unsecured creditors have extended credit and cannot renegotiate their agreements. This is less an issue with partnerships because the priority of business creditors was well established and widely known and personal creditors did not lose their prior claim on the owners' personal assets.



the “clarity and security” of entity shielding, banks were more willing to lend than they would have been had they “faced the prospect of a scrum with everyone to whom any of the partners owed money.”<sup>16</sup>

Did New York courts afford partnerships entity shielding? If so, was the law unambiguous? Ambiguity implies that lenders’ rights are uncertain, which would negatively affect credit availability or increase its costs.<sup>17</sup>

By 1819 New York law unambiguously shielded partnerships from the claims of partners’ personal creditors. In *Dob & Dob v. Halsey* (16 Johns. 34; N.Y. 1819), the court found that a personal creditor of a partner could not legally take possession of partnership property to satisfy the personal debts of an individual partner. Justice Spencer argued that “where a note is given in the name of a firm, by one of the partners, for the private debt of such partner, and known to be so, by the person taking the note, the other partners are not bound by such note, unless they have been previously consulted and consent to the transaction.”

Six years later, when the circumstances of the case involved one partner drawing a bill of exchange on the partnership to extinguish a debt between the partner and the partnership, the New York court reaffirmed the *Dob* decision.<sup>18</sup> When the note was later protested and the partnership, as one of the endorsers, asked to pay, a nonconsenting partner sued on the grounds that he was not liable because the note was offered and accepted without his knowledge. The court held the firm

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<sup>16</sup> David Skeel, *Icarus in the Boardroom: The Fundamental Flaws in Corporate America and Where They Came From* (New York: Oxford University Press, 2005), 20.

<sup>17</sup> Allen N. Berger and Gregory F. Udell, “A More Complete Conceptual Framework for SME Finance,” *Journal of Banking and Finance* 30 (2006), 2945-2966 at 2957-98.

<sup>18</sup> *Smith et al. v. Lusher & McMichael*, 5 Cow. 688 (N.Y. 1825).

liable because the other partners had acted within their capacities as partners when they accepted the note. The judge noted, however, that the plaintiffs would have had no recourse to the firm if the protested note originated by the partner had not been within the partnership's business but, rather, had involved his personal dealings.

Later cases confirmed the *Dob* rule that personal creditors had recourse to partnership assets only when the individual was clearly acting within his capacity as a partner and not as an individual. In *Laverty & Gantley v. Burr & Baldwin* and *Bank of Rochester v. Bowen et al.* partners endorsed notes for the benefit of third parties and did so as individuals outside their capacities as partners.<sup>19</sup> In both instances, the court shielded the partnerships's assets from claims on one of their individual partners. In *Bank of Rochester* Justice Nelson found that "The rule protecting partnership property or funds from appropriation to the payment of the separate debts of one of the partners, and prohibiting partnership security from being pledged to third persons, without the consent of all the partners, is just and salutary, and should be strictly enforced."<sup>20</sup>

To justices on the New York bench, the entity shielding rule protecting partnership assets from the private debts of its individual partners was so well established that the court dispatched the *Bank of Rochester* case in three brief paragraphs. The law was clear and settled. Creditors of the partnership had a prior claim on the partnership assets; creditors of the individual partners could not attach or recover the partnership property in the case of a partner's personal default. Weak entity shielding offered partnership creditors a priority not afforded the business creditors of proprietors.

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<sup>19</sup> *Laverty & Gantley v. Burr & Baldwin*, 1 Wend. 529 (N.Y. 1828) and *Bank of Rochester v. Bowen et al.*, 7 Wend. 158 (N.Y. 1831).

<sup>20</sup> *Bank of Rochester v. Bowen* at 159.

If priority was meaningful, partnerships should have obtained credit on better terms than proprietors. This hypothesis is tested below.

### 3. Data

The data consists of 29,600 loans extended by the Black River Bank of Watertown, New York between November 1845 and April 1859.<sup>21</sup> Loveland Paddock opened the bank in late 1844 as a free bank under the terms of New York's 1838 Free Banking Act. By 1844, Paddock, a dry goods merchant by trade, had extensive prior banking experience. He was appointed director of the Jefferson County Bank, located in Watertown, in 1828. When the nearby Sacket's Harbor Bank opened in 1834, he purchased shares and was also elected to that bank's board of directors. Even while he served on the boards of two existing banks, he joined with several men in 1840 to organize the Bank of Watertown and served as its first president.<sup>22</sup> He continued as president until 1842 when he sold his shares and resigned. He continued his dry goods business until 1844, at which time he liquidated his remaining inventory, deposited \$40,000 in mortgages and New York state bonds with the state comptroller, and established the Black River Bank of Watertown (hereafter BRB), which was known familiarly by locals as Paddock's Bank.<sup>23</sup>

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<sup>21</sup> Black River Bank, *Discount Books #2, #3*, Jefferson County (New York) Historical Society. Some loans are dropped from the analysis because of missing information, usually maturities or loan rates. Three additional loans were excluded because they were extraordinarily large. Two of the excluded loans were made to a local private banker, William H. Angel. One loan originated in December 1855 and was for \$31,200. A second was made in September 1858 for \$40,000. The third excluded loan was a \$90,000 loan made in May 1851 to the bank's owner, Loveland Paddock.

<sup>22</sup> *Albany Argus*, June 17, 1840.

<sup>23</sup> *Albany Argus*, February 19, 1845.

Paddock controlled 90 percent of the bank's shares and was the bank's president. Two of his three sons shared the remaining shares. The extant records do not reveal how this remaining 10 percent were allocated between the brothers. Shares of the BRB never traded.<sup>24</sup> The eldest son served as the bank's vice president; the second son as its cashier. Local legend holds that the third son was something of a spendthrift and was not asked to participate in the bank.

Was the BRB a representative New York free bank? As with any case study, this is a difficult question to answer. By several measures the bank was typical. There were dozens of similar closely held banks owned and controlled by one or a few investors. There were also dozens of free banks established in communities large and small located along the Erie Canal and on the shores of Lake Ontario. Located just a few miles from the convergence of the St. Lawrence River and Lake Ontario, the BRB resembled the latter.

By other measures, the BRB was atypical. It was longer lived than most. Kahn estimated the average life span of a free bank at 21 years.<sup>25</sup> The BRB survived for 36 years before liquidating voluntarily. The BRB also grew larger than most free banks outside New York City. In 1850, the BRB was about 50 percent larger than the average free bank and by 1860 it was about 60 percent larger.<sup>26</sup> Until records of other banks are uncovered, transcribed and made publicly available, it is impossible to know whether the BRB was representative of late antebellum banks. By all outward

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<sup>24</sup> E.C. Emerson (ed.), *Our Country and Its People: A Descriptive Work on Jefferson County, New York from 1793 to 1894* (Boston: Boston History Company, 1898).

<sup>25</sup> James A. Kahn, "Another Look at Free Banking in the United States," *American Economic Review* 75:4 (1985), 881-885.

<sup>26</sup> *Albany Argus*, November 25, 1850; New York State, General Assembly, "Annual Report of the Superintendent of the Banking Department," *Assembly Documents* No. 3, January 1862.

appearances, however, the bank was not exceptional.

Among the bank's extant records are two discount (loan) ledgers that provide detailed information on every loan the bank extended between April 1845 and November 1859. Both ledgers were double-sided with pre-printed column and row dividers. On each row the bank's clerk recorded the borrower's name; the date the loan was made and the date it matured; the loan amount; and the total interest charge, or discount. The third ledger also recorded the names of all endorsers, and indicated whether the loan was a renewal and whether it was paid or protested at maturity.<sup>27</sup> Due to the massive transcription demands involved the names of individual endorsers were not collected, but the number of endorsers was. Information on the number of endorsers is particularly valuable because collateral and personal guarantees often alter the other terms of loan contracts. In the nineteenth century, bankers regularly asked potential borrowers to have their debt instruments (either promissory notes or bills of exchange) endorsed or cosigned by one or more personal guarantors. In signing the reverse side of a promissory note or bill of exchange, the endorser explicitly agreed to pay the debt if the maker failed to do so. Moreover, endorsers need not be individuals. Partners, as noted above in *Smith et al. v. Lusher & McMichael* (5 Cow. 688, N.Y. 1825), could endorse notes either on their own account or in the name of the partnership. In the present instance, however, the concern is with credit terms offered partnerships and corporations as makers, not as endorsers, of notes.

Annualized loan interest rates were calculated as  $r = (\text{discount in } \$ / \text{loan amount in } \$) * (365 / \text{days to maturity})$ . Partnerships were identified by the recorded name of the borrower. If the

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<sup>27</sup> Evidence collected from local county court records suggests that the bank's recording of protested notes in the discount ledger was not comprehensive.

borrower was recorded in the styles of Smith & Jones, or Smith, Jones & Co., or Smith, Jones & Brown, it was assumed that the borrowing entity was the partnership and not one of the firm's partners.<sup>28</sup> When the borrower was recorded as an individual, it was assumed that the individual was borrowing on his or her own behalf even if he or she was concurrently involved in a partnership. It is less obvious how to treat cases in which the borrower was recorded in the style of Smith & Co. Were these firms partnerships with one senior and one or more junior partners? Or were these proprietorships in search of a more impressive moniker? A search of Watertown's city directories and efforts to match individuals to firms suggests that most firms in the style of Smith & Co. were partnerships. Some such firms were undoubtedly proprietorships, but it is impossible to distinguish one from the other in the available sources. The statistical work alternatively includes Smith & Co.-style firms as partnerships and proprietorships. The results do not hinge on this distinction, but suggest that it is appropriate to treat Smith & Co.-style firms as partnerships.

Figure 1 plots total monthly lending by the BRB. The bank's continued growth up to the Panic of 1857 and its slow recovery thereafter are apparent. The data also reveal a marked seasonal pattern in lending that grew more pronounced in the 1850s.

< Figure 1 about here >

Table 1 reports summary statistics. Column 1 reports statistics for the full sample of 29,649 loans extended by the BRB between 1845 and 1859. Columns 2 through 5 report the data by firm type. It is clear that proprietors, partnerships and corporations received credit on different terms. Mean loan size among proprietors was significantly smaller than for partnerships and corporations.

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<sup>28</sup> There were a handful of partnerships with four or five named members. These are included with three-member firms throughout.

Proprietors, however, received longer loans and paid slightly lower average rates, although mean loan rates for all firm types exceeded the state's usury limit.<sup>29</sup>

<Table 1 about here >

Partnerships and corporations were more likely than proprietors to borrow on bills of exchange payable outside Watertown, notably in New York City, Albany and Boston. Bills of exchange were common debt instruments used in moving agricultural products to distant markets, and it seems apparent that partnerships were four to five times more likely to engage in long-distance trade than proprietors. Finally, a burgeoning literature emphasizes how extended or exclusive dealings shape the borrower-lender relationship and mitigate the problem of bank asset opacity.<sup>30</sup> The available data allows the construction of two useful measures of relationship duration and one of relationship intensity. Duration is alternatively measured as the raw number of loans received by a borrower during the course of the relationship up to and including the current loan, or by the number of months since the borrower received his or her first loan from the bank. Because some relationships experienced long gaps between loans, a third measure labeled *Intensity* equals months since first loan divided by number of loans received up to that date. The *Intensity* measure will be larger for borrowers receiving fewer loans over a given interval. Means for the relationship variables,

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<sup>29</sup> See Howard Bodenhorn, "Usury Ceilings and Bank Lending Behavior: Evidence from Nineteenth Century New York," *Explorations in Economic History* (forthcoming) for a study of consequences of New York's usury law on credit availability.

<sup>30</sup> Recent reviews of the literature include Arnoud W. A. Boot, "Relationship Banking: What Do We Know?" *Journal of Financial Intermediation* 9:1 (2000), 7-25; S. Ongena and D. C. Smith, "Bank Relationships: A Review," *Performance of Financial Institutions: Efficiency, Innovation, Regulation*, edited by P. T. Harker and S. A. Zenios (Cambridge: Cambridge University Press, 2000); and E. Elyasiani and L. G. Goldberg, "Relationship Lending: A Survey of the Literature," *Journal of Economics and Business* 56:4 (2004), 315-330.

reported at the bottom of Table 1, reveal differences between proprietors and partnerships. Three-partner firms and corporations had shorter relationships with the BRB than proprietors. Partnerships and corporations did, however, have more intense relationships. Proprietors borrowed fewer times within a given interval, which may speak to the short expected life span of partnerships.<sup>31</sup> We now turn to a more rigorous analysis of the effects of organizational form on credit terms.

#### 4. Organizational Form and Credit Terms

When banks and borrowers negotiate over credit, they simultaneously negotiate across several margins. Both parties are interested in the size of the loan, the length or maturity of the loan, the interest rate, and any personal security or collateral offered to guarantee the loan.<sup>32</sup> Because banks and borrowers negotiate across several margins simultaneously, the empirical analysis uses Seemingly Unrelated Regression (SUR) techniques to simultaneously estimate two or more equations. The estimated system takes the general form:

$$\begin{cases} \ln(\text{loan amount}) = f(\text{firm type, loan type, borrower characteristics, relationship, year, quarter}) \\ \ln(\text{loan length}) = g(\text{firm type, loan type, borrower characteristics, relationship, year, quarter}) \\ \ln(\text{endorsers}) = h(\text{firm type, loan type, borrower characteristics, year, quarter}) \end{cases}$$

The three equations could, of course, be estimated separately, but employing the SUR technique estimates the full variance-covariance matrix recognizing that the error terms across equations may

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<sup>31</sup> Lamoreaux, “Constructing Firms” and “Partnership Form;” and Lamoreaux and Rosenthal, “Contractual Tradeoffs.”

<sup>32</sup> Wim Voordeckers and Tensie Steijvers, “Business Collateral and Personal Commitments in SME Lending,” *Journal of Banking and Finance* 30: no (2006), 3067-3086, study the determinants of collateral and personal commitments in modern bank lending.



be correlated. In every regression reported below Breush-Pagan tests reject the null hypothesis of zero cross-equation correlation of the error terms.<sup>33</sup>

Interest rate equations were included in preliminary analyses, but the estimated regressions failed to explain even as much as 1 percent of the observed variance so this equation was dropped. The full sample can be employed in estimating the first two equations in the system, but because the bank records only report the number of endorsers beginning in November 1854, the full three-equation system can be estimated only with a reduced sample of about 8,700 loans made after 1854.

The entity theory of the firm predicts that, because partnerships and corporations afford business creditors priority over personal creditors, partnerships and corporations will receive credit on more favorable terms than proprietors. In this instance, more favorable terms is interpreted to mean, after controlling for other factors, larger and longer loans and fewer endorsers per hundred dollars of loan size.

< Table 2 about here >

#### *4.1 Partnership and corporate effects on loan amounts and maturities*

Table 2 reports SUR results for the full sample of 29,600 loans, so that only the first two equations of the above system are estimated. In addition to the coefficients reported in the Table, each regression also includes dummy variables for each year (1855 is omitted) and quarters (quarter IV is omitted). Before turning to the partnership results, the estimated models reveal that firms borrowing on bills of exchange payable in New York City, Albany, other upstate New York cities and towns, and Boston received significantly larger loans than those borrowing on promissory notes

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<sup>33</sup> The above system was initially estimated using OLS on each equation separately. The coefficients were of similar size as the SUR estimates; the significance level was lower, but most were still significant at the 1 or 5 percent level.

payable in Watertown. This is not surprising as bills were used to move wholesale quantities of the region's agricultural output to market. Promissory notes were offered for a multitude of reasons, including but not limited to wholesale activities. Further, the estimated coefficients reveal large and significant relationship effects. A one percent increase in months of relationship length per loan (*Intensity*) diminished loan size by about 2 percent. Similarly, evaluated at the mean of the variable, having had one less previous loan reduced loan size by about \$40, or by about 7.6 percent.<sup>34</sup>

Columns (1) and (1'), which employ alternative definitions of the relationship variable, report estimated effects of all partnerships considered together and corporate status on the natural logarithm of the loan rate and loan length.<sup>35</sup> After controlling for several other factors, including whether the debt is a promissory note or bill of exchange, relationship and the current commercial paper rate, partnerships received loans 27 to 34 percent larger than proprietorships. Corporations received loans about 19 to 39 percent larger. Although partnerships and corporations received larger loans, the BRB extended credit to partnerships and corporations at a shorter term. Considered as a group, partnership loans had a 1 percent shorter maturity; corporations about 2 percent. Nonproprietary firms received more credit, but at shorter maturities than proprietary firms.

Because Table 1 reveals some potentially meaningful differences between two- and three-member partnerships, Columns (2) and (2') report estimates when partnerships are disaggregated into three component types – those in the style of Smith & Co., Smith & Jones and Smith, Jones &

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<sup>34</sup> See Howard Bodenhorn, "Short-Term Loans and Long-Term Relationships: Relationship Lending in Antebellum America," *Journal of Money, Credit and Banking* 35:4 (November 2003), 485-506 for a detailed study of relationship lending at the BRB.

<sup>35</sup> The difference between equations (1) and (1') is the relationship variable. Equations (1) through (3) include *Intensity* as the relationship measure; Equations (1') through (3') include the number of loans.

Brown. These estimates reveal that partnerships, regardless of the number or nature of partners, received about 30 to 60 percent more credit than proprietors. Corporations commanded about 20 to 40 percent more credit per loan. Large partnerships and corporations took loans at shorter terms, but the partnership effect was modest – about 4.3 fewer days per loan – while, at 14.7 days, the corporate effect was more meaningful.

Equations (3) and (3') report the results when Smith & Co.-style firms are grouped with two-partner firms and Smith, Jones & Co.-style firms are included with three-partner firms. As the entity shielding hypothesis implies, partnerships received about 26 to 64 percent larger loans than proprietorships. Corporations received about 19 to 40 percent larger loans. Again, this alternative specification reveals that partnerships and corporations received loans with 2 to 20 percent shorter maturities than proprietorships. The full sample results are then consistent with the entity hypothesis that, holding all else constant, firms that can shield its assets from the claims of the owners' personal creditors receive credit on better terms, at least on some margins.

#### *4.2 Partnership and corporate effects on loan amounts and maturities, and personal guarantors*

This section reports estimates involving the full three-system equation, which includes as dependent variables loan amounts, loan maturities and the number of endorsers per \$100 of loan. The cost of estimating the more complete specification is that fewer observations are available because the BRB loan ledgers reported the number of endorsers beginning only in November 1854. Including the third equation of the system reduces the sample size from 29,649 to 8,729.

Table 3 reports results in the same format as Table 2. Columns (1) and (1') reveal that, when all partnerships are aggregated in a single group, partnerships received loans about 24 to 32 percent

larger, about 3 percent shorter, and with about 21 percent fewer endorsers per \$100 relative to proprietors. Credit terms offered corporations differed relative to both proprietors and partnerships. Corporations received loans 43 to 59 percent larger than proprietors, and the difference in loan size between partners and corporations is also significant and meaningful. Corporations were not forced to accept shorter loan terms, but they were asked to provide about 37 percent more endorsers per \$100 of loan.

The credit advantages of entity shielding are apparent in the larger loans offered partnerships and corporations and the decreased demand for personal guarantors for partnerships. Corporate status and limited liability, however, led to an increased demand for personal guarantors. Lamoreaux reports a similar risk-aversion among lenders toward limited liability companies.<sup>36</sup> Lenders protected themselves from default by insisting that key officers and board members personally endorse loans made to their firms. The Lake Navigation Company of Buffalo, for example, offered 4 endorsers. Of the 28 loans received by the Potsdam & Watertown Railroad, the company president, Edwin Dodge, received 7 in his own name and provided an additional 9 to 11 endorsers. The other 21 loans were made in the name of the corporation, but also included 9 to 11 personal endorsements. Similarly, the four loans made to the Alpine Iron Mining Company were made in the name of the company's president, R. W. Page, with between 3 and 6 additional personal guarantors. The strong entity shielding afforded corporations offered some advantages in credit markets, but limited liability concerned contemporary lenders who demanded additional personal security before lending to a corporation.

When partnerships are disaggregated into two- and three-partner firms, the basic result

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<sup>36</sup> Lamoreaux, "Partnership Form of Organization."

stands. Partnerships received larger loans with fewer endorsers, but accepted credit at shorter terms. Two-partner firms received loans about 22 to 33 percent larger than proprietors and offered about 21 percent fewer personal guarantors. Three-partner firms received loans 37 to 60 percent larger than proprietors and offered 15 to 33 percent fewer endorsers per \$100 in loans.

#### *4.3 Monitoring, scale effects and local lending*

Since Eugene Fama and Douglas Diamond, economists have treated banks as specialized intermediaries whose principal function is to overcome various asymmetric information and time inconsistency problems, one of which is distinguishing between potentially profitable and unprofitable entrepreneurial projects.<sup>37</sup> Within the context of nineteenth century lending, the banker's role in this regard was not likely to emerge in lending on bills of exchange. Nineteenth-century practice in lending on bills of exchange implied relatively little entrepreneurial risk. Bills were used primarily to finance the transportation of raw materials from producing to consuming regions, which involved a willingness to arbitrage on price differentials. But lending on bills rarely tested the banker's true discriminatory skills. Bankers discounted bills for about one-third or less of the value of the goods being transported and "attached" bills were fully collateralized with an attached bill of lading. In the event of borrower default, the lender had a notary officially protest the note, notifying all endorsers by mail, after which the lender could proceed against the last named endorser or move to attach the collateral. This was "real bills" lending, the virtues of which were

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<sup>37</sup> Eugene Fama, "What's Different about Banks," *Journal of Monetary Economics* 15 (1985), 29-39 and Douglas Diamond, "Financial Intermediation and Delegated Monitoring," *Review of Economic Studies* 51 (1984), 393-414. A very large literature developed in the 30 years since these articles appeared. See \_\_\_\_\_ for a recent review.

extolled by contemporary regulators and subsequent generations of banking historians.<sup>38</sup> Bankers' risks associated with real-bills lending were small and easily managed. It is not surprising then that banks were willing to lend larger amounts with fewer endorsers on such loans, which makes it possible that the results reported in Tables 2 and 3 are capturing scale effects as much as the benefits of entity shielding. That is, firms with more partners may have pooled more capital and captured scale economies in moving goods to market. Given the nature of real-bills lending, however, there is no reason to believe that a proprietor could not engage in large-scale transactions as easily as firms with multiple partners absent the entity shielding effect. To test this hypothesis, this section focuses exclusively on the credit terms afforded borrowers offering locally payable promissory notes.

In the nineteenth century, the banker's role as Schumpeterian entrepreneur was most likely to emerge in local lending on promissory notes. To Schumpeter, the entrepreneurial banker's task was to upset the traditional flow of funds and direct capital into projects outside the existing course of trade.<sup>39</sup> Real-bills bankers and Schumpeterian bankers were animals of different stripes.<sup>40</sup> As Table 1 makes clear, partnerships and corporations were much more likely than proprietorships to engage in real-bills borrowing. Only about 15 percent of proprietors promised repayment at some distant location whereas more than 50 percent of two-partner firms and nearly 70 percent of three-

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<sup>38</sup> Fritz Redlich, *Molding of American Banking: Men and Ideas* (New York: Hafner Publishing Company, 1976) and Bray Hammond, *Banks and Politics in America from the Revolution to the Civil War* (Princeton: Princeton University Press, 1959).

<sup>39</sup> Joseph A. Schumpeter, *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest and the Business Cycle* (Cambridge: Harvard University Press, 1934).

<sup>40</sup> Howard Bodenhorn, "An Engine of Growth: Real Bills and Schumpeterian Banking in Antebellum New York," *Explorations in Economic History* 36 (1999), 278-302 provides a study of the real-bills and Schumpeterian role of the BRB.

partner firms discounted bills repayable outside Watertown. Taken as a group, partners were engaged in a different economic activities than proprietors.

Table 4 reports results in the same format as previously, except that the analysis is confined to 5,887 locally payable loans. Columns (1) and (1') include all partnerships, regardless of number of partners, and reveals a strong partnership effect. Partners received loans 48 to 54 percent larger than proprietors. Partnerships also offered 41 percent fewer endorsers per \$100 of loan. Surprisingly, corporations received loans about 66 percent smaller than proprietors and offered about 4.4 more endorsers per \$100 in loan. It is no wonder that many contemporary business owners failed to incorporate. Incorporation carried sharp credit penalties. Corporations may have faced lower costs in raising equity, but the costs of short-term bank debt were considerably higher.

Columns (2) and (3) disaggregate partnerships into their constituent forms and reveal two features. First, the entity shielding effect remains powerful. Partnerships borrowed about 40 to 60 percent more per loan than proprietors. They also offered fewer significantly fewer endorsers per loan. The evidence on loan maturity is mixed. Two-partner firms sometimes received somewhat shorter loans. Three-partner firms received longer loans. Thus, the maturity penalty that emerged in previous sections appears to be more a function of the nature of borrowing on bills of exchange than something inherent in the nature of partnerships.

Second, the results in Columns (2) and (3) imply that scale effects are not the driving force behind partners receiving larger loans and offering fewer endorsers. In equations (2) and (2'), for example, firms in the style of Smith & Co., which were not uncommonly firms with one senior and one junior partner, received slightly larger loans than firms with either two or three named partners. Columns (3) and (3'), which employ an alternative definition of two- and three-partner firms reveal

the same pattern, namely that two-partner firms received slightly larger loans than three-partner firms. The nature of the data and the reduced-form nature of the estimation make it impossible to sort out supply and demand effects, but there is no a priori reason to believe that three-member firms would demand smaller loans than two-member firms.

Moreover, the results reported in Columns (3) and (3') also show no scale effects in the number of personal guarantors per \$100 of loan. Two-member firms offered 41 percent fewer endorsers while three-member firms offered 45 percent fewer guarantors. This results suggests that adding a partner did not offset the number of endorsers requested by a banker one-for-one. The loan amount equation, in fact, suggests that firms with more partners may have imposed additional monitoring or some other risk-associated cost on bankers. Perhaps the risk of untimely dissolution increased more than proportionately with the addition of a partner so that banks limited their risk by offering larger partnerships smaller loans. Perhaps the cost of partners keeping tabs on each other's activities increased more than proportionately, a risk that spilled over on bankers who responded by reducing their exposure. Resolving these possibilities awaits further research.

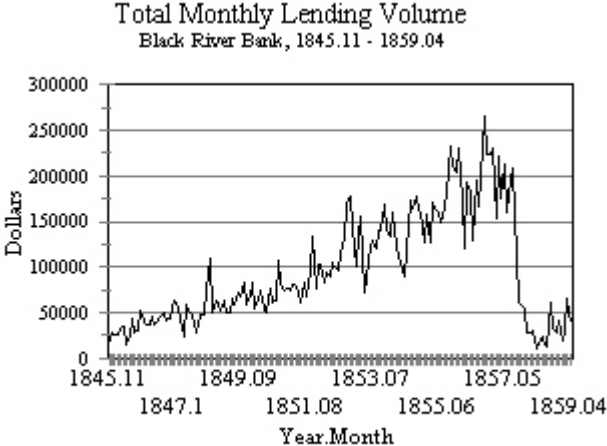
## **5. Concluding remarks**

The newly emergent entity literature holds that one of the advantages of multiparty firms is that they take on a legal identity wholly separate from that of their owners. As separate legal entities, the owners and managers of partnerships and corporations can credibly commit the firm's assets to meet its debts. Because lenders have a prior claim on the firm's assets relative to personal creditors of the individual owners, entities such as partnerships and corporations receive credit on different terms than proprietorships.



The evidence presented above suggest that the entity-shielding effect was powerful indeed. Partnerships regularly received larger loans and offered fewer endorsers in return. The corporate effect is less clear. As a beneficiary of strong entity shielding, corporations represented a lower credit risk, all else equal, than a proprietor. But as the beneficiary of limited liability, the corporation was distrusted by at least some lenders. Thus, while limited liability offered the corporation greater access to equity markets, it raised the costs of raising debt. It is little wonder then that incorporation was not greeted by contemporaries with the same enthusiasm as subsequent generations of historians. In an economy in which manufacturing and trade were not subject to the scale economies that were to emerge in the late nineteenth century, incorporation was not an unequivocally superior choice to the partnership.

Figure 1: Total Monthly Lending Volume at the Black River Bank, November 1845 to April 1859



**Table 1: Summary statistics**

<b>Variable</b>	<b>Full sample (29,649)</b>	<b>Sole proprietors (22,094)</b>	<b>Two partners (6,499)</b>	<b>Three partners (907)</b>	<b>Corporations (149)</b>
Loan amount (\$)	522.54 (925.36)	421.21 (851.78)	752.47 (974.79)	1,155.66 (1,273.05)	1,672.40 (1,994.36)
ln(loan amt) (\$)	5.40 (1.25)	5.19 (1.19)	5.98 (1.18)	6.38 (1.29)	6.23 (1.93)
Loan length (days)	77.54 (31.39)	79.36 (28.59)	72.44 (38.11)	72.16 (36.49)	63.29 (38.86)
ln(length) (days)	4.26 (0.49)	4.29 (0.46)	4.17 (0.53)	4.16 (0.54)	3.92 (0.75)
Loan rate	7.11 (1.31)	7.09 (1.20)	7.13 (1.49)	7.18 (1.86)	7.98 (3.71)
Endorsers	1.38 (0.85)	1.36 (0.74)	1.30 (0.59)	1.37 (0.59)	4.34 (3.82)
New York City	0.14 (0.35)	0.08 (0.28)	0.30 (.46)	0.39 (0.49)	0.37 (0.48)
Albany	0.08 (0.26)	0.06 (0.23)	0.12 (0.32)	0.22 (0.42)	0.23 (0.42)
Other NY Upstate	0.02 (0.14)	0.02 (0.13)	0.03 (0.17)	0.02 (0.15)	0.07 (0.25)
Boston	0.02 (0.14)	0.007 (0.08)	0.06 (0.23)	0.05 (0.23)	na
Previous Loans	22.74 (41.50)	22.23 (43.68)	26.12 (35.94)	13.26 (18.56)	8.26 (6.88)
Months since first loan	31.10 (34.27)	32.86 (34.96)	27.70 (32.89)	14.70 (16.48)	17.33 (27.84)
Intensity (mos/loans)	2.78 (4.85)	3.17 (5.30)	1.67 (2.92)	1.42 (2.39)	2.14 (4.51)

Notes: Two partner firms include "Smith & Co." and "Smith & Jones" style firms. Three partner firms include "Smith, Jones & Co." and "Smith, Jones & Brown" style firms. Corporations include a railroad, an iron manufacturer, a textile company, an insurance company, and the incorporated City of Watertown. Endorsers includes only 8,847 observations because BRB records reported endorsers beginning only in November 1854. Sources: BRB *Discount Book 2* (1845-1854); *Discount Book 3* (1854-1859).

**Table 2: Seemingly Unrelated Regression estimates of partner credit terms**

Variable	(1)	(2)	(3)	(1')	(2')	(3')
	ln(loan amount) equations				--	
All partnerships	0.27 (18.9)*	--	--	0.34 (24.0)*	--	--
Individual & Co	--	0.30 (12.2)*	--	--	0.32 (13.1)*	--
Two partners	--	0.25 (15.7)*	0.26 (17.7)*	--	0.33 (21.1)*	0.32 (21.9)*
Three partners	--	0.50 (8.6)*	0.34 (10.0)*	--	0.64 (11.3)*	0.51 (15.0)*
Corporations	0.19 (2.3)†	0.19 (2.3)†	0.19 (2.3)†	0.39 (4.8)*	0.39 (4.8)*	0.40 (4.9)*
NYC	1.39 (77.7)*	1.39 (77.1)*	1.39 (77.4)*	1.28 (71.2)*	1.27 (70.9)*	1.27 (70.5)*
Albany	1.77 (78.8)*	1.77 (78.7)*	1.77 (78.4)*	1.62 (71.5)*	1.62 (71.6)*	1.60 (70.7)*
Upstate	0.12 (2.8)*	0.12 (2.9)*	0.12 (2.9)*	0.20 (4.8)*	0.20 (4.9)*	0.20 (4.8)*
Boston	0.78 (18.2)*	0.76 (17.5)*	0.78 (18.2)*	0.78 (18.5)*	0.77 (18.0)*	0.77 (18.4)*
Intensity	-0.02 (14.8)*	-0.02 (14.8)*	-0.02 (14.8)*	--	--	--
Previous loans				0.005 (36.7)*	0.005 (36.8)*	0.005 (37.0)*
Commercial paper rate	0.01 (2.6)†	0.01 (2.6)†	0.01 (2.6)†	0.01 (1.5)	0.01 (1.5)	0.01 (1.5)
Constant	5.22 (150.6)*	5.23 (150.7)*	5.22 (150.6)*	5.02 (148.4)*	5.02 (148.4)*	5.02 (148.5)*
	ln(loan length) equations					
All partnerships	-0.01 (2.0)†	--	--	-0.01 (2.1)	--	--
Individual & Co	--	-0.02 (1.7)	--	--	-0.02 (1.8)	--

**Table 2: Seemingly Unrelated Regression estimates of partner credit terms**

<b>Variable</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(1')</b>	<b>(2')</b>	<b>(3')</b>
Two partners	--	-0.01 (1.2)	-0.02 (2.4)†	--	-0.01 (1.3)	-0.17 (2.5)†
Three partners	--	-0.06 (2.4)†	0.01 (0.4)	--	-0.06 (2.3)†	0.01 (0.5)
Corporations	-0.20 (5.4)*	-0.20 (5.4)*	-0.20 (5.4)*	-0.20 (5.3)*	-0.20 (5.3)*	-0.20 (5.3)*
NYC	-0.20 (24.8)*	-0.20 (24.6)*	-0.20 (24.8)*	-0.21 (24.9)*	-0.21 (24.8)*	-0.21 (25.0)*
Albany	-0.05 (5.4)*	-0.05 (5.3)*	-0.06 (5.4)*	-0.06 (5.8)*	-0.06 (5.8)*	-0.06 (5.9)*
Upstate	-0.18 (9.6)*	-0.18 (9.6)*	-0.18 (9.6)*	-0.18 (9.6)*	-0.18 (9.6)*	-0.18 (9.6)*
Boston	-0.69 (35.3)*	-0.68 (34.5)*	-0.69 (35.3)*	-0.69 (35.4)*	-0.68 (34.7)*	-0.69 (35.4)*
Intensity	0.001 (2.3)†	0.001 (2.3)†	0.001 (2.3)†	--	--	--
Previous loans	--	--	--	0.00 (1.8)	0.00 (1.8)	0.00 (1.9)
Female	0.18 (5.3)*	0.18 (5.3)*	0.18 (5.3)*	0.18 (5.2)*	0.18 (5.2)*	0.18 (5.2)*
Constant	4.14 (568.1)*	4.14 (568.0)*	4.14 (567.9)*	4.14 (574.4)*	4.14 (574.3)*	4.14 (574.4)*
R-square (Eq 1)	0.37	0.37	0.37	0.40	0.40	0.40
R-square (Eq 2)	0.14	0.14	0.14	0.14	0.14	0.14

Notes: ln(loan amount) and ln(loan length) equations also include year and quarter dummy variables. Equations (1) through (3) include Intensity variable as relationship measure. Equations (1') through (3') include Previous Loans as relationship measure. Equations (3) and (3') combine Individual & Co. firms with Two partner firms. \* signifies p-value < 0.01; † signifies p-value < 0.05. Number of observations = 29,600 in all equations.

**Table 3: Seemingly Unrelated Regression estimates of partner credit terms**

Variable	(1)	(2)	(3)	(1')	(2')	(3')
ln(loan amount) equations						
All partnerships	0.24 (8.4)*	--	--	0.32 (11.3)*	--	--
Individual & Co	--	0.23 (5.2)*	--	--	0.27 (6.1)*	--
Two partners	--	0.24 (7.4)*	0.22 (7.5)*	--	0.33 (10.5)*	0.29 (10.0)*
Three partners	--	0.37 (3.2)*	0.39 (6.0)*	--	0.50 (4.5)*	0.60 (8.8)*
Corporations	0.43 (3.6)*	0.43 (3.6)*	0.43 (3.7)*	0.59 (5.1)*	0.60 (5.1)*	0.60 (5.2)*
ln(loan length) equations						
All partnerships	-0.03 (1.9)	--	--	-0.03 (2.3)†	--	--
Individual & Co	--	-0.05 (2.3)†	--	--	-0.05 (2.5)†	--
Two partners	--	-0.02 (1.2)	-0.04 (2.6)*	--	-0.02 (1.5)	-0.04 (2.9)*
Three partners	--	-0.01 (0.22)	0.04 (1.4)	--	-0.02 (0.3)	0.04 (1.2)
Corporations	0.04 (0.63)	0.03 (0.6)	0.04 (0.6)	0.03 (0.5)	0.03 (0.5)	0.03 (0.6)
Endorsers equations						
All partnerships	-0.21 (7.6)*	--	--	-0.21 (7.6)*	--	--
Individual & Co	--	-0.22 (4.9)*	--	--	-0.22 (4.9)*	--
Two partners	--	-0.21 (6.5)*	-0.22 (7.7)*	--	-0.21 (6.5)*	-0.22 (7.6)*
Three partners	--	-0.33 (3.0)*	-0.15 (2.4)†	--	-0.33 (3.0)*	-0.15 (2.4)†
Corporations	1.37 (11.8)*	1.37 (11.8)*	1.37 (11.8)*	1.37 (11.8)*	1.37 (11.8)*	1.37 (11.8)*

**Table 3: Seemingly Unrelated Regression estimates of partner credit terms**

<b>Variable</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(1')</b>	<b>(2')</b>	<b>(3')</b>
R-square (Eq 1)	0.32	0.33	0.33	0.35	0.36	0.35
R-square (Eq 2)	0.09	0.09	0.09	0.09	0.09	0.09
R-square (Eq 3)	0.12	0.12	0.12	0.12	0.12	0.12

Notes: All equations include NYC, Albany, Upstate and Boston variables. All equations include three quarterly variables. ln(loan amount) equation also includes commercial paper rate and relationship variable (either Intensity or Previous Loans). ln(loan length) equation also includes Female and relationship variable. Endorser equation also includes a dummy variable equal to one if loan was Renewal. Equations (1') through (3') include Previous Loans as relationship measure. Equations (3) and (3') combine Individual & Co. firms with Two partner firms. \* signifies p-value < 0.01; † signifies p-value < 0.05. Number of observations = 8,729 in all equations.

**Table 4: SUR estimates of partner credit terms - Local borrowers only**

<b>Variable</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(1')</b>	<b>(2')</b>	<b>(3')</b>
ln(loan amount) equations						
All partnerships	0.48 (12.6)*	--	--	0.54 (14.6)*	--	--
Individual & Co	--	0.60 (8.1)*	--	--	0.60 (8.5)*	--
Two partners	--	0.45 (10.3)*	0.50 (12.5)*	--	0.52 (12.3)*	0.54 (14.3)*
Three partners	--	0.43 (2.4)†	0.34 (2.9)*	--	0.53 (3.1)*	0.45 (4.0)*
Corporations	-1.07 (5.1)*	-1.07 (5.1)*	-1.07 (5.1)*	-0.92 (4.5)*	-0.91 (4.5)*	-0.92 (4.5)*
ln(loan length) equations						
All partnerships	-0.03 (1.8)	--	--	-0.04 (2.2)†	--	--
Individual & Co	--	-0.10 (3.0)*	--	--	-0.11 (3.1)*	--
Two partners	--	-0.02 (1.0)	-0.04 (2.5)*	--	-0.03 (1.4)	-0.05 (2.9)*
Three partners	--	0.18 (2.2)†	0.11 (1.9)†	--	0.17 (2.1)†	0.09 (1.8)
Corporations	0.08 (0.8)	0.08 (0.8)	0.08 (0.8)	0.06 (0.5)	0.07 (0.7)	0.07 (0.7)
Endorsers equations						
All partnerships	-0.41 (9.7)*	--	--	-0.40 (9.7)*	--	--
Individual & Co	--	-0.48 (5.9)*	--	--	-0.48 (5.9)*	--
Two partners	--	-0.38 (7.8)*	-0.41 (9.3)*	--	-0.38 (7.8)*	-0.41 (9.3)*
Three partners	--	-0.59 (3.0)*	-0.45 (3.5)*	--	-0.59 (3.0)*	-0.45 (3.5)*
Corporations	4.39 (19.3)*	4.39 (19.3)*	4.39 (19.3)*	4.39 (19.3)*	4.38 (19.3)*	4.38 (19.3)*



**Table 4: SUR estimates of partner credit terms - Local borrowers only**

<b>Variable</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(1')</b>	<b>(2')</b>	<b>(3')</b>
R-square (Eq 1)	0.05	0.05	0.05	0.11	0.11	0.11
R-square (Eq 2)	0.01	0.01	0.01	0.01	0.01	0.01
R-square (Eq 3)	0.08	0.08	0.08	0.08	0.08	0.08

Notes: All equations include loans payable in Watertown only. All equations include three quarterly variables. ln(loan amount) equation also includes commercial paper rate and relationship variable (either Intensity or Previous Loans). ln(loan length) equation also includes Female and relationship variable. Endorser equation also includes a dummy variable equal to one if loan was Renewal. Equations (1') through (3') include Previous Loans as relationship measure. Equations (3) and (3') combine Individual & Co. firms with Two partner firms. \* signifies p-value < 0.01; † signifies p-value < 0.05. Number of observations = 5,887 in all equations.