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## A RELATIONAL THEORY OF SECURED FINANCING

*Robert E. Scott* \*

Despite advances in finance theory, secured debt remains a puzzle. As a consequence, the justification for the current legal regulation of secured financing is similarly unclear. What purposes, whether benign or malignant, does security serve? And what explains the peculiar system of priorities established by Article 9 of the Uniform Commercial Code? These are particularly urgent questions for students of commercial law because legally created priorities among creditors are an apparent aberration. In most legal regimes, equal treatment of those similarly situated is an important normative goal. Indeed, much of federal bankruptcy law seems to reflect a conception of business failure as a common disaster.<sup>1</sup> As with a flood or an earthquake, when unanticipated disaster strikes all victims are treated equally. Yet personal property security is a discriminatory financing device, one that offers certain creditors preferential treatment in any distribution of the debtor's assets.

The conventional justification for such preferential treatment is that security increases the aggregate amount of credit available to deserving debtors.<sup>2</sup> Under this conception, creditors demand security for certain debts as a way of reducing unacceptably high risks of default. Without security, it is argued, such high risk debtors would be denied

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I am especially indebted to Saul Levmore, for his continuing interest in the progress of this project, and for suggesting that no single explanation is likely to unravel the full puzzle of secured debt.

1. A major goal of the Bankruptcy Code, for example, is to ensure equal treatment of all creditors, see Report of the Commission on the Bankruptcy Laws of the United States, H.R. Doc. No. 137, 93d Cong., 1st Sess., Pt. I at 19 (1973); 3 J. Moore & L. King, *Collier on Bankruptcy*, ¶ 60.01 at 743 (14th ed. 1977); A. Schwartz & R. Scott, *Commercial Transactions: Principles and Policies* 775-77 (1982). For a further discussion of the tension between the distributional and maximization norms of bankruptcy, see *infra* notes 241-47 and accompanying text.

2. See, e.g., J. Van Horne, *Financial Management and Policy* 536 (3rd ed 1974) (Firms that pose a significant risk of default often "cannot obtain credit on an unsecured basis . . . . In order to make a loan, lenders require security so as to reduce their risk of loss.").

access to credit markets altogether.<sup>3</sup> Developments in modern finance theory, however, have exposed an apparent fallacy underlying this conventional wisdom. The benefits to *secured* creditors from taking security are offset by the increased costs to *unsecured* creditors who face a corresponding reduction in the pool of assets available to them upon default.<sup>4</sup> Alan Schwartz has shown that, given certain assumptions, secured credit is a zero sum game in which gains to some creditors are achievable only by inflicting losses on others.<sup>5</sup> Furthermore, since setting up security arrangements is costly, the debtor's total credit bill—consisting of *both* secured and unsecured credit charges—may be greater under a regime of secured credit than in a world where security is prohibited.

More recently, scholars have attempted to explain secured financing by examining variations in creditors' abilities to monitor their debtors for misbehavior. These monitoring cost theories have taken several forms. Thomas Jackson and Anthony Kronman, for example, suggest that the more able monitors will extend credit unsecured in order to capitalize on their comparative advantage, while less efficient monitors will take security in order to reduce monitoring burdens.<sup>6</sup> Saul Levmore argues, to the contrary, that the better monitors will take the security as compensation for the tendency of less efficient creditors to "free ride" on their policing efforts.<sup>7</sup> While the monitoring cost theorists have provided important insights, their attempts to rationalize secured financing have been limited, at least in part, by their inability to explain completely the patterns of secured and unsecured credit that are actually observed.<sup>8</sup> Similar deficiencies blunt the force of alternative explanations that focus on security as a means of overcoming risk aversion,<sup>9</sup> or of screening for bad credit risks,<sup>10</sup> or of reducing the inev-

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3. See J. Van Horne, *supra* note 2, at 458–59.

4. See A. Schwartz & R. Scott, *supra* note 1, at 557–59; *infra* notes 16–19 and accompanying text.

5. Schwartz, *Security Interests and Bankruptcy Priorities: A Review of Current Theories*, 10 J. Legal Stud. 1 10–11, 18–21 (1981) (monitoring costs and security are inversely related) [hereinafter Schwartz, *Current Theories*].

6. Jackson & Kronman, *Secured Financing and Priorities Among Creditors*, 88 Yale L.J. 1143, 1158–61 (1979).

7. Levmore, *Monitors and Freeriders in Commercial and Corporate Settings*, 92 Yale L.J. 49, 53–54 (1982).

8. See *infra* notes 31–41 and accompanying text.

9. See generally, White, *Efficiency Justifications for Personal Property Security*, 37 Vand. L. Rev. 473, 491–502 (1984) (absent security, risk-averse creditors would not lend to risky debtors). But see Schwartz, *The Continuing Puzzle of Secured Debt*, 37 Vand. L. Rev. 1051 (1984) (criticizing risk aversion explanations) [hereinafter Schwartz, *Continuing Puzzle*]. For a discussion of risk aversion, see *infra* note 19.

10. See generally, Ross, *The Determination of Financial Structure: The Incentive-Signalling Approach*, 8 Bell J. Econ. 23 (1977) (absent security, high-risk companies are undervalued and managers have no incentive to extend credit); Thakor & Callaway, *Costly Information Production Equilibria in the Bank Credit Market with Applications to Credit Rationing*, 18 J. Fin. & Quantitative Anal. 229, 245–46 (1983) (imperfect and

itable conflicts of interests between managers, shareholders and outside creditors.<sup>11</sup>

The limitations of existing theories are even more apparent when the inquiry shifts to a narrower focus on the code's singular priority system. The Article 9 scheme is characterized by a single dominant feature: the institutionalization of the "floating lien."<sup>12</sup> The Code encourages a single creditor to acquire exclusive control over a debtor's financing opportunities by granting the creditor priority in all the debtor's after acquired assets even as to uncommitted future advances.<sup>13</sup> But this exclusive control is eroded by special exceptions for purchase money security interests and other junior creditors. Existing theories do not rationalize these apparently contradictory aspects of the Article 9 system principally because they start with an unduly narrow conception of the function of collateral and of the debtor-creditor conflicts that it seeks to ameliorate.

This Article develops a theory of secured financing that posits a debtor-creditor relationship much more complex and refractory than that conceived by conventional analysis. This paradigmatic relationship forms whenever privately issued debt is used to finance a firm's growth opportunities or financial "prospects." Because peculiar stresses may undermine the efforts of both debtor and creditor to exploit such prospects fully, the parties will predictably agree in the credit contract to forego any actions that threaten the relationship. But the manifestations of self-interested behavior are difficult to anticipate, and their interaction with other variables is often complex and unpredictable. In such an environment, the parties frequently are unable to achieve their mutually beneficial objectives through conventional contractual arrangements. Thus, the impetus for secured financing derives from the financing relationship itself and from the parties' desire to exploit it fully.

Part I of the Article develops a conceptual analysis of the key determinants of relational financing. A framework that focuses explicitly on the nature of the debtor-creditor relationship leads to a deeper understanding of the diverse conflicts and stresses that can frustrate the ac-

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costly information leads to credit rationing); Buckley, *The Bankruptcy Priority Puzzle* (Oct. 2, 1985) (questioning whether secured lending reduces screening costs) (manuscript on file at the offices of the Columbia Law Review). See also Schwartz, *Current Theories*, supra note 5, at 14-21 (discussing signaling or "screening" explanations of security); infra note 21 (same).

11. See generally, Myers & Majluf, *Corporate Financing and Investment Decisions When Firms Have Information that Investors Do Not Have*, 13 *J. Fin. Econ.* 187 (1984); Myers, *The Capital Structure Puzzle*, 39 *J. Fin.* 575 (1984).

12. Through the combined effects of a number of provisions, Article 9 permits the creditor to hold a lien that "floats" from one asset to another, and from one debt to another. See Coogan, *Article 9 of the Uniform Commercial Code: Priorities Among Secured Creditors and the "Floating Lien,"* 72 *Harv. L. Rev.* 838 (1959).

13. See, e.g., U.C.C. §§ 9-204, 9-205, 9-312(7) (1978).

accomplishment of the parties' objectives. From this perspective, security ameliorates the conflicts that would otherwise discourage firms from financing investment opportunities with private debt. The leverage obtained by holding the debtor's assets hostage empowers the secured creditor to influence the debtor's business decisions, thus ensuring that new projects are properly developed. Most significantly, this relationship induces the creditor to provide valuable financial coordination and control, with resulting benefits accruing to all participants in the venture.

Part II tests the predictions of the relational theory against the available evidence of how these credit markets actually function. Data obtained from litigated priority disputes arising under Article 9, industry reports and analyses over the same period, and contracting patterns that have evolved in asset-based lending provide strong confirmation of the congruence between relational theory and the observed characteristics of certain business loans and business borrowers.

Finally, Part III uses this relational model of secured financing to evaluate the peculiar legal regime embodied in Article 9 of the Code. The relational model supplies a coherent justification for a variety of previously controversial legal regulations. Thus, for example, those provisions of Article 9 that appear to advantage the senior creditor with a floating lien are explained by the benefits that the relational theory predicts will accrue to all participants from the success of the financing venture. On the other hand, there is a need to confine the potential leverage security offers such creditors; this need is the key to understanding both Article 9 and Bankruptcy Code limitations on the floating lien creditor.

## I. A RELATIONAL MODEL OF SECURED FINANCING

### A. *The Security Puzzle Reconsidered: The Competing Hypotheses*

1. *The Zero-Sum Hypothesis.* — The conventional vision of secured credit assumes that security expands debtors' access to credit markets. This conception rests on the premise that security offers financing opportunities to high-risk debtors who would not otherwise qualify for credit.<sup>14</sup> However, the insights of modern finance theory have seriously undermined the conventional wisdom.

Finance theory offers two complementary visions of the capital structure of the firm. The most provocative hypothesis traces its lineage to the Modigliani-Miller Irrelevance Theorem. Modigliani and Miller demonstrated that, under certain carefully specified assumptions, the value of a firm is independent of its capital structure.<sup>15</sup> In essence, the Irrelevance Theorem holds that in perfectly functioning

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14. See, e.g., J. Van Horne, *supra* note 2, at 458.

15. See Modigliani & Miller, *The Cost of Capital, Corporation Finance and the*

capital markets, absent taxes or bankruptcy costs, the particular mix of debt or equity held by a firm has no effect on the firm's value.<sup>16</sup> Recently, legal scholars have begun to apply the insights of the Irrelevance Theorem to the debate over the function of secured debt.<sup>17</sup> Alan Schwartz has shown that with homogeneous, risk-neutral creditors possessed of perfect information, a system of security operates as a zero-sum game.<sup>18</sup> Under these conditions, the benefits to one creditor by taking security are exactly offset by the increased cost imposed on an unsecured creditor whose claim to the debtor's asset pool has been correspondingly diminished. The "zero sum hypothesis" implies that the existing system of secured credit may operate as a net loss to debtors. Security interests are costly to create and administer. Moreover, if creditors are generally informed about credit risks, the reduction in interest charges that secured creditors are able to offer the debtor will be offset by more or less equivalent increases in interest charges by unsecured creditors. Thus, the debtor's *total* credit bill may well be larger under a system which permits security interests than in a world in which security is banned.

The zero-sum hypothesis searches for an explanation of secured financing through the systematic relaxation of its carefully articulated assumptions. Theorists have attempted explanations based on differ-

Theory of Investment, 48 *Am. Econ. Rev.* 261, 270-75 (1958) [hereinafter Modigliani & Miller, *The Cost of Capital*].

16. *Id.*; see also Miller, *Debt and Taxes*, 32 *J. Fin.* 266 (1977); Modigliani & Miller, *Corporate Income Taxes and the Cost of Capital: A Correction*, 53 *Am. Econ. Rev.* 433 (1963) (tax benefit is only advantage of debt financing).

A formal proof of the Irrelevance Theorem can be found in Stiglitz, *On the Irrelevance of Corporate Financial Policy*, 64 *Am. Econ. Rev.* 851, 859 (1974). For a further description and analysis, see Jackson & Schwartz, *Vacuum of Fact or Vacuous Theory: A Reply to Professor Kripke*, 133 *U. Pa. L. Rev.* 987 (1985); Schwartz, *Continuing Puzzle*, *supra* note 9, at 1057-65.

The basic insight of the Irrelevance Theorem is that investors (under the conditions specified by the Theorem) can purchase stocks of firms with differing mixes of debt and equity securities, thus achieving an optimal portfolio of risk. Since investors can choose for themselves the optimal leverage they desire, they would not "pay" firms to alter their capital structure. It follows that a firm cannot increase its value to investors by altering the debt-equity mix.

17. Professors Jackson and Kronman were the first to apply the Irrelevance Theorem to the problems of secured financing. See Jackson & Kronman, *supra* note 6, at 1154-64; see also Schwartz, *Continuing Puzzle*, *supra* note 9, at 1055-60 (examining theory that firms use debt financing to avoid creditor monitoring).

18. Schwartz, *Current Theories*, *supra* note 5, at 10. The zero-sum thesis was first suggested in Scott, *Bankruptcy, Secured Debt, and Optimal Capital Structure*, 32 *J. Fin.* 1, 1 n.2 (1977) [hereinafter Scott, *Bankruptcy*] ("The [claim] that debt is often secured because it reduces the risks of the lender . . . [is] inadequate . . . since it may be costly to reduce the risks of lenders. Who bears these costs, and do the costs . . . exceed the benefits of lenders?"). The key assumption underlying the zero-sum analysis is that unsecured creditors will react to the reduction in the debtor's asset pool and concomitant increase in risk caused by security and will raise their interest rates proportionately.

ing risk preferences of creditors<sup>19</sup> or imperfections in the credit markets themselves.<sup>20</sup> Thus, for example, in the real world of costly information, security may function as a means of signaling other creditors of the debtor's creditworthiness<sup>21</sup> or, in the alternative, as a means

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19. See White, *supra* note 9. White's argument for differential risk aversion has two components. First he argues that loan officers of lending institutions make individual judgments about risk. These judgments are based on the individual employee's desires to maximize his own interests and not necessarily to maximize profits for the firm. Since it is likely that risk preferences will be spread over some spectrum, security overcomes the excessive caution of particularly risk averse employees. Furthermore, White argues, there is some evidence that the lending institutions themselves may exhibit differential risk distribution owing to variations in the legal rules that regulate their lending activity. Thus, commercial banks, subject to more elaborate federal regulation, are more risk averse than commercial finance companies that operate free from state and federal banking laws. All parties profit, therefore, by permitting these risk averse firms to take security.

The explanatory power of White's argument is limited by several difficulties. Any explanation for security that depends on differential risk preferences among loan officers must explain why firms do not structure their reward and incentive systems so as to reduce such conflicts of interest between firm and individual goals. The evidence is that such incentive systems exist and ameliorate these agency costs much more effectively than the alternative of allowing particularly risk averse employees to take security. See, e.g., Roberts, *Increasing Bank Profitability by Modifying Loan Officer Performance*, J. Com. Bank Lending, Feb. 1983, at 2. The argument that commercial banks are institutionally risk averse because of the effects of state and federal regulation is inconsistent with the evidence that commercial banks have historically issued most of their credit unsecured, while finance companies almost exclusively engage in asset-based financing. See *infra* notes 139-45 and accompanying text.

20. The possibility that participants in credit markets are both imperfectly and asymmetrically informed about creditworthiness is the primary market imperfection that has attracted scholarly interest. See *infra* note 24 and accompanying text.

21. A rich scholarly literature attempts to explain the financing decisions of firms as signals to other participants in the market. See, e.g., Bhattacharya, *Imperfect Information, Dividend Policy, and "the Bird in the Hand" Fallacy*, 10 *Bell J. Econ.* 259 (1979); Ross, *The Determination of Financial Structure: The Incentive-Signalling Approach*, 8 *Bell J. Econ.* 23 (1977) (arguing that firms issue debt as a signal of managerial incentive structures). The concept of signaling was first studied in the context of the product markets by Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, 84 *Q.J. Econ.* 488 (1970), and developed into an equilibrium theory by Spence, *Competitive and Optimal Responses to Signals: An Analysis of Efficiency and Distribution*, 7 *J. Econ. Theory* 296 (1974).

The basic logic of signaling theory is simple. A particular debtor can, by issuing secured debt, signal to others in the market that it is a better credit risk than competing firms and thus obtain a lower interest rate. But the Irrelevance Theorem implies that moral hazard would prevent secured debt from being a reliable signal of creditworthiness. This is because Firm B (a high risk venture) could simply copy the signal of Firm A (a low risk venture) at no cost to the firm. Stephan Ross has attempted to solve the moral hazard problem by linking the signal to the incentive system of the firm's managers. Thus, the firm is signaling that it has structured its managers' incentives so as to minimize the possibility that the managers can trade on inside information. See Ross, *supra*, at 26-31. From this perspective, signaling theory becomes virtually indistinguishable from the costly contracting hypothesis discussed below. See *infra* notes 27-38 and accompanying text.

In addition to the unreliability of the signal, there is substantial question whether, in

of screening for eligible debtors.<sup>22</sup> These explanations, however, are incomplete. They do not show convincingly why security is a preferable means of overcoming such informational barriers as compared to alternatives such as financial audits, the development of commercial reputation, or long term financial relationships.<sup>23</sup>

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equilibrium, such signaling (if it exists) will, in fact, produce better matches between creditors and debtors. If there is too much signaling in equilibrium (because the signal is insufficiently informative) the social costs of using security for these purposes may outweigh any informational advantages. See Schwartz, *Current Theories*, *supra* note 5, at 14–21.

22. Screening explanations of secured debt are a variant of signaling theory. An analysis of security as an efficient mechanism for creditors to screen good risks from bad has been recently proposed by Buckley, *supra* note 10, at 27–30. Buckley argues that creditors must invest in information to determine the prospective debtor's probability of default and the anticipated value of the firm upon default. Such screening, however, is costly. One strategy for reducing screening costs is to issue secured debt. Security will reduce uncertainty that creditors have about the value of the assets upon default because a secured creditor need only predict whether sufficient assets will be available to satisfy his claim while the unsecured creditor must attempt to predict the priority of his claim to these assets. Furthermore, secured lending will also reduce screening costs where the secured creditor can exploit economies of scale in valuing secondary uses of firm assets for various differing outcomes. Unsecured creditors, who may require this information for only one purpose, need not invest at all where the asset has been removed from the available pool and granted to the secured creditor. Thus \$1000 spent by the secured creditor in valuing the asset may generate more information than \$100 spent by 10 creditors.

Buckley's claim for the benefits of screening costs remains speculative for two reasons. First, the uncertainty reduction caused by secured debt cannot be a central explanation for the persistent use of security because it predicts that debtors would offer to secure all their debt in order to reduce creditor uncertainty. But the evidence shows that many firms only issue unsecured debt while others hold a mix of secured and unsecured debt. See A. Schwartz & R. Scott, *supra* note 1, at 564; *infra* notes 139–45 and accompanying text. Furthermore, screening explanations, as with risk aversion and signaling hypotheses, fail to explain why creditors use security rather than other methods to reduce information search costs. See *supra* note 21.

23. None of the various methods of promoting information exchange are unproblematic. Thus, for example, financial intermediaries reduce some but not all the risks of misrepresentation by debtors. See Gilson & Kraakman, *The Mechanisms of Market Efficiency*, 70 *Va. L. Rev.* 549, 605–06 (1984). Similarly, the incentive to protect commercial reputation and good will does not completely deter the debtor from misrepresenting his financial status. See Klein & Leffler, *The Role of Market Forces in Assuring Contractual Performance*, 89 *J. Pol. Econ.* 615, 618–25 (1981). Because extra-legal sanctions will not always deter misbehavior sufficiently, parties will want to bind themselves to legally enforceable obligations. Thus, long-term financial contracts are often an optimal solution to information-based problems. See generally, Goetz & Scott, *Principles of Relational Contracts*, 67 *Va. L. Rev.* 1089, 1099–1111 (1981) (discussing specific covenants as means to enforce long-term contracts, and benefits and disadvantages of each) [hereinafter Goetz & Scott, *Relational Contracts*]. The risks of strategic behavior that attend the renegotiation of such specialized relationships can be alleviated by the *ex ante* negotiation of a compensation package that extends over the expected life of the relationship. Such a “relational” contract, however, introduces uncertainties and complexities that frustrate the parties' efforts to specify accurate and specific performance standards in advance. *Id.* at 1102.



Underlining the inadequacy of signaling or screening explanations is the possibility that information asymmetries explain the persistent use of secured credit. Assume that poorly informed creditors do not respond to the increased risk when others take security. In this case, security may persist not because of its socially beneficial effects, but because it permits informed creditors to capture wealth at the expense of other, uninformed creditors. Thus, firms may issue secured debt to protect themselves against informed creditors who expect it and to exploit uninformed creditors who neither expect it nor react to it.<sup>24</sup> But such distributional explanations are inconsistent with the observed characteristics of credit markets.<sup>25</sup> Specifically, distributional explanations predict that "firms will issue as much secured debt as possible; yet firms often borrow without security. . . . [Furthermore,] many unsecured creditors appear well informed."<sup>26</sup> As viewed through the lens of the zero sum hypothesis, therefore, the puzzle of security remains unresolved.

2. *The Costly Contracting Hypothesis.* — Both the Irrelevance Theorem and its zero sum derivative assume that the credit contract is much like any other complete contingent contract.<sup>27</sup> But recent work in agency theory leads to a competing assumption: a debtor-creditor relationship embraces a variety of risks that cannot be fully anticipated at the time of contracting.<sup>28</sup> This assumption implies that credit contracts are more complex and unmanageable than the zero sum analysis ac-

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24. Distributional explanations of secured debt were first suggested in Scott, *Bankruptcy*, supra note 18, at 2-3; Scott, *Bankruptcy, Secured Debt, and Optimal Capital Structure: Reply*, 34 *J. Fin.* 253, 253-55 (1979) [hereinafter Scott, *Reply*]; see also Schwartz, *Current Theories*, supra note 5, at 30-31 (giving example of wealth transfer from uninformed customers to secured creditors); Buckley, supra note 10, at 15-26 (discussing defenses of secured lending in bankruptcy distribution). The premise of such explanations is that some creditors (or credit markets) may not react to the issuance of security by raising their interest rates. Debtors would then bargain for secured credit because they would benefit from the lower interest rates charged by secured creditors but would not incur higher interest rates elsewhere.

25. See A. Schwartz & R. Scott, supra note 1, at 565-67.

26. See *id.*; infra subsection II.A.3.

27. A complete contingent contract is a paradigm in which parties in a bargaining situation are presumed able, at reasonable cost, to allocate explicitly the risks that future contingencies may cause one or the other to regret having entered into the executory agreement. In a complete contingent contract the only uncertainty associated with contractual results concerns the probability of the contingencies themselves and not the execution of the "instructions" imbedded in the agreement. Such a contract is the ideal of contractual reliability. See Goetz & Scott, *The Limits of Expanded Choice: An Analysis of the Interactions Between Express and Implied Contract Terms*, 73 *Calif. L. Rev.* 261, 267 (1985).

28. See Goetz & Scott, *Relational Contracts*, supra note 23, at 1092 ("relational contracts create unique, interdependent relationships, wherein unknown contingencies or the intricacy of the required responses may prevent the specification of precise performance standards") (footnote omitted); Williamson, *Transaction-Cost Economics: The Governance of Contractual Relations*, 22 *J.L. & Econ.* 233, 237, 250-53 (1979).

knowledges. The resulting "costly contracting hypothesis"<sup>29</sup> asserts that contractual mechanisms that control inevitable debtor-creditor conflicts can, in fact, increase the value of the firm.<sup>30</sup>

Several legal theorists working in this tradition have attempted to explain secured credit as a means of controlling the risk of "asset substitutions."<sup>31</sup> Thus, for example, after the credit contract is negotiated, a debtor may gamble with the creditor's money by substituting riskier business projects for the more conservative investments originally planned.<sup>32</sup> Presumably, some creditors are better able to monitor the debtor for such misbehavior than are others. Jackson and Kronman have used a monitoring advantage theory to suggest that poorer monitors take security to focus their efforts at controlling asset substitutions, while the better monitors are able to lend unsecured and exploit their comparative monitoring advantage.<sup>33</sup>

The Jackson and Kronman theory is an important and original contribution.<sup>34</sup> However, the argument yields the counterintuitive conclusion that those creditors who are typically unsecured, such as trade

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29. The term comes from Smith & Warner, *On Financial Contracting, An Analysis of Bond Covenants*, 7 *J. Fin. Econ.* 117, 121 (1979).

30. The costly contracting hypothesis (or agency-cost theory) addresses the problem of monitoring conflicts of interest between individuals who are engaged in a collective endeavor. The hypothesis is derived from Jensen and Meckling's seminal paper, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 *J. Fin. Econ.* 305 (1976). Jensen and Meckling's work was anticipated to some extent by Alchian & Demsetz, *Production, Information Costs and Economic Organization*, 62 *Am. Econ. Rev.* 777, 779-81 (1972) and, as in all things, by Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations* 700 (E. Cannan ed. 1937). There have been a number of applications of agency theory in the finance theory literature. See, e.g., Miller, *The Wealth Transfers of Bankruptcy: Some Illustrative Examples*, *Law & Contemp. Probs.*, Autumn 1977, at 39; Myers, *Determinants of Corporate Borrowing*, 5 *J. Fin. Econ.* 147 (1977).

31. See Smith & Warner, *supra* note 29, at 118-19. For a more detailed discussion of asset substitutions see *infra* notes 63-64 and accompanying text.

32. As long as the new projects have the same present value as the old ones, asset substitution has no effect on the firm's value. But the incentive for the firm's owners is to gamble on projects with negative present values. All parties share equally in losses, but the owners (after paying off the fixed debt) secure a larger portion of any upside gains. See Levmore, *supra* note 7, at 52; Smith & Warner, *supra* note 29, at 119.

33. Jackson & Kronman, *supra* note 6, at 1149-61.

34. The Jackson and Kronman argument has been further elaborated in D. Baird & T. Jackson, *Cases, Problems, and Materials on Security Interests in Personal Property* 361-67 (1984). Professors Baird and Jackson refine the comparative advantage theory in several respects. First, they incorporate Professor Levmore's free rider argument: better monitors take security interests in assets that are focal points for their specialized monitoring services. Second, they argue that these "specialized" monitors co-exist with "general" monitors. Some of these general monitors—such as local banks—remain unsecured so as to exploit their comparative monitoring advantage, while other general monitors—such as banks located in distant cities—take security in specific assets in order to reduce their higher monitoring costs. The Baird-Jackson refinements are thus analogous to the "mixed" monitoring system suggested by Professor Levmore. See Levmore, *supra* note 7, at 58-59.

creditors and employees, are better at monitoring against debtor misbehavior than are those typical secured parties such as banks and financial institutions.<sup>35</sup> Moreover, the Jackson-Kronman model fails to account for the signaling effects of security. If some creditors take security to reduce the risks of misbehavior, it is because they regard monitoring the collateral as a good proxy for continued supervision of the entire enterprise. To the extent that a debtor's efforts to increase business risks—or otherwise to cheat on the agreement—require it to convert assets, a secured creditor who merely guards against substitution of its collateral has a monitoring advantage over the unsecured creditor who presumably must continue to police the debtor's activities more expansively. But if the continued viability of the collateral provides a signal to the secured creditor, it presumably provides a signal to other creditors as well. Saul Levmore has suggested, therefore, that unsecured creditors would simply follow the secured creditor's signal and thus free ride on the monitoring efforts of security holders.<sup>36</sup> Since under the Jackson-Kronman regime secured creditors are the less able monitors, the free-rider problem implies that a system of secured credit would generate unnecessarily high monitoring costs for the creditors as a group.

As an alternative explanation, Levmore suggests that the disequilibrium produced by the tendency of unsecured creditors to free ride on the monitoring efforts of secured creditors would cause the better monitors to take security as compensation for their efforts in reducing monitoring costs for the less capable creditors.<sup>37</sup> This free-rider analysis resolves some of the empirical problems encountered by Jackson and Kronman. Most importantly, it is compatible with the intuition that banks and finance companies—parties that are typically secured—are better at monitoring the debtor than are employees and trade creditors.

On reflection, however, several problems remain unresolved. In what way does granting secured creditors priority produce a more efficient level of monitoring than would otherwise occur?<sup>38</sup> And why is

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35. A number of commentators have observed this empirical difficulty in the Jackson-Kronman analysis. See, e.g., A. Schwartz & R. Scott, *supra* note 1, at 561-62; Levmore, *supra* note 7, at 53; Schwartz, *Current Theories*, *supra* note 5, at 11 n.28.

36. See Levmore, *supra* note 7, at 53-55.

37. *Id.*; see also Smith & Warner, *supra* note 29, at 149 (discussing the free-rider problem and its possible solutions).

38. These concerns with the operational dimensions of Levmore's argument are analyzed in detail in Schwartz, *Continuing Puzzle*, *supra* note 9, at 1056-59. Schwartz concludes that "[p]ut simply, the stable, pervasive existence of personal property security is quite unlikely to be a response to the disequilibrium phenomenon of duplicate monitoring." *Id.* at 57. While Schwartz correctly notes the tentative nature of the free-riding explanation, his criticism is premised on the assumption that reduced monitoring costs is a universal explanation of secured debt. Schwartz thus neglects Levmore's central point that the freerider variable, though pervasive, is but one of the numerous forces and components that shape business ventures. See, e.g., Levmore, *supra* note 7, at

taking security superior to substitute methods of controlling debtor-creditor conflicts. The costly contracting hypothesis is a powerful analytic tool. But lacking a coherent theory for predicting when security is the optimal contractual mechanism for controlling conflict, current explanations only partially illuminate the patterns of secured and unsecured credit.

3. *The Limits of Current Theories.* — Progress toward a solution to the puzzle of secured debt has been slowed by unexamined assumptions. For instance, current monitoring cost explanations are premised on the benefits of collateral as a focal point for the creditor's efforts to discourage asset substitution or conversion.<sup>39</sup> This focal point perspective tends to emphasize the role of security interests in specific tangible assets such as equipment, even though most secured financing of business debtors involves continuing liens in generic assets such as accounts receivable or shifting stocks of inventory.<sup>40</sup> By so restricting the analysis, monitoring cost theorists have difficulty explaining the typical short-term secured loan, where ordinary market mechanisms such as reputation and good will would seem sufficient to deter asset substitutions.<sup>41</sup> In addition, it is not at all clear how the free-riding phenomenon works as applied to the focal point analysis. What assurance do the unsecured creditors have that a secured creditor will not simply repossess the collateral at a critical juncture and make itself whole while they, having diminished their monitoring efforts, remain oblivious to the onset of insolvency?<sup>42</sup>

These difficulties derive from the limitations of the key premise

76-83. Levmore leaves for others the question of how these diverse forces interact. Thus, his analysis should be taken as provocative and suggestive, rather than completely explanatory.

39. See, e.g., Jackson & Kronman, *supra* note 6, at 1153-54 (arguing that a secured creditor can focus his attention on the collateral and is free to disregard what the debtor does with the remainder of his estate); Levmore, *supra* note 7, at 58-59, 68-70, 73 (using as an example the assignment of a railroad car as a focal point for monitoring among numerous lenders and other investors).

40. See Kripke, *Law and Economics: Measuring the Economic Efficiency of Commercial Law in a Vacuum of Fact*, 133 U. Pa. L. Rev. 929, 941-46 (1985).

41. The policing effects of the market appear to be an effective substitute for monitoring short-term secured loans—the "bread and butter" of Article 9 security interests. A debtor who increases business risks after negotiating a short-term loan loses valuable good will. If the debtor plans to enter the credit market frequently, this reputational cost is likely to be quite high relative to the anticipated gains from asset substitutions. See A. Schwartz & R. Scott, *supra* note 1, at 561. These reputational restraints are, unfortunately, eroded whenever exogenous factors increase the risk of business failure. See *infra* notes 80-81 and accompanying text.

42. Buckley argues that the costs to other creditors of having to monitor the monitor and the fact that a focal point security interest reduces the better monitors' incentives to monitor, implies that security actually *increases* rather than reduces monitoring costs. See Buckley, *supra* note 10, at 27-28. I argue below that his concern dissipates once the monitoring function is expanded beyond the focal point conception. See *infra* notes 83-89 and accompanying text.

that the threat of asset substitution or conversion is the only debtor-creditor conflict regulated by security. In fact, there are many other sources of conflict between debtors and creditors. For example, the debtor may continue to expand liabilities by issuing additional risky debt. Alternatively, the debtor may pursue ill-advised ventures or, more importantly, fail to exercise the effort needed to develop profitable opportunities fully.<sup>43</sup> Quite possibly the solution to the puzzle of secured debt can be found in the parties' efforts to control these and other conflicts between managers, shareholders, and outside creditors.<sup>44</sup>

An additional barrier to further insight is the implicit assumption that security is a meaningful generic concept. But even a moment's reflection reveals this assumption as particularly problematic. Before the Code's adoption, many different patterns of asset-based financing had evolved from specific market contexts.<sup>45</sup> Suppliers of credit have historically divided the total market by range of risk, purpose of loan, and type of customer. This market segmentation may result from economies of scale in marketing, processing, and administering various types of credit. But whatever the causes, the respective portfolios of commercial banks, commercial finance companies, trade creditors, mortgage lenders, venture capitalists, and bond investors are quite different. While the drafters of the Code sought to achieve some transactional efficiency by bringing these diverse patterns under a single regulatory scheme, they may have unwittingly contributed to the current uncertainty. It is unlikely that a single explanation can rationalize all of these various forms of security. Because they are attempts at comprehensiveness, current analyses are vulnerable to criticism from competing visions. As a consequence, the existing literature fails to assemble and evaluate even the most rudimentary data on patterns of secured and unsecured lending.

### B. *The Determinants of Secured Financing*

The discussion that follows develops in some detail a conceptual

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43. See *infra* notes 63-71 and accompanying text.

44. See, e.g., Myers & Majluf, *supra* note 11, at 214 (doubting that "the managers' interests will be aligned with any outside investor's if the managers are given free rein to trade on personal account"); Myers, *supra* note 11, at 581-85 (describing pecking order theories in which firms finance in a sequence, starting with retained earnings, then secured debt, then equity).

45. Pre-Code law recognized a wide variety of security devices which came into use at various times making possible different types of secured financing. These diverse transaction-types were regulated by separate statutes, such as those governing conditional sales, trust receipts, factor's liens, chattel mortgages, crop mortgages, mortgages on railroad equipment, and assignments of accounts receivable. Differences between one device and another were manifested in formal requisites, and in the rights of the secured party against the debtor, as well as against other creditors and third parties. See U.C.C. § 9-101 comment (1978).

analysis of a particular financing paradigm. The analysis will show that certain debtors can best finance growth opportunities with private debt. Unfortunately, such debt contracts inevitably reduce the debtor's incentives to develop the business opportunity as fully as it would if the project were financed with equity. The leverage given to the creditor under a blanket (or "floating lien") security agreement ameliorates this conflict by motivating the debtor to maximize the joint interests of both the creditor and the debtor, thus enabling the parties to capture additional gains from the project. Exclusive financing agreements coupled with blanket security interests are superior to alternative mechanisms principally because they alone enable the creditor to threaten effectively to "turn off the spigot" if the debtor fails to cooperate. The external benefits of this financing arrangement derive from the valuable financial planning and coordination provided by the creditor. The financial inputs are a "public good" that will not be provided unless the creditor can structure the relationship so as to capture a share of the returns from the venture.

1. *The Case of the Investment Prospect.* — Casual observation confirms the intuition that some debtor-creditor relationships are typically unsecured, while in others security appears to be persistently used. What might explain why security is issued for some debts and not others? One obvious answer is that, all things considered, security is more attractive than available alternatives in those relationships where it is typically employed.

In order to test this simple observation consider the following hypothetical case in a world in which secured financing is prohibited. Imagine the Dunning Cabinet Company, a firm that manufactures wooden television cabinets against orders on hand.<sup>46</sup> Dunning is not a large producer and currently is equipped for production runs of about 5000 units. It produces high-priced, quality cabinets which are sold to large manufacturers of television sets for their console models. One hundred percent of the equity interest in the company is owned by the owner/manager Mr. Charles Dunning, who founded the company some twenty years ago. In January 1985, Dunning began to consider an addition to the company's single story plant which would double its production capacity. The company's customers had been pressing for production several times the operating capacity of the current \$1,000,000 annual sales volume. During 1984, orders totaling \$1.7 million from six major television manufacturers were declined. These represented initial orders only, and Dunning estimates that if these orders had been accepted, repeat business would have easily tripled these initial orders.

The Dunning Cabinet Company has operated profitably since its

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46. The case of the Duning Cabinet Company is drawn loosely from P. Hunt, C. Williams and G. Donaldson, *Basic Business Finance: Text and Cases* 743-48 (4th ed. 1971).

founding, and it has never failed to have a substantial backlog of firm orders from at least one television manufacturer. The company's trade reputation is excellent, and with adequate production facilities the company could double its sales volume. Furthermore, the market area appears to contain an ample supply of skilled wood-working labor. Dunning estimates, however, that the company would require an additional \$500,000 in order to finance the proposed expansion. It also believes further funds will be needed to increase the working capital to a level that will support the expected increase in sales volume.

The current balance and income statements of the firm reveal the following conditions. The company's sales have increased about five percent each of the preceeding five years, and small profits have been generated each year. The company's level assets and liabilities have remained stable every year. The firm's net worth is \$600,000 with a total outstanding debt of \$900,000.

In sum, Dunning Cabinet is a small, closely held company earning modest profits every year; it has a fairly sound balance sheet having only 1.5 times liabilities to net worth, and a twenty year business history. But now Dunning faces a new challenge: How can it finance this growth opportunity in order to exploit the orders that are currently being declined? There are three potential sources of additional financing. One possibility is to attempt to finance the new growth opportunity out of retained earnings. Unfortunately, the company is generating only small profits and those profits are being used to carry higher inventories and accounts receivable to sustain the annual growth of five percent. Alternatively, the company can either expand its debt or raise equity capital. Since these two methods of financing involve more complex questions, each will be analyzed in turn.

2. *The Alternative Sources of Financing.* — Raising equity capital either through private investors or the public markets appears to be an attractive financing alternative. For various reasons, however, most small to medium sized companies such as Dunning will not pursue this means of financing growth opportunities.

In the first instance, seeking private investors has a number of practical disadvantages. In order to make the investment sufficiently attractive to raise the desired capital, the owner/manager must frequently relinquish substantial control over his enterprise. This is because the addition of equity owners who do not share control over the venture generates significant conflicts that reduce the value of the prospect to the potential investor.<sup>47</sup> Once the equity interest has been sold, the owner/manager has an incentive to "chisel" when computing the profits that now must be divided among other shareholders. He may

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47. See Jensen & Meckling, *supra* note 30, at 349. The smaller a manager's share of the firm, the greater is the conflict of interest between the interests of the manager and those of outside equity claimants. In addition to chiseling, the manager may also shirk on those obligations where returns are shared by the other owners of the firm.

“pad” costs, disguising true returns and denying profits to the minority shareholders, or divert his efforts to activities, such as leisure, where the benefits are not shared. For instance, the manager may provide himself with unnecessary amenities or an unwarranted salary. Of course, gross abuses are relatively easy to detect. But often self dealing and shirking can take a variety of forms that are difficult to discover.<sup>48</sup> Because the “agency costs” that result from these conflicts will be borne fully by the owner/manager as a reduction in the value of the investment opportunity, the entrepreneur has an incentive to select a less fractious method of financing.<sup>49</sup>

One possible alternative is to sell equity through public markets. A well-developed public market controls many of the conflicts that plague private equity investments. Managerial misbehavior is regulated by a combination of market and legal mechanisms: the labor market for managers,<sup>50</sup> the capital market and the traded value of shares,<sup>51</sup> the

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48. For an analysis of the analogous conflict that is generated by any profit-sharing pricing mechanism in a franchise, patent license, or other distribution relationship, see Goetz & Scott, *Relational Contracts*, supra note 23, at 1107–08. In addition to chiseling and shirking, managers are concerned with protecting their human-capital investment in the firm and thus tend to be shortsighted. This myopia will often conflict with the broader, long-term interests of residual claimants. See, e.g., Jensen & Meckling, *Rights and Production Functions: An Application to Labor-Managed Firms and Codetermination*, 52 *J. Bus.* 469, 481–84 (1979).

49. See Jensen & Meckling, supra note 30, at 323–26. Jensen and Meckling were the first to establish rigorously that contracting parties’ incentives to economize on transaction costs are reciprocal. Because the failure of the owner/manager to achieve an optimal level of performance will be borne fully by the owner/manager as a reduction in the value of his services, both parties have a parallel incentive to narrow the divergence between ideal and actual performance by selecting an appropriate mix of monitoring and bonding arrangements.

50. Manager misbehavior is controlled, in the first instance, by the managerial-labor market. Competition among managers of different firms tends to ensure a competitive compensation package. Furthermore, reputational costs will reduce the human capital value of a manager whose performance generates costly conflicts with residual interests. See Fama, *Agency Problems and the Theory of the Firm*, 88 *J. Pol. Econ.* 288 (1980).

In addition to the “external” labor market for managers, there is also an internal labor market that generates incentives for intra-firm control. Managers within a firm will monitor other managers, not only vertically from the top of an organization down, but horizontally as well. Thus, managers at the same level and even below have incentives to monitor others in the market, both because of the interdependence of their activities and because of the prospect of “leap frog” advancement. See Alchian & Demsetz, *Production, Information Costs, and Economic Organization*, 62 *Am. Econ. Rev.* 777, 782 (1972); Fama & Jensen, *Agency Problems and Residual Claims*, 26 *J.L. & Econ.* 327, 332 (1983); Jensen & Smith, *Stockholder, Manager and Creditor Interests: Applications of Agency Theory* (University of Rochester, Graduate School of Management, Working Paper Series No. MERC 84-03).

51. When determining the price to be paid for the firm’s shares, potential investors are motivated to anticipate conflicts between managers and outside shareholders. These forces induce the firm to establish mechanisms that will reduce costly deviations from optimal behavior. See Jensen & Smith, supra note 50, at 15–16.



market for takeovers and acquisitions,<sup>52</sup> as well as an elaborate internal regulatory apparatus.<sup>53</sup> For many firms, therefore, public equity markets provide an attractive and cost-effective method for financing the kinds of opportunities that Dunning faces. Unfortunately, small businesses such as Dunning cannot readily sell new equity in the capital markets. Access to public markets requires a substantial initial investment in a variety of professional services. The costs of investment bankers, securities lawyers, and accountants raise substantial barriers to entry into financial markets for firms with modest financing needs.<sup>54</sup> These firms are motivated instead to raise additional capital by issuing more debt.

Long-term public debt is subject to the same entry barriers that deter access to public equity markets.<sup>55</sup> Moreover, if the firm used long-term debt to finance a short-term growth prospect, it would incur a larger interest bill than necessary to finance the venture.<sup>56</sup> On the other hand, short-term private debt can be structured to coincide with the business needs of the debtor. There is easy access to a competitive market without costly investment in ancillary financial services, and the entrepreneur retains residual ownership and control over the firm. Though the precise costs and benefits cannot be predicted, for important classes of transactions private debt is thus the most efficacious financing strategy.

3. *Relational Financing: The Benefits of Exclusive Control.* — Assume that Dunning approaches several banks seeking to borrow some or all

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52. The market for "corporate control" permits alternative management teams to search out and acquire mismanaged firms. The free transferability of common stock permits outside competing managers to bypass current management and take over the rights to manage the firm's resources. These rights can be acquired through merger negotiations, tender offers, proxy solicitation, or direct solicitation of stockholders. See Jensen & Ruback, *The Market for Corporate Control: The Scientific Evidence*, 11 *J. Fin. Econ.* 5, 6 (1983); Manne, *Mergers and the Market for Corporate Control*, 73 *J. Pol. Econ.* 110, 112-14 (1965).

53. The public corporation has a number of internal control devices that reduce conflicts between managers and shareholders. For example, a board of directors that ratifies and monitors the firm's decisions and hires and compensates managers represents a means of separating management from control so as to reduce opportunities for misbehavior. Hierarchical organizational structures in which initiatives rest with junior management and ratification and implementation with senior officers have a similar function. These structures also serve to diffuse specific knowledge relevant to decision-making among many managers, further strengthening the internal control apparatus. See Fama & Jensen, *Separation of Ownership and Control*, 26 *J.L. & Econ.* 301, 309-11 (1983); Jensen & Smith, *supra* note 50, at 10-13.

54. One source estimates that the price of "going public" increased from \$50,000 to \$75,000 in the 1960s to \$200,000 to \$250,000 by 1981. Furthermore, these costs were for registration, legal and accounting fees, printing, etc. and did not include the underwriter's share. See Kaye, *Commercial Financing: A Tight Money Strategy for Smaller Companies*, *Mgmt. Rev.*, Feb. 1981, at 17, 17.

55. *Id.*

56. A. Schwartz & R. Scott, *supra* note 1, at 509-10

of the \$500,000 investment. In order to clarify the decisionmaking process, assume initially that the parties can costlessly enforce any credit terms on which they may agree. Assume further that the proposed expansion by Dunning is a firm-specific opportunity; that is, if the opportunity is not developed, the firm cannot "sell" any rights in the prospect to third parties. But the firm can, in effect, sell the development rights to prospective lenders. Indeed, since the firm can only repay the debt out of the proceeds of the new venture, it is appropriate to conceive of the debt contract as the sale of a financing opportunity.

Initially, Dunning must decide whether to conduct an auction, selling "pieces" of the prospect to the highest bidders, or to sell the entire claim to a single creditor. Much like a technological innovation, optimal development of a business venture requires coordination in order to fashion an ideal sequence of inputs. If the development rights are divided among competing firms, the prospect may be poorly developed.<sup>57</sup> Any single creditor will be reluctant to invest in long-term development where the benefits of such long-range planning may be captured by its competitors. Many business ventures, moreover, require precise timing and coordination of investment decisions—such as when to build up inventory or when to invest in capital expansion—in order to realize fully the anticipated gains. Competition between creditors for priority rights may result in premature or suboptimal development of the prospect.<sup>58</sup>

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57. The social benefits of exclusive control over technological opportunities were first shown by Barzel, *Optimal Timing of Innovations*, 50 *Rev. Econ. & Statistics* 348, 351–52 (1968). See also Kitch, *The Nature and Function of the Patent System*, 20 *J.L. & Econ.* 265, 275–80 (1977) (introducing the idea into the legal system and applying it to the patent system).

58. This key proposition can be illustrated by an example derived from Barzel, *supra* note 57. Assume that an initial fixed investment of \$500 (in monitoring, loan administration, etc.) is necessary to pursue a firm-specific growth opportunity. Thereafter, the creditor earns a net premium of 5% over the 10% competitive rate of return on all subsequent advances to the debtor. Suppose that the opportunity would require advances of \$600 if pursued in year 1, and that subsequent growth would cause advances to increase by \$200 in each successive year. Table 1 then shows the three alternative earning streams for the creditor.

Table 1

| Year                                | 1   | 2   | 3   | 4   | 5   | 6   | Total |
|-------------------------------------|-----|-----|-----|-----|-----|-----|-------|
| 1. Investing Immediately            | 90  | 120 | 150 | 180 | 210 | 240 | 990   |
| 2. Competitive Investment Elsewhere | 110 | 130 | 150 | 170 | 190 | 210 | 960   |
| 3. Optimal Investment               | 110 | 130 | 150 | 180 | 210 | 240 | 1020  |

Obviously, a creditor will be better off by selecting the third option: postpone the investment outlay until year 4, thus earning the maximum return. But unless the creditor can restrict entry by competitors, his desire for additional profit will lead him to invest in year 1 and thus capture the opportunity. Unfortunately, the premature action motivated by competition generates a social loss of \$30.

The logic that underlies this example is simple: if the output of the growth opportunity expands over time, the prospect will become progressively more profitable, since the fixed cost of pursuing the project initially is independent of the output while the

The optimal development of any growth opportunity thus requires that a single creditor retain the exclusive control over the financing of the investment. Since repayment of the debt will be made from the proceeds of the contemplated expansion, if a single bank controls the development of the entire project it can retain a first option on a share of *all* of the proceeds received by the debtor.

Assume, for example, that the unique benefits of exclusive control motivate Dunning to sell the exclusive rights to the financial opportunity to First Bank in exchange for a line of credit up to \$500,000 and associated expertise and financial guidance. Under the terms of such an agreement, the bank will receive an interest premium above the competitive rate of return on all loans committed to the project. Thus, the greater the volume of business activity generated by the debtor, the more the economic rents earned by the bank.<sup>59</sup> Such an arrangement is not a joint venture in the technical sense because the parties do not share the profits. Nonetheless, it is a venture in which the parties share joint interests in the same sense as any licensing or franchise agreement in which one party is paid a commission or royalty based upon the volume of business activity undertaken by another. Presumably, Dunning will agree to pay such a premium precisely because the arrangement encourages the exclusive financier to supply the financial management and other inputs necessary for optimal development of the prospect.<sup>60</sup> The bank's efforts to enhance its own return will enhance the success of the venture.

Once the exclusive financing contract has been negotiated, the parties will confront the need to cooperate in fully developing the prospect. In order to achieve the profit-maximizing return, the parties must commit an optimal amount of *both* financial *and* operational inputs to the venture. This means that each party must now act as if it owned *all* of the property rights in the prospect. Only by a mutual exchange of "best efforts" can the optimal level of both financial and operational

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interest payments are proportional to the output. See Barzel, *supra* note 57, at 348-49; Schmookler, *The Level of Inventive Activity*, 36 *Rev. Econ. & Statistics* 183, 190 (1954).

59. The bank earns a premium—a super-competitive return—on the venture, because the exclusive financing agreement increases the opportunity cost to the debtor of the next best available financing substitute. See Klein, Crawford & Alchian, *Vertical Integration, Appropriate Rents, and the Competitive Contracting Process*, 21 *J.L. & Econ.* 297, 299 (1978). To be sure, the initial bidding by the various potential lenders will produce a competitive "price" for the exclusive financing rights. But this price will take into account the prospective economic rents from relational financing.

60. The bank's premium over the competitive rate is tied to the output of the growth opportunity, since as the output of the opportunity expands so do the advances necessary to support it. Thus, the bank has an incentive to provide ancillary services that will increase output. The parties' interests are not perfectly linked, however. Because the bank's return is tied to output and not profits it will predictably supply less than the full effort necessary to maximize the joint interests from the venture. The bank bears the full cost of financial management, but any benefits in excess of the agreed-upon return are retained by the debtor.

inputs be produced. This is because each party's returns are dependent on the other party's efforts. Fortunately, at the time the debt contract is negotiated, the parties share a mutual interest in fully developing the prospect. By maximizing the joint returns from the venture, the individual shares are similarly enhanced. In such cooperative ventures, therefore, the efficient debt contract would provide that each party "pay" the other to undertake the optimal level of the respective activity. In a world in which such contracts could be costlessly enforced, this exchange of efforts offers the parties the opportunity to exploit fully the returns from their mutual venture.<sup>61</sup>

4. *Conflicts of Interest: A Typology of Debtor Misbehavior.* — Assume now that the exclusive financing contract between Dunning and First Bank is subject to the normal contracting costs of negotiation and enforcement. How does the introduction of costly conflicts affect the preceding analysis? Although mutual cooperation offers both parties the opportunity to obtain the maximum benefits from the contemplated expansion, actually securing those gains in costly environments poses vexing contractual dilemmas. Once the agreement has been negotiated, critical conflicts of interest threaten to dissipate the anticipated gains from the new opportunity. Monitoring cost theories focus typically on only two types of actions misbehaving debtors take that undermine the relationship.<sup>62</sup> But, in fact, at least four distinct debtor-creditor conflicts can be identified.

A widely-recognized conflict is the danger that, once the agreement is concluded, the debtor will increase the riskiness of the prospective business venture.<sup>63</sup> Such "asset substitutions"<sup>64</sup> occur because debt financing permits the debtor to gamble with the bank's funds. If the venture is successful, all the returns in excess of the fixed debt accrue to the debtor. If the venture fails, the debtor and the creditor share the loss. Thus, the debtor is motivated to select high-risk, high-return projects.

Debtors may also misbehave in a more odious fashion by converting business assets to private use. As with any agent who has control over another's property rights, the debtor may be motivated to

61. See Goetz & Scott, *Relational Contracts*, supra note 23, at 1109–11.

62. See supra notes 31–45 and accompanying text.

63. See, e.g., Levmore, supra note 7, at 52–53; Jackson & Kronman, supra note 6, at 1149–50; Smith & Warner, supra note 29, at 118.

64. The economists' designation of this type of debtor misbehavior as "asset substitution" can be misleading. The term, properly used, refers to any changes in a firm's investment policy or business projects that increase the variability of the firm's assets. See Smith & Warner, supra note 29, at 117–18. Frequently, the debtor's strategy will be to "put all his eggs in a single basket" by undertaking investments that increase the covariance of the firm's assets. See generally Black & Scholes, *The Pricing of Options and Corporate Liabilities*, 81 *J. Pol. Econ.* 637 (1973) (establishing the relevance of variability to firm value).

steal. Most commonly, this involves syphoning assets from the cooperative venture to activities that are wholly owned by the debtor.

A third conflict is the threat that the debtor may dilute the creditor's claim. For instance, Dunning might be tempted to issue additional risky debt that will compete with the claim of the initial lending bank in any distribution of assets upon default. Particularly where this additional debt is used to pursue high-risk, high-return business opportunities, the debtor is able to increase the value of the residual equity claim while diluting the claim of various holders of the firm's debt.<sup>65</sup>

The first three debtor-creditor conflicts are present in all debt contracts. But the vexing problem of underinvestment (or inadequate effort) is peculiar to exclusive financing contracts. Once the debtor sells a portion of the payoffs of the new project, the entrepreneur loses some of his incentive to pursue the project vigorously. Instead, efforts will be diverted to activities such as leisure or alternative investments where all the returns are retained by the debtor. The underinvestment conflict means that firms that finance growth prospects with risky debt will fail to exploit fully their investment opportunities even though further effort could make a positive net contribution to the firm's market value.<sup>66</sup>

This point can be illustrated by a simple example. Let  $Vp$  represent the marginal returns from the growth prospect to the firm,  $I$  the marginal investment necessary to continue to develop the opportunity, and  $P$  the marginal interest payment to the creditor. If Dunning opts for equity financing, then it is obvious that the owner/manager will continue to pursue the growth opportunity until  $I = Vp$ , thus ensuring that the prospect is fully developed. However, assume that the investment is financed through the contemplated debt contract with the First Bank. From the perspective of the owner/manager, the opportunity is now worth developing only until  $I + P = Vp$ . In other words, the returns from the growth prospect must now be greater than (or equal to) the sum of the required investment outlay *and* the promised interest payment to the creditors.<sup>67</sup> This is the point where the debtor's own profits are maximized. The requirement that Dunning pay interest to the bank on the additional investment thus separates their interests. The bank would urge additional investment since it earns an interest premium on the additional debt. Unfortunately, the debtor's self-interest

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65. See Smith & Warner, *supra* note 29, at 118.

66. The underinvestment problem was first analyzed by Stuart Myers. Myers suggested that growth opportunities were analogous to call options. The value of these options depends on whether the firm uses them optimally. But if the firm has outstanding risky debt, situations can arise in which stockholders do not benefit even from highly profitable investment decisions, because the benefits go primarily to the debtholders. In these instances, the "options" may not be exercised at all, and the firm's value is accordingly reduced. Myers argues that firms can control this conflict by matching effective maturities of assets and liabilities. See Myers, *supra* note 30, at 163-70.

67. If  $I + P > Vp$  and the investment in the growth opportunity is still pursued, the owner/manager's outlay will exceed the market value of his shares.

will motivate him not to invest further in the project even though  $I < Vp$  and the additional gains remain unexploited.<sup>68</sup>

The underinvestment phenomenon is merely an illustration of the general principle that an agent will systematically fail to exercise the effort necessary to maximize the joint product where a part of the returns must be repaid to the principal in the form of a fixed royalty or commission.<sup>69</sup> Such arrangements skew the congruence of interest between debtor and creditor concerning the appropriate level of effort to be expended in developing the venture. Once the debtor's return is reduced by a fixed repayment to the creditor, there is an inherent conflict of interest between the parties over the profit-maximizing investment strategy. The owner/manager's self interest will induce him to invest less in the growth opportunity (and instead pursue alternative projects that are wholly owned) than the creditor's interest would demand.

How can these conflicts be reduced without the use of security? Both the bank and Dunning have an incentive to structure their debt contract so that possible stresses are controlled. This requires cost-effective monitoring or bonding mechanisms.<sup>70</sup> Monitoring methods include direct supervision through audits and inspections as well as incentive systems designed to reduce conflicts of interest. These arrangements are costly to both parties, however, and such costs are reflected in the terms of the original loan. Thus, the interest rate may be improved by substituting reassurances of performance by the debtor in the form of bonding provisions. Among the variety of possible bonding arrangements are negative loan covenants, self-imposed ethical standards of behavior, performance bonds and unilateral termination clauses.<sup>71</sup> While the precise mix of monitoring and bonding

68. The divergence of interests results from the fact that the debtor regards the interest payment ( $P$ ) as a cost and thus he will pursue the prospect only until his marginal costs ( $I + P$ ) are equal to his marginal revenues ( $Vp$ ). If the debtor were to invest beyond this point, his own profits would be reduced. From the perspective of the joint interests of both parties, however, the interest payment is not a cost but merely a distribution of the returns, thus the mutual interests would be enhanced if the debtor continued to invest until the joint product is maximized at  $I = Vp$  even though  $I + P > Vp$ . In an ideal world, the debtor would agree to the greater undertaking, even though at the time of the investment it represents a loss to the debtor, because the bank would be willing to agree in advance to a compensatory contractual concession through which the two parties can split the additional profits generated by the greater investment. See Goetz & Scott, *Relational Contracts*, supra note 23, at 1112-26.

69. See *id.* at 1112-19.

70. The parties are motivated *ex ante* to minimize net expected agency costs. Thus, they will expend resources in monitoring or bonding only so far as these efforts are cost-effective in controlling misbehavior.

71. The list is illustrative and not exhaustive. See *infra* notes 89-93 and accompanying text. Moreover, the parties are also concerned with mechanisms designed to minimize misbehavior by the creditor. See *infra* notes 93-98 and accompanying text.

measures cannot be predicted, we can examine the efficacy of the various options open to the parties.

5. *Loan Covenants: The Limits of Contingent Contracting.* — One response to conflicts between creditor and debtor is to negotiate a complete contingent contract,<sup>72</sup> in which the debtor's obligations are clearly specified and appropriate sanctions agreed upon. Clearly stated rules of behavior facilitate both the detection and penalizing of actions that violate the agreement.<sup>73</sup> Indeed, contingent contracts are widely used in many contexts. For instance, publicly traded debt instruments all incorporate standard form indentures and an elaborate laundry list of negative covenants that prohibit suspect activities.<sup>74</sup> Similarly, loan covenants in term loans typically forbid the debtor from either incurring additional debt or issuing dividends without permission, and place restrictions on future investment policy, mergers, and similar activity.<sup>75</sup> Unfortunately, two problems limit the efficacy of negative covenants. First, these obligations are not self enforcing. The creditor must use the state's cumbersome and error-prone enforcement mechanism in order to impose a sanction for breach.<sup>76</sup> Second, even the most elaborate

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72. See *supra* note 27.

73. See Goetz & Scott, *The Mitigation Principle: Toward a General Theory of Contractual Obligations*, 69 Va. L. Rev. 967, 977-78 (1983) (unambiguous, categorical statement of performance responsibilities reduces the risk of evasion of contractual obligations) [hereinafter Goetz & Scott, *The Mitigation Principle*].

74. See American Bar Foundation, *Commentaries on Model Debenture Indenture Provisions*, apps. B & C (1971) [hereinafter *Commentaries*]; Committee on Developments in Business Financing, A.B.A. Section of Corporation, Banking, and Business Law, *Model Simplified Indenture*, 38 Bus. Law. 741 (1983); Smith & Warner, *supra* note 29. The standard form indenture covenants are incorporated by reference into the terms of publicly traded debt securities. See U.C.C. § 8-202(1) (1978). The most commonly used covenant, found in even the highest rated bonds, is the negative pledge clause. This clause forbids the debtor firm from issuing subsequent secured debt that will rank ahead of unsecured debentures. A companion covenant restricts sale-leaseback transactions. See McDaniel, *Are Negative Pledge Clauses in Public Debt Issues Obsolete?*, 38 Bus. Law. 867, 867 (1983). There are a number of other covenants whose frequency of use are inversely related to the rating of debentures. Typical negative covenants include restrictions on investment in other firms, bulk sale of assets, mergers, the payment of cash dividends, and the issuance of additional debt. Less frequently seen are affirmative covenants that either require the debtor to maintain working capital above a minimum level or to maintain the firm's tangible assets. See *Commentaries, supra*, at 450-56; Smith & Warner, *supra* note 29, at 125-40.

75. Short-term loans from commercial banks or other institutional lenders invariably have a negative pledge clause in addition to restrictive covenants. See Arnold, *How to Negotiate a Term Loan*, Harv. Bus. Rev., Mar.-Apr. 1982, at 131, 133; Castle, *Term Lending: A Guide to Negotiating Term Loan Covenants and Other Financial Restrictions*, J. Com. Bank Lending, 26, 32 (Nov. 1980); *Commentaries, supra* note 74, at 349-67 (debentures); McCann, *Term Loan Handbook* (1983); Zimmerman, *An Approach to Writing Loan Agreement Covenants*, J. Com. Bank Lending 2, 14 (Dec. 1975).

76. The typical debt contract will include a clause that accelerates the entire obligation once a covenant has been breached. In order to recover the amount owed, however, the creditor must first obtain a judgment and then have the state execute against the debtor's assets. Priority in the debtor's assets will typically date only from the time a

restrictive covenants only respond to three potential conflicts: asset substitution, conversions and claim dilution. Negative covenants are not effective in controlling the conflicts over growth opportunities. The underinvestment problem does not involve a prohibited action but rather the failure to take an action. The failure to undertake or fully to pursue a valuable investment prospect is an opportunity cost and thus not well policed by specific prohibitions. Indeed, the indicia of inadequate effort are complex and uncertain and cannot be fully anticipated in advance.<sup>77</sup>

A complete contingent contract is thus not a feasible contracting mechanism for controlling the underinvestment conflict. One response to this dilemma is to define the respective obligations in general terms. For instance, the parties might agree that Dunning is to use his best efforts to fully develop the growth prospect, and that the bank will have the right to terminate the venture and call the loan whenever it deems itself "insecure."<sup>78</sup> Unfortunately, because these obligations are stated in general terms, the parties now confront even more difficult problems with detection and enforcement.

6. *Short-Term Financing: The Limits of Sequential Contracting.* — The problem of enforcing general standards of behavior is exacerbated because the exclusive financing arrangement removes the parties from the constraints of the competitive market.<sup>79</sup> One alternative is to finance the prospect through a short-term revolving loan. This appears at first glance to be an optimal solution. Debtors such as Dunning will have to reenter the financial market periodically to support their investment. The need to maintain a market reputation and goodwill thus acts as an effective check on various types of misbehavior.<sup>80</sup>

But several problems mar the utility of sequential contracting solu-

judgment or execution lien is acquired (usually, for example, by sheriff's levy). Enforcement of the lien requires a sheriff's sale, or other state-regulated liquidation procedure. To be sure, legitimate fears of either asset substitutions or conversions are grounds for an ex parte attachment procedure, but speed and the element of surprise are imperiled by the demands of procedural due process. See generally, Scott, *Constitutional Regulation of Provisional Creditor Remedies: The Cost of Procedural Due Process*, 61 Va. L. Rev. 807 (1975).

77. See Smith & Warner, *supra* note 29, at 129-31.

78. See, e.g., Goetz & Scott, *The Mitigation Principle*, *supra* note 73, at 984-86 (discussing best-efforts provisions among options available to establish a general standard of obligation).

79. An exclusive dealings contract exposes a party (for example, a debtor or a creditor) to the risk that its contracting partner will fail to extend the best efforts that were promised. Furthermore, the absence of a competitive market forecloses an important means of monitoring debtor misbehavior. See Goetz & Scott, *Relational Contracts*, *supra* note 23, at 1103-05.

80. Market reputation may well be a more effective restraint on misbehavior than any restrictive covenants. If a debtor creates too much secured debt, pays out too much in dividends, or fails aggressively to pursue projects with a positive present value its bond rating will be lowered, and its borrowing costs will rise. Many publicly traded firms, for instance, seek a debt level that will result in a bond rating of *A* or better. See



tions. There is, in the first instance, an unfortunate synergy between the risk of business failure and the risk of the various types of misbehavior. As the probabilities of business failure increase, so do the debtor's incentives to engage in high risk or wrongful conduct designed to salvage the sinking enterprise. As long as the debtor's business prospects remain good, a strong reputational incentive deters misbehavior. But once the business environment deteriorates, the owner/manager is increasingly influenced by a "high roller" strategy. The poorer the prospects for a profitable conclusion to the venture, the less the entrepreneur has to risk and the more he stands to gain from imprudent or wrongful conduct. For instance, the debtor may now be motivated to convert assets in order to milk the dying operation of cash reserves. Alternatively, under the pressure of failure, the debtor may engage in highly perilous strategies for renaissance. Most commonly perhaps, the debtor may substitute and juggle assets, hoping that with time and an improved business environment the enterprise will recover. In the language of game theory, the enhanced risk of business failure changes the environment from an iterated or an ongoing exercise in mutual cooperation to a single shot or end game strategy. Once business failure looms, market and reputational constraints recede as important factors restraining debtor misbehavior.

In addition to the limits of the market as a restraining influence, the use of sequential contracting imposes costs that may offset its benefits. Sequential, short-term contracting does permit the parties to specify more precisely the types of disfavored behavior that the debtor should eschew. But the process of renegotiation poses new problems. One of these is the possibility that over the life of the financing relationship the parties will make contract-specific investments in the venture. As specialization occurs, each party becomes more vulnerable to strategic demands by the other. When the debt arrangement is renegotiated, the bargaining stakes are greater and both parties have incentives to use strategic or opportunistic behavior in order to secure a larger slice of the enhanced contractual "pie." Continuance of the original relationship becomes increasingly desirable in order to exploit the accrued specialization advantages, but the division of these gains must be bargained out in a non-competitive environment.<sup>81</sup>

Not only does the use of sequential contracting impose worrisome renegotiation dilemmas, but it also impairs the very benefits that led the debtor to sell exclusive control of the financing opportunity. To develop the investment optimally, the creditor must be assured of control over the venture during the life of the transaction. The threat of competing financiers encourages the creditor to develop the prospect too quickly, thus securing short term gains at the expense of greater

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McDaniel, *supra* note 74, at 871-72; Piper & Weinhold, *How Much Debt is Right for Your Company?*, *Harv. Bus. Rev.*, July-Aug. 1982, at 106, 111.

81. Goetz & Scott, *Relational Contracts*, *supra* note 23, at 1100-01.

long-term returns to the enterprise as a whole.<sup>82</sup>

### C. *The Function of Security*

1. *Beyond Conventional Wisdom.* — Assume now that the parties are able to contract for a secured loan arrangement. How does the introduction of security affect the financing relationship? The conventional view of security is that it functions as a priority claim to designated assets, thus protecting the creditor's investment should the debtor default.<sup>83</sup> Under this narrow conception, security serves no clearly identifiable role in resolving the relational dilemma. Even with a priority claim to specific assets, no rational creditor would finance a prospect, the proceeds of which are the source of repayment, where the creditor knows that some or all of the growth opportunity will not be realized. Indeed, the conventional focus on security as a method of protecting against default tends to obscure the possibility that security instead serves to enhance the many more frequent instances in which the business venture succeeds.

Monitoring cost theorists have expanded the traditional conception of security by linking it to the creditor's attempt to control debtor-creditor conflict through monitoring.<sup>84</sup> But the focus on asset substitution and conversion has similarly deflected the analysis. If all the creditor is doing is watching focal points (such as a key piece of equipment or specific items of inventory) in order to facilitate supervision of the debtor, then security offers only marginal advantages over traditional loan covenants. After all, even without security the creditor can still scrutinize the debtor for evidence of misbehavior.<sup>85</sup> Furthermore, the focal point conception of security does not address the underinvestment problem at all. Focusing monitoring efforts on particular items of collateral may well aid in reducing the risk of asset substitutions, but it offers no assistance in encouraging greater efforts from the debtor who fails to pursue fully the planned expansion. A creditor who carefully

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82. See *supra* notes 57–61 and accompanying text.

83. See, e.g., Jackson & Kronman, *supra* note 6, at 1143, 1147–48 (should debtor become insolvent, security permits a creditor to appropriate as much of its collateral as is necessary to satisfy its claim); Schwartz, *Current Theories*, *supra* note 5, at 7 (same).

84. See *supra* notes 31–45 and accompanying text.

85. A careful reader might object that this argument misses the free-rider insight. If there were insufficient monitoring without security, creditors would be encouraged to monitor if granted a security interest in the debtor's assets. In turn, the other creditors would want to know that the secured parties' monitoring efforts does them some good. Thus, the argument goes, the security interest in a focal point would satisfy both of these objectives. See Levmore, *supra* note 7, at 53–55. But the key assumption is that without security the level of monitoring would be inadequate. Such an assumption is implausible so long as monitoring activity is tied to focal points. See Schwartz, *Continuing Puzzle*, *supra* note 9, at 1057–58. If monitoring behavior is freed from the focal point perspective and examined as a pervasive activity, the free rider insight can be rehabilitated. See *infra* notes 89–91 and accompanying text.

monitors a specific piece of equipment will still not know whether the equipment is being used productively.

What is required, therefore, is a broader conception of the means by which security acts to control debtor-creditor conflict. Assume, for example, that First Bank does not take a security interest in a lathe or in Dunning's inventory of finished cabinets in the warehouse. Assume instead that the parties agree that First Bank is to have a security interest in all of the debtor's accounts receivable and inventory presently held and after acquired. The interest will secure a current commitment of \$250,000 as well as all future advances even where the subsequent advances are made without commitment. Any student of Article 9 will understand that this is no extraordinary transaction. Indeed, rather than the security interest in specific focal points, the "floating lien" in a general pool of assets securing both present and future advances is *the* financing paradigm underlying Article 9.

By granting the exclusive financing creditor a blanket security interest, the debtor is better able to sell claims to the payoffs of the new project. Thus, not only does the creditor purchase an investment in the venture (in the form of an interest premium), but also a specific claim to the resulting accounts. Beyond the familiar notion of security as an asset cushion upon default, this relational security arrangement serves two related functions that enhance the prospects for a successful venture. First, combining exclusive financing with a blanket security interest provides the creditor with critically important leverage or strategic influence over the debtor's operational decisions. Second, relational security serves as a credible commitment, evidencing the debtor's resolve to develop the prospect fully. Each of these functions needs to be separately analyzed.

2. *Leverage: The Value of Strategic Influence.* — Relational security serves the obvious function of controlling the various types of active misbehavior by debtors. Thus, for example, a security interest in all the debtor's accounts and inventory supports the creditor's efforts to deter conversions, improvident risky business ventures, and the dilution of the claim through wrongful issuance of subsequent debt. These risks are well-understood, however, and often can be curtailed equally well by substitute measures such as restrictive loan covenants. Much less obvious is the phenomenon of leverage.<sup>86</sup> By taking an interest that wraps around the debtor's business, the bank gains important influence over the debtor's strategic planning and operational decision making. The creditor's power comes from the ability to veto any proposed actions by withdrawing either financing or assets from the enterprise. A floating lien that supports an exclusive option to make future advances gives the creditor the power both to seize the debtor's assets (for exam-

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86. I use the term "leverage" in this Article in its traditional sense: the power gained by using a lever to apply force at one point in order to exert greater force at a second point.

ple, through self-help repossession, and direct collection)<sup>87</sup> and to terminate the financing necessary for the operation of the business. This power to “turn off the spigot” permits quick and decisive responses to the threat of disfavored behavior.<sup>88</sup> As with any lever, the power to prevent a disfavored action generates the power to compel a second, desired action.

Leverage is important to the creditor in two respects. First, it mitigates the problem of end game behavior by debtors facing default. The synergy between the risk of business failure and the risk of misbehavior diminishes the reputational restraints that short-term financing exerts. To the extent that business failure is a product of managerial incompetence, leverage permits the creditor to ensure that strategic planning is not ill-advised or ill-conceived. Economies of scale give the relational creditor a particular advantage in financial planning and the coordination of investment decisions.<sup>89</sup> In addition, leverage encourages the debtor to develop projected investment opportunities fully and thus has a unique role in solving the underinvestment dilemma. Relational security arrangements enable the creditor to influence the nature and timing of the debtor’s production inputs. Insufficient or misdirected efforts are extraordinarily difficult to detect and to sanction. While the creditor must continue to monitor the debtor’s activities to discover such errors of omission, the leverage of blanket security encourages prompt compliance when such errors are uncovered. Thus, even under severe time constraints the relational creditor can ensure that production is increased, or inventory built up, or even that the order and timing of raw material inputs is reconsidered. In each case, the creditor’s influence comes from the extraordinary potency of the combination of exclusive financing and blanket security.

3. *Credible Commitments: Security as a Hostage.* — In order to exercise leverage the relational financier must monitor the debtor’s operational decisions. Direct supervision of these activities involves substantial administrative costs in hiring investigative personnel, training auditors, etc. When monitoring costs, such as direct supervision, are high rela-

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87. See, e.g., U.C.C. §§ 9-502 & 9-503; *infra* notes 202–11 and accompanying text.

88. The power of the lever derives from the combination of exclusive financing and blanket security. The exclusive financing creditor whose blanket security interest extends to both present and future advances can effectively cut the debtor off from alternative financing, unless a second lender is prepared to refinance the entire venture. See *infra* note 192. Furthermore, secured creditors have the right to declare default and proceed directly against the collateral without judicial process. See *infra* notes 202–11 and accompanying text.

To be sure, the right to foreclose on the collateral is available to all secured creditors. But exclusive floating liens offer a unique *combination* of control over financing and over the debtor’s assets. Thus, the creditor can effectively shut down the business—at least temporarily.

89. See *infra* notes 170–75 and accompanying text.

tive to actions by the debtor that reassure the creditor, both parties will agree *ex ante* to substitute cost-effective bonding alternatives.

The relational security device serves the additional function of a bond given to ensure faithful efforts toward accomplishing the venture.<sup>90</sup> By offering his assets as a hostage,<sup>91</sup> the debtor invites the creditor to exercise actual operational control should he default on the agreement. For all practical purposes, the entrepreneur places his business in escrow, with the creditor serving as the escrow agent. The effectiveness of the bond derives from the severity of the sanction should any misbehavior be detected. This form of reassurance is particularly appropriate where the risk of misbehavior is difficult to detect as in the case of inadequate efforts or underinvestment. The debtor agrees to the arrangement because the threat of legal liability similarly constrains the creditor from misbehaving. Although the creditor retains the *power* to exercise control should the debtor misbehave, there are significant costs in actually assuming control that will deter any frivolous or bad faith action. A controlling creditor incurs enhanced risk of liability under both securities law and the common law of torts. Furthermore, should the debtor subsequently be reorganized in bankruptcy, the creditor's control will cause it to be designated an "insider" and subjected to more rigorous (and often disadvantageous) scrutiny.<sup>92</sup>

The additional role of relational security as a valuable precommitment strategy for certain debtors enhances its effectiveness. By granting security, owner/managers such as Dunning may grant security in order to reduce their opportunities to misbehave when events generate unanticipated stresses. Relational security limits the debtor's options when responding to the subsequent threat of business failure. While standard economic theory maintains that debtors would prefer to retain all their choices including the choice subsequently to misbehave, a precommitment analysis suggests that such security may simply be

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90. A blanket security interest can serve a signalling as well as a bonding function. By being willing to put up the bond, the debtor signals creditors that it is not the type of debtor who misbehaves or defaults on debt contracts. But it is important to see that the bonding function is *independent* of the signalling function. A debtor may issue security as a signal to creditors about characteristics that are not directly observable. On the other hand, even where the debtor's characteristics and reputation are well-known, putting up security serves an important precommitment function in controlling *ex post* misbehavior. Thus, the signalling function of security focuses on *ex ante* contract negotiation, while visualizing security as a bond focuses on *ex post* contract enforcement. See Grossman & Hart, *Corporate Financial Structure and Managerial Incentives*, in *The Economics of Information and Uncertainty* 107, 109-10 (J. McCall ed. 1982).

91. The hostage imagery was introduced into bargaining analyses by Schelling, *An Essay on Bargaining*, 46 *Am. Econ. Rev.* 281, 300 n.17 (1956). See also Williamson, *Credible Commitments: Using Hostages to Support Exchange*, 73 *Am. Econ. Rev.* 519, 522-26 (1983) (formally developing a hostage model in the context of private ordering in intermediate product markets).

92. For a further discussion of the risk of controller liability, see *infra* notes 101-13 and accompanying text.

some debtors' method of protecting their present decisions against future temptations.<sup>93</sup> Furthermore, the debtor's willingness to constrain his future decision making in this way signals the creditor of his resolve not to violate the terms of the debt contract. Because the debtor bears the cost of misbehavior *ex ante*, he has an incentive to agree to mechanisms that will limit his own *ex post* opportunities to cheat or otherwise misbehave.

4. *The Costs of Security: Controlling Creditor Misbehavior.* — By linking exclusive financing to a floating lien the parties are able to control substantially the underinvestment conflict. But if relational security has such unique benefits, why isn't every debt secured? One obvious answer is that relational security generates offsetting costs that, at least in some contexts, motivate parties to select substitute methods of financing. In addition to the direct costs of creating and administering security interests, relational security generates a reciprocal risk of creditor misbehavior. Redfaced cheating by the creditor is not a serious problem. Market and reputational constraints and the ease of detection will likely deter most instances of outright bad faith. But the conflicts produced by the inevitable divergence between the parties' interests are more difficult to resolve. Two specific problems can be anticipated.

The creditor's myopia in pursuing new growth prospects incites an initial conflict. The creditor is only concerned with developing those prospects in which it has a financial interest. For instance, a major technological change might encourage the debtor to invest in new or previously un contemplated projects. But the creditor, with a fixed return, has a perverse incentive to forbid the debtor from taking additional risks, even though the opportunities have positive value to the firm. Renegotiating the terms of the debt contract is the only plausible solution. Unfortunately, renegotiation must be carried out in an atmosphere of heightened opportunism on both sides. Both parties will have made transaction-specific investments in their relationship. The resulting bilateral monopoly means that substantial resources will be consumed in costly strategic maneuvering.<sup>94</sup> One resolution of this potential conflict is to agree in advance that the debtor has the right to seek alternative financing for the asset substitutions needed to alter the current investment policy. To reassure the creditor, the agreement may authorize termination of the financing relationship if alternative financing is procured.<sup>95</sup> Such an agreement permits the debtor to ob-

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93. For a discussion of the role of precommitment strategies and other choice management behavior in various contractual settings see Scott, Error and Rationality in Individual Decision Making: An Essay on the Relationship Between Cognitive Illusions and the Management of Choices, 59 S. Cal. L. Rev. 329, 342-47 (1986).

94. See Goetz & Scott, The Mitigation Principle, *supra* note 73, at 982-83 ("Renegotiation . . . creates a moral hazard in addition to the obligee's indifference: the obligee [in this case the creditor] may actually threaten to exacerbate [the problem] unless the obligor [debtor] purchases his cooperation at a premium.").

95. The costs and benefits of using unilateral termination privileges as bonding

tain new assets for new ventures by offering another creditor a security interest superior to the initial loan.<sup>96</sup> Thus, the parties are at least returned to their initial market position if renegotiations break down.

A second problem concerns the quality of the hostage offered by the debtor. If the assets that are offered as hostage have a ready resale market, then the creditor faced with end game problems will have an incentive to induce breach, declare default, and sell the hostage.<sup>97</sup> Ideally, therefore, the hostage should constrain the debtor, but not tempt the creditor. This concept is best explained by the metaphor of the "puny prince."<sup>98</sup> Assume a medieval king offers his sickly son as hostage to a neighboring monarch as security for a promise to repay a debt. Both parties profit if the king's commitment to repay is credible, but the neighbor is not enticed to declare default by the desirability of the hostage. The value of the commitment lies in the king's love and affection for his son despite the prince's lack of physical strength. Yet the concomitant risk that the creditor monarch will provoke a default and make off with the hostage is similarly reduced since the puny prince has little value to anyone else. The puny prince theme suggests that in cases where the debtor is offering assets (such as inventory and receivables) that have a readily realized market value, both parties would profit from restraints on the creditor's ability to foreclose on the collateral when the relationship is threatened by business reversals.

5. *The External Benefits of Relational Financing.* — The relational model offers a basis for evaluating the function of security in certain debtor-creditor relationships. But the question raised by the zero sum hypothesis needs to be squarely addressed. Does security have positive external effects that offset the increased risk it imposes on unsecured

mechanisms, and the effects of legal regulation of such options are developed in Goetz & Scott, *Relational Contracts*, supra note 23, at 1130-49.

96. The function of purchase money security interests as devices to curb the risk of misbehavior by creditors is further developed infra notes 219-30 and accompanying text.

97. The risk of induced breach is a function of what I have previously termed the "breacher-status" problem. See Goetz & Scott, *The Mitigation Principle*, supra note 73, at 983.

A [debtor] who contests the [creditor's] interpretation of [the debtor's] obligation[s] by withholding any part of the disputed performance risks being characterized as a breacher. Obviously, the status of breacher is disadvantageous because the breacher [(or defaulting) debtor may be] liable for compensatory damages. Frequently overlooked, however, is [that a defaulting debtor also loses his] accrued interest in what may be very valuable return rights.

Id. There is only one breacher, and he frequently loses the entire benefit of his bargain. The breacher status problem gives parties an additional incentive to select clear, definitive rules of obligation to safeguard the initial rights allocation. Clear rules of obligation however, are not feasible in the relational financing context. Thus, the creative use of security is often the second-best solution to this contractual dilemma.

98. The imagery is Oliver Williamson's. Williamson uses an "ugly princess" formulation, which I have recast in a more innocuous stereotype. See Williamson, supra note 91, at 526-27.

creditors? Two external benefits are generated by a relational security arrangement. Singly or in combination they suggest that, at least in the relationships described above, security is a cost-effective mechanism for debtors seeking to exploit new financing opportunities.

a. *The Prospect Function: Financial Management as a "Public Good."* — The prime external benefit of relational security is the opportunity it provides for debtors to finance positive value prospects. The relational model shows that without security some valuable growth opportunities will not be pursued, and, more importantly, those that are will be underdeveloped. At least for debtors who cannot raise equity as a feasible financing alternative, security provides a singular contracting mechanism for increasing the value of the firm. The external benefits of this arrangement are the valuable financial management and related inputs offered by the relational creditor. These inputs are a "public good" to the extent that more sophisticated financial counseling enhances the general business prospects for the debtor. Moreover, these valuable services will not be provided unless the bank can structure the relationship so as to capture the returns from its efforts. Exclusive financing arrangements coupled with blanket security are better than alternative mechanisms principally because this system enables the creditor to ensure that its financial advice will be heeded by the debtor.

Viewed *ex ante*, therefore, the expected gains from the relational creditor's participation in developing growth opportunities will accrue to all participants in the venture, including equity claimants and unsecured creditors. To be sure, *existing* creditors will not necessarily share in the increased value of the firm's assets, and thus some may regard the pursuit of the growth opportunity as an unnecessary risk. Nonetheless, the prospect's expected value represents a net gain to the firm as a whole. In theory, the debtor firm can share these benefits expectationally with all claimants thus reducing its total credit bill. In other words, any additional risks resulting from the new business venture are more than offset by the additional assets available to cover the obligation to repay unsecured creditors. From the debtor's perspective, therefore, relational security is a positive-sum transaction.

b. *The Policing Function: Coordinated Monitoring as a "Public Good."* — A secondary benefit of relational security follows from the economies of scale that attend the monitoring of the debtor's business activities. Careful monitoring of the debtor's operational decisions, as well as its assets, is essential to the prospect's success. The use of relational security thus provides a signal to other creditors that a broad-based monitoring of the debtor's affairs is under way. In essence, relational security signals other creditors that a policeman is walking the beat, and thus they can relax their vigilance in taking individual precautions.

Recast in slightly different form, the secured creditor reemerges as the monitor "paid" by those creditors who subsequently rely on his efforts. Released from the focal point hypothesis, the free-rider insight



can now better withstand critical scrutiny. Because monitoring cost theorists have been challenged to explain how the free-riding mechanism might work, a more complete elaboration of this point is required.

Suppose that, without relational financing, three separate creditors are required to monitor the debtor effectively and to minimize the various types of misbehavior. Each creditor focuses primarily on protecting its individual investment. Thus, for example, *C1*, a trade creditor, merely watches the length of payables in order to prevent conversions and skimming. Since trade credit is revolving and self-liquidating, the trade creditor has no particular incentive to guard against other types of misbehavior. *C2*, however, is an unsecured creditor, such as an employee or the holder of a service claim, and is principally concerned about claim dilution. *C2* monitors only the nature and amount of subsequent debt incurred by the debtor. Finally, *C3* is a supplier under an installment contract and is concerned with asset substitutions that increase the risk of his fixed price credit arrangement.

It is tempting to suggest that since the activities of *C1*, *C2*, and *C3* are not duplicative, their monitoring efforts are optimal. But now assume *C4* enters into a relational financing contract with the debtor such as the one described above. In order to control the unique stresses of the relational contract, *C4* cannot rely on the others and must engage in a pervasive monitoring strategy. Such monitoring allows *C1*, *C2*, and *C3* to quit monitoring. Since *C4*'s interest is virtually coextensive with the debtor's general business welfare, relational monitoring avoids the problem of other creditors having to watch the monitor for fear that he may protect only his interests. *C4* cannot effectively protect his interest without safeguarding the others. In addition to assuming the others' monitoring responsibilities, the shift to *C4* is likely to reduce total monitoring costs. *C4*'s comparative advantage derives from two sources. First, *C4* as a relational financier can exploit economies of scale in the fixed cost of monitoring the assets and decisions of debtors. Second, by exercising control over all monitoring activities, *C4* can coordinate efforts more efficiently than if the tasks are divided between *C1*, *C2*, and *C3*.

6. *Summary.* — Small, closely held firms frequently face growth opportunities. The relatively high cost of alternative methods of financing often leaves private debt as the most feasible method for realizing these financial prospects. The desire to develop the prospect fully motivates debtors to sell to a single creditor an exclusive claim to a share of the returns from these new projects. But these exclusive financing arrangements create singular conflicts that pose vexing contractual dilemmas. A blanket security interest in the assets committed to the venture reduces these enforcement costs and thus ensures that the firm's investments are developed properly.

Relational security agreements precommit the debtor to develop each business project optimally. The leverage gained by holding the

debtor's assets hostage enables the creditor to influence business decisionmaking, particularly when the relationship is threatened by an impending default. Without security, some projects of positive present value will not be pursued, and others will be inadequately developed. In that sense, when the expected costs of substitute mechanisms exceed the expected gains from the project, it is indeed fair to say that such firms "cannot borrow without security."<sup>99</sup> In addition, the global monitoring required of the relational creditor releases other creditors from the focused monitoring tasks that they would undertake in the absence of a relational creditor. The resulting cost savings thus provides additional economies that are unlikely to be achieved where such security arrangements are not permitted.

Relational theory suggests, therefore, that given the variations in firms and business conditions one would expect to see differing patterns of credit transactions—some secured and some not.<sup>100</sup> By linking the persistent use of security to a particular debtor-creditor relationship, many of the theoretical difficulties that characterize other explanations can be resolved. But the ultimate value of relational theory depends on two further questions. Does the model yield predictions that can be tested against the available data on the actual operation of credit markets? And does the theory illuminate the peculiar regulatory scheme found in Article 9? These questions are considered in the following parts of this Article.

## II. AN EMPIRICAL INQUIRY: RELATIONAL THEORY AND THE OPERATION OF CREDIT MARKETS

### A. *Generating Testable Hypotheses: The Properties of Relational Financing*

The principal test for relational theory lies in its ability to predict patterns of financing that are actually observed in credit markets. Regrettably, there is little available data that compare secured and unsecured credit. Initially, therefore, a more limited question must be asked. Is the relational financing model at least consistent with what we do know about the nature and operation of credit markets? In evaluating this preliminary question, one must remember that relational theory does not purport to explain all patterns of secured debt. Rather, the goal of this section is the more modest one of developing testable hypotheses explaining the use of security in several prevalent financing relationships.

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99. See Stiglitz & Weiss, *Credit Rationing in Markets with Imperfect Information*, 71 *Am. Econ. Rev.* 393, 402–06 (1981). But see Buckley, *supra* note 10, at 38 (criticizing Stiglitz and Weiss' contention that high levels of debt will lead to credit rationing).

100. Both the zero sum and the monitoring cost theorists have made a single flawed assumption: that security serves the same function in all credit arrangements. This has led to an attempt to identify the welfare effects of security arrangements divorced from the very contexts that give the question meaning.

1. *Why Creditors Do Not Assume Operational Control.* — It is tempting to suggest that the best proof of relational theory is evidence that secured creditors who finance growth opportunities assume direct, operational control over the debtor's business affairs. Thus, the fact that such operational control is rarely observed may lead one to doubt the validity of the relational model. The absence of direct control can be traced, however, to the potential legal liabilities such a creditor may incur. By participating directly in the management of the debtor, a creditor risks incurring liability both to the debtor and to third parties under federal bankruptcy law, federal securities law and related regulatory statutes, and under common law tort theories. In each case, the key issue is whether the creditor has assumed "control" of the debtor.

The Bankruptcy Code has expanded measurably the relational creditor's risk by explicitly incorporating the concept of the "insider."<sup>101</sup> In general, an insider is one whose relationship with the debtor is so intimate that his conduct is subject to closer scrutiny.<sup>102</sup> In addition to officers and directors of the debtor, any person in "control" of the debtor is an insider.<sup>103</sup> There are a number of reasons why a creditor would not wish to be designated an insider. Payments to insiders may be subject to a one year preference period, rather than the conventional 90 day period.<sup>104</sup> This means that an accounts receivable lender who is deemed an insider may be required to disgorge any improvement in its collateral position that occurs during the entire year preceding bankruptcy.<sup>105</sup> Furthermore, an insider can expect the bankruptcy court to scrutinize its claim for evidence of fraud or overreaching more closely than those of creditors generally. Abusive control will invite equitable subordination of the secured parties' claims to the claims of general creditors.<sup>106</sup>

Potentially adverse consequences may also arise under the Bankruptcy Code merely by virtue of a creditor's direct or indirect "interference" in its debtor's business affairs.<sup>107</sup> Primary or secondary liability

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101. Bankruptcy Code, 11 U.S.C.A. § 101(28) (1986).

102. S. Rep. No. 989, 95th Cong., 2d Sess. 25 (1978); H.R. Rep. No. 595, 95th Cong., 1st Sess. 312 (1977).

103. The Bankruptcy Code does not define control. See generally, Koch, *Bankruptcy Planning For the Secured Lender*, 99 *Banking L.J.* 788, 798-807 (1982) (discussing conditions imposed by a lender that might be deemed control). Nonbankruptcy case law, which may be drawn on for guidance, emphasizes the fact-specific nature of the inquiry. See, e.g., *Gilbertville Trucking Co. v. United States*, 371 U.S. 115, 125-26 (1962).

104. Bankruptcy Code, 11 U.S.C. § 547(b)(4) (1982).

105. *Id.* § 547(c)(5).

106. See, e.g., *In re American Lumber Co.*, 5 *Bankr.* 470, 478 (D. Minn. 1980); see generally Macey, *No Fault Subordination of Loans in Bankruptcy*, 85 *Com. L.J.* 44 (1980) (discussing recent cases defining investor's controlling involvement in companies).

107. See, e.g., *Taylor v. Standard Gas Co.*, 306 U.S. 307 (1939) (equitable adjustment in bankruptcy of a creditor responsible for mismanagement of debtor's affairs). In

may arise in analogous circumstances under the federal securities laws.<sup>108</sup> A creditor in a controlling position may be found primarily liable for violations of the registration, prospectus, and disclosure requirements of the Securities Acts.<sup>109</sup> In addition, a creditor may incur secondary liability under the Acts as a "controlling person" held responsible for the debtor's fraud or misrepresentation.<sup>110</sup> Similarly, a controlling creditor may incur tort liability for wrongful interference with contractual relations.<sup>111</sup> Thus, whenever a creditor exercises operational control over the business affairs of a financially troubled debtor, it risks subordination of its claims against the debtor as well as the imposition of statutory and common law liability.

This is not to say that the risk of liability will deter relational security agreements. Rather, the risk of controller liability is simply one of the costs of an otherwise beneficial relationship. But the threat of such liability does suggest that creditors will attempt to structure their relationship with the debtor so as to avoid the indicia of direct operational control. Among other strategies, this would suggest two possible courses of action. First, the creditor may substitute the use of strategic leverage in advance of financial difficulty so as to preclude the need to assume a more direct role in management affairs. Second, the creditor may employ contractual substitutes—such as restrictive covenants forbidding disfavored debtor actions—in lieu of the more direct mechanisms of control over management decisionmaking. To be sure, the leverage provided by the combination of security and restrictive loan covenants may itself be proscribed as "latent" control.<sup>112</sup> But there is a

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general, whenever the creditor controls the debtor either by holding voting control of its stock, or by commanding dominant influence in management, the creditor may be found to have a fiduciary duty to the debtor requiring good faith and fair dealing in all transactions. See Douglas-Hamilton, *Creditor Liabilities Resulting from Improper Interference with the Management of a Financially Troubled Debtor*, 31 *Bus. Law.* 343, 347-52 (1975).

108. The Securities Act of 1933, § 15 (codified as amended at 15 U.S.C. § 77o (1982)); The Securities Exchange Act of 1934, § 20 (codified as amended at 15 U.S.C. § 78t (1982)).

109. 15 U.S.C. §§ 77o, 78t (1982). See, Lipton, *Commercial Banks' and other Lenders' Responsibilities*, in *Expanding Responsibilities under the Securities Laws* (S. Goldberg, ed. 1973); Douglas-Hamilton, *supra* note 107, at 353-55.

110. Secondary liability of a controlling person most typically involves liability under Section 10 and Rule 10b-5 of the 1934 Act for fraud in connection with the purchase or sale of a security. See Douglas-Hamilton, *supra* note 107, at 358-60.

111. See, e.g., *Kelly v. Central Hanover Bank & Trust Co.*, 85 F.2d 61 (2d Cir. 1936) (bondholder's suit against controlling creditor bank for wrongful interference with contractual relations by inducing subsequent secured debt in violation of negative pledge clause).

112. See, e.g., *Gilbertville Trucking Co. v. United States*, 371 U.S. 115, 125-26 (1962) (control need not actually be exercised under Interstate Commerce Act); *M.A. Hanna Co.*, 10 S.E.C. 581, 589 (1941) (control under Securities Act includes "an ability or power to exercise from time to time a controlling influence in the management and policies of a company").

lower risk of incurring liability with such an arrangement than there would be if the creditor were to obtain a personal guarantee, be active as a director of the debtor, control disbursements, or hire new management.<sup>113</sup>

2. *The Properties of Secured Loans.* — If the relational financing model is congruent with actual patterns of financing, then its key characteristics should be observable notwithstanding creditors' reluctance to assume operational control. In order to test this proposition, I begin by isolating six core properties of the financing relationship described in the model.

a. *Firm-Specific Prospects.* — The relational model is premised on the assumption that, under certain circumstances, firms encounter unique growth opportunities.<sup>114</sup> These opportunities are assumed to be specific to the enterprise: they cannot be traded on the market, and if not developed by the firm they will be lost. Based on this first principle of relational credit, one would expect debtors to issue security during periods characterized by such unique growth. This would include the familiar paradigm of rapid expansion, as well as financing for entirely new ventures and for firms turning around from serious financial setbacks.

b. *The Lack of Alternative Financing.* — Linked to the financing prospect are the conditions that make security the optimal mechanism for ensuring the prospect's development. The relational financing model is premised on the high cost of alternative sources of financing relative to the use of private debt.<sup>115</sup> Were it not for these costs, equity financing, although presenting other conflicts, is a complete solution to the problem of underinvestment. As an empirical guess, therefore, we would expect to see security used to finance the small to medium sized firm that has no realistic access to public markets or alternative sources of financing.

c. *Exclusive Financing.* — The financial prospect can be developed optimally only when a single creditor owns the exclusive rights to the opportunity.<sup>116</sup> While that creditor might license complementary activities, the prospect function implies that there will be only one relational financier for any debtor. Thus, for example, we should not expect to see priority contests between a creditor holding a floating lien in the debtor's accounts and inventory (a "general financier") and a creditor financing the debtor's retail sales of inventory (a "floor plan financier").<sup>117</sup> Furthermore, a standard provision of such security agreements would predictably include either a prepayment penalty or the

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113. See Koch, *supra* note 107, at 803-07.

114. See *supra* notes 56-57 and accompanying text.

115. See *supra* notes 47-56 and accompanying text.

116. See *supra* notes 57-61 and accompanying text.

117. For a further discussion of the regulation of general financing and floor plan lending see *infra* notes 185-219 and accompanying text.

right of the creditor to terminate the relationship should the debtor seek additional financing without permission.

d. *Leverage and Discretion.* — The relational financing model envisions security as the leverage necessary to maximize a prospect's potential.<sup>118</sup> This means that a blanket security interest in the debtor's presently held and after-acquired assets that covers all future advances would be commonly agreed to in such debt contracts. Furthermore, a creditor's leverage depends on discretionary financing obligations. Thus, in addition, relational security agreements would predictably grant the secured party broad discretion in making any future advances to the enterprise. Provisions that specify that any and all future advances will be made without commitment, or specify that the lender will advance funds up to a stated percentage of the collateral value should be commonplace.

e. *Active Policing.* — Only by the pervasive policing of both the debtor's assets and its business judgments can leverage be employed successfully.<sup>119</sup> Thus, one strong prediction of the relational financing model is that secured financiers will engage in broad and pervasive monitoring of the debtor's business affairs. Indeed, we would expect secured creditors to develop highly specialized skills as detectives and watchmen.

f. *Associated Financial and Investment Counseling.* — Since one of the major purposes of relational credit is to exploit unique opportunities available to small firms, it follows that creditors should be eager to supply the guidance necessary to increase the prospect's success.<sup>120</sup> Sophisticated business strategies are not internally available to such debtors. They can be furnished, of course, from private management consultants, but the quality of the service is more uniformly guaranteed when the consultant shares a stake in the venture. Therefore, the activity of relational lending and financial management appears to be significantly linked. This implies that we should expect to see secured creditors providing a full range of auxiliary management and consulting services as part of the basic financing package.

Of course, none of these characteristics will be perfectly reflected in any observed data. But if the relational financing model has predictive power, at least the essential elements of relational financing should be confirmed in observations of the actual operation of secured lending markets.

3. *The Properties of Unsecured Loans.* — Relational theory provides fewer clues about the essential characteristics of unsecured credit. Nonetheless, some key observations can be made about the nature of unsecured financing. Unlike the small firm that seeks relational financing, a large, vertically integrated firm can internalize financial manage-

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118. See *supra* notes 86–89 and accompanying text.

119. See *supra* subsection I.C.5.b.

120. See *supra* subsection I.C.5.a.

ment and investment policy so as to achieve a continuous financial planning process. Economies of scale for the large firm make access to public financial markets more attractive. The integrated firm thus can finance growth opportunities in two ways that do not (at least formally) involve security. First, the firm can avoid the conflicts over optimal development of growth prospects by using new equity as the basis of growth financing. Second, the integrated firm can issue unsecured debt using its current cash flow (and "established track record") to obtain unsecured loans. Because these financing options are cheaper to administer and police, relational theory predicts that these alternatives will generally be preferable to secured debt.

Trade credit is another significant portion of unsecured debt. The relational financing model suggests that trade creditors are among the principal beneficiaries of both the prospecting and policing functions performed by the secured creditor (although they clearly "pay" for this service by taking an inferior position upon insolvency). Relational theory predicts that such creditors will remain unsecured unless they can participate in either of the functions that motivate security. The only complementary service that will induce the relational financier to authorize security for trade credit is the specialized policing of tangible assets—such as equipment and large items of inventory—by the trade supplier.<sup>121</sup> Other trade creditors cannot efficiently bargain for security because they provide no compensating services to the venture. This suggests that only those trade creditors who can easily take purchase money security interests in tangible durables such as equipment or inventory will appear in competition with relational creditors upon default.

Singly or in combination, these several visions of private credit arrangements yield determinant predictions that can be tested against the observed data. In the following section, therefore, I marshal the available evidence on credit markets in order to subject the relational hypothesis to some preliminary scrutiny.

#### B. *Examining the Data: The Nature and Operation of Credit Markets*

1. *The Data Base.* — It has been widely observed that current statistics and quantitative data on the characteristics of business loans and business borrowers are meager. Indeed, no comprehensive source of current information on the amount and nature of secured lending is available.<sup>122</sup> Thus, much of the available evidence is qualitative rather

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121. *Id.*

122. The most recent quantitative data on secured financing derives from two studies of bank lending at member banks of the Federal Reserve system. These analyses were based on loans outstanding on October 5, 1955 and October 16, 1957. See Fed. Res. Bull. 327 (1956); Fed. Res. Bull. 393 (1958). While the dollar amount of outstanding business loans had more than quadrupled by the early 1970's, most commentators believe that a current survey would show a broadly similar pattern. See P. Hunt, C. Wil-

than quantitative. As a preliminary step towards more rigorous testing of the relational theory, I assembled the following data base. First, I gathered macro data on all year-end outstanding loans of insured commercial banks from 1939 to 1982.<sup>123</sup> The data reveals the dollar amount of loans secured by various business assets as a percentage of the total outstanding and the annual fluctuations in these patterns.<sup>124</sup> The primary benefit of this quantitative data is the evidence of consistency in the use of security in bank borrowing since the latest Federal Reserve study of business loans in 1958.<sup>125</sup>

Second, I surveyed all of the relevant business literature from 1965 through 1985 that purported to describe the actual operation and dynamics of secured and unsecured private lending. This survey was supplemented by personal interviews with financial officers at six lending institutions and a random sampling of firms that use private financing to secure their short-term needs. The analysis of the business literature includes industry and government studies, both qualitative and quantitative, as well as industry analyses of unsecured and secured credit. In this latter group are articles written by both lenders and borrowers. They range from straight-forward descriptions of the financing environment to normative, or prescriptive, analyses of the participants in financing agreements. Both types of articles serve as excellent primary sources of information on the specific perceptions and strategies adopted by those parties whose business activities are the central focus of Article 9's regulation. In addition, the industry analysis reveals much of the evolutionary pattern of private financing: which institutions historically have used secured debt, which purport to use it now, and what accounts for the changes.

As a third source of data, I examined the standard form security agreements used by over a dozen commercial banks and commercial finance companies. This exercise served to identify and isolate those contractual provisions that are persistently used in conventional security arrangements. Finally, I collected and evaluated 153 reported cases involving priority disputes between Article 9 secured creditors both before and after bankruptcy proceedings had begun.<sup>126</sup> While the

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liams & G. Donaldson, *Basic Business Finance* 211 (4th ed. 1971). In order to confirm this belief, I gathered data on year-end outstanding loans of insured commercial banks, both secured and unsecured, from 1939 to 1982. These data reveal no dramatic changes in the past twenty-five years that would impeach the Federal Reserve's findings. See *infra* appendix A. Thus, where relevant, the Federal Reserve data will be reported as at least suggestive of current patterns in secured financing.

123. See *infra* appendix A.

124. The data report the percentage of outstanding loans secured by publicly-traded securities, "commercial and industrial" assets, real estate, and retail automobiles. See *infra* appendix A.

125. See *supra* note 122.

126. The sample of 153 reported cases was drawn by first collecting every decision reported in the Uniform Commercial Code Reporting Service between 1964 and 1985



cases are in no sense a random population, they provide primary evidence of the kinds of financing patterns employed by debtors who become financially troubled. Assuming that the population of financially troubled debtors does not deviate significantly from the general population of firms seeking private financing, the cases are useful supplementary data concerning the operation of certain financing mechanisms.

In combination, these sources reveal that distinct, identifiable patterns of secured financing persist. Observing persistent institutions yields important empirical evidence. Of course, this evidence is useful only if it distinguishes among competing hypotheses. In the concluding sections, therefore, I use this data not only to evaluate the validity of relational theory, but also as a point of comparison against other, competing explanations of secured debt.

2. *The Supply Side: Secured Debtors and Their Financing Environment.*

a. *The Characteristics of Secured Debtors.* — Current statistics on the characteristics of business loans and business borrowers are incomplete. But available data supplemented with impressionistic reports yield the following picture. Most secured debt is issued by relatively small, young and growing firms.<sup>127</sup> In the most recent Federal Reserve study, for example, only eighteen percent of the loans made to businesses with assets above \$100,000,000 were secured, while seventy-eight percent of the loans to firms with assets of \$50,000 to \$250,000 were secured.<sup>128</sup> The credit industry believes this credit pattern arises because small and relatively young firms are not as able to raise money in the capital market, nor to generate additional financing internally, as

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that involved a priority dispute under Article 9 and then eliminating all cases involving either crops or consumer goods as collateral. The remaining cases were categorized according to the financing patterns employed by the disputants.

127. See H. Gross, *Financing for Small and Medium Sized Businesses* 133 (1969); E. Reed, *Commercial Bank Management* 265 (1963); Gillette, *Revitalizing the American Dream: Banking's Commitment to Small Business*, *J. Com. Bank Lending*, June 1982, at 2, 3; Goldman, *Look to Receivables and Other Assets to Obtain Working Capital*, 57 *Harv. Bus. Rev.*, Nov. 1979, at 206, 208. Manufacturers, wholesalers, retailers, and construction and service companies are generally thought to be the predominant users of secured financing. See D. Jacobs, L. Farwell & E. Neave, *Financial Institutions* 380-81 (5th ed. 1972).

128. *Fed. Res. Bull.* 403 (1958). The Federal Reserve Study disclosed that while secured loans represent 66.8% of the total number of business loans, they only accounted for 50.3% of the total amount of bank credit to business. *Id.* The lower dollar amount percentage is evidence that most larger loans are unsecured and that the use of security varies inversely with the size of the debtor firm. The current data on outstanding commercial and industrial loans do not reveal firm size, and thus any confidence that the Federal Reserve report reflects current patterns must rest on the fact that the percentage of loans secured by commercial and industrial assets remained relatively stable from 1959 to 1982. In 1959, commercial and industrial secured loans were 36.31% of the dollar amount of outstanding commercial loans; in 1982 such secured loans were 37% of outstanding commercial loans. See *infra* appendix A.

are large and established firms.<sup>129</sup> As a result, such firms cannot offer prospective lenders proof of capable management or a solid base of existing assets, but they can offer the assets to be realized from future business activity. This correlation between the supply of secured debt and the size of the debtor appears to cut across all types of business activity and industries.<sup>130</sup>

How does the business environment of secured debtors differ from firms that issue predominantly unsecured debt? The entrepreneur of the small firm cannot exploit the economies of scale necessary to seek continuing counsel from various specialists on the advisability and expected effects of financial decisions.<sup>131</sup> Thus, the owner/manager of a small firm operates in many managerial roles simultaneously and is often unable to devote the time and resources necessary to a continuous financial planning process.<sup>132</sup> This high cost of continuous financial planning makes it extremely difficult for the owner/manager to provide a smooth flow of growth capital to the small and developing company. As a result, the evidence suggests that the typical growth company moves through a series of financial crises during periods of rapid growth.<sup>133</sup> In addition to financing business expansion,<sup>134</sup> therefore, industry reports indicate that secured lending plays a major role in both acquisition financing and turn-around financing.<sup>135</sup> One source estimates that up to one-third of the debtors financed by secured lenders are either acquiring a new business or alleviating financial pressure by moving into new markets.<sup>136</sup>

The evidence from industry sources that secured debtors share

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129. See D. Jacobs, L. Farwell & E. Neave, *supra* note 127, at 443-53; E. Reed, *supra* note 114, at 267-68. The financial markets used by large publicly held firms to arrange new equity or long-term debt financing require a substantial investment in professional services that deters entry by many small firms. Furthermore, small firms usually lack a long record of satisfactory earnings, as well as the opportunity to build up their assets from retained earnings. *Id.*

130. The proportion of secured loans measured by amount is larger for the wholesaling, retailing, construction, and service industries which are characterized by many small and medium-sized firms. Thus, for example, the Federal Reserve study reported that in 1957 63.6% of loans to retail firms, 74.6% of loans to commodity dealers, 70% of the loans to service firms, and 67.9% of the loans to construction firms were secured. On the other hand, only 37.5% of the loans to manufacturing and mining firms were secured. See Fed. Res. Bull. 1114-17 (1959).

131. Bund, *The Roles of a Consultant and a Lender in the Emergence of a Growing Business*, *J. Com. Bank Lending*, April 1981, at 38, 39; Gillette, *supra* note 127, at 5-7.

132. Blair, *How Bankers Can Assist Developing Companies in Growth Management*, *J. Com. Bank Lending*, June 1982, at 36, 37.

133. *Id.*

134. *Id.* at 38-39; Gillette, *supra* note 127, at 3; Kaye, *supra* note 54, at 17.

135. Reisman, *What the Commercial Lawyer Should Know About Commercial Finance and Factoring*, 79 *Com. L.J.* 146 (1974).

136. D. Jacobs, L. Farwell & E. Neave, *supra* note 127, at 383-84; Goldman, *Asset-based Lenders' Role in Saving Banks' Struggling Borrowers*, *Am. Bankers A. Banking J.*, July 1981, at 97, 97.

certain common characteristics is supported by a review of the Article 9 priority cases. Over ninety percent of the debtors involved in priority disputes that were litigated under Article 9 appeared to be small to medium-sized firms using secured credit to finance business expansion, seasonal or cyclical sales patterns, turnarounds, or new acquisitions.<sup>137</sup>

b. *Analysis.* — Relational theory predicts that credit markets are segmented by size and business conditions. The relational financing model suggests that smaller firms presented with growth opportunities issue secured debt as the most effective means of developing their financing prospects. The relational theory accounts, therefore, for many of the variations in debtor characteristics that are reported by industry analysts, as well as for the evidence gleaned from decided cases. To the contrary, competing hypotheses yield no determinate predictions concerning either the size or the business needs of secured debtors. Under the conventional monitoring cost explanation, for example, security is conceived as reducing monitoring costs by providing focal points for the monitoring activities of the secured creditor and by permitting competitors to exploit comparative monitoring advantages. Neither of these factors would appear to be positively related either to the size of the firm or to the nature of the venture for which secured financing is sought.

The zero-sum hypothesis, on the other hand, is premised on the implicit assumption that contracting costs are largely insignificant to the firm's capital structure. Instead, this hypothesis looks either to information barriers or to exogenous factors such as taxes and bankruptcy costs. Information-based explanations of security are, however, inconsistent with the observed characteristics of secured debtors as reported by industry sources and as revealed in the cases. A distributional explanation predicts that large firms will issue security in order to exploit information asymmetries that prevent other creditors from adjusting their rates to account for increased risk.<sup>138</sup> Yet, the converse appears to be true. Similarly, a signalling explanation predicts that firms issue security to reduce the costs of screening for good credit risks. But if firm size has any relation to the riskiness of the firm's debt, it is likely to be a negative correlation. Thus, the zero-sum hypothesis is embarrassed by the fact that the predominant issuers of security are small firms. Exogenous factors such as taxes and bankruptcy costs appear to bear no relation to the patterns of secured credit that this evidence reveals. At least insofar as the data suggest that security is segmented along firm size and business ventures, therefore, the relational hypothesis proves far richer than its competitors.

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137. See Analysis of Reported Cases on file with the author. The determination of firm size was admittedly impressionistic based upon the information revealed in the cases. It is also plausible that small or medium-sized firms suffer business reversals more frequently and thus are disproportionately represented in the reported cases.

138. See A. Schwartz & R. Scott, *supra* note 1, at 565.

### 3. *The Demand Side: Creditor Perspectives on Secured Debt.*

a. *The Evolution of Specialized Private Financing.* — In the early period of American banking, most loans were secured. As the economy became more industrialized in the 19th century, corporate forms of enterprise became more popular. During this period, corporate stocks and bonds, equipment, inventory, and receivables all became acceptable forms of collateral.<sup>139</sup> But in the early 20th century, as business incomes became more stable and accounting procedures and financial reporting were improved and regularized, unsecured loans became more prevalent. Perhaps the most important factor contributing to the growth of unsecured lending by commercial banks was the evolution of sophisticated financial analysis. By the study and comparison of past financial statements, financial accountants could, with reasonable accuracy, evaluate the financial structures and liquidity of a borrower. Furthermore, these techniques produced reliable projections of the continued solvency and income-generating ability of the borrower.<sup>140</sup>

Secured lending through commercial finance companies became an important industry as the country emerged from the depression when many firms experiencing rapid growth lacked working capital but had the ability to produce and market a viable product.<sup>141</sup> The value of these businesses was based primarily on future prospects which under conventional financial analysis were not credit-worthy bases for lending.<sup>142</sup> Commercial banks, largely specialized to unsecured loans, were not responsive to the increased demand for credit.<sup>143</sup> Instead, the commercial finance companies borrowed funds from the commercial banks on an unsecured basis and lent them to the new growth businesses as secured debt.

Beginning in 1960, commercial banks began to enter this market aggressively.<sup>144</sup> Currently, asset-based financing is dominated by a few

139. E. Reed, *supra* note 127, at 180.

140. *Id.*; Stock, *Asset-Based Financing: Borrower and Lender Perspectives*, *J. Com. Bank Lending*, (Dec. 1980), at 31, 38–39. This trend continued through the 1960s by which time the largest loans and greatest dollar volume of loans made by commercial banks were on an unsecured basis. In 1957, almost one-half of the commercial bank loans in dollar amount were unsecured. See *Fed. Res. Bull.* 403 (1958).

141. The industry, however, did not evidence dramatic growth until after World War II when the United States experienced a sharp increase in the number of small businesses requiring specialized financial assistance. See C. Phelps, *Accounts Receivable Financing as a Method of Securing Business Loans* 74–75 (2d ed. 1961).

142. See Diamond, *Asset-Based Lending—The Role of the Bank and the Finance Company*, *J. Com. Bank Lending*, Sept. 1978, at 38, 39.

143. One source suggests that bank reluctance to enter the market for secured loans derived from “the banking industry’s apprehension about its legal position, . . . its unwillingness to perform the necessary policing and perhaps because of the stigma associated with this type of lending.” See D. Robinson, *Accounts Receivable and Inventory Lending* 3–4 (1977).

144. See Abraham, *Factoring—The New Frontier for Commercial Banks*, *J. Com. Bank Lending*, Apr. 1981, at 32; Shay & Greer, *Banks Move Into High-Risk Commercial*

national finance companies, large commercial banks with national coverage and an increasing number of regional banks. While asset-based lending is thus rapidly becoming available throughout the banking industry, the initial specialization of the activities between secured and unsecured components remains. Lenders retain the distinction between the reliance on sound financial analysis for unsecured loans and reliance on sound "collateral administration" for secured loans.<sup>145</sup> What remains after the integration of the private financing industry, therefore, are lenders holding a financial portfolio of both unsecured and secured loans premised on the existence of an inverse relationship between a borrower's balance sheet strength and the benefits of collateral control.

b. *The Function of Collateral.* — What function do creditors believe collateral performs in the current credit market? The traditional conception of security is that it reduces risk by giving the creditor a priority claim to specific assets in the event of default.<sup>146</sup> This conception is not widely shared among industry analysts, however. Lenders frequently note that they are not content to realize on defaulted loans by foreclosure proceedings even where repayment is assured.<sup>147</sup> One bank officer reports: "No bank I know would make a loan against a basket of gold bricks if there was a good chance it would have to sell the bricks."<sup>148</sup> Lenders report that in pricing the transaction they do not

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Financing, *Harv. Bus. Rev.*, Nov.-Dec. 1968, at 149, 152. Two factors can be seen as contributing to the market shift. First, the adoption of the Uniform Commercial Code eased the costs of creating and maintaining a security interest in personal property. Second, the banks began to suffer a significant decline in their market share owing to the increased share of business loans attracted to commercial finance companies. The move to secured financing was accomplished in several ways. Some banks restructured their relationship with commercial finance companies from a debtor-creditor relationship to a co-venturer status, thus spawning the concept of "participation" financing. In addition, a number of large banks integrated commercial finance subsidiaries to handle secured loans.

145. This distinction reflects the historic notion that unsecured debt is related directly to a borrower's current financial statement, since the lender looks to current ratios and net worth to evaluate its risk. Secured debt, on the other hand, remains linked to the quality of the available collateral and the borrower's ability to generate sufficient cash flow out of future business activity. Diamond, *supra* note 142, at 39; Donahue, Cornwell, Rubinstein & Rubin, *How to Realize on Collateral*, *J. Com. Bank Lending*, Jan. 1976, at 44; Goldman, *supra* note 127, at 206, 208; Kaye, *supra* note 54, at 20.

146. See, e.g., P. Hunt, C. Williams & G. Donaldson, *supra* note 122, at 269; E. Reed, *supra* note 127, at 168; *supra* notes 83-86 and accompanying text.

147. See Diamond, *Asset-Based Lending in a Changing Environment*, *J. Com. Bank Lending*, May 1981, at 42, 45; Diamond, *supra* note 142, at 44; Diamond, *Secured Loans: Exploding the Myth of High-Risk*, *J. Com. Bank Lending*, May 1973, at 2, 5 ("an unpoliced Code lien adds nothing to the strength of the credit"); Lewin, *Secured Lending in Bank Credit* 116, 126 (1981); Quarles, *The Floating Lien—Its Creation and Adaptability from the Commercial Banker's Standpoint*, *J. Com. Bank Lending*, Nov. 1970, at 51, 57.

148. Statement by Richard S. Behler, Executive Vice-President of First Wisconsin National Bank of Milwaukee ("banks aren't pawnshops") (Mar. 1982).

principally rely on recovery of the collateral upon default.<sup>149</sup>

Why, then, do lenders take collateral on their loans? The most frequent answer to this question is that having a secured loan is a psychological advantage for a lender. As long as the borrower has greater equity in the pledged assets than does the lender, and the lender can foreclose if any loan covenants are breached, the borrower has a strong incentive to fulfill all obligations specified in the agreement.<sup>150</sup> Security thus provides protection against errors of judgment on the part of the debtor. Debtors may take improper risks or fail to pursue business opportunities skillfully. Creditors believe that security is useful in causing the borrower to weigh carefully the consequences of such wrongful or careless business actions.<sup>151</sup> The primary value of collateral is thus thought to be the strong negotiating position that it gives to the secured creditor.<sup>152</sup>

While this leverage function is the dominant conception of security among private lenders, other rationales are offered as complementary explanations. Perhaps most frequently cited is the belief that by taking security the lender limits the ability of the debtor to engage in subsequent financing. This "defensive" conception of security suggests that if the bank does not take collateral, the asset will be made available for subsequent loans to other creditors.<sup>153</sup> On more careful reflection, however, it can be seen that the defensive explanation is really only a subset of the leverage notion. What motivates a defensive secured transaction is the belief that subsequent creditors will, by taking security, occupy the dominant position of influence over the subsequent business affairs of the debtor.<sup>154</sup>

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149. See, e.g., Citibank, *A Synopsis of Policies and Guidelines Governing the Credit Process of Citibank, Citicorp and Their Subsidiaries* 64 (2d ed. 1981) [hereinafter *Citibank Guidelines*]. Among other credit policies, Citicorp recommends to its loan officers: "[In pricing] don't regard collateral as a substitute for repayment—loans must be repaid from the flow of cash." *Id.*

150. See H. Crosse & G. Hempel, *Management Policies for Commercial Banks* (3d ed. 1980) ("The borrower does lose a part of its ability to function if the bank takes over its assets. This . . . encourages it to meet its obligations."); E. Reed, *supra* note 127, at 168; E. Reed, R. Cottor, E. Gill & R. Smith, *Commercial Banking* 237 (2d ed. 1980) (secured loan is a psychological advantage producing strong incentives to repay); *Citibank Guidelines*, *supra* note 149, at 63-64 (Security "places the lender in a stronger negotiating position because the assets are usually necessary to operate the business.").

151. See *supra* note 150.

152. *Citibank Guidelines*, *supra* note 149, at 64 ("Three factors must be considered in evaluating collateral: control, marketability and margin."); Sinclair, *Problem Loans—At the Eyeball-to-Eyeball Level*, *J. Com. Bank Lending*, June 1975, at 29, 35 ("If you are going to invest more money in a troubled business, for heaven's sake install new management.").

153. See Hunn, *Big Trouble—Managing Major Problem Loans*, 158 *Bankers Mag.* 22, 27 (1975); *Citibank Guidelines*, *supra* note 149, at 64; cf. H. Crosse & G. Hempel, *supra* note 150, at 186-87, 190-91 (discussing "protective" reasons for a creditor to take security).

154. Hunn, *supra* note 153, at 27:

c. *Monitoring Activities.* — The apparent connection between the risk of misbehavior and the risk of business failure is well understood by both commercial banks and commercial finance companies.<sup>155</sup> It is when the borrower is in financial straits that lenders believe the temptation to violate loan covenants arises.<sup>156</sup> Therefore, it is an article of faith in the industry that the cornerstone of any effective secured loan is monitoring the financial condition and health of the borrower.<sup>157</sup>

Because the risk of misbehavior heightens in circumstances of business stress,<sup>158</sup> the industry follows well-established standards of procedure for monitoring the collateral. Collateral control requires close supervision of the covered assets. In the case of receivables financing, for example, the lender insures that real customers are paying the account and periodically inspects the debtor's books to verify receivable agings, books, and records.<sup>159</sup> Floor plan lenders typically exercise even closer control over the collateral. The risk of conversion of inventory or double financing in such markets requires frequent investigations of the condition, quality, and maintenance of the collateral.<sup>160</sup>

The real value of the collateral is as a profit-generating engine to the owners of the business and, therefore, they are most responsive to the leverage that a collateral holding bank has. In essence, the bank lender is interested in precluding other parties from getting this collateral and thereby exercising its all-important leverage on the troubled borrower.

155. The industry believes that the major source of loss in secured financing is not insolvency but misbehavior. The evidence for this assertion is anecdotal, but widely accepted in the industry nonetheless. See, e.g., Biborosch, *Floor Plan Financing*, 77 *Banking L.J.* 725, 735-39 (1960); Hunn & Schwartz, *Problem Loans in Perspective*, *Bankers Mag.*, Summer 1973, at 42, 43; Miller, *Taking a Look at the Commercial Finance Contract*, 65 *A.B.A. J.* 628 (1979); Reisman, *supra* note 135, at 150; Rutberg, *Ten Cents on the Dollar or the Bankruptcy Game* (1973); *Business Frauds, Their Perpetration Detection and Redress*, 20 *Bus. Law.* 83 (1964).

156. A typical candidate for misbehavior is seen as the debtor who, for one reason or another, has reached the limits of its line of credit and is in a financial bind. For instance, conversion or asset substitution may begin by the assignment of anticipated accounts receivable when the goods are not yet ready for shipment. Subsequently, it can evolve to the assignment of spurious accounts. See, e.g., D. Robinson, *Accounts Receivable and Inventory Lending* 126 (1977) (fraud comes when a previously honest businessman is put under pressure because of a series of losses); Donahue, Cornwall, Rubenstein & Rubin, *How to Realize on Collateral*, *J. Com. Bank Lending*, Jan. 1976, at 44; Quill, Cresci & Shuter, *Some Considerations About Secured Lending*, *J. Com. Bank Lending*, Apr. 1977, at 41, 42 ("The most honorable borrower will exploit every loophole or flaw when faced with a desperate struggle to survive . . ."); Reisman, *supra* note 135, at 150.

157. Donahue, Cornwall, Rubenstein & Rubin, *supra* note 156, at 49.

158. A widely cited rationale for incipient fraud is that management "hold[s] firmly to the 'miracle concept,' steadfastly believing that the next day the corporation will turn the operating corner, sell an important property, or become the bride in a heaven-sent merger." Hunn & Schwartz, *supra* note 155, at 43.

159. See, e.g., Donahue, Cornwall, Rubenstein & Rubin, *supra* note 156, at 50; Quill, Cresci & Shuter, *supra* note 156, at 52-53; Reisman, *supra* note 135, at 150.

160. Donahue, Cornwall, Rubenstein & Rubin, *supra* note 156, at 51 ("Inventory financing . . . often requires added administrative techniques and closer supervision.").

Even more striking is the evidence that creditors routinely monitor the debtor's business affairs apart from the collateral. As a standard practice, general financing lenders engage in extensive investigation of the debtor's business operations.<sup>161</sup> Creditors typically explain these actions as a necessary part of the financial relationship.<sup>162</sup> Many lenders believe they have management tools available to assist borrowers in making decisions to remedy financial difficulties.<sup>163</sup> Broadly based monitoring of business practices typically requires reports of purchase orders, sales, disbursements, and total receipts.<sup>164</sup> Such supervision will provide the secured lender with more information than is generally available to trade creditors. As long as the information is not used to dictate decisions for the borrower, monitoring the business operations is a relatively safe form of intervention that does not risk the problem of operational control. If the financial stress deepens, however, general financing lenders are prepared to exercise much more coercive leverage by, for example, replacing management, introducing third party consultants, controlling disbursements, joining the board of directors, and in extreme cases, even exercising voting control of a borrower's stock.<sup>165</sup>

The practice of monitoring both the collateral and the debtor's business operations is reflected in the terms of the standard form security agreement used to support many general financing loans. The standard agreement requires the debtor on request to supply audited

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161. See Colton, *Legal Implications of Actions Taken by Lenders Against Troubled Borrowers*, J. Com. Bank Lending, Aug. 1981, at 35, 42-45 (discussing the range of supervision of debtor's business affairs in ascending order of risk of controller liability: monitoring daily operations especially sales and disbursements; replacing management; controlling disbursements; joining the board of directors; exercising voting control; insisting on hiring a consultant); Donahue, Cornwall, Rubenstein & Rubin, *supra* note 156, at 52 (the financial condition of the borrower should be continuously monitored); *id.* at 49 (must constantly be on the alert for product and marketing changes).

162. See, e.g., Colton, *supra* note 161, at 46.

If the lender is stepping in to stop improper disbursements, and there is no favoritism to the lender, liabilities will probably not arise, and, in fact, the lender will be assisting everyone. Financial domination can extend far beyond the controlling of disbursements, however. It can be intertwined with other controls. For example, a lender can demand that unless specific business plans are put into effect, the lender will call its loan. The ongoing provision of working capital by the lender is so essential to the borrower's survival that whatever the lender says is done.

*Id.*

163. Struck & Glassman, *Commercial Banking and the Small Business Sector: Observations from a Survey*, J. Com. Bank Lending, Feb. 1983, at 21, 26 (financial counseling, referrals to technical assistance, and referrals to management assistance are all considered nonfee services that the majority of banks surveyed provided); The Institute of Bankers, *The Banks and Small Businesses* 70 (1978) (most banks provide managerial assistance and advice to small businesses).

164. Colton, *supra* note 161, at 42 ("[e]ven daily reports of sales, disbursements, and receipts can be appropriate and reasonable").

165. *Id.* at 42-45.



financial statements and to cooperate in periodic "field" examinations which include, in addition to inspections of the collateral, a review of the borrower's business and financial conditions and an evaluation of immediate and near-term business prospects.<sup>166</sup> The evidence of how secured lenders actually monitor their loans reveals, therefore, that an awareness of the debtor's business operations and financial condition is deemed essential to the success of the venture.

d. *The Debtor-Creditor Relationship.* — It is clear from the available data that lenders and borrowers alike believe successful secured financing involves a long-term borrower-lender relationship.<sup>167</sup> A vice president of the Chase Manhattan Bank, for example, asserts that "a banker should act almost in the position of a partner."<sup>168</sup> From the debtor's point of view, the financing relationship provides the firm with expert financial and business guidance and access to sophisticated financial services.<sup>169</sup> Commercial lenders are uniquely qualified to assist in the management of a secured debtor because lenders are exposed to many different business settings. The breadth of this exposure provides the creditor with extensive management expertise that can be applied to specific problem solving. Perhaps most significantly, the creditor may be better able to identify potential financial opportunities that call for growth and expansion.<sup>170</sup>

From the creditor's perspective, a long-term relationship enables the creditor to economize on information search and processing costs.<sup>171</sup> In addition, the relational creditor can use its superior knowledge of the debtor's general financial prospects to minimize its risks by supplying critical operational judgments when needed. Many commercial banks, for example, routinely provide both financial and management advice to business firms.<sup>172</sup> In a recent survey, three-quarters of

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166. See Standard Form Commercial Finance Agreement ¶ 5.3-.4 (on file at the offices of the Columbia Law Review); Standard Form Accounts Financing Security Agreement ¶ 5a-f (on file at the offices of the Columbia Law Review); see also Miller, *supra* note 155, at 629 (commercial finance agreement may require "reports of certified public accountants satisfactory to the lender" and "periodic confirmation of receivables").

167. Bund, *The Roles of a Consultant and a Lender in the Emergence of a Growing Business*, *J. Com. Bank Lending*, Apr. 1981, at 38, 42-43; Kenzie, *A Savings Banker Looks at Commercial Lending*, *J. Com. Bank Lending*, Apr. 1981, at 31, 32; *The Institute of Bankers*, *supra* note 163, at 70.

168. *Dramatic Changes in Bank Services*, *Fin. Executive*, May 1967, at 14, 55 (statement of Adam C. Heck, Vice-President of the Chase Manhattan Bank, N.A.).

169. H. Gross, *supra* note 127, at 130; Bund, *supra* note 167, at 42-43.

170. See H. Gross, *supra* note 127, at 133; Bund, *supra* note 167, at 42.

171. Kenzie, *supra* note 167, at 31, 35; Struck & Glassman, *supra* note 163, at 25.

172. "A Dun & Bradstreet study of over 11,000 business failures which occurred during the 1975 recession showed that a full 34% were the result of mismanagement of operating expenses, receivables, and inventory. While a Banker can't be expected to run a customer's business . . . we can carefully monitor performance and head off problems before they occur. Regular meetings should be held to review income, receivables, and inventories." Gillette, *supra* note 127, at 5-7; see also R. Rubin & P.

the responding banks indicated that they made special efforts to accommodate small business borrowers by providing financial counseling and referrals to technical and management assistance as "nonfee services."<sup>173</sup> As part of their cash management services, most commercial banks now offer comprehensive analysis of customer receipts and disbursements, as well as credit information, market analysis, financial management assistance, and production advice.<sup>174</sup> In fact, the advisory capabilities of secured lenders are such that "growth" and "turn-around" financing is now a significant part of the loan portfolio of most private lenders.<sup>175</sup>

A creditor's willingness to offer valuable business counseling as part of a fixed price financing package depends on the creditor's ability to capture the benefits from such business management. Thus a necessary adjunct to the provision of management services is control over the financial venture. There is substantial evidence that general financing lenders demand such strategic control as a condition of the financing relationship.<sup>176</sup> The standard commercial finance security agreement, for example, states that the lender will act as the borrower's "sole source of financing."<sup>177</sup> The exclusive financing hypothesis is strongly confirmed by the reported cases. Less than five percent of the reported cases involve debtors who had developed a general financing relationship with more than one creditor.<sup>178</sup> Although disputes be-

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Goldberg, *The Small Business Guide to Borrowing Money* 70 (1980) (according to a Federal Reserve Study, managerial assistance is an integral, often indispensable, part of successful bank management of small business secured loans); Bund, *supra* note 167, at 42 (The breadth of exposure and the knowledge that is passed from situation to situation provide the lender with extensive management information that can be applied to the debtor's problems.); Lott & Myers, *Secured Lending in The Banker's Handbook* 622, 626 (1978) ("Every banker has an obligation to be as knowledgeable as possible about the customer's business and to give a borrower the benefit of his advice.").

173. Struck & Glassman, *supra* note 163, at 26. The survey, conducted in September 1981, consisted of personal interviews with bank officers in a nationwide random sample of 224 banks. A copy of the survey is on file at the offices of the Columbia Law Review.

174. E. Compton, *Inside Commercial Banking* 339-40 (1980); D. Jacobs, L. Farwell & E. Neave, *supra* note 127, at 379.

175. See Goldman, *supra* note 136, at 97 (The ability of an asset-based lender to enable a small, under-capitalized firm to take advantage of a market opportunity and grow more profitably than it could under the constraints of unsecured financing reflects the unusual leveraging power provided by accounts receivable and inventory financing.).

176. See Quill, Cresci & Shuter, *supra* note 156, at 48 (If a lender does not want a purchase money interest to exist, the loan documents should prohibit them. Then if such an interest is discovered, the lender can insist on its removal or call the loan.); Struck & Glassman, *supra* note 163, at 25 (small businesses are more likely to have a principal financing relationship with just one bank).

177. See *Commercial Finance Security Agreement* on file with the author; Miller, *supra* note 155, at 628.

178. There are very few disputes between parties who engage in relational financing for the same debtor. Out of 153 cases surveyed, in only six could such a conflict be identified. To be sure, because some cases do not fully explain the secured creditor's

tween general financiers and floor plan financiers could conceivably arise over competing claims to a debtor's inventory, such contests are not empirically significant. Relational financiers appear to insist on being in sole control of the venture. The priority contests that do materialize, therefore, involve the relational financier in competition with complementary or associated creditors such as trade suppliers, mortgagees and purchase money security holders of equipment or inventory.<sup>179</sup>

e. *Analysis.* — An analysis of the demand for secured debt reveals four critical features that characterize the market for asset-based financing. These features indicate the close congruence between the properties of relational credit and the operation of these financial markets. First, secured financing as a credit institution has evolved into a highly specialized industry. The servicing costs of secured loans extend well beyond the transaction costs of establishing a priority position under the Code. The returns to the secured creditor can only be realized by a sophisticated administration of the collateral and of the debtor's underlying business prospects. Firms that are able to provide these services have evolved as specialized lending institutions. While competitive markets have caused the composition of firms demanding secured debt to change, the specialization between secured and unsecured debt remains.

Second, the function of secured credit is conceived within the industry as enabling the creditor to influence debtor actions prior to the onset of business failure. This conception is markedly different in effect from the traditional vision of collateral as a residual asset claim upon default and insolvency. Security is taken for its active rather than its passive properties. Only through this unique leveraging device can firms be induced to fully pursue the business strategy that motivated the initial loan.

Third, the leveraging explains why many secured creditors monitor more pervasively than the conventional focal-point hypothesis would suggest. In order to affect the kinds of influences necessary to realize the full benefits from a financing opportunity, these lenders carefully police *both* the collateral *and* the underlying business operations of the

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role, it is often necessary to make inferences from available facts. Thus, this evidence should be taken as suggestive only. In the six cases which appear to involve two creditors who serve, or could serve, as relational lenders, four involve obvious filing search errors in which the secured lender did not know of the first creditor or believed the first creditor only had an interest in particular collateral. See Analysis of Reported Cases, on file with the author.

179. See, e.g., *Greg Restaurant Equip. & Supplies, Inc. v. Valway*, 144 Vt. 59, 472 A.2d 1241 (1984) (general financier versus purchase money supplier of equipment); *Sears, Roebuck & Co. v. Detroit Federal Savings & Loan Assoc.*, 79 Mich. App. 378, 262 N.W.2d 831 (1977) (general financier versus purchase money supplier of inventory); *Community Bank v. Jones*, 278 Or. 647, 566 P.2d 470 (1977) (floor plan financier has priority on future advances over subsequent purchase money supplier who failed properly to protect its interest).

debtor. The two activities are linked in a common purpose. Policing the collateral enables the creditor to steer the business operations at key junctures. But the business operations can be charted only if the underlying business conditions are known to the creditor.

Finally, the purposes behind this elaborate mechanism are revealed by evidence that secured creditors and debtors form a relational contract in order to finance growth opportunities or prospects. Secured creditors invest substantial resources in directing debtor actions toward optimal development of the financing venture. Since these services are not separately priced at the time of contracting, the parties enter into relational credit contracts in which the creditor gains the exclusive option over the financing venture in exchange for the obligation to aid in its full development. The creditor's interest in cooperating *ex post* is maintained by the single fact that the loans cannot feasibly be repaid except out of the proceeds of the venture itself. The debtors' commitment to the joint interests of the venture is itself enforced through the elaborate security mechanisms generated by this specialized industry.

This evidence of the evolving patterns of secured debt provides powerful support for the basic conception underlying the relational financing model. To be sure, some puzzling anomalies remain. A strong prediction of the exclusive financing hypothesis is that provisions for prepayment penalties commonly will be used in debt contracts. Such devices link the parties' interests and thus encourage the creditor to use its best efforts to develop the growth prospect fully. Yet such provisions are seldom observed in standard form debt contracts. It is possible, of course, that search costs sufficiently deter debtors from exercising their option to terminate the financing relationship thus rendering prepayment penalties superfluous.<sup>180</sup> However, these and other continuing puzzles—such as the function of real estate security—suggest the wisdom of further research.

The data do permit some tentative evaluations of the predictive power of relational theory and its rival hypotheses. The conventional monitoring cost explanation correctly predicts financing patterns—such as purchase money security interests—in which security is taken in specific assets as a focal point for monitoring efforts. However, the focal point theory, standing alone, is not helpful in accounting for other persistent patterns including the monitoring of business operations and the leverage function of the floating lien and other general financing arrangements. Thus, the relational framework can be best understood as providing a context within which monitoring theory can more successfully withstand critical scrutiny.

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180. Termination requires the debtor to search for alternative financing. Furthermore, terminating the initial financing relationship inevitably causes coordination and change of command problems for the debtor. See *infra* note 192.

This conclusion is not undermined by the argument that combining two inadequate (or partial) explanations will not yield a more complete general theory. Relational theory and the monitoring cost explanation are wholly consistent, complementary themes that elaborate the basic costly contracting hypothesis. The general theory holds that security cements relationships that provide unique benefits to the venture. To be sure, the nature of these benefits may vary in different contexts. But in each instance the data are consistent with the hypothesis that contractual mechanisms which control debtor-creditor conflict can increase the value of the firm.

The zero-sum hypothesis, on the other hand, is unhelpful in explaining why the private lending markets have developed in the ways that they have. The exogenous factors emphasized by the zero-sum hypothesis—the costs of information, taxes and bankruptcy—have no apparent correlation to any of the observed properties of secured debt. Furthermore, these variables are not made any more relevant by the introduction of the relational model, because their explanatory power is not improved. This rudimentary empirical inquiry thus provides additional evidence of the relative superiority of the costly contracting hypothesis in explaining the observable patterns of certain financial institutions.

### III. SOME APPLICATIONS: RELATIONAL THEORY AND ARTICLE 9

The relational financing model purports to explain how security actually functions in certain financing relationships. Closely linked to this positive analysis of security is a related concern: Does relational theory rationalize the contemporary legal regulation of secured transactions? This question is particularly acute in light of the peculiar drafting history of Article 9. Unlike other provisions of the Code, no preexisting codification of secured transactions served to guide the drafters of Article 9.<sup>181</sup> Thus, Article 9 severed preexisting financing

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181. Prior to the Code there were a large number of common law and statutory provisions regulating personal property security interests. While the drafters incorporated aspects of pre-Code law, no uniform treatment had previously been attempted. See Kripke, *Some Reflections After a Quarter-Century of the Uniform Commercial Code and on the Inception of a New Bankruptcy Code*, 87 *Com. L.J.* 124, 125 (1982).

Lacking knowledge of the operational detail of asset-based lending, the reporters solicited the assistance of commercial lenders and other industry "insiders" in formulating a regulatory scheme. G. Gilmore, *The Ages of American Law* 85 (1977).

Llewellyn's Code as he conceived it would have abolished the past without attempting to control the future. That jurisprudential approach did not satisfy the groups of practicing lawyers who participated in the project and whose influence increased as the drafting approached the final stages. These lawyers had perhaps become uneasily aware of mounting indications of a new style of judicial activism. At all events they insisted on a tightly drawn statute, designed to control the courts and compel decision. To a considerable degree, they got what they wanted.

*Id.* (footnote omitted).

patterns from their roots in particularized statutes, such as the Uniform Trust Receipts Act<sup>182</sup> and the Factors' Lien Act,<sup>183</sup> and generalized them to produce a single, unified and standardized system of regulation. As with any assimilation process, over time the "regional differences" and the unique environments that produced these patterns have become obscured. Consequently, contemporary scholars increasingly ask the question: What explains the peculiar system of priorities embodied in Article 9?<sup>184</sup>

A. *General Financing Under Article 9: The Floating Lien and Future Advances*

1. *The Favored Status of General Financing Loans.* — Perhaps the most outstanding feature of Article 9 is the extraordinary legal protection afforded the "floating lien."<sup>185</sup> Subject to various enabling requirements, the Code permits a creditor, either in the course of a single loan or in a continuing financing scheme, to take a security interest in all of the debtor's assets whether presently held or after-acquired.<sup>186</sup> Furthermore, the agreement can grant the debtor the liberty to use or dispose of the collateral without directly accounting to the secured party.<sup>187</sup> Thus, for the typical floating lien in accounts and inventory, the collateral will change as accounts and inventory are acquired and as accounts are collected and inventory sold. Furthermore, under the Code system of notice filing, this blanket security interest may be insu-

182. Unif. Trust Receipts Act, 3A U.L.A. 577 (1981) (superseded 1952).

183. See, e.g., N.Y. Pers. Prop. Law § 45 (McKinney 1916) (repealed 1964).

184. See, e.g., Gilmore, *The Good Faith Purchase Idea and the Uniform Commercial Code: Confessions of a Repentant Draftsman*, 15 Ga. L. Rev. 605, 620-27 (1981).

185. See, e.g., Committee on the Uniform Commercial Code, *American Bankers Ass'n Report 79-80* (1954); Coogan, *supra* note 178, at 839; see also Gilmore, *The Purchase Money Priority*, 76 Harv. L. Rev. 1333, 1334 (1963) (U.C.C. accepts both the floating lien and the priority of purchase money security interests). The term "floating lien" is a short-hand reference to a series of Article 9 provisions including §§ 9-201 (general validity of security agreement), 9-204 (after-acquired property and future advances), 9-205 (use or disposition of collateral without accounting), and 9-306 (secured party's rights on disposition of collateral).

186. U.C.C. § 9-204(1) (1977).

This Article accepts the principle of a "continuing general lien". . . . The widespread nineteenth century prejudice against the floating charge was based on a feeling . . . that a commercial borrower should not be allowed to encumber all his assets present and future . . . . This Article decisively rejects [that view] not on the ground that it was wrong in policy but on the ground that it was not effective. . . . This Article, in expressly validating the floating charge, merely recognizes an existing state of things.

*Id.* comment 2.

187. U.C.C. § 9-205 (1977) (repealing the rule of *Benedict v. Ratner*, 268 U.S. 353 (1925), which held floating liens void where the debtor was given unfettered dominion or control over the collateral). In later years, Grant Gilmore expressed deep misgivings about the Code's unqualified support for the floating lien. See generally Gilmore, *supra* note 184, at 625-27.

lated from third parties merely by an initial filing containing only a general description of the collateral.<sup>188</sup>

More startling even than the support for security interests in after-acquired assets is the parallel protection offered to the floating lien creditor (or "general financier") who elects to make future, uncommitted advances to the debtor. By filing a financing statement, the general financing creditor will not only have priority on its initial extension of credit, but the same priority will attach to all future advances as well. This is true even when the subsequent advances are made without commitment or when the debt supporting the initial security agreement has been fully repaid, and even when the debtor faces imminent insolvency.<sup>189</sup>

A revealing sense of the debate over this treatment of future advances can be seen in the recent case of *Credit Alliance Corp. v. Jebco Coal Co.*<sup>190</sup> Jebco Coal borrowed \$100,000 from Second Bank secured by a tractor-loader. A portion of the bank's loan was used to pay off a pre-existing security interest in the rig held by First Bank. Needing additional equipment, the debtor subsequently returned to First Bank, which made a new loan secured by the new equipment. Thereafter, serious financial reversals forced the debtor into default. As collateral for its now defaulted loan, First Bank claimed not only the new equipment but the tractor loader as well. The court held that the subsequent loan, although not contemplated at the time of the original agreement, was nonetheless a future advance fully secured by the tractor-loader, and thus entitled to a first priority by virtue of First Bank's original

188. U.C.C. §§ 9-110, 9-402 (1977). See A. Schwartz & R. Scott, *supra* note 1, at 541-45.

189. See U.C.C. §§ 9-204(3), 9-312(7) (1977). The priority of future advances is unqualified when the dispute is between competing creditors with security interests in the same collateral. Under the Code's notice system, therefore, a subsequent secured creditor always takes subject to future advances made pursuant to a preceding security interest whether the advances are committed or uncommitted. *Id.* § 9-312(7) comment 7. The future advances priority is subject to limitation, however, when the dispute involves an intervening buyer. *id.* § 9-307(3), or lien creditor. *Id.* § 9-301(4).

It is clear that a single financing statement suffices to perfect any advances made pursuant to a security agreement, and no reference to future advances is required in the financing statement. *Id.* § 9-204, comment 5. Furthermore, most courts have held that a single financing statement is adequate to perfect a secured party's successive interests in the same collateral even when the interests are created by separate security agreements. See, e.g., *In re Rivet*, 299 F. Supp. 374, 377 (E.D. Mich. 1969); *In re Merriman*, 4 U.C.C. Rep. Serv. (Callaghan) 234 (S.D. Ohio 1967). Perhaps most illustrative of the Code's bias toward general financiers is the protection given to the initial security interest even where the initial debt is repaid before the original parties execute a second security agreement in the same collateral. See *Credit Alliance Corp. v. Jebco Coal Co.*, 688 F.2d 10, 13 (3d Cir. 1982); *James Talcott, Inc. v. Franklin Nat'l Bank*; 292 Minn. 277, 194 N.W.2d 775 (1972); Review Comm. for Article 9 of the Uniform Commercial Code, Permanent Editorial Board for the Uniform Commercial Code, Final Report, 226-27 (1971).

190. 688 F.2d 10 (3d Cir. 1982).

filing which was still on the records. The filing date of the original financing statement was, of course, earlier than Second Bank's. This placed First Bank's "future advance" ahead of Second Bank's in any priority battle.<sup>191</sup>

The treatment of future advances typified by *Jebco* suggests that the essence of the Article 9 scheme extends well beyond the basic priority principle of first-in-time. More significantly, Article 9 affords a creditor the opportunity—by filing an appropriate notification—to gain exclusive control over a debtor's entire financing venture. Furthermore, this absolute priority will generally date from the time of filing even though the filing predates the decision to commit funds to the enterprise.

2. *The Prospect Function Revisited.* — The priority scheme authorized by the future advances provisions of the Code appears to grant senior creditors a "situational monopoly" over a particular financing venture.<sup>192</sup> Clearly, such a system reduces a senior creditor's financing costs; the creditor need only file once to insure priority. It is tempting to suggest that the senior creditor requires this advantage in order to reap the rewards of the initial credit investigation.<sup>193</sup> If all other creditors could subsequently free ride on these efforts, the senior creditor might refuse to invest in the search for financing opportunities. This justification is unsatisfying, however, since the senior creditor will be paid for this first search in the higher price charged for the initial loan. Furthermore, the cost advantages to a senior creditor must be weighed against the increased costs to junior creditors whose security is threatened by unanticipated future advances. Junior creditors must increase the price of their loans or negotiate subordination agreements with the senior financier. Thus, the savings in lower interest charges paid to the senior creditor may well be offset by the increased cost of

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191. *Id.* at 13. In a recent case, the Second Circuit significantly eroded the § 9-301(4) limitation on future advance priority over intervening lien creditors. *Dick Warner Cargo Handling Corp. v. Aetna Business Credit, Inc.*, 746 F.2d 126, 127-28 (2d Cir. 1984). The court held that certain subsequent advances by a general financier covering attorney's fees, costs, fixed monthly charges and contingent liabilities were "nonadvance" obligations and thus not subject to the 45 day priority limitation of § 9-301(4). *Id.* at 134.

192. The "situational monopoly" imagery may not be wholly accurate in this context since the debtor retains the option of seeking a substitute financier who will buy out the first creditor and assume the role of general financier. Thus, the option to terminate appears at first glance to forestall any exercise of "monopoly" power by the senior creditor. But exercising the termination option may impose substantial costs that effectively withdraw the debtor from the protection of the competitive market. Obviously, termination requires the debtor to expend resources in searching for alternative financing. In addition, introduction of a second lender causes coordination and change of command problems that may limit the debtor's ability to exploit the growth prospect. Finally, the debt contract may restrict further the debtor's termination option by incorporating a prepayment penalty.

193. See Buckley, *supra* note 22, at 38-39 (arguing that security compensates senior creditor for higher screening costs).



loans to junior creditors, possibly augmenting the debtor's total credit bill.

These concerns have prompted several commentators to propose a "transactional" filing system for those debtors with indivisible collateral who might be particularly disadvantaged if a senior creditor were able effectively to control the lending rights to all the available assets.<sup>194</sup> Under a transaction filing system, each credit transaction must be separately perfected and filed in order to secure priority. Junior creditors could examine the records at any time and determine the amount of assets available for further credit. Such a system may well reduce the costs of borrowing from several competing creditors.<sup>195</sup>

These objections to the Code's protection of general financing loans suffer, however, from inadequate consideration of the beneficial effects of offering senior creditors such an advantage. Relational theory offers a plausible justification for the Article 9 scheme by focusing the analysis on the relational creditor's contribution to the success of the financing venture. Recall that this financing opportunity can be developed more efficiently when ownership rights are exclusive. An exclusive financing relationship encourages the creditor to manage the growth prospect properly and to insure the optimal timing of inputs necessary to achieve maximum return to the joint enterprise.

Edmund Kitch, who demonstrated the power of the prospect function in its application to patent law, suggests an institutional analogy to the development of mineral claims in the 19th century.<sup>196</sup> Imagine creditors as prospectors packing their burros every morning and riding off in search of fortune. They are searching not for gold or silver but for a financing opportunity. Once a venture is discovered, the prospecting creditor files a claim that gives it the first right to "mine" the opportunity.<sup>197</sup> The first-in-time priority principle thus permits debtors to sell claims to competing creditors. As with mineral claims, the secured creditor stakes out the dimensions of its claim by filing a statement which "reasonably indentifies" the collateral.<sup>198</sup> Furthermore, a prospecting creditor's first-in-time priority dates from the filing of its "claim" even though it has not yet committed any funds to the claim's development.<sup>199</sup> Finally, if the claim proves to be a "dry hole," the creditor must return the prospect to the public domain by filing a termination notice.<sup>200</sup>

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194. See Coogan, *supra* note 178, at 879-80; Jackson & Kronman, *supra* note 6, at 1167-74.

195. See A. Schwartz & R. Scott, *supra* note 1, at 595.

196. Kitch, *supra* note 57, at 271-75.

197. U.C.C. § 9-312(5) (1977).

198. U.C.C. § 9-110 (1977).

199. U.C.C. § 9-312(5)(a) (1977) ("Priority dates from the time a filing is first made covering the collateral . . .").

200. U.C.C. § 9-404 (1977).

Relational theory suggests that the legal protection given to prospecting creditors offers several unique benefits to parties seeking to exploit firm-specific growth opportunities. Searching for a claim produces information. A creditor unable to "own" that information might simply abandon the prospect thereby requiring subsequent creditors to duplicate much of its search. Once a prospect is discovered, the optimal financing of a business opportunity requires the coordination and timing of inputs. To ensure that positive value prospects are fully pursued, the creditor makes a substantial investment in monitoring the debtor and encouraging appropriate operational decisions. This investment cannot be tied successfully to discrete or sequential contracts.<sup>201</sup> In addition, the prospect rules reduce the costs of negotiating for alternative sources of credit, because they induce the debtor to return to the "owner" of the "claim" for further financing. Similarly, monitoring costs for the prospecting creditor decrease because the number of competing secured creditors declines.<sup>202</sup>

3. *The Policing Function Revisited.* — Besides protecting the claim of the general financier, the rules of Article 9 substantially increase the secured party's power to foreclose on the collateral upon default. Since default is not defined by the Code, parties are free to specify any actions (or inactions) of the debtor as constituting a default. The key significance of default is the automatic invocation of a set of legally protected privileges granted to the secured party. Thus, for example, the creditor upon default may proceed directly against the assets held as collateral. This includes the right to make collections on outstanding accounts, to take control of any proceeds of original collateral, and, if appropriate, to use self-help to repossess the collateral.<sup>203</sup> The repossession remedy includes the right to render equipment unuseable without removal, thus effectively "driving a stake through the heart of the collateral."<sup>204</sup>

The creditor's right to proceed directly without judicial process is constrained only by an injunction against breaches of the peace. Judicial interpretations of this doctrine both before and after the Code's adoption have limited its reach to actual violence or the threat of violence.<sup>205</sup> Thus, subterfuge and deception are generally given judicial approval.<sup>206</sup> Once in possession and control, the secured party may

201. See Barzel, *supra* note 57, at 354; Kitch, *supra* note 57, at 276-77.

202. See A. Schwartz & R. Scott, *supra* note 1, at 595-96.

203. U.C.C. § 9-503 (1977).

204. The vampire imagery is part of commercial lawyers' lore. I have been unable to trace its origins.

205. Thus, for example, a creditor cannot break a garage lock to take a car, *Henderson v. Security Nat'l Bank*, 72 Cal. App. 3d 764, 140 Cal. Rptr. 388 (1977), or enter a dwelling on a debtor's land to repossess if the debtor objects, *Morris v. First Nat'l Bank & Trust Co.*, 21 Ohio St. 2d 25, 254 N.E.2d 683 (1970).

206. See, e.g., *Thompson v. Ford Motor Credit Co.*, 550 F.2d 256 (5th Cir. 1977) (creditor falsely told a repair person who had possession of debtor's car that the debtor

use or operate the collateral in any manner agreed upon,<sup>207</sup> dispose of it in any commercially reasonable manner,<sup>208</sup> and charge against the debtor any expenses incurred in the custody, use, or operation of the debtor's assets.<sup>209</sup>

These seemingly draconian privileges, coupled with the broad discretion given creditors to select among the various alternatives, have troubled many commentators. The default privileges are an implicit authorization for the secured creditor to "kill the hostage" whenever the debtor's actions violate predetermined norms. The normative implications of "killing hostages" may well be troubling, especially in consumer settings.<sup>210</sup> One justification for these provisions rests on the singular policing function of the relational financier. The cumulative effect of these default privileges is to increase dramatically the secured party's leverage over the debtor's business judgments. The social value of a policing creditor is not a result of its superior access to the evidence of wrongful conduct, but its ability to sanction the debtor effectively should wrongdoing be discovered. The general financier is a more effective monitor precisely because it can inflict severe punishment for acts of misbehavior at much lower costs than can unsecured creditors. All other things being equal, the more credible the sanction

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had consented to foreclosure); *Pierce v. Ford Motor Credit Co.*, 373 So. 2d 1113 (Ala. Civ. App. 1979) (creditor surreptitiously followed debtor and repossessed when he parked the car); *Cherno v. Bank of Babylon*, 54 Misc. 2d 277, 282 N.Y.S.2d 114 (N.Y. Sup. Ct. 1967), *aff'd*, 29 A.D. 2d 767, 288 N.Y.S.2d 862 (1968) (creditor secretly had key made and used it to enter debtor's business premises and repossess).

207. U.C.C. § 9-207(4) (1977).

208. U.C.C. § 9-504(1) (1977).

209. U.C.C. § 9-207(2)(a) (1977).

210. Perhaps the most troubling implication of a hostage theory of security is the support it gives to the argument that in consumer cases secured creditors systematically fail to maximize the resale proceeds of repossessed collateral. Recently, Alan Schwartz has challenged the failure to maximize argument on the premise that it is in the creditor's self-interest to maximize the resale value of repossessed collateral. See Schwartz, *The Enforceability of Security Interests in Consumer Goods*, 26 J.L. & Econ. 117, 124-39 (1983). But if security is used as a hostage, self-interested secured creditors may repossess not to maximize resale, but to signal their willingness to "kill the hostage" if the consumer-debtor defaults.

Hostage theory provides a plausible explanation for why the repossessing creditor has inadequate incentives to maximize the value obtained on resale of collateral. If the repossession is a signal to *other debtors*, then the costs of repossession, resale and an uncollectible deficiency judgment are properly charged off as "advertising" the creditor's resolve. Since the motivation for repossessing consumer goods with little resale value and obtaining a deficiency judgment against an insolvent debtor does not proceed from an expectation of repayment, there is no particular incentive to risk further costs in reducing the deficiency. Indeed, the quality of the signal may well be *inversely* related to the amount realized upon resale. The greater the creditor's resolve to kill the hostage notwithstanding the costs of execution, the more effective is the leverage obtained in subsequent transactions with similarly situated consumers. See Scott, *Security Interests in Consumer Goods: An Essay on Hostage Theory* (forthcoming 1986).

the more effective is the deterrence of disfavored behavior.<sup>211</sup>

### B. *Variations on the Theme: Floor Plan Financing*

Under a floor plan financing arrangement, the creditor takes a security interest in the debtor's inventory and proceeds from the sale of inventory. This type of lending arrangement is used extensively by automobile dealers, equipment dealers, and retailers of consumer durables. Typically, the creditor offers wholesale financing of a retailer's inventory in order to receive in return a volume of profitable chattel paper that under normal circumstances it could not procure.<sup>212</sup>

At first glance, the legal rules that support floor plan financing appear strangely contradictory. The Code provides unique protection to such inventory loans by granting the floor plan creditor a purchase money priority over a general financier who is prior in time.<sup>213</sup> Yet, the protection the creditor enjoys while the inventory is on the floor is placed in jeopardy once the goods are sold. If the inventory sale is authorized under the terms of the security agreement, the creditor's security interest in the goods sold terminates.<sup>214</sup> While the security interest continues in the proceeds of the sale,<sup>215</sup> the floor plan creditor's interest in the proceeds is not given similarly protected status. If, for example, the sale results in either an account or chattel paper, the secured party's claim to either asset based on its original purchase money interest would now be inferior to a prior general financier.<sup>216</sup>

211. A careful student of the Code might object to this analysis on the ground that the default rights apply to any creditor whose security interest has attached to the collateral whether or not the security interest has been perfected. U.C.C. § 9-201 (1977). Thus, it is tempting to argue that default rights are independent of priority questions. But this objection misses the point. In the first place, the perfection requirements are only designed to encourage public notice of the security interest; they do not affect the underlying property rights. Furthermore, the key concern in either case is to identify the benefits of secured creditor status. A priority claim to assets claimed by a third party is one of the rights of a secured creditor; the right to foreclose on default is another.

212. See A. Schwartz & R. Scott, *supra* note 1, at 572-73.

Generally, the floor plan lender will finance the retailer's purchase of goods at interest rates which merely cover the lender's costs of extending credit. The floor plan lender expects to make his profit by purchasing at a discount the consumer's promise to pay the dealer.

*Id.* at 572; Biborosh, *Floor Plan Financing*, 77 *Banking L.J.* 725, 727 (1960).

213. See U.C.C. § 9-312(3) (1977) and comment 3 ("A perfected purchase money security interest in inventory has priority over a conflicting security interest in the same inventory . . . if [certain conditions are satisfied].").

214. U.C.C. § 9-306(2) (1977) (Except as otherwise provided, "a security interest continues in collateral notwithstanding sale . . . unless the disposition was authorized . . .") (emphasis added).

215. U.C.C. § 9-306(2) (1977) (Except as otherwise provided, "a security interest continues . . . in any identifiable proceeds . . .").

216. U.C.C. § 9-312(3) (1977) provides in relevant part that a perfected purchase money security interest in inventory not only has priority over a conflicting interest in the inventory but "also has priority in identifiable cash proceeds . . ." Since other noncash

Can relational theory illuminate this regulatory scheme? Unlike the debtor that uses future accounts to finance a growth opportunity, retail dealers rarely confront unique investment prospects. Retail markets are thick, and most growth prospects are not firm-specific.<sup>217</sup> Short-term financing is important for the dealer because of seasonal variations in sales that require building up inventory. Under these conditions, the prospecting function of the relational model has less significance. But the absence of unique investment prospects does not mean that floor plan financing lacks positive external benefits. The relative importance of the policing function is increased in the retail context where inventory, the debtor's principal asset, can be quickly liquidated on the retail market. The monitoring burdens of creditors of such a debtor are substantially higher, and thus, a credible deterrent is correspondingly more valuable.

In the retail context, the risk of conversion or asset substitution is heightened, as is the difficulty of guarding against this misbehavior. Giving the floor plan financier a superpriority in the dealer's inventory provides a payoff for the extraordinary monitoring service that it provides. The reliability of this "night watchman" is reinforced by the consequences of a failure to detect misbehavior. Should inventory be sold out of trust or proceeds not repaid to the creditor, the creditor stands to lose its favored priority position. Since the interest rate on a floor plan arrangement is based on the assumption that valuable assets are available to the creditor upon default,<sup>218</sup> the threat of a loss of priority is a significant disincentive to sloppy monitoring. In turn, other creditors are aware that the floor plan financier has a large stake in preventing such misbehavior and are encouraged to relax their own individual vigilance.

In sum, the floor plan financier is a relational creditor tailor-made for the retail environment. This creditor's contributions to the optimal development of unique prospects are less than those of the general financier. But, in exchange, the floor plan financier assumes a more onerous policing burden—to deter the debtor from exploiting the readily available market. Indeed, the rules of Article 9 thus can be seen as a skillful accommodation to the differing functions of the respective financing patterns.

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proceeds are not protected by § 9-312(3) their priority is determined by the basic first-in-time rule of § 9-312(5) which, of course, would favor the general financier. To be sure, if the purchase money secured creditor gave new value and took possession of any chattel paper proceeds, it could prevail over prior parties by virtue of the protection § 9-308 offers to purchasers of chattel paper and instruments. For further discussion of the apparent anomalies in the Code's diverse treatment of subsequent purchasers of instruments, chattel paper, and accounts, see A. Schwartz & R. Scott, *supra* note 1, at 613-16.

217. See Goetz & Scott, *Expanded Choice*, *supra* note 27, at 313 (well-developed markets are characterized by repetitive transactions and specialized terms are specific to the market or industry rather than to the contract).

218. See Biborosch, *supra* note 212, at 727-30.

*C. Limitations on the Relational Financer*

Two key limitations undermine the support that Article 9 otherwise provides for relational financing. The superpriority granted to purchase money interests and the restraints on the secured party's ability to realize on its collateral in bankruptcy appear to imperil the status that other provisions so carefully protect. Does relational theory account for these striking limitations on the leverage otherwise allowed the relational lender?

*1. The Purchase Money Security Interest.*

*a. The Puzzle.* — Under the Code, any creditor who properly perfects a purchase money security interest in tangible assets of its debtor will be entitled to first priority in the assets superior to the claim of a prior-in-time floating lienor.<sup>219</sup> Purchase money priority is thus a major exception to the first-in-time principle, and it appears difficult to explain. The puzzle of purchase money priority becomes even more vexing when the separate treatment of construction mortgage financing is considered. The Code gives construction mortgage financiers a first priority in all fixtures attached to the real property during construction. This priority is superior to the claims of purchase money financiers of the fixtures.<sup>220</sup> At first glance, the priority given to construction mortgagees is confirmation of the explanatory power of relational theory. The construction mortgagee is an archetype of the relational financer who seeks to develop a future prospect. But why should this general financer be insulated from purchase money priority when others are not?

The traditional argument for giving priority to a subsequent purchase money financer is that it brings "new money" into a faltering enterprise.<sup>221</sup> Furthermore, it is argued, the general financer should be unconcerned because the debtor is supporting the new loan with new collateral. Thus, the senior financer's interests are unaffected.<sup>222</sup> Without a richer analysis, however, this argument is problematic. Jackson and Kronman have shown, for example, that the general financer generally would be able to finance the new purchase more cheaply than a second creditor.<sup>223</sup> This comparative advantage stems principally from the prior investment the relational financer has made in screening the debtor's prospects. Assuming the debtor's circumstances are relatively unchanged, the general financer's marginal costs of investigating

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219. See U.C.C. §§ 9-312(3), 9-312(4) (1977).

220. U.C.C. § 9-313(6) (1977). The absolute priority of the construction mortgage depends on the mortgage being recorded before the goods become fixtures and the goods becoming fixtures before the completion of construction.

221. See, e.g., 2 G. Gilmore, *Security Interests in Personal Property* 777-79 (1965); Gilmore, *supra* note 185, at 1337-38.

222. See Kripke, *Law and Economics: Measuring the Economic Efficiency of Commercial Law in a Vacuum of Fact*, 133 U. Pa. L. Rev. 929, 936 (1985).

223. See Jackson & Kronman, *supra* note 6, at 1167-70.

the second loan are lower than the investigative costs of a second lender who knows nothing about the debtor.<sup>224</sup> Furthermore, relational theory demonstrates the fallacy in the conventional assertion that the general financier "doesn't care" if a subsequent purchase money interest materializes. A prime inducement to relational financing is the benefit of exclusive control and management of the prospect. Both coordination and monitoring costs are increased by introducing a second lender.<sup>225</sup>

Despite the advantages of the general financier underwriting the new purchase, Jackson and Kronman argue that in a hypothetical "creditors bargain," general financiers would sell any purchase money priority back to the debtor at the time the initial deal was negotiated. They reason that such a contract would be cheaper to negotiate than one that gave the general financier blanket priority over the new acquisitions. In essence, the general financier would be paid in advance for its comparative advantage rather than receive a premium on a case-by-case basis when subsequent loans were made.<sup>226</sup> Relational theory, however, suggests that this explanation is implausible. The parties would *not* be able to predict *ex ante* what the purchase money priority is worth, since its value depends on the success of the financing venture. Thus, in any hypothetical bargain we would expect general financiers to retain the welfare-enhancing leverage of purchase money priority.

b. *Two Possible Justifications.* — The relational model yields two plausible hypotheses that may offer a more convincing justification for purchase money priority. The first hypothesis focuses on the divergence of interests between the debtor and the relational financier. Since the creditor's rate of return is fixed in advance, it has less incentive than the debtor to pursue high-risk, high-return opportunities that arise after the initial venture is planned. The creditor's conservatism in adhering to the initial development plan may be inconsistent with maximizing the value of the firm.

This conflict of interest is, however, a difficult one for the parties to control. It is unlikely that the debtor can successfully monitor the secured party's actions for excessive conservatism.<sup>227</sup> As an alternative,

224. Furthermore, the general financier would have lower monitoring costs for the second loan than would the second lender, because the general financier would only have to monitor the new collateral and not the debtor's entire affairs. *Id.*

225. Monitoring costs for the general financier [C1] will increase whenever another financier [C2] occupies a priority position in some of the debtor's [D] assets even where those assets are purchased with "new money." This is because the presence of a competitor increases the risk of collusion between D and C2 in which C2's lien is "fed" by bleeding C1's assets. This risk of collusion requires increased investment in segregating those assets in which C1's priority claim is based.

226. Jackson & Kronman, *supra* note 6, at 1172-75. The Jackson & Kronman argument is further analyzed in A. Schwartz & R. Scott, *supra* note 1, at 636-37.

227. One problem the relational debtor faces is its comparative disadvantage in monitoring a creditor's actions. The relative disadvantage stems from a lack of internal

the creditor can offer a bond against such future misbehavior. It is tempting to regard the debtor's unilateral right to terminate the relationship as an adequate bond against creditor conservatism. Unfortunately, in many contexts exercising a right of termination is very costly for the debtor. Not only must the debtor locate a second financier to buy out the first loan, but the development of the prospect itself is impaired by the interruption and shift in control.<sup>228</sup> Lacking good substitutes, the parties might well agree in advance that the debtor could offer purchase money priority to a second financier. The effect of such an agreement is to offer the debtor an "escape hatch" to pursue prospects that have a positive value to the firm. This escape hatch conception is consistent with (and gives more rigorous meaning to) the conventional "new money" justification for purchase money priority.

A second justification for purchase money priority rests on the hypothesis that the purchase money financier, in fact, enjoys an advantage which, if exploited, would benefit the venture. If creditors who take purchase money interests have specialized, complementary skills, then the general financier would predictably agree to subordinate its interest to procure these unique advantages.<sup>229</sup> The suppliers of equipment or inventory who take a purchase money interest in specific assets can serve an important auxiliary policing function not well performed by the general financier. Because they are specialized in the sale and servicing of specific assets, credit sellers often can reduce the costs of monitoring the debtor's use of these assets. Familiarity with the assets and frequent contact for maintenance and servicing generate scale economies that reduce the costs of detecting conversions or asset substitutions.<sup>230</sup>

Both of the justifications suggested by relational theory are consistent with the treatment of construction mortgages under Article 9.<sup>231</sup> The protection given the construction mortgagee encourages the exclusive control essential to the successful development of the project.

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financial expertise as well as the high fixed costs of hiring external financial auditors and consultants in order to undertake the necessary monitoring of financial inputs.

228. See *supra* note 192.

229. While purchase money security interests are defined broadly under the Code, the priority traces its lineage to conditional sales of equipment and inventory. Cf. U.C.C. § 9-107 (purchase money interest includes an interest taken by the seller of collateral *and* one taken by any creditor giving value that enables the debtor to acquire the collateral).

230. The "comparative advantage" explanation of purchase money priority is the best example of Levmore's focal point monitoring theory. See Levmore, *supra* note 7, at 55-58. The argument works as an explanation for purchase money priority so long as the conditional seller's normal servicing and maintenance activities generate economies of scale that reduce the costs of monitoring the debtor for asset substitutions. Once the comparative advantage premise is satisfied, it follows that in a hypothetical bargain the relational creditor would sell purchase money priority to the conditional seller in exchange for valuable monitoring services.

231. U.C.C. 9-313(6) (1977).



But because the project is time-limited, fears of the creditor's excessive conservatism are substantially reduced. In other words, there is no need for the financing creditor to post a bond since the risk of such misbehavior is diminished.

The unique treatment of construction mortgages is also consistent with the comparative advantage hypothesis. In the typical construction project, the financing mortgagee already has well developed monitoring capabilities and ready access to all tangible property affixed to the construction site. It seems unlikely, therefore, that a complementary monitoring function would usefully be provided by a subsequent purchase money creditor.

2. *Security Interests in Bankruptcy.*

a. *General Introduction to Bankruptcy Law.* — No attempt to rationalize the scheme of priorities in Article 9 is complete without considering the effects of federal bankruptcy law. While the priority claim of the general financing creditor is recognized in bankruptcy, in the event of reorganization both the creditor's leverage and its ability to realize on the collateral are significantly reduced. In addition to the threat that some or all of the secured claim will be set aside as a voidable preference, the collectivization process of federal bankruptcy law will inevitably constrain the priority entitlements granted by Article 9.

The filing of a bankruptcy petition operates as an automatic stay of any action by the secured creditor to collect claims or seize the collateral.<sup>232</sup> A secured creditor can be relieved from a stay only by proving that the debtor has no equity interest in the secured assets and that the assets are not necessary for a reorganization, or that the collateral is jeopardized.<sup>233</sup> Meantime, the bankruptcy trustee can continue to operate the business so long as the secured party is given "adequate protection."<sup>234</sup> The court has broad latitude in determining what protection is adequate, including provisions for replacement liens, periodic cash payments, or the "indubitable equivalent" of the creditor's asset claim.<sup>235</sup>

232. Bankruptcy Code § 362(a)(4) (1982) (the filing of a bankruptcy petition operates as a stay of "any act to . . . perfect, or enforce any lien against property of the estate").

233. Bankruptcy Code § 362(d) (1982); see also *In re Jacobsen J-J Ranch, Inc.*, 4 Bankr. Ct. Dec. (CRR) 245 (M.D. Fla. 1978) ("Normally, injunctive protection is freely granted upon showing that there is substantial equity in the property involved; that the collateral is not in jeopardy; that the properties are indispensable to a successful arrangement[, or] that there is a real possibility that the debtor will be able to effectuate an arrangement . . .").

234. Bankruptcy Code § 361 (1982) (codified at 11 U.S.C. § 361(3)).

235. *Id.* The § 361 definition of adequate protection is not meant to be exclusive. Exactly what constitutes adequate protection, however, is unclear. Section 361(2) provides that "an additional or replacement lien" can constitute such protection. More commonly, a creditor is given a margin of oversecurity. See, e.g., *In re Blazon Flexible Flyer, Inc.*, 407 F. Supp. 861, 864 (N.D. Ohio 1976) (\$1,340,000 debt secured by assets valued at \$5,731,000). An alternative method of protecting secured parties under § 361

Finally, if the court finds a reorganization plan fair and equitable, it can be "crammed down" over the objections of a dissenting class of "impaired" creditors.<sup>236</sup> Obviously, the adequacy of the creditor's protection depends on how the creditor's interest is valued in any reorganization proceedings. The cram-down plan will typically provide the secured creditor with deferred cash payments equivalent to the discounted present value of the collateral. Unfortunately for the secured creditor, the trustee is motivated to set a low discount rate so that installment payments to the creditor are low even though the present value of the income stream remains high.<sup>237</sup> Given the coercive powers granted to the bankruptcy court in reorganization proceedings, it is unsurprising that secured creditors frequently accept plans that impair nonbankruptcy priorities. Whatever the leverage given to the secured creditor prior to insolvency, its control is measurably reduced in bankruptcy.

b. *The Clash Between Article 9 and the Bankruptcy Code.* — Commentators universally agree that there is a potential conflict between the priority claims recognized by Article 9 and the "equality" norm that underlies bankruptcy sharing.<sup>238</sup> Thomas Jackson, in a series of thoughtful essays, has argued that some of this tension is undesir-

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is to provide them periodic cash payments. See *In re Bernec Corp.*, 445 F.2d 367, 368 (2d Cir. 1971). The final method of providing adequate protection under § 361 is to award the secured party the "indubitable equivalent" of his interest in the property. But how this is to be done remains unsettled. Pre-Bankruptcy Code case law strongly suggests that valuation problems will frequently result in protection that is less than "completely compensatory" (the meaning suggested by Learned Hand, *In re Murel Holding Corp.*, 75 F.2d 941, 942 (2d Cir. 1935)). See, e.g., *In re Bernec Corp.*, 445 F.2d 367, 369 (2d Cir. 1971); *In re Yale Express System*, 384 F.2d 990, 992 (2d Cir. 1967). Indeed, the Bankruptcy Code explicitly recognizes the possibility that "adequate protection" will be inadequate, and offers the secured creditor a priority claim in the general distribution of assets to (at least in part) compensate for the inadequacy. Bankruptcy Code § 507(b) (1982). For a further discussion of the problems of valuing a secured creditor's claim in bankruptcy, see A. Schwartz & R. Scott, *supra* note 1, at 806-10.

236. Bankruptcy Code § 1129(b)(1) (1982). See generally A. Schwartz & R. Scott, *supra* note 1, at 810-13 (discussing generally plan confirmation and cram down process); Klee, *All You Ever Wanted to Know About Cram Down*, 53 *Am. Bankr. L.J.* 133 (1979) (complexity of cram down provisions should encourage debtor-creditor bargaining to produce an acceptable reorganization plan); Pachulski, *The Cram Down and Valuation Under Chapter 11 of the Bankruptcy Code*, 58 *N.C.L. Rev.* 925 (1980) (interested parties have incentive to compromise to avoid court battle over valuation).

237. See A. Schwartz & R. Scott, *supra* note 1, at 811-13 (discussing valuation of collateral and deferred cash payments to secured creditors); see also Jackson, *Bankruptcy, Non-Bankruptcy Entitlements, and the Creditors' Bargain*, 91 *Yale L.J.* 857, 872-77 (1982) (suggesting that compensation deemed to be adequate by the courts rarely provides the secured creditor with the indubitable equivalent of the market value of the item in which the creditor has a security interest) [hereinafter Jackson, *Creditors' Bargain*].

238. See, e.g., A. Schwartz & R. Scott, *supra* note 1, at 809-10; Eisenberg, *Bankruptcy Law in Perspective*, 28 *UCLA L. Rev.* 953 (1981); Jackson, *Creditors' Bargain*, *supra* note 237, at 859-60; Jackson & Kronman, *supra* note 6, at 1147-49

able.<sup>239</sup> Using the model of a hypothetical creditors bargain, Jackson demonstrates that the affected parties would agree in advance to a collectivization process to maximize the total pool of assets and to resolve vexing prisoner's dilemma problems. The centerpiece of Jackson's theory is the assertion that prebankruptcy entitlements should be impaired in bankruptcy only when necessary to maximize net asset distributions to the creditors as a group and never to accomplish purely distributional goals.<sup>240</sup> While much of Jackson's argument is appealing, it is only partially successful in rationalizing bankruptcy law. Indeed, Jackson isolates numerous instances where current features of the bankruptcy process violate this maximization norm.<sup>241</sup>

To be sure, the maximization norm is a dominant theme in bankruptcy. Maximizing the value of the debtor's estate requires a collectivization process,<sup>242</sup> but any resulting redistribution of prebankruptcy

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239. See T. Jackson, *The Logic and Limits of Bankruptcy Law: The Implications of Collective Action and Discharge Policies* (forthcoming 1986); Jackson, *Avoiding Powers in Bankruptcy*, 26 *Stan. L. Rev.* 725 (1984) [hereinafter Jackson, *Avoiding Powers*]; Jackson, *Creditors' Bargain*, *supra* note 237, at 868-70.

240. Jackson, *Creditors' Bargain*, *supra* note 237, at 868-71; Jackson, *Avoiding Powers*, *supra* note 239, at 727-31.

241. Jackson discusses a number of instances in which bankruptcy law "systematically ignores" the creditors' bargain vision. See Jackson, *Creditors' Bargain*, *supra* note 237, at 874. Thus, for example, courts exhibit a tendency to grant less than adequate protection to secured parties claims in reorganization proceedings. See *id.* at 872-77. Similarly, bankruptcy law grants the debtor and the bankruptcy trustee broad freedom to choose a nonacceleration-based compensation standard for both lenders and executory contract holders. *Id.* at 879-91. Even more striking deviations from the creditor's bargain model are found in section 544(b) of the Bankruptcy Code and the doctrine of *Moore v. Bay*, in which a trustee can entirely avoid secured interests that an identified unsecured creditor could have avoided outside of bankruptcy only to the amount of its claim. See Bankruptcy Code § 544(b). Jackson correctly observes that from the perspective of a creditors' bargain model, "[t]he Bankruptcy Code's embodiment in section 544(b) of the holding . . . of *Moore v. Bay* is unfortunate . . . [and] . . . unprincipled." Jackson, *Avoiding Powers*, *supra* note 239, at 742-50 (referring to *Moore v. Bay*, 284 U.S. 4 (1931)). The effect of judicial interpretation of § 544(b) as well as the plain language of § 544(a) (the so-called strong arm clause), and § 365 (granting the Trustee the power to reject (or assume) executory contracts) is to effect a redistribution of prebankruptcy entitlements from secured to unsecured creditors. *Id.* at 750-56.

Professor Jackson has argued subsequently that some of these apparent anomalies, especially the provisions that permit rejection or assumption of executory contracts, can be explained in terms of his normative theory. See Letter from Thomas Jackson (Dec. 3, 1985) (on file at the offices of the Columbia Law Review). It may well be that the creditors' bargain norm is the dominant theme in bankruptcy. The point advanced here is merely that other norms, misguided or not, are also present in bankruptcy and that this interaction between competing normative theories produces a tension that should concern legal scholars.

242. Collectivization solves a classic "prisoner's dilemma" that confronts the creditors of an insolvent debtor. If maximizing total creditor welfare is desirable, bankruptcy law must provide incentives for individual creditors so that each of them finds it optimal to wait rather than to collect immediately. By requiring creditors to disgorge payments received shortly before bankruptcy, the Bankruptcy Code reduces the incentives of cred-

entitlements undermines the parties' incentives to reduce the risks of future contingencies through mutually beneficial executory contracts.<sup>243</sup> Furthermore, any redistribution of prebankruptcy entitlements will necessarily create perverse incentives that motivate parties to use the bankruptcy process strategically.<sup>244</sup>

Given the force of these arguments, how can we explain the persistence of redistributive impulses in bankruptcy?<sup>245</sup> One obvious answer is that the bankruptcy process reflects a genuine tension between the maximization objective and a competing distributional norm: that all participants should share (at least in part) in the unanticipated or "common" risks of business failure.<sup>246</sup> Under this conception, bank-

itors to grab assets through individual collection efforts and thus force piecemeal liquidation. See A. Schwartz & R. Scott, *supra* note 1, at 776-77; Jackson, *Creditors' Bargain*, *supra* note 237, at 861-64.

243. See Goetz & Scott, *Relational Contracts*, *supra* note 23, at 1149; Jackson, *Creditors' Bargain*, *supra* note 237, at 868-70.

244. The existence of two different sets of entitlements generates perverse incentives for both creditors and debtors. Unsecured creditors and debtors opt for bankruptcy when their distribution of the bankrupt estate exceeds their entitlements under state law. Secured creditors prefer state law when deprived of state law entitlements in bankruptcy. Therefore, parties are motivated to maneuver strategically between legal regimes resulting in net social losses. Uniformity between state and bankruptcy law alleviates these problems.

245. The pressures toward bankruptcy sharing are most frequently manifested in bankruptcy reorganizations where security interests in specific assets are converted into deferred cash payments. The key to the conversion process is the choice of an appropriate discount rate. Courts animated by a maximization norm will award a discount rate that is similar to the rate creditors receive under state law. Assuming the presence of an acceleration clause, secured creditors are entitled to the entire outstanding principal upon default. This amount, paid in cash, or in kind by seizure of the collateral, can then be reinvested at the current market rate of interest. See, e.g., *Memphis Bank & Trust Co. v. Whitman*, 692 F.2d 427, 429, 431 (6th Cir. 1982); *In re Scovill*, 18 Bankr. 633, 634 (Bankr. D. Nev. 1981); *In re Landmark at Plaza Park Ltd.*, 7 Bankr. 653, 657-58 (Bankr. D.N.J. 1980).

On the other hand, courts animated by risk sharing notions adopt a variety of rates that vary from the current market rate for similar loans. Frequently, it is clear that the courts consider redistribution from secured creditors to unsecured creditors and debtors appropriate. One commonly adopted rate is the rate payable by delinquent taxpayers under 26 U.S.C. § 6621 (1985). This rate is the average predominant prime rate quoted by commercial banks to large businesses. See, e.g., *In re Caudle*, 13 Bankr. 29, 37-38 (Bankr. W.D. Tenn. 1981) (the contract rate would be "unreasonable and inequitable . . . and would jeopardize an otherwise good plan to the detriment of other affected creditors and particularly the holders of unsecured claims."); *In re Ziegler*, 6 Bankr. 3 (Bankr. S.D. Ohio 1980) (§ 6621 "is reasonably responsive to current economic conditions, is subject to periodic revision, yet is not an unfair burden on Chapter 13 debtors"). Other courts have awarded the coupon yield rate of 52 week treasury bills. See, e.g., *In re Fisher*, 29 Bankr. 542, 545 (Bankr. D. Kan. 1983) ("the discount rate is not intended to give any creditor a profit").

246. See, e.g., P. Coleman, *Debtors and Creditors in America: Insolvency, Imprisonment for Debt, and Bankruptcy 13* (1974) (federal bankruptcy rules justified as a form of compulsory insurance that spreads risk). See generally Note, *The Proper Discount Rate Under the Chapter 11 Cram Down Provisions: Should Secured Creditors Retain*

ruptcy sharing is viewed as a response to an unanticipated common disaster for creditors, much like a hurricane or an earthquake.<sup>247</sup> Risk sharing solutions for unanticipated risks are not unique to bankruptcy. In addition to the rules of general average governing salvage at sea,<sup>248</sup> a similar tension between foreseeable and unforeseeable risks has long characterized the contract doctrines of excuse and impossibility.<sup>249</sup> Those business failures that we actually observe are, of course, neither perfectly foreseeable nor entirely unforeseen. Both kinds of risks are likely to have contributed to a debtor's financial distress. So long as both norms influence legal policymakers, therefore, there will be inevitable tension between these apparently incompatible conceptions of the functions of bankruptcy.<sup>250</sup>

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their State Law Entitlements or Should these Entitlements Be Redistributed to Unsecured Creditors and the Debtor?, 72 Va. L. Rev. (forthcoming, Fall 1986).

247. To understand this redistributive rationale it is helpful to draw out more fully the analogy between risk sharing and common disasters. When an area is struck by flooding, a state of emergency is frequently declared and victims are assisted with public funds. It is quite appropriate for society to respond when unanticipated catastrophes strike. But it is curious that we are equally willing to assist when the disaster is not unanticipated but foreseeable, as in the case of individuals who choose to remain in the flood plain. Presumably, these individuals could either move to a safer location or insure themselves against the knowable risk of flooding. The government subsidy reduces their incentives to do so. Similarly, it is not surprising that firms that fail because of unpredictable technological shifts are able to seek relief in bankruptcy. Yet, more surprisingly, bankruptcy also is open to debtors whose negligent or improvident actions cause their insolvency.

One reason why these two situations are not distinguished is the operational difficulty of distinguishing the victims of unforeseeable consequences from those who should properly bear the foreseeable consequences of their actions. Perhaps more plausibly, the explanation may rest on the limited range of choices open to both flood victims and unsecured creditors. For many victims of flood damage neither insurance nor relocation are economically feasible. Similarly, unsecured creditors are often employees or trade creditors who find it unfeasible to take security. See Note, *The Proper Discount Rate Under the Chapter 11 Cram Down Provision*, 72 Va. L. Rev. (forthcoming, Fall 1986).

248. The basic principle underlying general average is that if a vessel loaded with valuable cargo should founder at sea, the captain may make necessary sacrifices of the cargo or the vessel to prevent the ship and cargo from sinking altogether. All parties involved in the voyage will contribute to the general average expense according to their percentages of ownership. See G. Gilmore & C. Black, *The Law of Admiralty* 220-47 (1957). For a discussion of the general average analogy to bankruptcy sharing rules, see Scott, *Through Bankruptcy with the Creditor's Bargain Heuristic*, 52 U. Chi. L. Rev. (forthcoming Fall 1986).

249. See A. Schwartz & R. Scott, *supra* note 1, at 414-18.

250. Redistributive concerns arise in numerous contexts in addition to the examples discussed above. For example, a secured creditor is not impaired under § 1124(2) if the debtor cures a previous default and reinstates the contract rate of interest despite the presence of an acceleration clause. The intent of this provision is made clear by a Senate Report on § 1124(2):

The intervention of bankruptcy and the defaults represent a temporary crisis which the plan of reorganization is intended to clear away. The holder of a claim or interest who under the plan is restored to his original position, when

The relational financing model appears to rationalize at least some of this apparent tension between the maximization and distributional norms of federal bankruptcy. At first glance, the common disaster perspective seems wholly inconsistent with the notion of consensual security and a system of prebankruptcy priorities. By reconceptualizing the function of security, relational theory relieves some of this apparent incompatibility. The primary purpose of prebankruptcy entitlements, thus conceived, is not to guarantee creditors' claims against the postbankruptcy asset pool, but rather to affect socially beneficial control over the venture before bankruptcy. The relational creditor is best analogized to the captain of a ship struggling in high seas. He is paid to steer the vessel through the shoals to safety, but if the ship founders the captain has a right of salvage only to the extent of his accrued salary. To induce optimal prebankruptcy control it may well be necessary to give the secured creditor a priority payment out of the asset pool. But once prebankruptcy services have been compensated, there is no necessary inconsistency between security and bankruptcy sharing rules.

The relational model thus provides some justification for those provisions of the Bankruptcy Code that purport to restructure prebankruptcy entitlements.<sup>251</sup> Relational theory shifts the focus from security's function as a postbankruptcy claim against specific assets to its role as prebankruptcy leverage that reduces the risk of misbehavior and business failure. Inevitably, some debtors will suffer business failure despite pursuing the optimal investment strategy. In these cases, limiting the secured party's ability to realize *in full* is not incompatible with the leverage function of security. As long as the expected return from successful ventures motivates relational financiers to invest in business prospects, the social utility of security can be maintained.

I do not mean to suggest that efforts to accommodate competing norms within the bankruptcy process are unproblematic. Quite possibly, the costs of accommodating both visions—especially the invitation for individual debtors and creditors to manipulate the bankruptcy process for strategic purposes—exceed any corresponding social benefits. Furthermore, bankruptcy sharing rules may help existing victims at the possible expense of future parties. Any redistributive effects of bankruptcy reduce the relative attractiveness of security to creditors and

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others receive less or get nothing at all, is fortunate indeed and has no cause to complain.

S. Rep. No. 989, 95th Cong., 2d Sess. 120, reprinted in 1978 U.S. Code Cong. & Ad. News 5787, 5906.

251. Bankruptcy law has never purported to grant absolute recognition to prebankruptcy entitlements. The stated policy of the federal courts interpreting bankruptcy law has been to accord *substantial* respect to state created rights "unless in conflict with federal policy and equitable principles." See *Vanston Bondholders Protective Comm. v. Green*, 329 U.S. 156, 161-63 (1946); Report of the Commission on the Bankruptcy Laws of the United States, pt. 1, at 70 ("*For the most part* [prior claims] should be recognized in the bankruptcy process.") (emphasis added).

thus reduce the price differential between secured and unsecured credit. Sharing assets with unsecured creditors and residuals claimants thus may impose costs on potential insolvent debtors who would otherwise benefit from a wider variance in the price of secured and unsecured credit.

### CONCLUSION

All of the hypotheses that seek to explain secured financing are grounded in the belief that persistent institutional regularities rest on purposive foundations. But what do the rules of Article 9 and the business practices that it regulates actually do? Understanding these complex institutions requires a theoretical framework to explain why certain arrangements persist. The variety of competing theories of secured debt vividly illustrates that this first step is often a Sisyphean labor. Frequently, insight comes only through the accreting effects of successive scholarly efforts. By building on these efforts, I have proposed a relational theory that purports to supply a coherent explanation of a dominant pattern of secured financing. The theory holds that, in certain classes of transactions, security functions as a unique contractual mechanism for controlling the conflicts of interest that otherwise hinder the development of business prospects. The leverage obtained by holding the debtor's assets hostage enables the creditor to influence the debtor's decisionmaking, particularly when the relationship is threatened by business reversals. Without a system of security, some projects of positive present value will not be pursued and others will be inadequately developed.

Many other explanations of the operation of these financial markets are both possible and plausible. The choice among competing visions ultimately rests, therefore, on the accumulated evidence of the actual operation of credit markets. In many respects, the evidence adduced in support of a relational theory of secured financing speaks for itself. The tools of observation for the legal anthropologist are embarrassingly crude. But if the universe of secured debt is anything like the evidence revealed from examining reported cases, standard form contracts, and the ways the industry purports to operate, relational theory remains the most promising basis for understanding the nature and function of secured transactions. This theory alone cannot explain the institution of secured financing. But as a complementary vision to existing monitoring cost explanations, it reinforces the power of the central hypothesis that various contractual mechanisms for controlling debtor-creditor conflict can measurably increase the value of the firm.





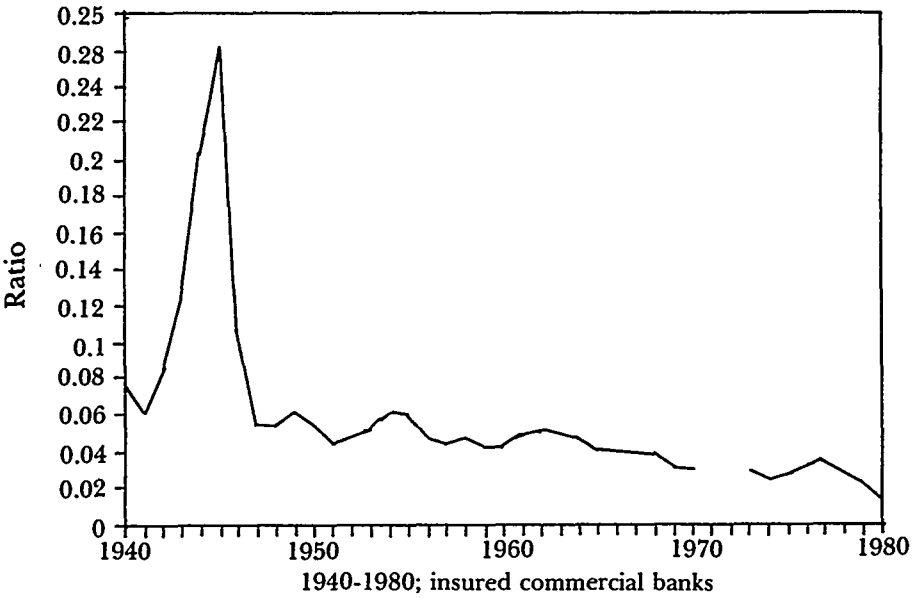
EXHIBIT I (CONTINUED)

| Year | Gross Loans<br>incl. loans<br>sold<br>outright | For<br>purchasing<br>& carrying<br>securities |          | Commercial<br>& Industrial |          | Real<br>Estate |          | Retail<br>Auto |          | %<br>change | %<br>tot | %<br>change |
|------|--|---|----------|----------------------------|----------|----------------|----------|----------------|----------|-------------|----------|-------------|
|      |  | %<br>change                                   | %<br>tot | %<br>change                | %<br>tot | %<br>change    | %<br>tot | %<br>change    | %<br>tot |             |          |             |
| 1962 | 140,023  | 12.19%  | 5.16%    | 17.73%                     | 48,668   | 34.76%         | 7.78%    | 34,309         | 13.12%   | 10,529      | 7.52%    | 16.19%      |
| 1963 | 155,933  | 11.36%  | 5.00%    | 8.00%                      | 52,984   | 33.98%         | 8.87%    | 39,088         | 13.93%   | 12,437      | 7.98%    | 18.12%      |
| 1964 | 175,096  | 12.29%  | 4.65%    | 4.45%                      | 60,040   | 34.29%         | 13.32%   | 43,733         | 11.88%   | 14,662      | 8.37%    | 17.89%      |
| 1965 | 201,114  | 14.86%  | 8.263    | 1.39%                      | 71,235   | 35.42%         | 18.65%   | 49,394         | 12.94%   | 17,139      | 8.52%    | 16.89%      |
| 1966 | 218,456  | 8.62%   | 8,793    | 6.41%                      | 80,408   | 36.81%         | 12.88%   | 54,100         | 9.53%    | 18,290      | 8.37%    | 6.72%       |
| 1967 | 236,710  | 8.36%   | 9,741    | 4.12%                      | 88,258   | 37.29%         | 9.76%    | 58,678         | 8.46%    | 18,890      | 7.98%    | 3.28%       |
| 1968 | 265,982  | 12.37%  | 10,478   | 7.57%                      | 98,161   | 36.91%         | 11.22%   | 65,333         | 11.34%   | 21,200      | 7.97%    | 12.23%      |
| 1969 | 296,464  | 11.46%  | 9,642    | -7.98%                     | 108,394  | 36.56%         | 10.42%   | 70,326         | 7.64%    | 22,706      | 7.66%    | 7.10%       |
| 1970 | 314,142  | 5.96%   | 9,727    | 0.88%                      | 112,215  | 35.72%         | 3.53%    | 73,053         | 3.88%    | 22,366      | 7.12%    | -1.50%      |
| 1971 | 331,100  | 5.40%   | na       | -100.00%                   | 120,100  | 36.27%         | 7.03%    | na             | -100.00% | na          | 0.00%    | -100.00%    |
| 1972 | 389,900  | 17.76%  | na       | ERR                        | 134,400  | 34.47%         | 11.91%   | na             | ERR      | na          | 0.00%    | ERR         |
| 1973 | 464,500  | 19.13%  | 14,000   | ERR                        | 166,700  | 35.89%         | 24.03%   | 117,500        | ERR      | na          | 0.00%    | ERR         |
| 1974 | 524,800  | 12.98%  | 13,600   | -2.86%                     | 198,600  | 37.84%         | 19.14%   | 130,300        | 10.89%   | na          | 0.00%    | ERR         |
| 1975 | 521,800  | -0.57%  | 14,300   | 5.15%                      | 191,000  | 36.60%         | -3.83%   | 134,400        | 3.15%    | na          | 0.00%    | ERR         |
| 1976 | 560,100  | 7.34%   | 18,600   | 30.07%                     | 192,400  | 34.35%         | 0.73%    | 149,000        | 10.86%   | na          | 0.00%    | ERR         |
| 1977 | 638,300  | 13.96%  | 22,000   | 18.28%                     | 212,600  | 33.31%         | 10.50%   | 175,500        | 17.79%   | na          | 0.00%    | ERR         |
| 1978 | 755,400  | 18.35%  | 20,700   | -5.91%                     | 248,200  | 32.86%         | 16.75%   | 210,900        | 20.17%   | na          | 0.00%    | ERR         |
| 1979 | 855,700  | 13.28%  | 19,600   | -5.31%                     | 292,400  | 34.17%         | 17.81%   | 242,900        | 15.17%   | na          | 0.00%    | ERR         |
| 1980 | 883,827  | 3.29%   | 12,431   | -36.58%                    | 280,645  | 31.75%         | -4.02%   | 261,406        | 7.62%    | 61,470      | 6.95%    | ERR         |
| 1981 | 924,834  | 4.64%   | 14,902   | 19.88%                     | 327,289  | 35.39%         | 16.62%   | 281,901        | 7.84%    | 58,090      | 6.28%    | -5.50%      |
| 1982 | 1,025,406                                      | 10.87%  | 13,701   | -8.06%                     | 379,419  | 37.00%         | 15.93%   | 298,165        | 5.77%    | 58,228      | 5.68%    | 0.24%       |

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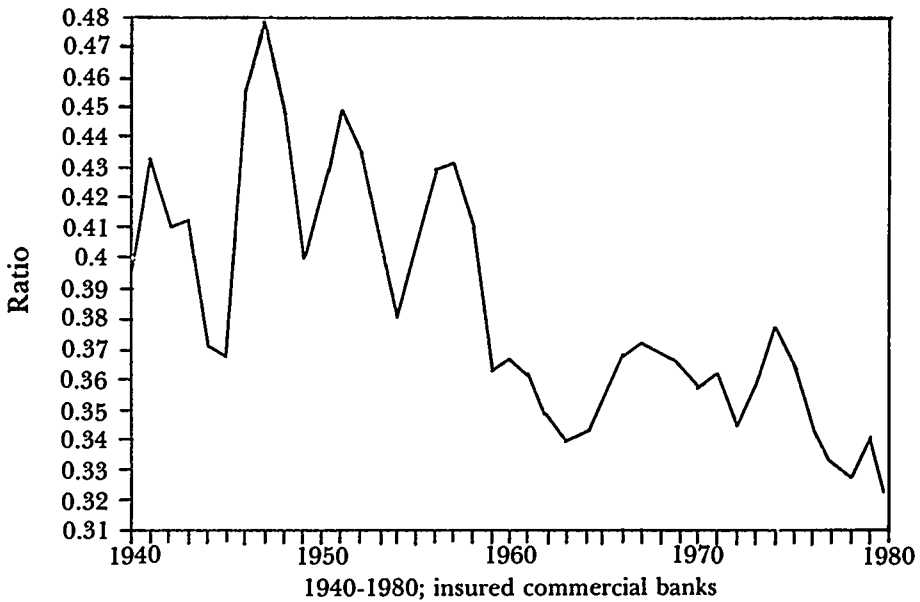
Source: Board of Governors of the Federal Reserve System, Banking and Monetary Statistics 1941-1970, at 134-35 (Sept. 1976); Board of Governors of the Federal Reserve System, Annual Statistical Digest 72-80 (1970-1979), 64-65 (1980), 66-67 (1981), 68-69 (1982).

EXHIBIT II  
Loans for Securities to Total Loans



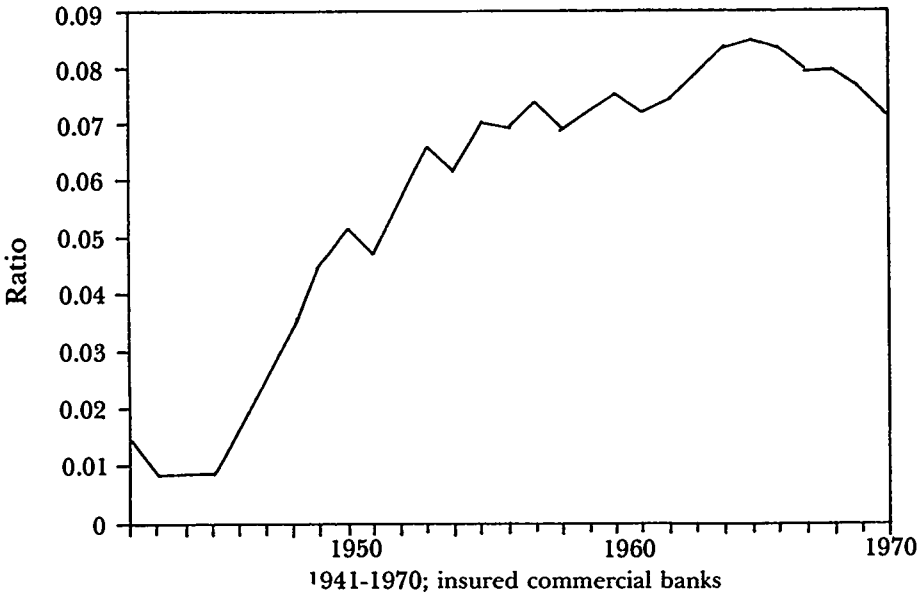
Source: Board of Governors of the Federal Reserve System, Banking and Monetary Statistics 1941-1970, at 134-35 (Sept. 1976); Board of Governors of the Federal Reserve System, Annual Statistical Digest 72-80 (1970-1979), 64-65 (1980), 66-67 (1981), 68-69 (1982).

EXHIBIT III  
Comml. & Ind. to Total Loans



Source: Board of Governors of the Federal Reserve System, *Banking and Monetary Statistics 1941-1970*, at 134-35 (Sept. 1976); Board of Governors of the Federal Reserve System, *Annual Statistical Digest 72-80 (1970-1979)*, 64-65 (1980), 66-67 (1981), 68-69 (1982).

EXHIBIT IV  
Retail Auto Loans to Total Loans



Source: Board of Governors of the Federal Reserve System, Banking and Monetary Statistics 1941-1970, at 134-35 (Sept. 1976); Board of Governors of the Federal Reserve System, Annual Statistical Digest 72-80 (1970-1979), 64-65 (1980), 66-67 (1981), 68-69 (1982).

## EXHIBIT V

Total Consumer Credit  
(current dollars in millions)

| Year | Total  | % Change | Installment | % tot  | % Chg.  | Noninstallment | % tot  | % Chg.  | Total, % of<br>natl. pers.<br>consumption |
|------|--------|----------|-------------|--------|---------|----------------|--------|---------|---|
| 1939 | 7,222  |          | 4,503       | 62.35% |         | 2,719          | 37.65% |         | 10.78%                                    |
| 1940 | 8,338  | 15.45%   | 5,514       | 66.13% | 22.45%  | 2,824          | 33.87% | 3.86%   | 11.74%                                    |
| 1941 | 9,172  | 10.00%   | 6,085       | 66.34% | 10.36%  | 3,087          | 33.66% | 9.31%   | 11.35%                                    |
| 1942 | 5,983  | -34.77%  | 3,166       | 52.92% | -47.97% | 2,817          | 47.08% | -8.75%  | 6.75%                                     |
| 1943 | 4,901  | -18.08%  | 2,136       | 43.58% | -32.55% | 2,765          | 56.42% | -1.85%  | 4.93%                                     |
| 1944 | 5,111  | 4.28%    | 2,176       | 42.57% | 1.87%   | 2,935          | 57.43% | 6.15%   | 4.72%                                     |
| 1945 | 5,665  | 10.84%   | 2,462       | 43.46% | 13.14%  | 3,203          | 56.54% | 9.13%   | 4.74%                                     |
| 1946 | 8,384  | 48.00%   | 4,172       | 49.76% | 69.46%  | 4,212          | 50.24% | 31.50%  | 5.83%                                     |
| 1947 | 11,598 | 38.33%   | 6,695       | 57.73% | 60.47%  | 4,903          | 42.27% | 16.41%  | 7.17%                                     |
| 1948 | 14,447 | 24.56%   | 8,996       | 62.27% | 34.37%  | 5,451          | 37.73% | 11.18%  | 8.27%                                     |
| 1949 | 17,364 | 20.19%   | 11,590      | 66.75% | 28.84%  | 5,774          | 33.25% | 5.93%   | 9.75%                                     |
| 1950 | 21,471 | 23.65%   | 14,703      | 68.48% | 26.86%  | 6,768          | 31.52% | 17.22%  | 11.18%                                    |
| 1951 | 22,712 | 5.78%    | 15,294      | 67.34% | 4.02%   | 7,418          | 32.66% | 9.60%   | 10.97%                                    |
| 1952 | 27,520 | 21.17%   | 19,403      | 70.51% | 26.87%  | 8,117          | 29.49% | 9.42%   | 12.68%                                    |
| 1953 | 26,838 | -2.48%   | 23,005      | 85.72% | 18.56%  | 3,833          | 14.28% | -52.78% | 11.68%                                    |
| 1954 | 32,414 | 20.78%   | 23,568      | 72.71% | 2.45%   | 8,846          | 27.29% | 130.79% | 13.75%                                    |
| 1955 | 38,830 | 19.79%   | 28,906      | 74.44% | 22.65%  | 9,924          | 25.56% | 12.19%  | 15.31%                                    |
| 1956 | 42,334 | 9.02%    | 31,720      | 74.93% | 9.74%   | 10,614         | 25.07% | 6.95%   | 15.92%                                    |
| 1957 | 44,971 | 6.23%    | 33,868      | 75.31% | 6.77%   | 11,103         | 24.69% | 4.61%   | 16.04%                                    |
| 1958 | 45,129 | 0.35%    | 33,642      | 74.55% | -0.67%  | 11,487         | 25.45% | 3.46%   | 15.59%                                    |
| 1959 | 51,544 | 14.21%   | 39,247      | 76.14% | 16.66%  | 12,297         | 23.86% | 7.05%   | 16.58%                                    |
| 1960 | 56,141 | 8.92%    | 42,968      | 76.54% | 9.48%   | 13,173         | 23.46% | 7.12%   | 17.28%                                    |
| 1961 | 57,982 | 3.28%    | 43,891      | 75.70% | 2.15%   | 14,091         | 24.30% | 6.97%   | 17.31%                                    |
| 1962 | 63,821 | 10.07%   | 48,720      | 76.34% | 11.00%  | 15,101         | 23.66% | 7.17%   | 17.97%                                    |
| 1963 | 71,739 | 12.41%   | 55,486      | 77.34% | 13.89%  | 16,253         | 22.66% | 7.63%   | 19.15%                                    |
| 1964 | 80,268 | 11.89%   | 62,692      | 78.10% | 12.99%  | 17,576         | 21.90% | 8.14%   | 20.04%                                    |
| 1965 | 89,883 | 11.98%   | 70,893      | 78.87% | 13.08%  | 18,990         | 21.13% | 8.05%   | 20.88%                                    |
| 1966 | 96,239 | 7.07%    | 76,245      | 79.22% | 7.55%   | 19,994         | 20.78% | 5.29%   | 20.69%                                    |

EXHIBIT V (CONTINUED)

| Year  | Total   | % Change | Installment | % tot  | % Chg.  | Noninstallment | % tot  | % Chg. | Total, % of natl. pers. consumption |
|-------|---------|----------|-------------|--------|---------|----------------|--------|--------|-------------------------------------|
| 1967  | 70,783  | -26.45%  | 49,428      | 69.83% | -35.17% | 21,355         | 30.17% | 6.81%  | 14.44%                              |
| 1968  | 110,770 | 56.49%   | 87,745      | 79.21% | 77.52%  | 23,025         | 20.79% | 7.82%  | 20.63%                              |
| 1969  | 121,146 | 9.37%    | 97,105      | 80.16% | 10.67%  | 24,041         | 19.84% | 4.41%  | 20.82%                              |
| 1970* | 127,163 | 4.97%    | 102,064     | 80.26% | 5.11%   | 25,099         | 19.74% | 4.40%  | 20.45%                              |

\* Later data not available in this form.

DECADE COMPOUND GROWTH RATES

| Year      | T. Cons. Credit | Installment | Noninstallment | Natl. P. Cons. |
|-----------|-----------------|-------------|----------------|----------------|
| 1939-1949 | 9.17%           | 9.92%       | 7.82%          | 10.27%         |
| 1949-1959 | 11.49%          | 12.97%      | 7.85%          | 5.73%          |
| 1960-1970 | 8.92%           | 9.48%       | 6.93%          | 6.47%          |

Source: U.S. Bureau of the Census, Statistical Abstract of the United States: 1985 (105th ed. 1984)