

Agency Costs and the Demand and Supply of Secured Debt and Asset Securitization

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Current accounts of the demand and supply of secured debt and asset securitization are in stark contrast with observed debtor behavior. Whereas current theories predict a strong preference for secured debt, debtors borrow on an unsecured basis whenever possible. In addition, the purported theoretical similarities between secured debt and asset securitization, that both forms of financing generate savings by pledging collateral, conflict with the significant disparity in the popularity and signals associated with use of asset securitization and secured debt. This Article addresses the disconnects between current theories and observed practices by considering the effects of the agency costs associated with corporations and the risk-aversion associated with non-corporate forms of business enterprises on the demand for secured debt. Integrating agency costs and risk-aversion into the debtor decision between secured and unsecured debt suggests a strong bias against secured debt because free assets serve as a safety mechanism for managers similar to Jensen's theory with respect to free cash flow. An analysis of the supply of secured debt and asset securitization illustrates that a significant, if not primary, element of both species of financing is the radically different way in which secured debt and asset securitization attempt to decrease the likelihood of debtor insolvency. Focusing on this crucial difference explains the disparity in popularity between the forms of financing by suggesting that secured debt is ideally suited for financially marginal debtors but ill-suited for financially healthy debtors.

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Introduction

A fundamental tool of corporate finance is the stratification of debt. Debtors may arrange creditors into priority classes by entering into covenants or granting security interests. Federal bankruptcy law preserves this hierarchy of creditors by granting full priority to secured creditors with respect to encumbered assets.¹ The recent innovation of asset securitization represents the most radical form of such debt prioritization. Through asset securitization, a firm can remove assets from the scope of bankruptcy proceedings by selling them to a special purpose vehicle—an entity unaffected by the financial status of the firm itself.²

This Article addresses two anomalies surrounding debt and asset securitization, one old and one relatively new. The old anomaly centers on the contrast between the theoretical benefits provided by secured debt and the observed use of secured debt. Secured debt permits a debtor to concurrently use an asset as a business input and as collateral to decrease the debtor's costs of capital. Moreover, scholars have long recognized that secured debt presents opportunities for debtors to redistribute risks and profits—to the benefit of themselves and secured creditors, and to the detriment of unsecured creditors.³ Indeed, recent scholarship has emphasized this strategic element of secured debt to the point of recommending an overhaul of the current federal bankruptcy system's full priority regime.⁴ But empirical observations contrast starkly with the theoretical advantages of secured debt. First, debtors borrow on an unsecured basis whenever possible.⁵ Second, there is little, if any, observed interest rate differential between secured and unsecured loans.⁶ This disconnect between debtors' observed aversion to secured debt and its theoretical benefits suggests that the traditional analysis of secured debt is incomplete or inaccurate.

The new anomaly concerns the conceptual similarities between secured debt and asset securitization, and the differences in the popularity

1 11 U.S.C. § 506(a) (2000).

2 Steven L. Schwarcz, *The Alchemy of Asset Securitization*, 1 STAN. J.L. BUS. & FIN. 133, 135 (1994).

3 See Alan Schwartz, *Security Interests and Bankruptcy Priorities: A Review of Current Theories*, 10 J. LEGAL STUD. 1, 30-33 (1981).

4 See Lucian Ayre Bebchuk & Jesse M. Fried, *The Uneasy Case for the Priority of Secured Claims in Bankruptcy*, 105 YALE L.J. 857 (1996).

5 See Ronald J. Mann, *Explaining the Pattern of Secured Credit*, 110 HARV. L. REV. 625, 629 (1997).

6 Steven L. Schwarcz, *The Easy Case for the Priority of Secured Claims in Bankruptcy*, 47 DUKE L.J. 425, 448 (1997).

between the two forms of financing. Many commentators have characterized asset securitization as merely an extreme form of secured debt.⁷ Both forms of financing seem to be driven by a debtor's use of collateral to ensure payments to creditors in case of insolvency. Yet, asset securitization has proven to be a tremendously popular vehicle for financing,⁸ while debtors avoid secured debt whenever possible.⁹ Moreover, use of secured debt carries a negative signal,¹⁰ while use of asset securitization does not.¹¹ This deep disparity in the usage patterns and signals associated with secured debt and asset securitization, especially in light of the purportedly identical mechanics of the two forms of financing, strongly suggests that the current conceptualization of the relation between secured debt and asset securitization is also incomplete or inaccurate.

This Article addresses these anomalies by constructing a new model for the demand for secured debt—one that includes both the agency costs associated with corporations and the risk-aversion associated with non-corporate businesses. This Article also addresses the supply of secured debt and asset securitization, an area often neglected in discussions pertaining to the patterns of use of secured debt and asset securitization. Integrating agency costs and risk-aversion into the debtor decision between secured and unsecured debt suggests a strong bias against secured debt because free assets, like free cash flows, provide a safety mechanism for managers.¹² Managerial bias against secured debt may be so strong as to occasion an inefficiently low level of secured debt. Moreover, the resulting decrease in managerial discipline created by a surplus of free assets compounds the costs associated with an inefficient aversion to secured debt.

An analysis of the supply of secured debt and asset securitization suggests that the observed preference for unsecured debt may be efficient with respect to healthy firms. The popular emphasis on secured debt and asset securitization's similarities ignores a significant, if not primary, distinction between the two species of financing—the radically different ways in which secured debt and asset securitization decrease the likelihood of debtor insolvency. Focusing on this crucial difference explains the disparity in popularity between the forms of financing by suggesting that secured debt is ideally suited for financially-marginal debtors but ill-suited

7 E.g., Lois R. Lupica, *Asset Securitization: The Unsecured Creditor's Perspective*, 76 TEX. L. REV. 595 (1998).

8 Schwarcz, *supra* note 2, at 133.

9 See Mann, *supra* note 5, at 629.

10 Schwarcz, *supra* note 6, at 450 n.107.

11 *Id.* at 463.

12 See Michael C. Jensen, *Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers*, 76 AM. ECON. REV. 323, 323 (1986).

for financially-healthy debtors. Conversely, asset securitization is not only better suited for financially healthy debtors, it also represents a first-best solution for healthy debtors because it does not involve the trade-off between fiscal efficiency and agency costs that is inherent to the choice between secured debt and unsecured debt.

In Part I, I address the demand for secured debt. I begin with a review of the current theories of debtors' demand for secured debt, and develop a new theory by incorporating agency costs and risk aversion into the analysis of debtors' choice between secured and unsecured debt. I then employ this theory to address several tensions in the current treatment of secured debt. In Part II, I address the supply of secured debt. By comparing the costs and benefits of secured debt to marginal and healthy debtors and the costs and benefits of asset securitization and secured debt to financially healthy debtors, I illustrate the radically different ways in which secured debt and asset securitization address the problem of debtor insolvency and the equally dramatically different effects such strategies have on financially healthy and financially marginal debtors. I use insights from these comparisons to address various issues raised by the current treatment of asset securitization and secured debt. In Part III, I address the ramifications of the developments discussed in this Article to bankruptcy law.

I. The Demand for Secured Debt

A. *Current Theories on the Demand for Secured Debt*

1. The Uneasy Case for Full Priority

In a perfectly competitive debt market, creditors are only able to charge interest rates that cover their economic costs. The interest rates that creditors charge are tied to the probability of default and the amount recoverable upon default. Under a bankruptcy regime that accords security interests full priority, secured claims reduce the pool of funds available to unsecured claims. All other things equal, a debtor with encumbered assets is likely to incur a higher interest rate for unsecured loans than a debtor without encumbered assets.

But the previous analysis only functions if creditors are able to adjust interest rates after debtors encumber their assets. This assumption was questioned by Bebchuk and Fried, who note the existence of “non-adjusting creditors”—creditors who do not adjust the interest rate they

charge in response to a debtor's encumbering its assets.¹³ The presence of non-adjusting creditors in a full-priority bankruptcy system provides debtors with the opportunity to redistribute wealth from unsecured creditors to secured creditors. Assuming that the credit market is not completely saturated with debtors with fully-encumbered assets, a debtor can transfer wealth from previous unsecured, non-adjusting creditors by fully encumbering its assets, or at least achieving a level of asset-encumbrance greater than the market average. The debtor obtains funds at a secured rate and does not have to compensate the non-adjusting creditors for their higher level of risk.

The redistributive effects of secured loans under a full priority regime create distortions in the financing decisions of debtors that lead to inefficient security interests.¹⁴ A firm will issue a security interest when the benefits it receives from doing so outweigh the costs. This private decision-making rule is only efficient from a societal perspective, however, when there are no externalities resulting from the firm's decision—when it can capture all the benefits and internalize all the costs flowing from a security interest. Since full priority permits firms to pass some of the costs of security interests to non-adjusting creditors, debtors do not confront the full costs of security interests. They may grant secured loans that decrease general, but increase their personal welfare. Full priority, when accompanied by non-adjusting creditors, may lead to security interests that are merely redistributive and even wealth-decreasing from a societal perspective.

2. The Easy Case for Full Priority

Steven Schwarcz responds to Bebchuk and Fried by emphasizing the costs of granting security interests for purely redistributive reasons.¹⁵ Schwarcz refers to the total costs of granting a security interest as "Theta," and he contends that, for most debtors, Theta is sufficiently high to undermine the viability of purely redistributive security interests.¹⁶

Schwarcz discusses three principal elements of Theta. First, a debtor that fully encumbers all its assets faces a significant opportunity cost of having fewer assets available to pledge as collateral in the case of a liquidity crisis.¹⁷ Second, fully encumbering all assets sends a negative signal to the business community about the viability of the debtor's

13 See Bebchuk & Fried, *supra* note 4, at 882. Specifically, private involuntary creditors, government and regulatory agencies, voluntary creditors with small claims, and "rationally-ignorant" voluntary creditors are non-adjusting creditors. *Id.*

14 See *id.* at 896.

15 Schwarcz, *supra* note 6, at 425-26.

16 *Id.*

17 *Id.* at 446-48.

business.¹⁸ Finally, secured debt is based on liquidation value, while unsecured debt is based on cash flow.¹⁹ Liquidation value is equal to the discounted value of a debtor's existing assets, whereas cash flow includes the anticipated income of the company. If the company is a wealth-creating enterprise, then cash flow should eclipse liquidation value.

Even incorporating the redistributive effects of security interests, Schwarcz contends that the Theta of most debtors overwhelms the benefits of prematurely encumbering all assets for redistributive purposes. Although Schwarcz does not base his inferences on direct empirical evidence for this claim and concedes that direct empirical support would be difficult to isolate,²⁰ Schwarcz argues that the relative dearth of security interests supports his claim.²¹ Specifically, empirical studies have indicated that debtors that can obtain financing on an unsecured basis do not generally incur secured debt.²² Attacking the issue from a different angle, Schwarcz observes that the interest rate differential between secured and unsecured loans is relatively small.²³ If a lender is comfortable lending to a debtor on an unsecured basis, the debtor is unlikely to receive any benefit from encumbering its assets.²⁴

An apparent empirical contradiction to Schwarcz's assessment of Theta is found in non-recourse debt, such as project financing, asset securitization, and other forms of structured financing transactions. Such debt is usually backed by collateral,²⁵ even when issued by healthy corporations that otherwise borrow on an unsecured basis. Schwarcz explains this anomaly by arguing that the differences between non-recourse debt and full-recourse debt indicate that Theta is low for non-recourse debt. First, because non-recourse debt does not apply to all of a debtor's assets, but only to specific assets, it leaves the remainder of a debtor's assets as a source of collateral in case of a liquidity crisis.²⁶ Second, non-recourse debt does not carry the reputational costs of secured debt because it is widely recognized as a viable means for healthy companies to attract capital.²⁷ Finally, creditors for non-recourse debt lend against cash flow, not liquidation value.²⁸

18 *Id.* at 450 n.107.

19 *Id.*

20 *See id.* at 448.

21 *Id.* at 447-48.

22 *Id.*

23 *Id.*

24 *Id.*

25 *Id.* at 463.

26 *Id.*

27 *Id.*

28 *Id.* at 463-64.

3. General Remarks

Aside from the merits of both Bebhuk and Fried's and Schwarcz's arguments,²⁹ their debate prompts several preliminary remarks. First, both sides focus exclusively on the pledge of collateral in discussing secured debt and the effects of secured debt. However, in addition to providing collateral in the case of debtor insolvency, secured debt affords creditors with substantial power to regulate debtor behavior, thereby decreasing the likelihood of debtor insolvency or at least decreasing the probability that a secured creditor will be involved when a debtor becomes insolvent.³⁰ Indeed, several scholars have contended that the value of secured debt is derived primarily from its preventive powers instead of the value of pledged collateral.³¹ Insofar as the debate between Bebhuk and Fried and Schwarcz neglects this significant, perhaps primary, quality of secured debt, it may prove to be an ancillary or irrelevant discussion (depending on the distribution of benefits to secured creditors between receiving collateral and controlling debtor behavior) in the analysis for the demand for secured debt.

Second, the debate focuses exclusively on the demand for secured debt. While partial-equilibrium analyses are generally valid, an analysis of the supply of secured debt is especially relevant to the immediate debate because the issue itself assumes that debtors have a meaningful choice between secured and unsecured debt. Anecdotal observations suggest that, with respect to financially unhealthy debtors, this may not be the case,³² and a rigorous analysis of the supply of secured debt may suggest that secured debt is not a viable financing strategy for financially healthy debtors,³³ rendering the debate moot.

Finally, the debate between Bebhuk and Fried and Schwarcz is artificially discrete. Specifically, neither argument accounts for the impact of the debtor's financial status or the debtor's current level of encumbrance in discussing the demand for secured debt.

29 I will discuss their analyses in Section I.C.

30 See Robert E. Scott, *A Relational Theory of Secured Financing*, 86 COLUM. L. REV. 901, 950 (1986).

31 E.g., Mann, *supra* note 5, at 640-41.

32 See Steven L. Harris & Charles W. Mooney, Jr., *A Property-Based Theory of Security Interests: Taking Debtors' Choices Seriously*, 80 VA. L. REV. 2021, 2030-31 (1994); Schwarcz, *supra* note 6, at 442.

33 I will provide such an analysis in Section II.B.

B. *Reassessing the Demand for Secured Debt in the Context of Agency Costs*

1. Agency Costs of Corporations

One of the fundamental costs associated with corporate business enterprises is the cost created by the different goals of a firm's owners, such as shareholders, and its managers. Shareholders desire to maximize firm value³⁴ and are risk neutral with respect to the returns on any specific corporation because they can diversify their holdings among different corporations.³⁵ Managers, however, seek to maximize their benefits from working for the shareholders, meaning that they will attempt to receive the most utility for the least amount of work. Insofar as shareholders are able to tie managers' benefits to the success of the firm, managers' interests are to maximize firm welfare.³⁶ Managers are not risk-neutral with respect to the firm that they manage for at least two reasons. First, much of any manager's human capital is firm-specific. Thus, managers cannot shift from one firm to another without significant costs. Second, managers may draw psychic pleasures from the mere act or status of managing a firm. To the extent that such psychic pleasures are unique to a specific firm, then managers will suffer a loss even if they are able to become managers at a different firm. With respect to non-firm-specific pleasures from leading a firm, managers may still incur a loss if they cannot obtain another management position or another management position of similar responsibility or perceived prestige upon the dissolution of the corporation.

These tensions between the interests of management and shareholders generate two inefficiencies in the operation of the corporation from the perspective of the shareholders. First, if shareholders cannot perfectly match management compensation to corporation performance, then management will not capture all of the benefits of its efforts, and it will have an incentive to work at a suboptimal level, or shirk. Shirking results in suboptimal returns for the shareholders. Second, irrespective of management's efforts, the shareholders will still receive suboptimal results because of management's divergent risk tolerance. Because shareholders are risk-neutral, they would desire management to invest in any projects that have an expected positive net present value. Yet, management is risk-averse, and it will therefore invest in positive net present value projects, but not to the extent that shareholders desire. Rather, management will

34 See Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure*, 3 J. FIN. ECON. 305, 305-06 (1976).

35 See *id.* at 306.

36 See *id.*

attempt to operate the firm in such a manner that the firm provides a positive return on investments while still maintaining a certain safe level of risk. The costs generated by these tensions between the interests of management and shareholders are collectively referred to as “agency costs.”³⁷

Agency costs are a significant factor in the demand for secured debt because both of the ways in which secured debt generates savings in the cost of capital—by increasing the expected return in case of default through a pledge of collateral, and by decreasing the likelihood of default through covenants—significantly impede management’s ability to shirk with impunity. Since management is the corporation’s representative in negotiating agreements for secured debt, these factors suggest that agency costs may cause a strong bias against secured debt.

2. Agency Costs and Collateral

a. *Jensen’s Free Cash Flow Theory*

Michael Jensen observed that one of the manifestations of corporate agency costs is an inefficient surplus of cash.³⁸ In order to maximize returns, shareholders desire that managers invest corporate funds in all available positive net present value projects.³⁹ To the extent financially feasible, managers should return surplus funds to shareholders by issuing dividends or debt.⁴⁰ Additionally, a relative dearth of cash has a disciplinary effect on management.⁴¹ It creates less of a margin for error and compels managers to exert more effort to generate returns, if not to appease shareholders (so as to retain their positions), than to maintain the solvency of the firm.

In contrast, managers have an incentive to retain an extra amount of cash beyond levels necessary to fund positive net present value projects (what Jensen termed “free cash flow”).⁴² Free cash flow can be employed in inefficient ventures (meaning projects with a negative net present value) or inefficient organizational or financial schemes.⁴³ The latter possibility is relevant to the current discussion. Managers have several incentives for

37 *See id.* at 317.

38 Jensen, *supra* note 12, at 323.

39 *Id.* at 324.

40 *Id.*

41 Shareholders only want a “relative” dearth of cash because they still desire that a firm maintain sufficient liquidity to efficiently fund day-to-day operations and positive net present value investment opportunities.

42 Jensen lists greater power associated with a larger corporation, greater compensation and creation of additional managerial positions as reasons for free cash. *Id.* at 323.

43 *Id.*

keeping free cash flow on hand. First, the cash creates a safety cushion in case of an economic downturn or an exogenous negative event. While shareholders can protect themselves against such contingencies through diversification, management is effectively tied to a single corporation. Second, a cash surplus creates margins for managerial misbehavior. Managers can employ free cash flow to obfuscate shirking by applying the cash to any deficits. Moreover, a cash surplus allows management to ameliorate the negative impacts of shirking on the solvency of the firm.

b. Free Assets as a Substitute for Free Cash

Jensen's free cash flow theory provides a powerful insight as to why corporations might not tend to encumber assets. Although granting security interests may be in the best interests for the profitability of a corporation,⁴⁴ management has a strong reason to resist such interests because unencumbered assets can provide management with relatively cheap access to capital. First, as Schwarcz suggests, if a firm encounters financial difficulties, managers can employ secured loans to quickly raise funds. Second, managers may also employ secured loans to raise funds to obfuscate the effects of shirking. Finally, the availability of secured loans itself may qualify as a benefit to managers because it creates security with respect to the continuing survival of the corporation and hence their continued status as managers. Thus, free assets can serve as substitutes to Jensen's free cash flow. As managers will attempt to retain free cash flow, they may also attempt to retain free assets.

Jensen's theory also illuminates a deep lacuna in Schwarcz's analysis. Just because management could store liquidity in free assets does not mean that management will elect to do so. If free assets and free cash flow are strong substitutes, then management could elect to prematurely encumber assets and hold any extra wealth generated from secured loans in the form of cash. Schwarcz's observation that free assets are a source of liquidity is not sufficient to support an affirmative theory of why management will not prematurely encumber its assets. Schwarcz's analysis is incomplete because it does not explain why management would elect to employ free assets over free cash flow to preserve excess wealth. My explanation for this under-encumbrance of assets—what I will term the "Sub-Optimal Use Theory"—must also articulate why free assets are better reservoirs for wealth, from the perspective of agency costs, than free cash flow.

A crucial distinction, then, between the Sub-Optimal Use Theory and Schwarcz's analysis is that the Sub-Optimal Use Theory posits an

44 I am currently only considering the demand for secured loans. My analysis of the supply dimension will suggest ambiguous conclusions regarding the efficiency of secured loans.

inefficient existence of free assets, whereas Schwarcz posits an efficient existence of free assets. Insofar as free assets replace or augment free cash flow, they are instances of agency costs. By leaving free assets, management is inefficiently financing the operations of the corporation in order to provide benefits to itself. Schwarcz correctly observes that free assets serve as a source of liquidity, but he neglects to consider the possibility of an inefficient abundance of free assets. Management may refrain from encumbering some assets in order to efficiently protect against a liquidity crisis; however, it may also refrain from encumbering all assets to provide a safety mechanism for itself by inefficiently reducing the riskiness of the corporation and obscuring the effects of shirking.

c. Free Assets Preferred Over Free Cash Flow

Several aspects of free assets recommend them as a device for reducing agency costs over free cash flow from the perspective of both management and shareholders. Management and shareholders share aligned but converse goals with respect to agency costs. The ideal mechanism for extracting agency costs for managers would be one that is difficult for shareholders to detect, and provides management with a great benefit while imposing little cost on the shareholders. Conversely, the ideal concession for shareholders would be difficult (and possibly inefficient) for management to monitor, and would provide management the most benefit while creating little cost for the shareholders.

Inefficient cash surpluses are more observable than inefficient free assets in two ways. First, public records and corporate records provide a clearer account of available cash than they do for free assets. Public corporations must disseminate financial statements to shareholders on a quarterly basis. Shareholders can also determine any corporation's available cash relatively easily by requesting to view its financial records. In contrast, while secured creditors must create public filings for any assets they wish to encumber,⁴⁵ this signal is ambiguous because a public filing indicates only a possibility of encumbrance. Creditors may create public filings for assets that they have not encumbered or may never encumber.⁴⁶ To specifically verify a corporation's free assets, shareholders must review debt agreements between the corporation and creditors.

Second, the decision to create a secured loan involves more factors than the decision to maintain a certain level of free cash. Deciding between the appropriate level of free cash and the appropriate level of free assets involves two common sets of decisions related to the optimal liquidity

⁴⁵ See U.C.C. § 9-502 (2001).

⁴⁶ See *id.*

level of a corporation. First, both decisions involve a judgment concerning a corporation's necessary capital reserves. Second, both decisions require managers to determine how they may efficiently convey excess wealth to shareholders. Yet, deciding on the optimal level of free assets involves a third and unique set of decisions—assessing the costs of granting a security interest. Secured loans often involve significant transaction costs because of necessary negotiations. More importantly, secured loans often entail collateral-specific covenants to protect the value of the creditor's security interest. The costs of these covenants (in terms of the debtor's responsibility to monitor the collateral or the limitations on the debtor's ability to operate its business) may overwhelm any savings that result from decreased interest rates.

But both of these costs, and especially the cost of covenants or other terms of a secured loan, are not observable by shareholders because they require specific knowledge of the firm's operations and the firm's relation with creditors. Additionally, management may not only obfuscate the effects of secured loans from shareholders, it most likely affects such terms. The terms of secured loans are negotiated between management and debtors. This provides management with two strategies for biasing the firm against secured loans. First, management may artificially inflate the interest rates of such loans by refusing to grant optimum covenants with respect to the collateral. The second and converse strategy is to create artificially draconian terms for secured loans by under-representing the firm during negotiations. Such strategies are effective because shareholders rarely monitor negotiations for secured loans. Together, these aspects of secured loans provide management with greater latitude in explaining the presence of free assets over explaining the presence of free cash flow.

With respect to management discipline, the effects of free cash and free assets appear to be identical in terms of the ratio of benefits to management and costs to shareholders. Both free cash flow and free assets allow management some latitude for shirking. However, the unique dynamics surrounding the valuation of secured loans provides free assets with an advantage over free cash flow. Creditors incorporate the risk of default and the expected return in the event of default into the interest rates that they charge. Consequently, a healthy debtor borrowing on a secured basis would enjoy less of a benefit than an unhealthy debtor borrowing on a secured basis, because a healthy debtor's unsecured rate would not be significantly different from its secured rate. Empirical observations seem to support this conclusion by indicating that interest rates for unsecured and secured loans do not vary much for financially healthy creditors.⁴⁷ If

47 See Schwarcz, *supra* note 6, at 448.

unsecured loans command only a small premium over secured loans, then the costs to shareholders for free assets are relatively small. However, the benefits to management are substantial because management effectively gains a safety mechanism against unemployment.

3. Agency Costs and General and Financial Covenants

a. Secured Debt and Debtor Behavior

Secured creditors regulate debtor behavior through a battery of covenants in the security agreement,⁴⁸ which can be classified into two groups—"financial covenants" and "general covenants." Financial covenants require the debtor to meet certain financial performance targets, such as achieving a certain level of earnings before interest, tax, depreciation, and amortization expenses ("EBITDA") or maintaining a certain ratio of EBITDA to debt or assets to debt, on a quarterly and/or annual basis.⁴⁹ The failure to meet such financial targets could trigger an increase in interest rates or constitute a default under the security agreement.⁵⁰ General covenants directly limit the debtor's ability to engage in certain activities. For example, a security agreement may prohibit the debtor from acquiring additional secured or unsecured debt, engaging in sale-leaseback transactions, or selling certain assets or assets over a certain value without first acquiring the secured creditor's consent.⁵¹ Failure to observe general covenants will often also constitute an event of default under the security agreement.⁵²

Financial and general covenants work with security interests to empower the secured creditor. Once a debtor violates a financial or general covenant, the debtor may be deemed to have defaulted under the security agreement. A default provides a secured creditor with the ability to immediately demand the principal and accrued interest under the secured loan, and the power to foreclose on collateral if the debtor is unable to pay.⁵³ If the collateral is crucial to the debtor's business, the threat of foreclosure provides the secured creditor with significant power to shape the debtor's future behavior (i.e., by decreasing the debtor's likelihood of insolvency). Alternatively, the secured creditor may collect the sum due

48 See, e.g., ALLIANCE IMAGING, INC., PROSPECTUS 66 (2001), available at <http://www.sec.gov/Archives/edgar/data/817135/000091205701525446/a2055312z424b4.txt> (last visited Apr. 26, 2002).

49 See, e.g., *id.*

50 See, e.g., *id.*

51 See, e.g., *id.*

52 See, e.g., *id.*

53 See, e.g., *id.*

from the debtor or foreclose on the pledged collateral if the secured creditor does not believe that the debtor can remain solvent. From management's perspective, both the manner in which financial and general covenants function, and the nature of the benefits that both types of covenants generate further decrease the attractiveness of secured debt.

b. The Costs of Covenants to Management

Financial covenants and general covenants impose significant costs to management because they create an effective monitoring system for management performance. Financial covenants serve as a direct monitoring device for the debtor's performance, which provides an indicator of management's performance. A secured creditor has greater incentives, vis-à-vis individual shareholders, to diligently monitor a debtor since it has a significant interest in the financial health of the debtor. Furthermore, the secured creditor specializes in monitoring debtors. This specialization increases the secured creditor's incentives to monitor the debtor because it decreases the secured creditor's costs of monitoring (because the fixed costs of monitoring may be spread across a large pool of debtors to whom the creditor has lent funds). More importantly, this specialization makes the secured creditor's monitoring more effective, as the secured creditor has amassed experience and expertise in interpreting financial information. Finally, the secured creditor's monitoring may serve as an alarm system to shareholders for poor management performance. If management's failure to meet a financial covenant triggers an event of default, then management may have to publicly disclose such default if the corporation files public disclosures under the Securities Exchange Act of 1934.⁵⁴

General covenants complement financial covenants by limiting management's ability to obfuscate negative results. If a fiscal quarter results in poor financial results, management may sell assets, acquire additional debt, or engage in sale-leaseback transactions to generate additional liquidity. General covenants impede this strategy by requiring management to obtain the secured creditor's consent before engaging in any such financing arrangements. At best, management must negotiate with the secured creditor, thereby alarming the secured creditor to its manipulative intent. At worst, the secured creditor may prohibit such strategies altogether by refusing to consent to such measures. Again, secured creditors can effectively enforce general covenants because they have expertise in monitoring debtors, and they have the appropriate

⁵⁴ Securities Exchange Act of 1934, ch. 404, § 10(b)(5), 48 Stat. 881, 891 (current version at 15 U.S.C.A. § 78(j)(b) (West. Supp. 2002)).

incentives to enforce general covenants because of their significant interest in the debtor's financial solvency.

c. Agency Costs and Covenants

The robust monitoring regime established by financial and general covenants—and the managerial discipline created by such a regime—seem to indicate that borrowing on an unsecured basis instead of a secured basis may not be a viable agency cost due to the significant benefits that shareholders must forsake. However, as with the case of collateral-specific covenants, management may diminish the attractiveness of secured debt because of its role in negotiating financial and general covenants. First, management may decrease the effectiveness of financial and general covenants by negotiating savings in interest rates for decreased monitoring. A second and converse strategy is to under-represent the debtor in negotiating the financial and general covenants and then argue that a secured loan is not viable because the costs of compliance with the covenants overwhelm the savings in the interest rate differential.

More importantly, while financial and general covenants may exert significant managerial discipline, the benefits of this discipline are muted for a financially healthy corporation and, therefore, unobservable to its shareholders. The purpose of financial and general covenants is to ensure the debtor's ability to repay the secured loan. As the debtor's financial health increases, the effect of these covenants decreases, not because of a decrease in managerial discipline, but because the initial probability of debtor insolvency is lower. For example, assume that a regime of financial and general covenants decreases the likelihood of debtor insolvency by half. A debtor that has a 90% probability of insolvency would only have a 45% likelihood of insolvency after being subject to this set of covenants (an absolute decrease of 45%). However, a debtor that has a 10% probability of insolvency would still have a 5% chance of insolvency after management observes the set of covenants (an absolute decrease of 5%). This disparity in the effect of financial and general covenants translates to a disparity in the interest rate differential between secured and unsecured loans. Consequently, at least for healthy debtors, borrowing on an unsecured basis instead of a secured basis is a viable agency cost because the costs to shareholders (in terms of lost savings) are relatively low. In the case of borrowing on a secured basis, the monitoring costs to shareholders are relatively high due to management's role in negotiating secured loans.

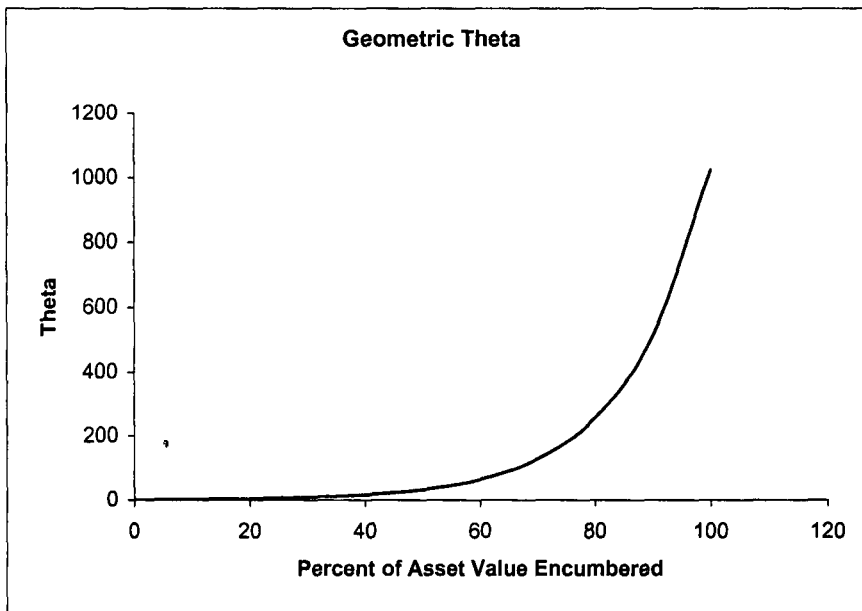
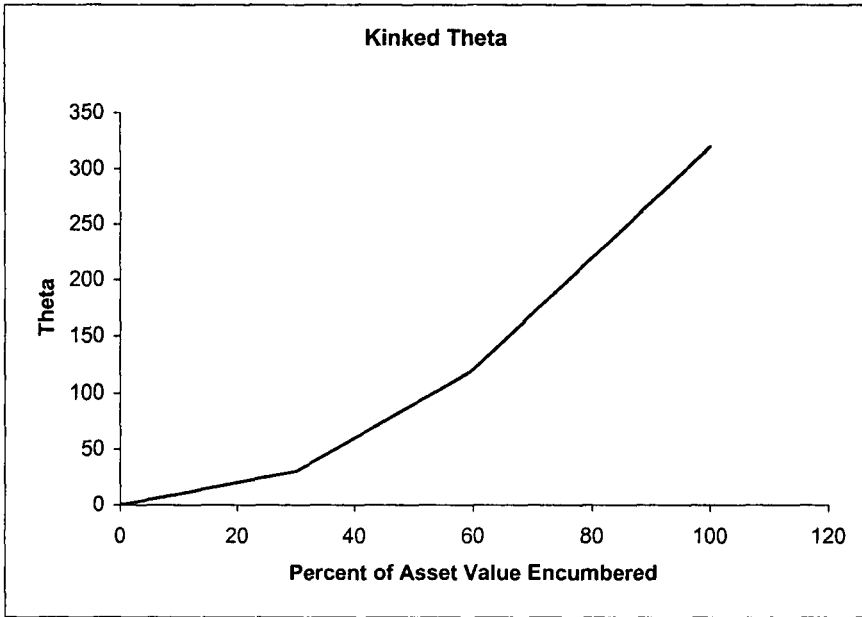
4. The Impact of Agency Costs on the Demand for Secured Debt

Managers are predominantly the individuals who develop the financing strategies of a firm. Consequently, the appropriate determinant of the demand for secured debt is the opportunity cost to management, given constraints imposed by shareholders. As discussed, the opportunity cost to management for encumbering assets is a function of the opportunity cost to the firm for encumbering assets, reduced by the extent that management does not internalize the firm's costs and benefits, and by the direct costs to management's ability to shirk. Both of these values shift according to the level of encumbrance. As more assets are encumbered, the opportunity costs to the firm increase. Although possessing a certain threshold amount of available collateral in case of a liquidity crisis might be crucial to a firm's survival, the value of additional unencumbered collateral beyond such a minimum level would decrease quickly. Indeed, beyond a certain point, possessing available assets to serve as collateral in case of a liquidity crisis may be redundant or inefficient.⁵⁵ Similarly, a signal of financial troubles might only be given after a certain level of encumbrance, and a certain level of encumbrance may drastically increase the costs of unsecured debt. These considerations suggest that the slope of Theta either increases geometrically in relation to the amount of encumbered assets or has one or more kinks in its rate of increase. (See Figure 1.)

Analytical considerations also suggest that the costs to management increase as the level of encumbrance increases. First, insofar as free assets are substitutes for free cash flow, greater encumbrance yields fewer opportunities for management shirking. This suggests that the costs to management should increase geometrically or should experience several kinks in the rate of increase because the managerial benefits of free assets become concentrated in fewer and fewer assets as the level of encumbrance increases. For example, when a firm's assets are free of any liens, one portion of such assets may serve as a reservoir of value to obfuscate management shirking, another may serve as a reservoir of value to obscure the effects of an economic downturn, and yet another may serve as a source of liquidity in case of a liquidity crisis. At a high level of encumbrance, all of these functions may be focused on one portion of the firm's assets, dramatically increasing the cost to management of encumbering that asset. Second, the constraints imposed by covenants on managerial behavior should increase as the level of encumbrance increases. Secured creditors may insist on less stringent or less pervasive

55 I will discuss the ramifications of this possibility in Part III of this Article.

Figure 1



A Kinked Theta Curve of a Geometric Theta Curve emphasizes the possibility of purely redistributive security interests. The values of Theta are relatively insignificant at low levels of encumbrance.

general or financial covenants if the security interest covers only a fraction of a firm's assets. More importantly, a substantial amount of unencumbered assets provides management with an implicit escape from covenants because it allows management to enter into a subsequent secured loan (which would be used to fully pay-off the current secured loan) in case of an impending default under the current loan.

Graphically, the opportunity cost of secured debt to management can be represented by a curve, plotted against the firm's level of encumbrance, which I refer to as the "Alpha Curve." The first component of the Alpha Curve is a modified version of Schwarcz's Theta Curve. Because management's utility calculus determines the opportunity costs of secured debt, the Theta Curve must be adjusted for the degree to which management internalizes the value of the firm.⁵⁶ I refer to this derivative curve as the Delta Curve. The second component of the Alpha Curve, which I refer to as the Kappa Curve, represents the direct costs to management of encumbering additional assets based on the firm's current level of encumbrance. (See Figure 2.)

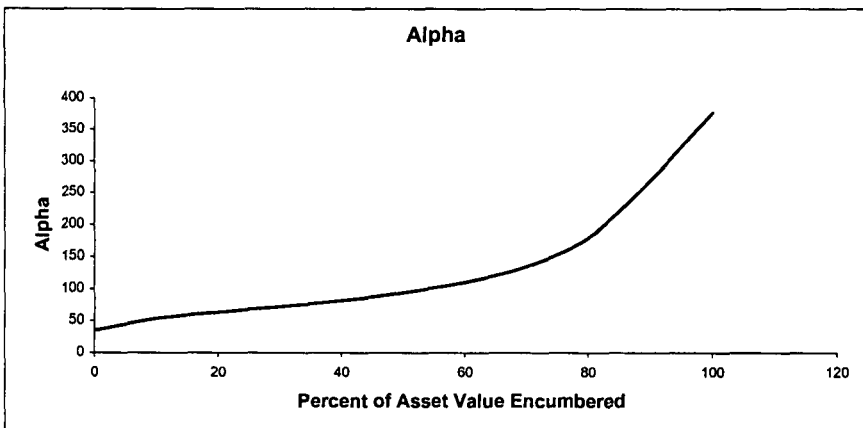
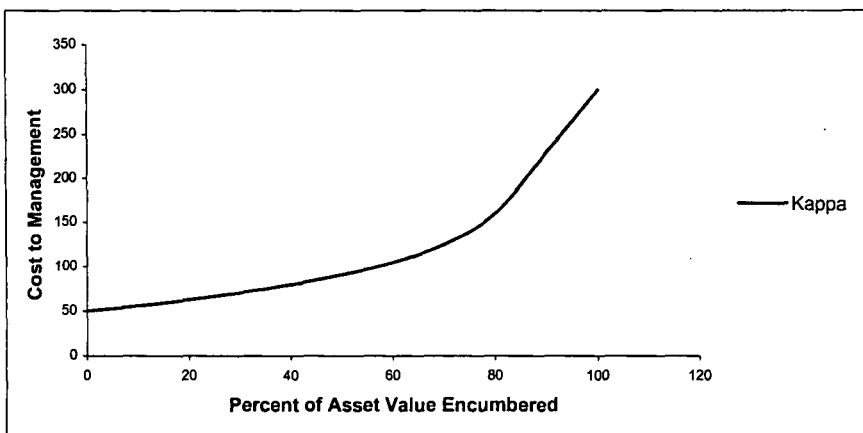
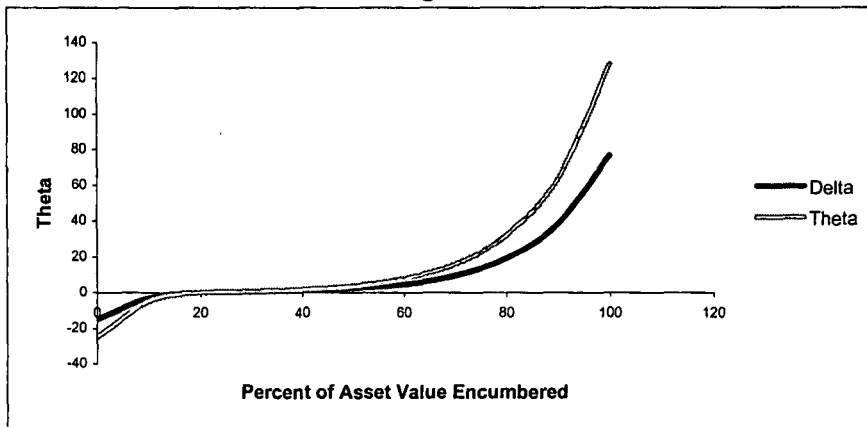
At the extreme level of full encumbrance, management's and shareholders's interests are aligned, creating an amplified effect with respect to the opportunity costs associated with full encumbrance. This region represents the area where Schwarcz notes that encumbrance of assets is detrimental for a firm because it denies a firm funding in case of liquidity crises. Yet, beyond a certain level, shareholders may desire that management encumber assets (hence, Theta and Delta dip into the negative region). However, the benefits to management of borrowing on an unsecured basis eclipse the negative detractors for shareholders, to the degree internalized by management (the positive magnitude of Kappa is greater than the negative magnitude of Delta), creating the observed effect that debtors will borrow on an unsecured basis whenever possible.

The Sub-Optimal Use Theory can also incorporate a third dimension to the Alpha Curve—the debtor's financial health. (See Figure 3.) As a debtor's financial status wanes, the cost to both managers and shareholders of issuing debt on an unsecured basis increases. This is due to an expanding disparity in the interest rates of unsecured and secured loans as the financial status of the debtor worsens. For highly risky debtors, secured financing may be the only form of debt available.⁵⁷ The confluence of strong benefits from secured debt and the necessity of funding for a financially-weak firm pushes the Alpha Curve into the negative region.

⁵⁶ This is a separate cost from the costs to the firm because management, due to its firm-specific capital, values the firm's existence independently from the firm's value.

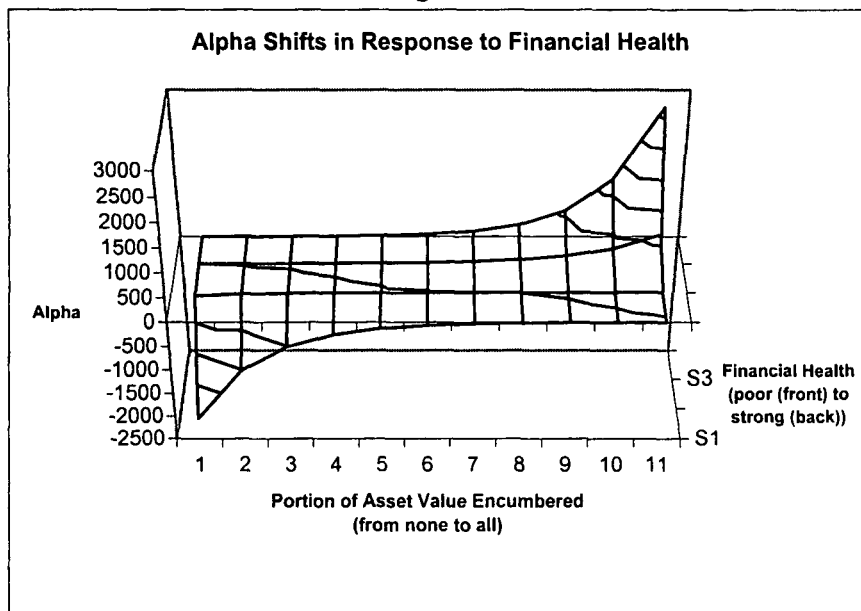
⁵⁷ Harris & Mooney, Jr., *supra* note 32, at 2030-31; Schwarcz, *supra* note 6, at 442.

Figure 2



The Alpha Curve is a combination of the Theta Curve and the Kappa Curve—the costs to management for encumbering assets. To the extent that management does not internalize the debtor firm's interests, the influence of the Theta Curve on the Alpha Curve will be reduced.

Figure 3



The Alpha Curve changes as a debtor's financial status changes. Each successive state, from S1 to S4, represents a strengthening of the debtor's financial condition. At the worst financial status, S4, managers will encumber all assets in secured loans, as represented by an Alpha Curve completely in the negative region.

4. *Sub-Optimal Use of Security Interests in the Context of Sole Proprietorships and Partnerships.*

In assessing the possibility of sub-optimal use of security interests in sole proprietorships and partnerships,⁵⁸ it is necessary to distinguish among three cases. In the first case, a proprietorship or partnership may be managed and owned by the same individual or individuals. In the second, a proprietorship or partnership may be owned and managed by different persons, with the ownership concentrated in one or several individuals. Finally, a proprietorship or partnership may have dispersed ownership. If efficient operation of a firm is judged by maximizing returns on capital, it is likely that there will be a sub-optimal use of security interests in each case.

The case most similar to a corporation is a proprietorship or partnership with dispersed owners. The dispersed owners, like

58 Certain closely-held corporations may behave more like one of these classes of firms, and the analysis of these firms would apply accordingly.

shareholders, lack the proper incentives to appropriately monitor the proprietorship or partnership because each owner will be unable to fully capture all the benefits of its monitoring activities. If the manager is not an owner of the firm, then the case is virtually identical to a corporation, and the agency problems previously discussed apply. Even if one of the owners manages the proprietorship, agency costs will arise because the managing owner is unable to capture all of the benefits of his efforts, and the managing owner has interests in the continuation of the business because of the firm-specific human capital and psychic pleasures discussed previously. Consequently, the managing owner will also have strong incentives to shirk and will possess interests divergent from those of other owners.

The antipode to the corporation is a proprietorship or partnership in which the owners are also the managers. This type of firm avoids the agency costs associated with the corporation because the managers and owners are identical. Because management captures all of the benefits of its efforts, the problem of shirking does not arise.⁵⁹

However, this type of firm does not provide the benefits of risk neutrality created by dispersed ownership. The wealth of manager-owners is often concentrated in the managed firm. Unlike a shareholder of a corporation, a manager-owner's wealth is not diversified among many firms. Consequently, the manager-owner is risk-averse with respect to the solvency of the managed firm. Even if the manager-owner or manager-owners have dispersed assets, they would still prefer the survival of the managed firm because of specific investments of human capital and psychic pleasures from managing the firm. This risk aversion would generate an inefficient level of risk in the firm's financing choices. With respect to financially healthy firms, manager-owners would prefer free assets over free cash because they would cost the firm little (due to a small disparity between interest rates of secured and unsecured loans) and afford the manager-owners insurance against the insolvency of the firm.

In the case of a proprietorship or partnership with concentrated ownership and distinct owners and managers, sub-optimal use of secured loans is likely to arise because of insufficient monitoring or risk aversion. If the owner or owners of a firm have their wealth concentrated in the firm, they will exhibit management's risk-averse behavior with respect to the behavior of the firm. If the owner or owners have dispersed wealth, they are unlikely to monitor management well, creating managerial opportunism. In either case, there is a strong possibility for an inefficient level of free assets.

59 In the case of a partnership, shirking may still exist because each partner-manager may not capture all the benefits of his labor, but this point only enhances the argument that sub-optimal use of security interests is likely even in firms where managers are significant owners.

C. *Review of the Current Debate*

1. Critique of the Uneasy Case

Bebchuk and Fried mount an interesting case for the possibility of purely redistributive security interests; however, their argument involves several analytical and empirical difficulties. Empirical evidence seems to contradict Bebchuk and Fried's analysis of the strategic opportunities presented by nonadjusting creditors, and the analysis does not seem feasible when considered from a multi-iterative perspective.

a. *Empirical Inconsistencies*

Bebchuk and Fried argue that the existence of nonadjusting creditors presents debtors with an opportunity to profit from redistributing wealth from unsecured creditors to themselves and to secured creditors; however, the empirical evidence does not seem to support this claim. If this claim were true, debtors would have a powerful incentive to fully encumber all their assets. More specifically, we would expect to find that debtors with a greater number of nonadjusting creditors have a greater amount of secured debt. On a general level, however, the empirical data does not support, but actually contradicts, Bebchuk and Fried's argument: Empirical observations indicate that debtors obtain unsecured debt whenever they can, and only employ secured debt if it is the only available means of financing.⁶⁰ An even stronger criticism is that empirical data also contradicts the specific prediction of Bebchuk and Fried's analysis. Because of their number of employees, trade creditors and tort and regulatory claims, large corporations would likely benefit most from redistributive security interests because they have the highest concentration of nonadjusting creditors. However, large corporations borrow almost exclusively⁶¹ on a non-secure basis.⁶² Consequently, empirical studies afford Bebchuk and Fried's analysis little, if any, support. Of course, the empirical evidence does not rule out the possibility that the incentives for strategic security interests are present but eclipsed by countervailing pressures.

60 See Mann, *supra* note 5, at 629; Schwarcz, *supra* note 6, at 446 n.91.

61 Much of the exception constitutes non-recourse debt, which Schwarcz has suggested should be considered differently from full-recourse secured debt.

62 See Mann, *supra* note 5, at 629.

b. Ex Ante and Multi-Iterative Problems

In addition to its empirical problems, Bebchuk and Fried's analysis of redistributive security interests does not appear to be stable, at least with respect to voluntary nonadjusting creditors. Redistributive security interests are possible if voluntary nonadjusting creditors charge a pooled interest rate reflecting a weighted average of the distribution of asset encumbrance among debtors. Bebchuk and Fried rely on an *ex post*, single iteration analysis to conclude that debtors may exploit this pooled interest rate by fully encumbering their assets. From an *ex ante* perspective, however, this analysis does not hold. If creditors are sophisticated, they will anticipate such strategic behavior and charge an interest rate that reflects a fully encumbered debtor. This *ex ante* strategy on the part of unsecured creditors does not rely on any specific knowledge of the debtor. Rather, the creditor only needs to understand the possibility of strategic behavior on the part of the debtor. Either the debtor is already fully encumbered (in which case the interest rate would be accurate), or (if Bebchuk and Fried are correct) the debtor has an incentive to become fully encumbered, in which case the interest rate would be correct on an expected basis.

But even without assuming sophisticated creditors, Bebchuk and Fried's analysis is still not viable on a multi-iterative basis if the credit market is perfectly competitive. In a perfectly competitive market, firms will only recover a competitive rate of return beyond their costs. If, as Bebchuk and Fried claim, debtors transfer wealth from unsecured creditors to themselves, then debtors are increasing the costs to unsecured creditors. If unsecured creditors are unsophisticated and do not anticipate these increased costs, then they will exit the market. The ultimate result is that debtors will no longer be able to borrow on an unsecured basis (because of a lack of unsecured creditors), or they will only be able to borrow from creditors charging an interest rate reflecting a fully liened firm (because only such an interest rate would cover an unsecured creditor's costs, given redistributive security interests). Both possibilities eliminate the opportunity for strategic behavior with respect to nonadjusting, voluntary creditors.

c. The Paradox of Secured Debt

Although Bebchuk and Fried's conclusions are ultimately dubious, their analysis raises several important issues. Foremost, Bebchuk and Fried's analysis emphasizes the classic puzzle concerning secured debt. When creditors are nonadjusting, secured debt appears incredibly attractive to debtors. Bebchuk and Fried extend this observation into a

concern about the impact of the theoretical desirability of secured debt on the behavior of debtors. However, debtors have continuously expressed an aversion to secured debt. This suggests that an additional, countervailing factor exists in the demand for secured debt, in the supply of secured debt, or in both. Second, the equilibrium problems encountered by Bebchuk and Fried suggest a credibility problem for firms seeking unsecured debt: Because sophisticated creditors realize that debtors can dilute the worth of their debt by encumbering assets, debtors issuing unsecured debt must be able to credibly signal that they will not prematurely secure their debt.

2. Critique of the Easy Case

Although Schwarcz raises an interesting response to Bebchuk and Fried's attack on full priority, his argument is ultimately flawed because of difficulties in his assessment of Theta and his overall strategy in responding to Bebchuk and Fried. Schwarcz implicitly treats a debtor's decision to encumber its assets as a binary decision between no encumbrance and full encumbrance, whereas the reality is a continuum between these two extremes. This conceptual misstep renders Schwarcz's entire conceptual framework consistent with Bebchuk and Fried's theory.

a. Binary Treatment of Theta

Schwarcz's general strategy in replying to Bebchuk and Fried is undermined by his implicit reliance on a binary decision between full encumbrance and no encumbrance. Bebchuk and Fried argue that debtors have an incentive to engage in purely redistributive security arrangements in which they encumber assets beyond the level incorporated into the fixed interest rates charged by non-adjusting creditors. Consequently, a response to Bebchuk and Fried must demonstrate why debtors do not have an incentive to encumber their assets above the level reflected in interest rates charged by non-adjusting creditors. Unfortunately, Schwarcz's theory only seems to demonstrate why debtors would not want to encumber *all* of their assets. Schwarcz's analysis is erroneously binary with respect to the availability of collateral, the signaling effect of security interests and the trade-off between cash flow-based loans and liquidation value-based loans.

A debtor's assets are not either available or unavailable in case of a liquidity crisis. Rather, the most common case is some point on a continuum between these two extremes. For example, a debtor may have half or most of its assets encumbered. Similarly, the signal created by a security interest might differ based on where the debtor lies along the continuum of encumbrance. A security interest which encumbers 10% of a

debtor's assets would not signal financial insolvency as much as a security interest encumbering 99% of a debtor's assets would. Finally, a debtor is free to borrow through a mix of unsecured and secured loans and can therefore select an optimal balance between borrowing against cash flow or liquidation value (if the debtor must select between the two forms of borrowing at all). In reconciling the proliferation of non-recourse debt with his assessment of Theta, Schwarcz recognizes that encumbrance is not a binary state, observing: "Non-recourse financing is not particularly troublesome in this regard because it only encumbers a specific portion of the debtor's assets, such as a pool of financial assets in the case of securitization, or one of a utility's power plants in the case of project finance."⁶³ Yet, Schwarcz's treatment of security interests in general does not incorporate the point that security interests can also be asset-specific.

The nonlinear progression of Theta creates a gap within Schwarcz's theory which is sufficient to accommodate the strategic behavior described by Bebchuk and Fried's analysis. As long as they operate below a certain threshold level of encumbrance, debtors may engage in redistributive security interests and still leave a certain amount of assets unencumbered in case of a liquidity crisis or to avoid alarming unsecured creditors about financial problems. Though Schwarcz argues that Theta is sufficiently high at the point of full encumbrance to deter redistributive security interests, he must also establish that Theta is sufficiently high to deter redistributive security interests in the range of encumbrance where redistributive activities are possible. Schwarcz's reply to Bebchuk and Fried seems to answer the wrong question.

The nature of Theta also illustrates an exegetical void in Schwarcz's account of the demand for secured debt. Schwarcz observes that debtors who can borrow on an unsecured basis will generally do so.⁶⁴ Indeed, anecdotal data indicates that debtors are so biased against secured loans that they are willing to sacrifice interest rate savings of one or two percent in order to avoid encumbering assets.⁶⁵ Yet, Schwarcz's analysis only demonstrates that debtors will only borrow on a secured basis up to the point where Theta outweighs the benefits of a secured loan.⁶⁶

63 Schwarcz, *supra* note 6, at 463.

64 *See id.* at 446.

65 *See Mann, supra* note 5, at 658 & n.129.

66 Three strategies are available to create complete consistency between Schwarcz's theory and his observations. First, Schwarcz could illustrate that the optimal level of secured debt is no secured debt for most debtors, that is, Theta always overwhelms the benefits of borrowing on a secured basis with respect to creditors. Second, Schwarcz could augment his analysis by delineating additional factors aside from the value of Theta that would cause debtors to refrain from encumbering assets. Third, Schwarcz could shift his analysis to a supply-side consideration and argue that the costs associated with secured debt from the secured creditor's perspective are so high that they eliminate most or all benefits of secured debt to debtors.

b. Inconsistent Analysis of Non-Recourse Financing

Just as Schwarcz's analysis of full-recourse debt is too narrow, his treatment of non-recourse debt appears overly generous. Schwarcz attempts to differentiate the effects of full-recourse and non-recourse debt by emphasizing the limited nature of non-recourse debt. Yet, non-recourse debt has the same potential for diluting unsecured creditors' claims as full-recourse debt. Just like a security interest, non-recourse debt involves a debtor removing certain assets, whether they are accounts receivable, inventory or the expected returns from a venture, from the pool of assets available to unsecured creditors as part of a financing transaction. For example, a debtor might securitize its accounts receivable or its inventory and significantly reduce the pool of resources available to unsecured creditors in case of bankruptcy. At the extreme limit, a debtor might securitize all of its assets, which would essentially duplicate, at least from an unsecured creditor's perspective, full encumbrance.⁶⁷ Because certain forms of non-recourse debt create bankruptcy remote entities, the impact of non-recourse debt on unsecured creditors may be even more negative than a security interest because the bankruptcy estate has no method of accessing assets conveyed to a bankruptcy remote vehicle. Moreover, the scope of the debt is limited by the amount loaned by the creditor. The Uniform Commercial Code only allows a creditor to claim the amount that it loans.⁶⁸

Schwarcz supports his assessment that non-recourse debt does not possess the negative signaling effects of security interests by citing the growing popularity of asset securitization.⁶⁹ However, this observation does not support his assessment for several reasons. First, the fact that asset securitization is one of the fastest growing trends in the financial sector does not necessarily mean that asset securitization does not create a negative signal to other creditors. Second, even assuming that non-recourse debt does not create a negative signal to creditors, Schwarcz's observation may still be purely coincidental. In other words, although non-recourse debt may create a negative signal to creditors, the debtors that enter such forms of financing may also possess some other trait that eclipses the negative effects of non-recourse debt.

Finally, Schwarcz's argument that non-recourse debt relies on cash flow instead of liquidation value seems to be overly selective. In the case of project finance, Schwarcz argues that creditors lend on the basis of the project's cash flow because they do not have recourse to the debtor's cash

⁶⁷ There may be legal restrictions on this possibility; however, the point of the example, that non-recourse debt involves unsecured claim dilution just as full-recourse debt does, still holds.

⁶⁸ U.C.C. § 9-203 cmt. 1.

⁶⁹ Schwarcz, *supra* note 6, at 463 n.170.

flow.⁷⁰ However, this is not necessarily true. While cash flow of the project is a component of the creditors' calculation, they are also encumbering the assets specifically involved in the project and, therefore, are also lending on liquidation value. Schwarcz himself implicitly recognizes this point when he employs the example of encumbering a power plant as part of a project finance arrangement.⁷¹ In the case of asset securitization, Schwarcz seems to ignore his own definition of cash flow when he describes assets that become cash as cash flow.⁷² Schwarcz's argument that cash flow has a greater value than liquidation value rests on the point that cash flow incorporates the value added by the debtor to the assets.⁷³ When securitized assets, such as accounts receivable, are transformed into cash, there is no value added by the debtor. Rather, the process is more similar to the process of liquidating assets. Consequently, certain instances of asset securitization are more appropriately analogized to borrowing on liquidation value. While there may be crucial differences between non-recourse and full-recourse debt, the three principal manners through which Schwarcz differentiates the two forms of financing prove artificial.

c. The Distinction between Secured and Unsecured Debt

While Schwarcz's analysis of the dynamics of security interests ultimately proves unsatisfactory, he raises several important considerations. First, unencumbered assets are a source of liquidity. Debtors may employ unencumbered assets to generate funds during a liquidity crisis. Consequently, they might have an incentive to refrain from prematurely encumbering some or all of their assets. Separately, such a decision might be efficient or inefficient. Second, Schwarcz raises the issue of the primary distinction between full-recourse and non-recourse debt. Schwarcz's unconvincing account of the differences between the two forms of debt raises the question of how non-recourse debt avoids the negative signal of full-recourse debt. Moreover, Schwarcz's assumption that asset securitization is significantly more popular than secured debt requires a theoretical justification.

Schwarcz's reliance on the insignificant interest rate differentials between secured and unsecured loans and on debtors' preference for unsecured loans to support his conclusion that Theta eclipses the benefits of redistributive security interests merits several preliminary remarks. First, the small difference between interest rates for unsecured and secured

70 See *id.* at 463-64.

71 See *id.*

72 See *id.* at 464.

73 See *id.* at 447.

loans suggests that Schwarcz's analysis is focusing on the wrong side of the equation—or at least ignoring a significant factor of the equation. In light of the fact that secured loans guarantee returns even in the case of bankruptcy and have at least the potential for redistributive effects, the muted difference in interest rates is perplexing. Second, even if Theta does eclipse the benefits of security interests, it does not mean that Schwarcz's description of Theta is accurate. Schwarcz's description of Theta could be inaccurate or incomplete because Theta may be comprised of an entirely different set of considerations or because there may be additional components to Theta that Schwarcz did not consider. Indeed, considering the difficulties in his analysis of the costs of granting security interests, this possibility seems highly likely.

Returning to the demand for secured debt, debtors' strong preference for unsecured debt suggests an additional dimension to debtors' decision process. Even though there may only be a marginal difference between the interest rates of secured and unsecured debt, debtors should still be willing to borrow on a secured basis because there are actual savings. More importantly, the observed disparity between secured and unsecured interest rates does not fully capture debtors' aversion to secured debt because debtors have expressed a willingness to sacrifice substantial savings in interest rates in order to borrow on an unsecured basis. These considerations suggest one or both of the following possibilities. First, secured debt may impose costs to debtors that are not reflected in the interest rates (thereby transforming a marginal saving into a marginal loss). Second, debtors' decision to borrow on an unsecured or secured basis could be influenced by factors other than the financial impact of debt strategy.

D. *Advantages Over the Uneasy Case and the Easy Case*

The Sub-Optimal Use Theory is consistent with both Bebchuk and Fried's and Schwarcz's analyses on the demand for secured loans. It does not replace these theories, but augments them. Insofar as Bebchuk and Fried are correct in claiming that prematurely encumbering assets creates redistributive opportunities, management would be optimizing shareholders' wealth (although not general welfare) by engaging in purely redistributive secured loans. The Sub-Optimal Use Theory can absorb this analytical possibility and maintain that purely redistributive security interests will not occur. The loss to shareholders of gains from redistributive security interests are one of the agency costs concomitant with the benefits of dispersed ownership. Owner-managers do not experience the agency costs of shareholders but nonetheless would select not to engage in redistributive security interests as a symptom of their

risk aversion with respect to the operations of the firm. There is no tension between the current analysis and Schwarcz's description of Theta. Rather, the current theory extends Schwarcz's insight on the liquidity opportunities in unencumbered assets into inefficient behavior. Managers' and shareholders' incentives are aligned up to the point where managers efficiently maintain free assets to ensure the smooth operation of the firm. However, beyond this threshold, managers' and shareholders' interests diverge. Managers desire to maintain additional free assets to protect their firm-specific investments while shareholders desire that managers distribute any additional wealth or invest it in lucrative opportunities. Again, the existence of inefficient reserves of free assets is a symptom of the agency costs of dispersed ownership or the risk aversion associated with the unification of ownership and management. By augmenting the two prior theories, the Sub-Optimal Use Theory affords several advantages over each theory with respect to empirical observations and analytical cogency.

1. The Paradox of Debt

From an empirical perspective, the current theory is more exegetically appealing than either Bebchuk and Fried's or Schwarcz's theories. Bebchuk and Fried predict that creditors should encumber their assets whenever possible—a prediction that contradicts observations. While Schwarcz's theory explains why debtors may hesitate to encumber some assets, and perhaps explains why some debtors may decide not to encumber all their assets, it does not provide an account of why debtors will tend to borrow on an unsecured basis whenever possible. The Sub-Optimal Use Theory predicts the debtor behavior observed. For strong firms, inefficiently employing unsecured loans in the place of secured loans is an ideal agency cost from the perspective of both management and shareholders, because the cost to shareholders is low (due to a low interest rate differential) while the benefits to management are significant (providing protection against firm insolvency). More importantly, the Sub-Optimal Use Theory also predicts that security interests will be employed by financially weak firms.

If the firm is in its initial stages and highly risky, then the interest rate differential between unsecured and secured loans should be relatively high (because of a higher probability of insolvency). Inefficient use of unsecured loans is no longer a viable agency cost for either management or the shareholders. For management, the significant interest rates of unsecured loans create large financial burdens that may make the firm unviable or more risky. This would threaten management's position and compel management to borrow on a secured basis. Shareholders face a

significantly larger cost from inefficient financing when a firm is financially unstable. This counsels against granting management the ability to store excess wealth in free assets.

If the firm is established but encounters financial difficulties, management and shareholder interests still align against employing unsecured debt. From management's perspective, financial downturns are one of the reasons to maintain free assets. Thus, managers would want to employ secured loans to resuscitate the firm. Since the interest rate differential between unsecured and secured loans will increase when a firm confronts insolvency, the costs to shareholders of permitting inefficient unsecured debt increases significantly. This removes inefficient debt financing as an ideal agency cost—at least until the firm returns to stability. Through the dynamics of agency costs between management and shareholders, the Sub-Optimal Use Theory is at least fully consistent with observed patterns of debt use.

2. Equilibrium Issues

Several considerations also recommend the Sub-Optimal Use Theory from an analytical perspective. Bebchuk and Fried's proposal concerning purely redistributive security interests encounters significant analytical problems from an *ex ante* perspective. Specifically, sophisticated creditors would react to such a possibility by incorporating risks of redistributive behavior into their interest rates (adjusting or nonadjusting). The Sub-Optimal Use Theory addresses the *ex ante* concerns surrounding Bebchuk and Fried's theory by eclipsing its *ex post* analysis with *ex ante* considerations regarding the interaction between management and shareholders. Indeed, from an *ex post* view, the conclusions that management would allow inefficient financing schemes or that management would prefer free assets over free cash seem counterintuitive. Shareholders would insist that management maximize their wealth with Bebchuk and Fried's proposed redistributive security interests. Only by incorporating the considerations of the other party's reactions to various strategies does the appeal of free assets over free cash become apparent.

While neither management nor shareholders may view preferring free assets as a first-best solution, it is an ideal compromise, given the constraints imposed by both parties' goals. Preferring free assets duplicates the result that would obtain if management and shareholders negotiated agency costs explicitly. Agency cost considerations also permit the Sub-Optimal Use Theory to answer the equilibrium problems inherent in Bebchuk and Fried's analysis. Redistributive security interests are self-destructive because they cause interest rates to spiral towards full-encumbrance levels. The Sub-Optimal Use Theory answers this

equilibrium issue by blocking the possibility of purely redistributive loans through agency costs.

More importantly, the Sub-Optimal Use Theory does not suffer from equilibrium problems itself. The engine driving the stability problems in Bebchuk and Fried's analysis is the juxtaposition of rational ignorance and increasing costs from the perspective of unsecured creditors. This compels unsecured creditors to continuously revise their pooling rates on an *ex ante* or *ex post* basis. The Sub-Optimal Use Theory postulates rational ignorance on the part of shareholders. The monitoring costs with respect to financing decisions are too high to merit shareholder policing of such decisions (especially in light of the incentive problems created by dispersed ownership). Yet, the issue of increased costs does not arise because shareholders' and management's incentives align when the firm becomes financially risky. Management's interest in the inefficient continued existence of the firm creates both the agency cost of free assets and a self-checking mechanism that contains the levels of such agency costs. In the case of owner-managers, an inefficient preference for unsecured debt arises from their risk aversion. The switch to secured debt also arises during financial distress because secured debt may be the only viable means of resuscitating the firm.

3. A Credible Promise not to Encumber

The Sub-Optimal Use Theory holds one final analytical advantage over redistributive security interests and the Theta explanation: It explains how debtors can make credible promises not to engage in redistributive strategies. Bebchuk and Fried implicitly addressed this issue by arguing that debtors make no such promises and are free to engage in exploitative strategies. This causes the equilibrium issues in Bebchuk and Fried's analysis. Although Schwarcz does not address this issue,⁷⁴ his analysis might support the response that creditors are aware that premature encumbrance of assets creates excessively high opportunity costs to debtors. First, this response relies on a binary treatment of asset encumbrance. The debtor must not only show that the opportunity costs of encumbering all its assets are too high but also that encumbering assets to a degree that would incur a higher interest rate from the unsecured creditor would also exact deterring opportunity costs. The second and related objection is that debtors might not be able to disclose such information on a cost-efficient basis. The opportunity cost of incurring secured debt is fact-dependent. As Schwarcz's analysis of Theta illustrates, the debtor must provide information on a myriad of issues related to the debtor's

⁷⁴ See *id.*

current financial status and the debtor's anticipated financial status. Debtors may be unwilling to provide some of this information, as it may relate to their market strategies. Moreover, such information must be processed, and the interpretation of the information may be subject to dispute.

Finally, even if the purely technical complications involved could be surmounted, the issue of credibility creates a significant obstacle to inexpensive disclosure. The unsecured creditor and the debtor possess contrary interests in performing the calculus. The debtor would like to overestimate the opportunity cost of granting liens so as to achieve a lower interest rate. The unsecured creditor, however, would tend towards conservative estimates of the opportunity costs so as to protect itself against such a contingency. These conflicting incentives would charge the analysis with significant suspicion from both parties.

The Sub-Optimal Use Theory addresses the credibility issue by shifting the focus from the debtor's opportunity cost to the manager's or owner-manager's opportunity cost of granting future liens. Creditors can rely on the agency costs of corporations or the risk-aversion of owner-managers because these traits are universal, not debtor-specific. Agency costs or risk aversion align managers' and owner-managers' interests with unsecured creditors' interests with respect to avoiding secured loans whenever possible. Of course, debtors will tend to issue secured loans in times of financial distress, but determining financial health is significantly simpler than determining the opportunity costs of issuing secured debt over a range of possibilities.

E. *Sub-Optimal Use Theory and Agency Costs*

1. The Strong Form and Weak Form of the Sub-Optimal Use Theory

Agency costs (or, in the case of sole proprietorships, the costs of risk-aversion) implicate managerial interests in the formation of fiscal strategy. Accordingly, the first, and more obvious, class of costs arising from a managerial bias towards free assets is inefficient financing arrangements. Specifically, management may prefer unsecured debt arrangements over secured debt arrangements even though the latter provides for more benefits to the firm. Foregone savings due to lower interest rates are the first agency cost from a managerial preference for free assets.

A more subtle and controversial cost is the benefits that covenants under a secured loan might provide to the firm. The collateral and covenants in a secured loan are intended not only to increase the secured

creditor's return in the case of the debtor's default, but also to lower the probability of debtor default.⁷⁵ To the extent that the existence of a secured loan actually increases a firm's expected profits, the costs of a managerial bias for free assets also includes the exclusion of any such benefits. Unsecured loans often involve covenants as well. To the extent that the covenants of unsecured loans create some form of managerial discipline, the net cost with respect to managerial behavior of borrowing on an unsecured basis over borrowing on a secured basis is actually the difference in managerial discipline between covenants for unsecured vs. secured loans.

For any given financial state S^* , managers will select an inefficient financing scheme (at least considering the factors discussed thus far) whenever the Alpha Curve is positive and the Theta Curve is negative. Referring back to Figure 3, the managerial decision to keep all assets unencumbered (as represented by a completely positive Alpha Curve) is efficient with respect to the first twenty percent of the value of unencumbered assets, because the Theta Curve is negative up to that point.

The second, and more subtle, cost of a managerial bias towards free assets results from fiscal strategy's reciprocal impact on managerial interests. Free assets are not ends unto themselves but means toward managers' objectives of optimizing their utility. By creating a safety net for managers to shirk responsibilities or at least dedicate a lower amount of effort to coordinating firm activity, free assets exact a cost equal to the difference between a firm's expected profits when management is disciplined by the lack of free assets and a firm's profits when management behaves under the fiscal protection of free assets. Assessing this cost is difficult for at least three related reasons. First, the performance of a company is affected by a large set of factors, the effects of many of which cannot be easily isolated from the others. This creates a problem in determining the relationship between managerial performance and benefits to a company. Second, managers are actively attempting to obfuscate the relationship between their performance and the company's profitability as part of their strategy for shirking or covering conflicting interests. Finally, managerial performance itself is caused by a complex set of factors, making assessment of the impact of the presence or lack of one factor difficult.

Although determining the specific costs of maintaining free assets in any case is quite difficult, theoretical considerations permit some insight into the nature of such costs. As a preliminary point, the effect of free assets on management performance is not equivalent to the opportunity costs to management from encumbering assets. These opportunity costs to

75 See Scott, *supra* note 30, at 950.

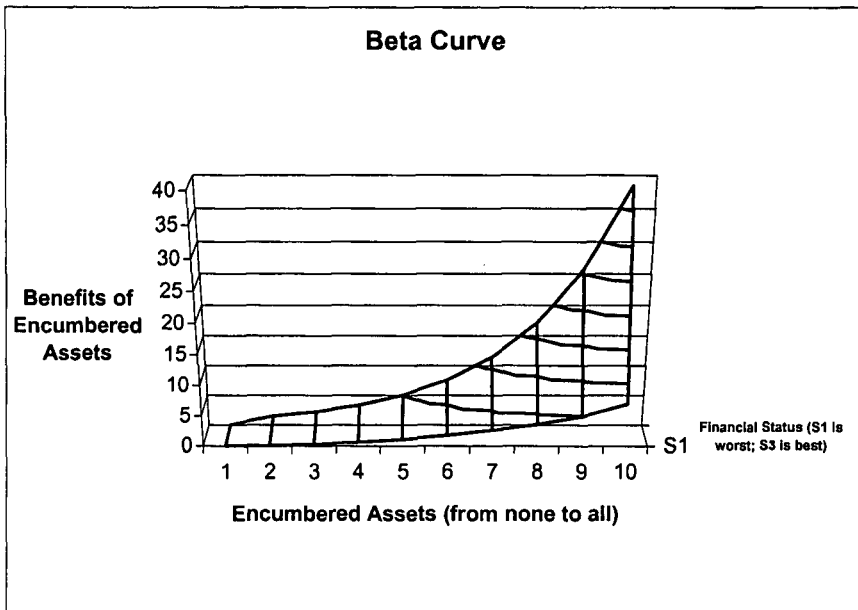
management assess the decrease in management's welfare due to the increased likelihood of insolvency and the decreased possibility of managerial shirking generated from encumbering assets. The effect of free assets on management performance is the cost to the firm arising from decreased managerial performance as a consequence of the presence of free assets.

First, the analysis so far suggests that free assets impose a cost to firms because of deleterious effects on management, but free assets do not confer benefits. It is difficult to understand how free assets could actually increase managerial performance. At best, free assets might have no effect on management, creating a zero cost to firms. Second, the cost of free assets may change in relation to the portion of assets already encumbered. Free assets serve as a safety net for managerial dereliction. As this safety net decreases, the remaining portion has greater value to management. Consequently, encumbering the first 5% of a firm's assets may have little or no effect on managerial performance because managers have the remaining 95% to cover shirking; however, pledging the last 5% of a firm's assets may have a profound impact on performance because management no longer has any free assets to generate funds in case of an unexpected downturn. Of course, the effects of encumbering the few remaining portions of a firm's assets may also have a muted effect on managerial performance. Managers may have already been incentivized to a near-optimum level of exertion by earlier decreases in free assets, and the remaining portion could not have served as an effective safety net against economic downturns or as an obfuscation device for managerial shirking.

Finally, both the magnitude and the rate of increase of costs associated with free assets are affected by the financial condition of the debtor. For reasons previously mentioned, managers have an interest in retaining their positions, and therefore are biased towards the survival of the firm. Financial distress threatens this interest and incentivizes management, decreasing much of the agency cost due to managerial shirking. This mutes the effect of free assets on management because management does not desire to shirk, given the current status of the firm. A countervailing consideration is that financial distress emphasizes the role of free assets as a safety net. However, this conflates the costs of free assets to the firm with the opportunity costs of encumbered assets to management. Managers derive psychic utility from the presence of free assets because it serves as a safety net in case of an economic downturn. Yet, free assets serve a different role in the context of decreasing managerial performance. Free assets encourage managerial dereliction by providing management with a safety net that serves both as a shield against the negative effects of such dereliction on the survival of the firm and as a

means to hide such dereliction. In the case of a firm in financial distress, the previous objection is accurate with respect to the psychic utility that free assets provide to management; however, free assets will not produce an increased effect on managerial performance because the firm's dire status already controls managerial incentives for shirking. These considerations suggest the following shapes for curves representing the benefits of encumbering assets as related to the amount of encumbered assets (which I will refer to as the "Beta Curve").⁷⁶ (See Figure 4.)

Figure 4



Changes in the shape of the Beta Curve as Financial Status of the debtor changes.

The two types of costs associated with managerial preference for free assets create two versions of the Sub-Optimal Use Theory, depending on the relationship between secured loans and unsecured loans.⁷⁷ (See Figure 5.)

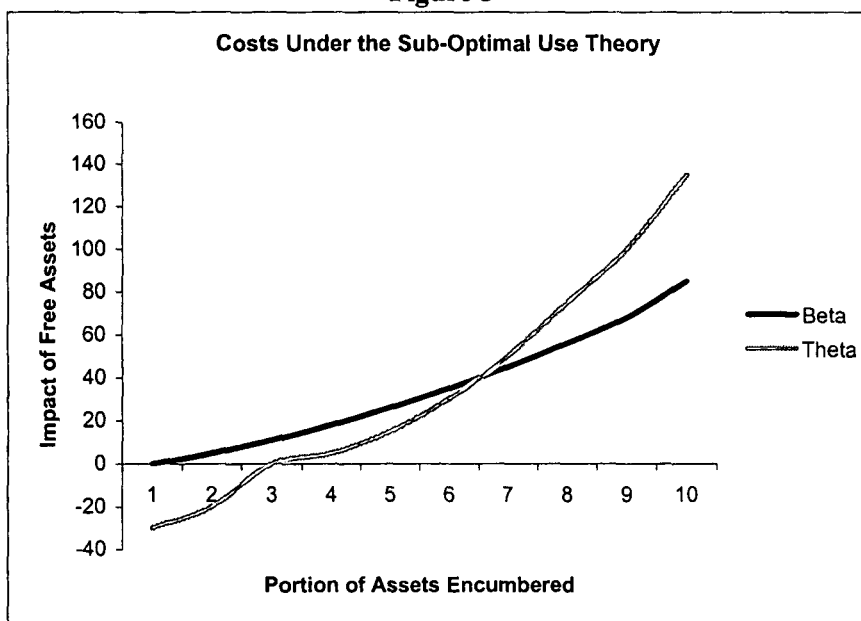
If secured loans provide better fiscal terms for a debtor, including savings in interest rates and the costs or benefits of covenants, (i.e., the Theta Curve is negative) then the Sub-Optimal Use Theory provides that the agency cost for managerial preference for free assets is equal to the

⁷⁶ The curves are drawn without incorporating the noted possibility that the costs of free assets might decrease after a certain point. This possibility does not impact any of the conclusions of the present discussion.

⁷⁷ I will provide a more complete discussion of the factors determining the desirability of a secured loan in comparison to an unsecured loan in Part II.

fiscal costs of management's selection of the inferior unsecured loan over the secured loan in addition to the costs due to a lack of managerial discipline caused by the availability of free assets. Graphically, the agency costs are equal to the area between the Theta Curve and the Beta Curve. I will call this condition the "Strong Form Sub-Optimal Theory."

Figure 5



When 0% to 30% of the total value of the firm's assets are encumbered, the Strong Form Sub-Optimal Use Theory obtains. When 30% to 65% of the total value of the firm's assets are encumbered, the Weak Form Sub-Optimal Use Theory obtains. After 65%, use of unsecured debt is efficient, but the benefit is only the area between the Beta and Theta Curves.

Secured loans may provide inferior fiscal results for a debtor (i.e., the Theta Curve is positive). In such a case, it may be desirable nonetheless to select a secured loan over an unsecured loan if the effects of the secured loan on managerial behavior are sufficiently positive to negate the fiscal costs of selecting the secured loan over the unsecured loan (i.e., if the Beta Curve has a greater area than the Theta Curve over the given range). In this scenario the Sub-Optimal Use Theory provides that the agency costs are equal to the benefits of increased managerial discipline less the costs of opting for a secured loan over an unsecured loan. Graphically, the agency costs are equal to the area between the Beta Curve and Theta Curve. I will call this condition the "Weak Form Sub-Optimal Use Theory."

If a secured loan is inferior to an unsecured loan when both fiscal impact and managerial discipline are considered together, then management's preference for free assets leads to an efficient choice and

there are no agency costs in a practical sense; however, since free assets do create some costs for the firm, the benefit of opting for secured debt is only equal to the area between the Beta and Theta Curves.

2. The Problem with Debt

The interaction between financing strategies and agency costs suggests an analytical limit to the achievable optimality of any debt financing. Regardless of a debtor's financial status, the absence of free assets exerts discipline over managerial behavior. Yet, if a debtor's financial status makes secured debt an unviable financing option, then the debtor confronts a trade-off between the benefits of security interests with respect to disciplining managerial behavior and the costs of security interests with respect to fiscal efficiency. The relative magnitudes of these two factors determine the best strategy for the debtor; however, any resolution is second-best, in the sense that the debtor must select between managerial discipline and fiscal efficiency. An ideal scenario would be a financing scheme that would permit the benefits of the unsecured loan to coexist with the discipline of a lack of free assets.⁷⁸

II. The Supply of Secured Debt and Asset Securitization

In this Part, I will attempt to explain various observations concerning the pricing of secured debt—primarily the low interest rate differential between unsecured and secured loans for healthy debtors—through two sets of comparisons. First, I will compare the benefits of secured debt to financially healthy debtors and the benefits of secured debt to risky debtors. Second, I will compare the mechanics of secured debt and the mechanics of asset securitization for healthy debtors. Both comparisons focus on the two primary determinants of the interest rates charged by creditors, the risk of debtor default and the expected return in case of default. These comparisons suggest a possible alternative to the Sub-Optimal Use Theory, which I term the “Optimal Sub-Use Theory,” according to which management's and shareholders' interests are completely aligned with respect to secured debt, because secured debt is not a viable financing option for most financially healthy firms.

A. *Secured Debt for Healthy and Unhealthy Debtors*

The benefits of secured debt result from its ability to increase the expected return in case of debtor insolvency and decrease the likelihood of

⁷⁸ I will argue in Part II that asset securitization may be viable alternative to this possibility.

debtor insolvency. The costs associated with secured debt are the costs of negotiating the contract, the costs of complying with covenants, and the costs of foreclosure in case of debtor insolvency. While the mechanics of secured debt are identical between financially healthy debtors and marginal debtors, the magnitudes of the various costs and benefits associated with secured debt differ dramatically between financially healthy and risky debtors, creating a parallel difference in the viability of secured debt as a financing instrument for the two types of debtors.

1. Benefits of Pledged Collateral

With respect to pledged collateral, there is no analytical reason why the benefits of collateral would differ between financially healthy and financially risky debtors. Secured debt increases a creditor's expected return in case of debtor insolvency by dedicating a set of assets from the debtor's pool of resources to pay the secured debt. Under a system of full priority, the secured debt must be fully paid before any proceeds from encumbered assets may be used to pay any other debt.⁷⁹ Pledged collateral is susceptible to an attack on the security interest by the bankruptcy trustee or an attack on the priority of the security interest by other secured creditors. Moreover, a debtor may decrease the value of a security interest by failing to maintain the collateral or otherwise decreasing the value of the collateral. However, there is no reason to believe, from an *ex ante* perspective, that security interests with respect to assets of financially healthy debtors are more or less susceptible to attacks from bankruptcy trustees or other secured creditors. In addition, there is also no *a priori* reason to believe that financially unhealthy debtors are more or less likely to interfere with the value of pledged collateral. Consequently, the benefits of pledged collateral are identical between financially healthy and financially marginal debtors.

2. Benefits of Covenants

The benefits derived from covenants are inversely related to the financial health of the debtor. In the case of risky debtors, where the probability of insolvency is relatively high, covenants may potentially either significantly decrease the probability of debtor insolvency or substantially increase the creditor's power to obtain payment of debt before the debtor becomes insolvent. Such benefits would be passed to the debtor in the form of decreased interest rates. In the case of healthy debtors, where the probability of insolvency is relatively low, covenants

⁷⁹ See 11 U.S.C. § 506(a) (2000).

have only a limited effect for several reasons. First, given an absolute floor of 0% chance of insolvency, a financially healthy debtor may be so far from insolvency that there is not much room for improvement. For example, even assuming a perfect set of covenants that can eliminate the possibility of debtor insolvency or provide the creditor with a perfect ability to avoid debtor insolvency, a debtor with only a 2% chance of insolvency would only benefit by 2% whereas a debtor with 50% chance of insolvency would benefit by 25 times more.

Second, the nature of firms suggests that covenants experience a diminishing rate of return, meaning that the more healthy the firm, the less effective the covenant. The solvency of a firm depends on controllable variables (e.g., choice of ventures or financing strategies) in addition to random variables (e.g., natural disasters or shifts in consumer tastes). Covenants address the former class of factors. Assuming efficient use of covenants, the least expensive measures against insolvency would be exhausted first. Not only would a healthy firm derive little or no benefit from potential covenants, potential covenants would have to be more stringent or expansive (and thereby more expensive) to produce benefits for the creditor.

This analysis suggests that healthy debtors stand to benefit much less than risky debtors or not at all from the preventive powers of secured debt. If debtors and creditors are rational, covenants will be efficient, meaning that they will generate more benefits than costs. In light of the muted benefits that healthy debtors may receive from the preventive covenants in secured debt, it would appear that preventive covenants are not an efficient choice for healthy debtors.

3. Costs of Secured Debt

Three types of costs are associated with secured debt. First, there are contracting costs to form the secured debt, including the costs of negotiating covenants and costs of properly perfecting a security interest. Creditors confront these costs in lending on a secured basis to either healthy debtors or risky debtors. Second, there are monitoring costs associated with covenants aimed at protecting the value of the collateral. To protect the value of its secured debt, a creditor almost always requires a debtor to enter into covenants aimed at guaranteeing the value of the encumbered assets.⁸⁰ Collateral-specific covenants are employed in secured loans irrespective of the financial condition of the debtor.⁸¹ Consequently, the interest rates of secured loans impound the contracting

80 See, e.g., ALLIANCE IMAGING, INC., *supra* note 48, at 66.

81 See *id.*

costs and monitoring costs of creditors, regardless of the financial status of the debtor.

Finally, a secured creditor confronts significant costs in collecting secured claims from bankrupt firms. First, the secured creditor must acquire legal counsel to represent it during the bankruptcy proceedings. If the firm files under Chapter 11, bankruptcy proceedings can be quite lengthy and require much representation as parties must negotiate their rights under the reorganized firm.⁸² Second, the secured creditor incurs a delay in receiving the claimed funds. On petition for bankruptcy, an automatic stay is placed on all of the assets of the debtor.⁸³ At best, this stay requires a secured creditor to request that the automatic stay be lifted in order to redeem its claim by liquidating the collateral.⁸⁴ At worst, the secured creditor will not be able to acquire its claim until the end of the bankruptcy proceedings. Delays created by the bankruptcy proceeding not only impose costs in terms of the time value of money, but also inject volatility into the payment streams that creditors expect. Most importantly, there is no manner for a secured creditor to protect itself against these costs. The federal bankruptcy system is a mandatory system. Thus, while a well-executed asset securitization confronts only minimal expected costs in the case of an originator's bankruptcy,⁸⁵ even the best secured loans require substantial costs from the secured creditors in case of the debtor's bankruptcy. Although healthy firms have a lower chance of entering bankruptcy than risky firms, secured creditors of all bankrupt firms must participate in the bankruptcy proceedings in order to protect their interests. These substantial costs are passed on to the debtor in the form of increased interest rates.

Initially, the observation that even healthy debtors must enter into collateral-specific covenants appears to be at tension with the observation that healthy debtors can often borrow on an unsecured basis at interest rates that are no different from secured rates. If the chances of debtor insolvency are so low so as to make the expected return in case of insolvency a marginal consideration, then, a fortiori, the benefits gained from increases in the expected return in case of insolvency from collateral specific covenants would also be marginal. This suggests that the monitoring and contracting costs of collateral-specific covenants may dwarf the benefits provided by collateral-specific covenants in the case of healthy debtors.

While this argument is cogent, it does not support removing collateral-specific covenants in secured loans. The principle point of

82 See Bankruptcy Act of 1978, ch. 11, 11 U.S.C. §§1121-41 (2000).

83 11 U.S.C. § 362(a) (2000).

84 11 U.S.C. § 362(b) (2000).

85 See discussion *infra* Part II.

differentiation between unsecured and secured debt is collateral. Without collateral-specific covenants, a secured creditor would only have a nominal right to certain collateral in case of default because the secured creditor would not have any manner of ensuring that the debtor does not dispose of the collateral or deplete the value of the collateral. Stripping a secured loan of collateral-specific covenants would be equivalent to transforming the secured loan into unsecured debt.

The inefficiency of collateral-specific covenants in the case of healthy debtors suggests that healthy debtors would not prefer secured loans at all. At least with respect to the benefits provided in terms of increased return to creditors in case of insolvency, the costs of secured loans seem to outweigh the benefits for healthy debtors because the likelihood of insolvency is so low that even a significant increase in expected return is discounted to the point of marginality (or at least to the point where they cannot justify the costs of collateral-specific covenants).

A cost that is not reflected in the interest rate for secured loans but that is incorporated into the debtor's decision on whether to employ a secured loan is the cost of the covenant to the debtor. By limiting the debtor's general behavior and use of the collateral, covenants impose two types of costs. First, covenants may limit a debtor's freedom to expand its business if doing so would violate a covenant (for example, by increasing the debtor's debt-to-asset ratio beyond a certain limit). At the very least, the debtor must acquire a secured creditor's consent before violating a covenant. In the worst case, the debtor may have to share proceeds from a new opportunity to coerce secured creditors into waiving covenants or it may be unable to pursue lucrative opportunities at all if the creditors choose not to waive the covenant. Second, covenants impose administrative costs on the debtor. The debtor must monitor itself to ensure that it complies with the covenants.

B. *The "Choice" Between Secured Debt and Unsecured Debt*

1. The Possibility of No Real Choice Between Secured and Unsecured Debt

A common (but ultimately anecdotal) observation in the financial industry is that risky debtors do not choose between secured and unsecured debt. Rather, they choose between secured financing and no financing at all.⁸⁶ The previous discussions on the benefits of secured debt to healthy and risky debtors suggest an interesting complement to this proposition.

86 See Harris & Mooney, Jr., *supra* note 32, at 2030-31; Schwarcz, *supra* note 6, at 442.

Perhaps because secured debt is greatly demanded by risky debtors, it seems to benefit risky debtors most. Indeed, depending on empirical data, secured debt may be uniquely beneficial to risky debtors.

Juxtaposing the observations that the costs of covenants to debtors in secured loans are not fully reflected in the interest rates charged by secured creditors and that debtors will attempt to borrow on an unsecured basis whenever possible seems to suggest that the costs of secured debt are so great as to render secured debt not only as expensive as unsecured debt to healthy firms but in fact more expensive. If creditors charge healthy firms the same rate of interest for unsecured and secured loans and secured loans contain the extra burden of covenants, then they would appear to exact more cost from debtors, even abstracting from the opportunity costs of encumbering assets. One mitigating point is that most unsecured loans, at least from institutional creditors, also contain covenants.⁸⁷ Yet, covenants in unsecured loans lack the collateral-specific clauses of covenants in secured loans. Moreover, the costs of such covenants are unclear because they may impose conditions that debtors would independently fulfill.⁸⁸ In light of these considerations, the case for unsecured debt being less expensive than secured debt (even abstracting from opportunity costs) with respect to financially healthy firms is most compelling for investment-grade debt (which, generally does not contain covenants) and uncertain but at least possible for other forms of unsecured debt.

Although the relative price of secured and unsecured debt is ultimately an empirical issue, this tension suggests a quandary in the pattern of debt. The previous analysis provides relatively strong support for the observation that financially strong firms usually issue debt in the form of bonds while risky firms employ secured debt. Firms that are able to issue investment-grade debt stand to gain little from the preventive powers of secured debt or the additional return to creditors in case of insolvency, while risky firms benefit substantially. Because the costs of secured debt are similar for both types of firms, in terms of contracting costs, collection costs and costs associated with covenants, healthy firms experience a negligible or nonexistent interest rate differential between secured and unsecured debt while risky firms experience a significant interest rate differential. This explains the preference of financially strong firms for unsecured debt, but it leaves an intermediary class's preference for unsecured debt as a puzzle. Specifically, firms that cannot issue investment-grade bonds will often borrow from institutional investors on an unsecured basis. As previously noted, such debt contains general covenants, but not collateral-specific covenants. Consequently, these

87 See, e.g., ALLIANCE IMAGING, INC., *supra* note 48, at 66.

88 See *id.*

unsecured loans do not provide the savings of investment-grade bonds in terms of no costs of covenants. Yet, debtors almost uniformly prefer to borrow on an unsecured basis, even when general covenants are present, over a secured basis. The fact that some debtors benefit from covenants in unsecured loans⁸⁹ begs the question of whether they would benefit from secured loans.

This issue serves as a fulcrum between the Sub-Optimal Use Theory and the Optimal Sub-Use Theory. On the one hand, debtors' insistence on unsecured debt, even when it involves covenants, may be understood as evidence for the Sub-Optimal Use Theory. At first impression, the observation that debtors will even sacrifice substantial savings in loan interest rates in borrowing on an unsecured basis over a secured basis⁹⁰ seems to support this proposition, the loss in savings from the higher interest rates constituting an agency cost. Yet, the power of this observation is limited because interest rates do not capture all of the costs of covenants in secured loans to debtors. This suggests the alternative possibility, that debtors' insistence on unsecured debt involving covenants is efficient behavior. First, it may be that collateral-specific covenants increase the cost of debt much more than general covenants. The interest rate savings that debtors are willing to forsake could be less than the marginal costs involved in engaging in the package of covenants involved in secured loans instead of the regiment of covenants included in unsecured loans. In support of this scenario is the possibility that the costs of covenants in unsecured loans to debtors may often be marginal because the debtors would have independently complied with such covenants.

2. Agency Costs and the Supply of Debt

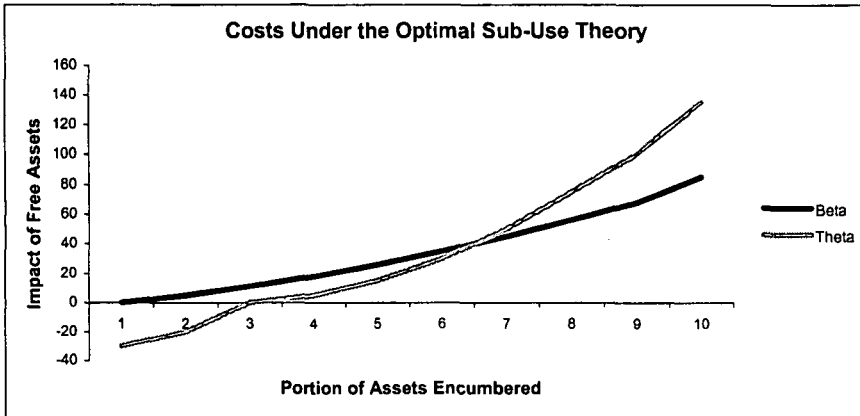
The preceding assessment neglects the impact of fiscal strategy on managerial behavior. Just as the mutual causality between fiscal strategy and managerial discipline creates two forms of the Sub-Optimal Use Theory, it also generates two forms of the Optimal Sub-Use Theory. The Strong Form Optimal Sub-Use Theory obtains when a firm will benefit from borrowing on an unsecured basis instead of a secured basis, and the agency costs resulting from a lack of fiscal discipline on management are less than the benefits from borrowing on an unsecured basis. Under the Strong Form Optimal Sub-Use Theory, borrowing on an unsecured basis results in an ultimate good for the firm. The Weak Form Optimal Sub-Use Theory obtains when a firm benefits from borrowing on an unsecured basis over a secured basis, but the agency costs due to a lack of fiscal

89 Assuming rational debtors and creditors, the presence of covenants should generate a surplus in expected welfare.

90 See Mann, *supra* note 5, at 658 & n.129.

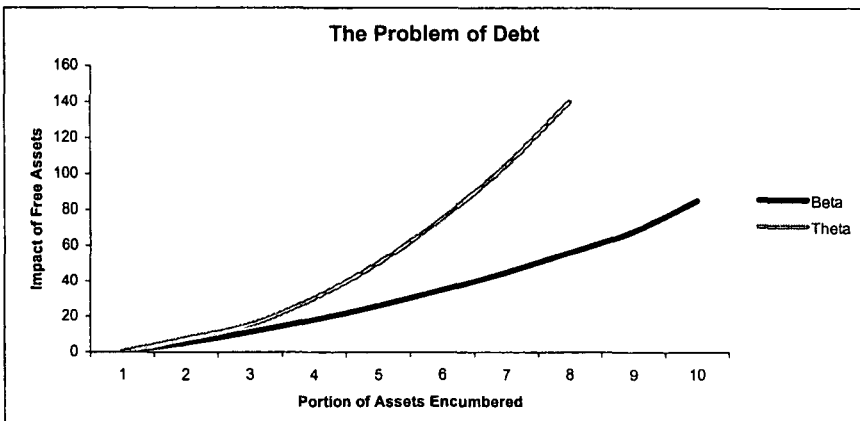
discipline on management are greater than the benefits of borrowing on an unsecured basis (in other words, conditions identical to the Weak Form Sub-Optimal Use Theory). Under the Weak Form Optimal Sub-Use Theory, borrowing on an unsecured basis provides an ultimate cost to a firm because the deleterious effects on managerial efficiency overwhelm the benefits of borrowing on an unsecured basis. (See Figure 6.) The

Figure 6



For this debtor, the Strong Form Optimal Sub-Use Theory obtains between encumbrance levels of 100% and 65% of the total value of the firm's assets. When 65% to 30% of the total value of the firm's assets are encumbered, the Weak Form Optimal Sub-Use Theory obtains. After 65%, use of unsecured debt is efficient, but the benefit is only the area between the Beta and Theta Curves.

Figure 7



This figure illustrates what the Beta and Theta Curve for a debtor for which the Strong Form Optimal Sub-Use Theory obtains for every level of encumbrance. The problem of debt is illustrated by the fact that the benefits of borrowing on an unsecured basis (the area below Theta) is reduced by the deleterious effects of borrowing on an unsecured basis on managerial behavior (the area below Beta).

preceding analysis assessed only the fiscal benefits to financially healthy firms. Consequently, it only counsels for the Strong Form Optimal Sub-Use Theory by suggesting that the fiscal benefits of borrowing for unhealthy firms seem to be substantial and therefore are more likely to overwhelm costs due to negative effects on managerial behavior. (See Figure 7.)

Firms that are sufficiently healthy to borrow on an unsecured basis, but that are unable to issue investment-grade debt, present the most questionable behavior. The uncertainty surrounding the ultimate implications of issuance of investment-grade debt resides in the relationship between decreased managerial effectiveness and fiscal benefits. With respect to non-investment grade and unsecured debt, both the insistence on borrowing on an unsecured basis as well as the relation between the potential benefits of unsecured borrowing and resulting agency costs are ambiguous. These transactions present the possibility of either the Strong Form Optimal Sub-Use Theory, the Strong-Form Sub-Optimal Use Theory or the Weak-Form Sub-Optimal Use Theory.

C. *Secured Debt and Asset Securitization*

1. Conceptual Similarities Between Secured Debt and Asset Securitization

Many scholars have noted a fundamental conceptual similarity between asset securitization and secured debt.⁹¹ At the heart of both asset securitization and secured lending is the theoretical ability to generate savings in the cost of capital by guaranteeing a creditor's claims even in the contingency of bankruptcy. With respect to secured loans in a full priority system of bankruptcy, the debtor guarantees that the secured creditor will have a certain claim, regardless of the presence of other unsecured or secured creditors, by pledging specific assets to a secured creditor through a security interest. Asset securitization could be conceived of as an even more extreme species of security interests. Rather than merely pledging an asset to a secured creditor, a debtor converts assets into capital market instruments.⁹² The firm receiving funds (the debtor, which is referred to as an "originator") sells certain assets to a trust, corporation or other legally distinct entity (a "special purpose vehicle" or "SPV").⁹³ To

91 See, e.g., Lynn M. LoPucki, *The Unsecured Creditor's Bargain*, 80 VA. L. REV. 1887 (1994); Lupica, *supra* note 7.

92 See Steven L. Schwarcz, *The Parts are Greater than the Whole: How Securitization of Divisible Interests Can Revolutionize Structured Finance and Open the Capital Markets to Middle-Market Companies*, 1993 COLUM. BUS. L. REV. 139, 140.

93 See *id.* at 143-44.

date, asset securitization has only involved receivables or other assets that constitute present or future rights to payments.⁹⁴ Shares of the SPV are marketed to the public, and the SPV distributes funds to its shareholders by collecting the receivables.⁹⁵ The two requirements, that the conveyance constitute a true sale and the SPV be a legally distinct entity, are aimed at ensuring that the assets become completely disassociated from the originator. Like secured debt, asset securitization is aimed at separating the returns to shareholders of the SPV (or secured creditors) from the originator's (debtor's) financial status. In addition, from the perspective of unsecured creditors, both secured debt and asset securitization have the same effect of diluting their claims by decreasing the assets available in case of the debtor's bankruptcy.⁹⁶ To the extent that creditors adjust interest rates *ex post* to a debtor's disposition of assets, secured debt and asset securitization both impose the same cost to originators/debtors—higher interest rates from unsecured creditors. As both asset securitization and secured debt involve a debtor pledging its assets in one form or another, asset securitization is an ideal template for assessing the costs of secured debt without reference to the specific costs (and benefits) associated with liening assets.

2. Empirical Differences in the Use of Secured Debt and Asset Securitization

The noted similarities between secured debt and asset securitization do not carry through to debtors'/originators' use of the two forms of financing. First, and most striking, is the difference between the trends in use of asset securitization and secured debt. Asset securitization is the fastest-growing form of capital formation in the United States, and its use is expanding worldwide.⁹⁷ In contrast, there has been no acceleration in the use of secured debt.⁹⁸ An obvious reason for the differences in the trends of use of asset securitization and secured debt is that asset securitization is a relatively new innovation in secured financing.⁹⁹ Independent of the merits of the two forms of financing, the financial markets may be in the process of absorbing the use of asset securitization. The steep upward trend in the use of asset securitization may simply be symptomatic of an

94 See Schwarcz, *supra* note 2, at 152-53.

95 See *id.* at 135-36.

96 See LoPucki, *supra* note 91; Lupica, *supra* note 7.

97 Schwarcz, *supra* note 2, at 133.

98 See James J. White, *Corporate Judgment Proofing: A Response to Lynn LoPucki's the Death of Liability*, 107 YALE L.J. 1363, 1377-80 (1998).

99 See Schwarcz, *supra* note 2, at 133.

emerging industry.¹⁰⁰ Second, and more important, is debtors' preference for secured debt and asset securitization vis-à-vis unsecured debt. Most debtors prefer to borrow on an unsecured basis if they can.¹⁰¹ Perhaps the strongest reason for this preference is that financially viable debtors enjoy little or even no improvement when borrowing on a secured basis instead of an unsecured basis.¹⁰² Asset securitization appeals to both financially healthy and risky originators.¹⁰³ Risky originators receive an obvious benefit of disassociating the value of the receivables from the risk of the company; however, healthy originators may also benefit from securitizing assets because the SPV may be able to issue securities with an even higher investment grade rating than the originator's.¹⁰⁴ The differences in the use of secured debt and asset securitization by financially healthy firms essentially stems from a different price for each form of financing. This suggests that, while the two forms of financing are driven by the same conceptual process, there are differences between secured debt and asset securitization that create higher costs to debtors for the former and lower costs to originators for the latter. Although the effects of this disparity are prominent in the case of financially healthy firms, the difference in costs of capital may apply to risky firms as well, creating a general preference for asset securitization.

3. Differences in the Cost to Secured Creditors and SPV Shareholders

If the market for debt and securities of SPVs is perfectly competitive, then creditors and shareholders of SPVs are unable to systematically achieve profits beyond a market-rate return on their investment. The prices to debtors or originators of borrowing on a secured basis or raising funds through securitization would reflect the costs to creditors or managers of

100 The rapid growth of asset securitization may seem to undermine the plausibility of the Sup-Optimal Use Theory and support the Optimal Sub-Use Theory. If management prefers free assets over free cash, then the enthusiasm for securitizing assets seems bewildering. Two related considerations minimize the value of asset securitization in deciding between the Sup-Optimal Use Theory and the Optimal Sub-Use Theory. First, to date, asset securitization has been limited to receivables. This leaves a substantial amount of a firm's assets to serve as a safety mechanism for management. However, this explanation alone is incomplete because management seems willing to leave all assets unencumbered with respect to secured debt. This raises the second consideration—the higher benefits to healthy firms from asset securitization. One of the reasons that free assets is a viable agency cost is because of its low cost to shareholders due to the negligible difference between interest rates for secured and unsecured debt. Asset securitization undercuts this benefit with respect to receivables because it permits management to use receivables to finance projects at an interest rate that is significantly better than unsecured debt. Asset securitization's limited scope and substantial benefits to healthy debtors makes it consistent with the Sub-Optimal Use Theory.

101 See Schwarcz, *supra* note 6, at 448.

102 See *id.*

103 See *id.* at 442.

104 See Schwarcz, *supra* note 2, at 137.

SPVs plus a market-rate return. The disparity between pricing of secured debt and securitized assets must originate from disparities in the costs to creditors and managers of SPVs. The fact that creditors may be willing to lend to a healthy firm on an unsecured basis at the same interest rate as a secured basis not only indicates that asset securitization may be less costly to many debtors but also that the costs attendant with secured loans eclipse any benefits that financially healthy debtors would receive from such loans.

The cost of debt to creditors is related to the chance of a debtor's insolvency and the expected return on insolvency. As noted, scholars have focused on the conceptual similarities between secured debt and asset securitization with respect to the latter factor (mainly because of a focus on the effects of both asset securitization and secured debt on unsecured creditors).¹⁰⁵ Yet, the literature has neglected the radical differences between the two forms of financing from the perspective of reducing a debtors' or originators' chances of insolvency. Moreover, the differences in the costs of secured debt to secured creditors has been understated because of a focus on the magnitude of claims and neglect of the costs of collection. These differences in the mechanics of secured debt and asset securitization potentially explain the different costs associated with the two financing platforms.

As previously discussed, the covenants and collateral involved in secured debt serve to aid the secured creditor in reducing the debtor's risk of insolvency or at least in reducing the creditor's likelihood of confronting debtor insolvency. Rather than decreasing the riskiness of the originator, asset securitization attempts to minimize the effects of the riskiness of the originator by legally divorcing the receivables from the debtor. Since the originator sells the receivables to a legally distinct entity, the entity has access to the receivables regardless of the solvency of the debtor. Consequently, the value of securitized assets is almost completely dependent on the expected value of the receivables. The reason why it is not solely dependent on the expected value is that insolvency by the originator may generate a challenge by the bankruptcy estate to the legitimacy of the sale from the originator to the SPV. This risk can be greatly mitigated by ensuring that the asset securitization accords with judicial standards for a "true sale."¹⁰⁶

The different tactics employed by asset securitization to control for the risk of debtor insolvency answer the problems posed to secured debt by financially strong debtors. Diminishing returns on the effectiveness of covenants to enhance debtor behavior and the stochastic elements of any

105 See, e.g., LoPucki, *supra* note 91; Lupica, *supra* note 7.

106 Schwarcz, *supra* note 2, at 151.

business enterprise create an effective limit on the ability of secured debt to reduce the probability of debtor insolvency. Asset securitization could be conceived as a radical development of the second strategy employed by secured creditors—removing themselves from the debtor before insolvency. In the case of asset securitization, the shareholders are always removed from the originator. This simulates a secured loan that can achieve a close to zero chance of insolvency for the debtor (the probability is only close to zero because of the possibility of a challenge by a bankruptcy trustee in case of debtor insolvency). Conversely, to the extent that secured debt generates positive externalities by actually decreasing a debtor's risk of insolvency, a risky debtor may prefer secured loans over asset securitization.¹⁰⁷

In addition to the fundamentally different ways in which asset securitization and secured debt address the probability of debtor insolvency, the two forms of financing involve different mechanisms for ensuring the value of debt in case of debtor insolvency. Under a full priority bankruptcy system, bankruptcy remoteness and a security interest are identical in that they both guarantee the value of the pledged assets to the creditor/SPV. The crucial difference lies in the cost associated with collecting a claim once a debtor files for bankruptcy. Secured creditors must incur costs of participating in bankruptcy proceedings. In the case of asset securitization, the SPV is a legally distinct entity, and an originator's bankruptcy should have no effect on the ability and costs of the SPV in paying shareholders proceeds from liquidation of conveyed receivables. A marginal exception is that originators often serve to collect receivables for SPVs,¹⁰⁸ and the originator's bankruptcy may increase the costs of collection if the SPV must hire a new collection agent. A more substantial exception is that the trustee of the bankruptcy estate of the originator may challenge the legitimacy of the sale from the originator to the SPV. This possibility also creates some costs to managers of SPVs in terms of the transaction costs of defending against such a challenge and the possibility that such a challenge could succeed. Again, an SPV manager can significantly reduce these costs by ensuring that the asset securitization accords with established doctrines for a "true sale."¹⁰⁹

Asset securitization also generates additional savings in terms of eliminating the need to monitor collateral. An originator sells receivables to an SPV in asset securitization, thereby placing the receivables under the SPV's ultimate control (although the SPV may hire the originator to administer the receivables). This obviates the need for monitoring because the SPV manager controls the pledged assets.

107 This point is beyond the scope of this Article.

108 See Schwarcz, *supra* note 2, at 148.

109 See *id.* at 143-44, 144 n.15.

Agency Costs, Secured Debt, and Asset Securitization

Of course, asset securitization involves unique costs as well, such as the costs of creating an SPV, selling the receivables to the SPV and marketing the shares of the SPV. However, the interest rates afforded to debtors through asset securitization and secured loans strongly indicate that, at least for healthy debtors, the unique costs to creditors associated with secured loans are greater than the unique costs to managers of SPV's. Moreover, the difference in interest rates understates the benefits to debtors of asset securitization over secured loans in two ways. First, the interest rate for secured debt does not reflect all of the costs to the debtor. As discussed, secured loans involve covenants that generate costs to the debtor that are not reflected in the interest rate charged. Asset securitization does not generate costs associated with covenants to debtors. Interestingly, because general accounting principles require that asset securitization be recorded as a sale and not debt,¹¹⁰ asset securitization generates benefits to debtors by allowing them to raise capital without negatively affecting their financial profile or violating existing covenants.¹¹¹ Second, comparing the interest rates of secured debt and asset securitization exaggerates the costs of asset securitization because the SPV manager receives less than a secured creditor. Asset securitization is non-recourse while secured loans are full recourse. If the receivables sold to an SPV fail to generate their expected value, then the SPV has no recourse against the originator to make up the difference. Indeed, the existence of recourse would significantly undermine the validity of the conveyance of receivables from the originator to the SPV as a "true sale."¹¹² Collateral for a secured loan may depreciate, leaving the secured creditor with an under-secured claim. However, the secured creditor still has a claim against the debtor for the unsecured portion, and the bankruptcy system allows a secured creditor to pursue the unsecured portion of his debt as an unsecured creditor.¹¹³ These considerations suggest that the incidental costs to secured creditors, the costs of bankruptcy proceedings and covenants, are quite substantial.

Analytical considerations both support and refine this conclusion. The increased costs of collection involved in secured debt in comparison to asset securitization apply to both healthy and risky creditors. In both cases, the increased costs of collection reduce secured creditors' expected recovery in the case of insolvency. Yet, the preventive benefits of secured

110 See FINANCIAL ACCOUNTING STANDARDS BD., *Statement of Financial Accounting Standards No. 77: Reporting by Transferors for Transferors of Receivables with Recourse*, in 1 ORIGINAL PRONOUNCEMENTS: FASB STATEMENT OF STANDARDS 755 (1995).

111 See Schwarcz, *supra* note 2, at 137. Although these benefits are generally recognized, they may be merely transitional as creditors and investors react to the possibility that accounting principles create a distorted image of the debtor's financial status.

112 See *id.* at 135.

113 See 11 U.S.C. § 101(5) (2000).

debt do not apply as much to healthy debtors as they do to risky debtors. The opposite may be true of asset securitization. First, asset securitization substantially decreases the impact of debtor insolvency, simulating an almost perfect chance of debtor solvency. Second, the risk in asset securitization related to an originator's insolvency is the probability that a bankruptcy estate trustee may challenge the sale of the receivables from the originator to the SPV. Given that there is no reason to believe that trustees of bankruptcy estates of healthy firms are somehow more likely to challenge asset securitization than trustees of bankruptcy estates of risky firms, the expected costs of asset securitization are lower for healthy firms than risky firms. Beyond a certain level of debtor riskiness, the benefits of asset securitization may begin actually to decrease because of the significantly increased chances of challenges to the securitization.¹¹⁴

4. Asset Securitization and the Problem of Debt

The Strong Form Optimal Sub-Use Theory and the Weak Form Sub-Optimal Use Theory illustrate an inherent limitation of debt with respect to financially strong debtors. Since fiscal strategy and managerial behavior are interdependent, financially strong debtors must face the choice between decreased managerial discipline and increased financial efficiency through unsecured debt or increased managerial discipline but inefficient financing through secured debt. Figures 3 and 4 above illustrate that the opportunity costs of encumbering assets and the costs of free assets to financially strong firms track each other to exacerbate this problem. At low levels of encumbrance, where financially healthy firms have the strongest incentives to encumber assets (i.e., the Theta Curve is at a high negative value), the costs of free assets are also highest (i.e., the Beta Curve has a high positive value), thereby negating much of the benefits from financing on a secured basis. Additionally, the benefits of free assets and the opportunity costs of encumbering assets exhibit complimentary trends in relation to the amount of assets encumbered (both increasing), making a general optimization strategy impossible and a specific optimization strategy difficult (because the firm would have to rely on variances in the rate of change of the two values in order to select an optimal strategy).

From a purely utilitarian perspective, the problem is also vexing because one portion of the comparison, the consequences of the financing choice, is reasonably clear, but the other portion, the consequences of lack of fiscal discipline, is incredibly opaque. A pragmatic perspective confounds the issue. Since managers are the agents who generally select financing options (this may be implicit, since they negotiate the terms of

114 See Schwarcz, *supra* note 2, at 137.

financing, if not explicit), the consequences of financing strategy and lack of managerial discipline are potentially, if not probably, distorted by intentional obfuscation. Management's preference for free assets almost assures that unsecured debt will be employed, and management's role in developing the financing strategy of the firm veils the efficiency of the choice for unsecured debt. Risky debtors that select secured debt seem to reap the rewards of the healthy debtor's conundrum. Yet, this is only half-true. While the debtor's situation strongly indicates that the decision to encumber assets is efficient, it also marginalizes the effect of encumbered assets on management as the debtor's financial distress itself would be a powerful source of managerial discipline.

Although asset securitization does not cure the defects of secured debt with respect to the healthy debtor, it does provide a viable choice to the conundrum of secured and unsecured debt. Asset securitization provides healthy debtors with the financial efficiency of unsecured debt (if not greater financial efficiency) while simultaneously providing managerial discipline (or at least facilitating managerial discipline) by decreasing assets.

5. Revisiting Signals Associated with Secured Loans and Asset Securitization

In attempting to differentiate full-recourse secured debt from non-recourse secured-debt, Schwarcz appealed to the different signaling consequences associated with liens and asset securitization. The present analysis of creditors' costs associated with the two forms of financing provides analytical content to Schwarcz's observations. The mere act of granting a security interest does not indicate that a debtor is in financial distress *per se*. Rather, the costs of secured loans created by the bankruptcy system and the negligible benefits to healthy creditors from secured loans have created the connection between secured debt and financial distress. Healthy creditors do not enjoy much, if any, benefit from secured debt because their costs of capital for unsecured debt rival those of secured debt due to high collection costs to secured creditors in bankruptcy proceedings. Yet, as a debtor becomes more risky, both the cost of unsecured credit and the benefits of secured credit begin to increase. Creditors charge a higher interest rate for unsecured debt because the likelihood of insolvency increases. The benefits of secured debt increase because the guaranteed claim in the case of insolvency becomes more heavily weighted due to the higher probability of insolvency. Perhaps more importantly, creditors will begin to benefit more from the leverage over the debtor provided by a security interest. The point at which secured debt becomes financially viable is when a debtor is sufficiently risky that

the disparity between interest rates for unsecured debt and secured debt has increased to the point where secured debt is attractive or the only alternative. Security interests carry a negative signal because they indicate that a debtor has become sufficiently risky that it must resort to the relatively expensive vehicle of secured debt and can benefit from secured creditors' implicit or explicit monitoring.

This analysis of the negative signal of secured debt also indicates why asset securitization lacks the negative stigma of secured debt. Asset securitization does not incorporate the high costs of collection in the bankruptcy process, and it provides debtors with considerable benefits over unsecured debt. Financially healthy debtors may decide to securitize their assets even if unsecured debt is available if the interest savings outweigh the opportunity costs of possessing free assets. Since the benefits of asset securitization begin to wane after a certain level of firm riskiness due to the increased possibility of a challenge from a bankruptcy trustee, asset securitization may actually carry a positive signal about a firm's strength. Regardless of this possibility, asset securitization does not provide the same information on a debtor's costs of unsecured debt as encumbering assets.

III. Implications and Suggestions for Policy

A. *A Possible Problem with Full Priority*

Lucian Bebchuk and Jesse Fried have recently argued that granting secured creditors full priority in bankruptcy proceedings generates inefficient and purely redistributive secured debt.¹¹⁵ Empirical data and analytical considerations with respect to debtor demand for secured debt and creditor supply of secured debt have shifted the analysis of the efficiency of full priority a full 180 degrees. A problem may exist with respect to secured debt under the current full priority bankruptcy system. Yet, the problem is not an over-use of secured debt as Bebchuk and Fried argue, but an underuse of secured debt. From a demand-side perspective, managers are biased against secured loans because they desire the safety provided by available free assets. Supply-side factors feed this bias by creating a marginal or zero interest rate differential between secured and unsecured debt for debtors who have a choice between the two forms of debt. Full priority in theory does not create full priority in reality because of the costs of covenants and collection attendant with secured debt. More importantly, Bebchuk and Fried neglect the preventive powers of secured

115 See Bebchuk & Fried, *supra* note 4.

debt. While there is a possibility that full priority creates redistributive opportunities involving security interests, the inefficiencies of secured debt overwhelm any redistributive benefits for healthy creditors. The Optimal Sub-Use Theory holds that the significant costs and muted benefits of secured debt lead to an efficient choice for unsecured debt, even in light of redistributive opportunities. The Sub-Optimal Use Theory holds that this situation exacerbates the agency costs associated with corporations or the costs of risk aversion associated with manager-owners because it makes free assets an ideal medium for excess wealth.

Yet, debtors' preference for unsecured debt is only potentially a problem. The crucial point is the supply-side issue of whether the bias against secured debt is a product of the inherent and unavoidable traits of secured debt or a loss due to current government regimes.¹¹⁶ The issue is important because it impacts how the preference for unsecured debt should be perceived and the possibility of remedying the situation.

The costs associated with secured debt can be roughly categorized into four classes: investigation of the debtor and collateral, costs of covenants, perfection costs and collection costs. The latter two classes of costs are heavily regulated and therefore affected by the Uniform Commercial Code and Federal Bankruptcy Law, respectively. Although the current analysis suggests that healthy debtors' preference for unsecured debt is ultimately rooted in the aggregate costs of secured debt, it does not suggest which factors, if any, are dominant. If the decreased benefits of secured debt were the primary factor in healthy creditors' preference for unsecured debt, then the preference for unsecured debt emanates from the nature of secured debt itself. Yet, if preference for unsecured debt is mainly attributable to the high collection costs imposed by the bankruptcy regime or high perfection costs created by the Uniform Commercial Code, then it is a distortion created by a social institution. The resolution of this issue requires empirical work that is beyond the scope of this Article; however, the issue is important in at least two respects. First, the issue impacts whether preference for unsecured debt should be considered a necessary consequence of security interests or a cost of current regulation. This insight has evident consequences for the desirability of current regulatory systems. Second, the issue impacts whether the preference for unsecured debt can be addressed by legal changes. If the bias against secured debt arises mainly from the relevant regulatory systems, then changes in those systems may ameliorate the situation. The desirability of such changes should be considered in light of their potential costs with respect to the goals of the current regimes.

¹¹⁶ It is premature to consider the loss a deadweight loss because the costs of encumbrance and collection may be unavoidable and the benefits of the government regimes may outweigh such costs.

B. *Secured Debt and Asset Securitization as Substitutes*

The current emphasis by some scholars on the similarities between secured debt and asset securitization suggests two possible responses to the issues raised thus far. The first and least plausible response is that the current preference for unsecured debt over secured debt is invalid due to a form of myopia towards debt. Rather, the current preference for unsecured debt is a residual effect created by asset securitization. The benefits of asset securitization over secured debt and its substitutability with secured loans has transformed the choice between secured and unsecured debt to a choice between secured debt and asset securitization. This response is inaccurate on theoretical, empirical and historic fronts. Asset securitization and secured loans both involve the pledging of collateral, but they involve very different costs and benefits. Asset securitization offers the benefits of bankruptcy remoteness while generating the costs of the sale and securitization of the assets. Secured loans offer the preventive benefits afforded by credible foreclosure threats and priority in bankruptcy while creating bankruptcy representation costs and monitoring costs. Empirically, the two forms of financing coexist, and their coexistence is not a transitional phenomenon.¹¹⁷ Secured loans offer significant benefits to risky debtors that asset securitization cannot provide. Secured loans attempt to reduce the risk of default by controlling debtor behavior while asset securitization limits the effect of default by removing the collateral from the debtor. Consequently, secured loans provide a level of debtor discipline that asset securitization does not attempt to address. Finally, the puzzle of debtor preference for unsecured debt in light of the benefits of secured debt was observed before the prominence of asset securitization.¹¹⁸

The second possibility is that while asset securitization may not be the cause for secured debt's relative unpopularity, it may serve as a remedy for secured debt's shortcomings. This response is especially appealing in light of how asset securitization complements secured debt. Asset securitization provides benefits to healthy creditors while secured debt's benefits are most pronounced with risky debtors. Unfortunately, this response encounters several objections as well.

From an economic perspective, the ways in which asset securitization and secured debt operate create deep incompatibilities between the two forms of financing. The benefits from asset securitization originate from the sale of collateral to a legally distinct entity or the partitioning of some set of the firm's anticipated cash flow to an SPV. In contrast, one of the primary benefits of secured debt is that it permits debtors to

117 See Schwarcz, *supra* note 2, at 133.

118 See Schwartz, *supra* note 3, at 7-30.

simultaneously employ the same asset as collateral and an input of production. This difference in mechanics is perhaps the most significant economic reason why asset securitization has been limited to rights to payment. Assets constituting rights to payment are generally partitioned from a firm's other processes (thus allowing bankruptcy remoteness), and the securitization of rights to payment often creates little functional change in the operation of the firm as the SPV usually employs the originator to collect the payments.

While the scope of asset securitization is increasing to include a wider range of rights to payment in addition to the receivables (such as project finance),¹¹⁹ two problems plague securitizing a firm's general assets. First, on a conceptual level, it would be very difficult to reduce general assets (such as non-project-specific office buildings or non-project-specific equipment) to a right for payment. Such a feat would require somehow assessing the value that the object contributed to the value of the general endeavor, and the transaction costs involved in such an endeavor would almost certainly eclipse any benefits. Thus, asset securitization is ideal for assets or groups of assets that constitute a present or future stream of cash flow (of course, expanding the scope of asset securitization to the limit—securitizing the firm, would be to simply reduce asset securitization to equity in a firm). Second, to achieve bankruptcy remoteness, asset securitization requires that assets be transferred to a bankruptcy remote SPV. Again, the transaction costs involved in creating an SPV for general assets and somehow permitting the SPV to allow the originator to use the assets while still maintaining control of the assets, although perhaps not as significant as possible benefits, would be substantial nonetheless. Such an arrangement effectively simulates an originator leasing, instead of owning, an asset. Assuming rational and informed originators, the current ownership of the assets strongly indicates that leasing was an overall inferior strategy. The nature of asset securitization essentially limits it to assets or groups of assets that generate a stream of value that can be easily separated from the remainder of the debtor. This creates substantial differences between the scope of asset securitization and secured debt.

Legal limitations with respect to asset securitization support the boundaries created by economic considerations. One of the primary strands in the jurisprudential development of asset securitization has been the distinction between asset securitization and secured debt (specifically, a floating lien—asset securitization usually involves receivables).¹²⁰ The

119 See Schwarcz, *supra* note 2, at 152-54.

120 See, e.g., *Home Bond Co. v. McChesney*, 239 U.S. 568 (1916); *Major's Furniture Mart, Inc. v. Castle Credit Corp.*, 602 F.2d 538 (3d Cir. 1979); *Evergreen Valley Resort, Inc.*, 23 B.R. 659 (Bankr. D. Me. 1982); *In re Hurricane Elkhorn Coal Corp.*, 19 B.R. 609 (Bankr. W.D. Ky. 1982); *Gold Coast Leasing Co. v. Cal. Carrots, Inc.*, 93 Cal. App. 3d 274 (1979); *Dorothy v. Commonwealth*

Uniform Commercial Code analyzes transactions based on their substance not form.¹²¹ This analytical approach creates substantial restrictions on how an originator may organize sales to an SPV. It is not sufficient that an originator create the mere appearance of a sale. The transaction must have the substance of a sale. Jurisprudence has focused on the issues of recourse, originator's retained rights, pricing and control over the sold assets.¹²² Essentially, the sale from an originator to an SPV must result in the SPV possessing both sufficient power over the securitized assets and sufficient risks associated with the securitized assets so as to approximate the situation of the SPV owning the securitized asset. The true sale requirement creates a substantial obstacle to any arrangements whereby corporations might attempt to sell assets to an SPV and then re-lease them. Courts may pierce the façade of the arrangement and deem the actual transaction as a secured loan from the SPV to the originator.

Conclusion

The demand and supply of debt and structured financing are the nexus of a myriad of intricate forces, such as the agency costs affecting and resulting from any financing scheme and the impact of the debtor's financial health on the operation of any financing scheme. The disconnects between previous theories on secured debt and asset securitization and observed practices with respect to these forms of financing, as illustrated by the paradox of secured debt and the disparity between the popularity of secured debt and asset securitization, are a direct result of previous theories' failure to recognize the essential complexity underlying financing decisions and the unique dynamics driving different species of financing. Analytical considerations alone cannot answer the questions surrounding the efficiency of the observed levels of secured debt and asset securitization. Indeed, a purely theoretical approach cannot even determine if any problems exist at all.

Commercial Co., 116 N.E. 143 (Ill. 1917); *People v. Service Inst., Inc.*, 421 N.Y.S.2d 325 (N.Y. Sup. Ct. 1979).

121 See Uniform Commercial Code § 9-202 (1999).

122 See Schwarcz, *supra* note 2, at 133-42.