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The Evolution of Debt: Covenants, the Credit Market, and Corporate Governance

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The Evolution of Debt: Covenants, the Credit Market, and Corporate Governance

Charles K. Whitehead*

I. INTRODUCTION ........................................................................................................... 641

II. COVENANTS, MONITORING, AND LIQUIDITY ............................................................. 650

III. THE EVOLUTION OF THE CREDIT MARKET ................................................................ 654

IV. CORPORATE GOVERNANCE AND THE EVOLUTION OF DEBT ...................................... 661
   A. Syndicate Structure and Lead Bank Incentives ........................................................... 663
   B. Covenant Levels and Monitoring ............................................................................... 664
   C. Reputation .................................................................................................................... 665
   D. Private Credit Liquidity ............................................................................................... 667

V. SOME LESSONS FROM THE CREDIT CRISIS ................................................................ 673

VI. CONCLUSION ............................................................................................................. 676

I. INTRODUCTION

Debt and equity are like sibling rivals within the traditional agency cost framing of the firm. Shareholders, within that construct, may be inclined to resist new investment that principally benefits creditors, with the result that value-enhancing projects are delayed or abandoned.1 Lenders, as well, risk the loss of wealth in the face of management opportunism that favors equity over debt.2 One response, ultimately at cost to the

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borrower, is increased covenants that restrict its actions and potentially furnish control rights to lenders. Covenants and monitoring were presumed to be the least costly means to manage credit risk in the absence of alternatives, such as portfolio risk management, that did not exist for debt at the time the agency cost construct was introduced.

Most corporate debt is private, and most private lenders are banks. Consistent with the role of debt within the traditional framing, covenants act as early warning “trip wires” that assist banks to manage credit risk, permitting them to reassess a borrower’s managers when weakened financial conditions increase the risk of opportunism and mitigate loss by renegotiating loans in anticipation of, or following, a breach. Banks are able to monitor a borrower’s compliance at low cost, reinforcing the importance of loan covenants to corporate governance. The trade-off for banks is the relative inability to transfer the loans they originate to others, further boosting their reliance on covenants and monitoring.


4. In this Article, “credit risk” is defined as a lender’s exposure to the possibility that a borrower will fail to perform its obligations under a loan or other credit instrument, principally the payment of principal and interest.

5. I mark the introduction of the agency cost construct as the publication of Jensen and Meckling’s seminal article in 1976. See Jensen & Meckling, supra note 2.


8. Jensen and Meckling referred to both “bonds,” see Jensen & Meckling, supra note 2, at 336, and “loans,” see id. at 334, when describing the role of debt in managing agency cost. This Article’s focus on bank loans reflects their greater significance to working capital and capital structure.


11. See infra notes 74–80 and accompanying text. In this Article, I refer to “corporate governance” as a mechanism to reduce or deter agency costs arising from management incentives or actions that impede the maximization of firm value. The role of covenants and monitoring in corporate governance is more fully described in Triantis & Daniels, supra note 9, at 1082–1104. See also Jensen & Meckling, supra note 2, at 337–42; Smith & Warner, supra note 2, at 121–24.

12. Raghuram Rajan & Andrew Winton, Covenants and Collateral as Incentives to Monitor, 50 J. Fin. 1113, 1114 (1995) (explaining that covenants increase a bank’s incentive to monitor by decreasing its payoff if it fails to do so); see also infra notes 85–88 and accompanying text.
Balanced against those costs, a firm can improve its borrowing capacity and increase its share price through the debt capital available to fund new projects and the positive signal provided by new lending. The resulting benefits can be tangible—a decline in the overall cost of capital as investors free-ride on the enhanced oversight provided by self-interested bank monitors. Thus, the competing interests of debt and equity are balanced by the benefits of a capital structure that includes both. Like siblings, the result is a virtuous, if not always peaceful, equilibrium within the firm.

But, clearly, change is afoot. As the capital market becomes more complete, we may expect credit risk to be transferred and shared among market participants at lower cost than if borne separately. The last two decades, in fact, witnessed an increase in private credit liquidity—as illustrated by the rise in syndicated loans and credit derivatives—fueled by change in the traditional bank-borrower relationship and the entry of new investors into the credit market. Banks began to manage credit risk through purchases and sales of loans and other credit exposure, generating higher returns on their loan portfolios, a portion of which could be passed on to borrowers through increased lending limits and lower interest rates. Weighed against those benefits were greater agency costs principally arising from the limited information about borrowers available in the market and the dispersed ownership traditionally associated with public debt, but...
increasingly a feature of private credit.\textsuperscript{19}

On balance, we would anticipate an increase in the ability of firms to incur debt—an outcome that, on its face, was consistent with the higher levels of borrowing that occurred in the mid-1990s and during the most recent private equity wave.\textsuperscript{20} When the credit market soured, partly due to difficulty in valuing new credit instruments, the fallout was seemingly ubiquitous—with losses, beginning in the summer of 2007, ranging globally from government investment pools in Florida\textsuperscript{21} to agricultural cooperatives in Japan.\textsuperscript{22} Changes in the credit market likewise affected the supply of capital. A substantial drop in the price of leveraged loans reportedly resulted in a slowdown in secondary loan trading and, in turn, a bottleneck in new commercial lending.\textsuperscript{23}

Thus, a firm’s decision to borrow must increasingly take into account change in the credit market beyond the traditional bank-borrower relationship that underlies the standard framing of the firm, a trend that I argue is likely to continue after the current credit crisis has passed.\textsuperscript{24} That shift suggests an evolution in the factors that shape a firm’s capital structure, from the agency cost construct, based on the sibling rivalry of debt and equity, to one that must now increasingly take account of the costs and benefits of an increasingly liquid private credit market.\textsuperscript{25}

Likewise, to the extent developments in the credit market affect how credit risk is managed, the traditional reliance on covenants and monitoring may also begin to evolve. Covenants and monitoring may no longer be the lowest cost means to manage credit risk, shaping their role, and the role of debt, within corporate governance. How will those changes be reflected?

One argument is that the ability to transfer or diversify away credit risk—the

\textsuperscript{19} See infra notes 36–64, 123–27, 155 and accompanying text.

\textsuperscript{20} See Thomas Boulton, Kenneth Lehn & Steven Segal, The Rise of the U.S. Private Equity Market, in NEW FINANCIAL INSTRUMENTS AND INSTITUTIONS: OPPORTUNITIES AND POLICY CHALLENGES 141, 142, 149–51 (Yasuyuki Fuchita & Robert E. Litan eds., 2007) (finding that the number, market value, and industry distribution of companies going private has increased over time); Wilmarth, supra note 6, at 378–85 (describing the aggressive growth of large U.S. banks, beginning in the mid-1990s, in high-risk syndicated lending). Other factors, such as declining interest rates and investors’ search for higher yielding investments, also helped borrowers to obtain capital at low cost. Andrew Ross Sorkin, The Money Binge, N.Y. TIMES, Apr. 4, 2007, at H1 (describing increase in private equity funds’ access to cheap debt).


\textsuperscript{22} Yuka Hayashi & Kazuhiro Shimamura, Subprime Woes Hit Norinchukin Bank in Japan, WALL ST. J., Nov. 28, 2007, at C8.


\textsuperscript{24} See infra notes 226–48 and accompanying text (describing preliminary lessons from the current credit crisis).

"decoupling" of economic and control rights—will limit the effectiveness of covenants and weaken debt governance by dampening a lender's incentive to monitor borrowers or act in the interest of others to whom loans or credit exposure have been transferred. Thus, changes in the private credit market—and the resulting commoditization of credit—reflect a tension between the potential benefits of transferring credit risk and the frictions that may result from growing liquidity. Counterparties who take on that credit risk, the analysis goes, may be better able to manage it at lower cost, but are unable to oversee borrowers as effectively, resulting in an increase in agency costs and an overall decline in governance. Moreover, based on their special knowledge of each borrower's credit quality, banks may have an incentive to transfer lower quality assets to third parties—with a decline in lender oversight for those borrowers most in need of debt governance. However, as I argue, that may not be the complete answer.

Banks have a significant incentive to minimize the potential for moral hazard arising from the information asymmetries around borrowers for whom there is limited public information. Spanning that gap—by designing resale arrangements in order to address potential agency problems—may increase a bank's ability to transfer loans at lower cost, as well as to enhance profitability. Thus, as the private credit market becomes more liquid, loans may be structured and lending relationships adjusted to mitigate agency costs. Retaining some portion of a borrower's credit risk, increasingly relying on reputation, and tightening covenant levels, for example, may offset the weakened oversight otherwise arising from the transfer of credit risk. Rather than a decline, those changes may instead provide alternative means of corporate governance.

One interesting possibility is prompted by growth of liquidity in the credit market itself. In a more complete market, actions that affect a firm's credit quality are reflected in changes in the price at which a firm's loans and other credit instruments trade. Those changes may affect a borrower's cost of capital—either in subsequent loans, including a change in the price and nonprice terms on which the loans are made, or most recently, by tying the interest rate on loan facilities to the price of a borrower's credit default swaps. The intuition is that, like public equity, private credit may begin to provide a

27. See id. at 681–90; Partnoy & Skeel, supra note 18, at 1033–34 (describing the inability of certain counterparties to provide meaningful monitoring of borrowers).
30. See supra notes 161–96 and accompanying text (discussing responses to changes in the private credit market as a means to reduce agency costs and the potential decline in corporate governance).
31. Morgan Stanley and Goldman Sachs, for example, tied their lending commitments to the price of credit insurance on their own debt. Increases in the price of that insurance impacted the terms on which they could borrow funds, resulting in a parallel reduction in their own lending obligations. Henny Sender, MS and Goldman Change Approach to Lending, FT.COM, Aug. 17, 2008, http://www.ft.com/cms/s/0/4f84f56c–6c8d–1dd–96dc–0000779fd18c.dup_uuid=66e07d0–66ca–11dd–808f–0000779fd18c.html.
32. See Pierre Paulden & Caroline Hyde, Citigroup, Credit Suisse Link Loans to Swaps in Shift,
discipline—through the feedback furnished by market participants—that complements the traditional protections provided by contract. 33

Greater capital market completeness also raises an intriguing question: Do the changes in debt, when coupled with the increased staying power of private equity, 34 foretell the possibility of a more basic shift in capital structure and corporate governance? For equity, a firm may increasingly choose to rely on private sources of risk capital, rather than on public share ownership. For debt, lenders may shift from their traditional dependence on covenants and monitoring in private loans to lower cost instruments that trade with increasing liquidity in an evolving credit market. Taken together, I suggest, we may begin to see the outline of an alternative capital and corporate governance structure whose evolution—from public to private capital, for equity; and private to increasingly public capital, for debt—reflects a new set of costs and benefits beyond those within the traditional framing. 35

The recent subprime loan crisis, however, has been blamed on the introduction of new credit instruments, calling into question the viability of a governance structure that relies, in part, on an increasingly liquid private credit market. To what extent did agency problems arising from the transfer of subprime loans to third-party purchasers limit, or even exceed, the benefits from financial innovation that fueled the rise in subprime liquidity? 36 And is there likely to be a similar cost-benefit outcome within the corporate credit market, portending a decline in private credit liquidity and the new role of private credit in corporate governance?

Although agency problems in the securitization market have begun to receive national attention, concerns over those problems have troubled industry participants, investors, and academics for some time, 37 sparked, in the case of the subprime market, by


33. See infra notes 197–215 and accompanying text (analyzing the effects of an increasingly liquid private credit market on a firm’s cost of capital).

34. Gilson & Whitehead, supra note 16, at 235–36 (suggesting that the private equity model may now be available to a wider range of companies due to increasing financial market completeness); see also infra notes 216–20 and accompanying text (noting that advances in risk management and the ability to transfer risk may reduce a firm’s reliance on public shareholders).

35. See infra notes 221–24 and accompanying text.

36. Many subprime mortgages were extended by originating lenders that intended to transfer all or a portion of their loans to third parties. The purchaser was often a securitization vehicle, or its sponsor, which financed its purchase through the sale of securities to other investors. Very often those investors included other securitization vehicles that would combine different subprime tranches, sometimes with derivatives tied to subprime risk, and issue securities to a final tier of end-investors. Gary B. Gorton, The Subprime Panic 1, 12–19 (Nat’l Bureau of Econ. Research, Working Paper No. 14,398, 2008), available at http://www.nber.org/papers/w14398.

its rapid and substantial growth. Many of the problems stemmed from the incentives of loan brokers, who were paid to originate new loans but, following resale, bore none of the direct economic consequences if those loans later declined in value. Brokers, consequently, could misrepresent a prospective borrower's creditworthiness to subsequent purchasers or extend "predatory" loans, with limited disclosure, to less sophisticated borrowers in order to maximize their commissions. Perh
understood to significantly alter the credit risk of a corporate loan, prompting (as I argue in this Article) alternative means of debt governance.  

The phenomenal rise in U.S. housing prices during the run-up to the subprime crisis may have further induced lenders to rely on collateral values to extend mortgage loans, with limited consideration of a borrower’s ability to repay her loans and little change in loan terms in response to variation in a borrower’s credit quality. The rise in housing prices may not itself have induced greater subprime lending, but the resulting increase in collateral values may have overshadowed a borrower’s poor credit quality and minimized delinquency and foreclosure rates, since troubled borrowers were able to easily refinance their loans or sell their homes.

Loan quality, consequently, declined in the subprime market in line with rising real property values. Some portion of that decline reflected agency problems between loan originators and appraisers, many of whom were reportedly pressured to hike a property’s value or risk the loss of future business. The decline may have also reflected the incentives of originators to pass lower-quality loans to third-party purchasers, in part using securitization structures that were intended to address the heightened credit risk that investors might bear. Interestingly, while the evidence is still mixed, there is some indication that the decline in lending and appraisal standards applied equally to those loans kept on and off an originator’s books. That result likely reflected the practice of some purchasers to buy randomly selected bundles of loans, with lenders unaware ex ante of which loans they would retain. Even after loans were transferred, the originator and

45. See infra notes 161–96 and accompanying text.
46. Gorton, supra note 36, at 5–6, 20.
49. See Mian & Sufi, supra note 43, at 26–29 (raising a supply-based explanation for increases in subprime lending).
53. Keys et al., for example, found that a doubling of securitization volume on average is associated with a 20% increase in mortgage defaults. Keys et al., supra note 38, at 22. Ellis, by contrast, found that the growth in payment arrears during the start of the subprime crisis applied equally to securitized loans and loans that remained on an originator’s balance sheet. Ellis, supra note 47, at 14.
54. Keys et al., supra note 38, at 3, 17; Ellis, supra note 47, at 14; see also Thomas W. Albrecht & Sarah J. Smith, Corporate Loan Securitization: Selected Legal and Regulatory Issues, 8 Duke J. Comp. & Int’l L. 411, 426 (1998) (noting that, within homogenous asset types, assets for securitization are generally chosen at random).
underwriters often acquired ownership of a portion of the resulting securitized instruments. Thus, the risk of moral hazard may have been partly offset by a market discipline that required originators to retain some portion of the credit risk.

What, then, fueled the decline in loan quality? No doubt, some portion can be attributed to agency costs arising from the unbundling of the traditional bank-borrower relationship. The substantial losses incurred by banks and other participants in the securitization process, however, suggest that something else was also involved.

There is some evidence that moral hazard among institutional investors, fueled by the unique nature of the subprime market, may have played a significant role. Investment mandates by regulated purchasers of securitized assets are typically tied to credit ratings. Pension funds, for example, may be restricted from investing in assets that are rated below investment grade—without distinguishing between structured and corporate credit ratings, even though structured instruments typically provide a higher yield than their corporate counterparts. Consequently, asset managers have an incentive to invest in securitized products, such as subprime mortgage instruments, in order to outperform their peers or the benchmarks against which they are measured—trading credit quality for yield, enhancing fund returns and their own management fees, and weakening the pressure on loan originators to monitor a borrower’s credit quality.

Part of an investor’s ability to make that trade reflected the unique growth of the subprime mortgage market, which witnessed unusually low default levels during the last economic downturn in 2001–2003. Securitization sponsors relied on those default rates in structuring new instruments, and rating agencies used them to assign credit ratings to the resulting investment products. Those levels, nevertheless, were recognized among institutional investors (and, we may suppose, by the rating agencies themselves) to be substantially below the most likely default rates in the event of a subsequent downturn. Yet, since they were commonly accepted, the 2001–2003 rates provided a unique opportunity for fund managers—and for loan originators, banks, and others who held subprime assets—to purposely invest in higher-yielding but riskier investments and to “plausib[ly] den[y]” their awareness of the risk of any later loss. By contrast, in other securitization products, investors typically focus on the identity of the asset originators, portfolio composition, and the assets’ past performance, with more realistic default rates

56. For some loan originators, the corporate credit market has adopted a similar discipline. See infra notes 163–66 and accompanying text.
59. Id. at 9–11.
60. See Engel & McCoy, supra note 52, at 2054–58 (describing various securitization techniques used to minimize credit, prepayment, and litigation risk).
based upon a longer history of securitization than the understated levels used in the subprime market.  

Accordingly, while agency problems contributed to the subprime crisis and, more generally, extended to other credit instruments as the private credit market became more liquid, significant differences between subprime and corporate loans suggest that the agency problems that sparked the current crisis may not apply equally to corporate credit. In addition, the development of alternative means to mitigate agency costs in the corporate market may reflect the relative inability of market participants and institutional investors to "plausibly" understate default levels. There are, nevertheless, lessons to be learned from the subprime experience, and as I argue in this Article, those lessons are likely to reinforce the trend towards greater liquidity in private credit instruments.

This Article proceeds as follows. Part II considers loan covenants, monitoring, and liquidity within the traditional agency cost framing of the firm. Covenants and monitoring were presumed to be the least costly means to manage credit risk in light of the limited ability of lenders, at the time the traditional framing was introduced, to buy and sell loans and other credit instruments.

In Part III, I describe how the business of lending has evolved, resulting in change in credit risk management and the creation of an increasingly liquid credit market. Private credit may now offer lower cost alternatives to covenants and monitoring in managing credit risk.

Part IV explores the impact of private credit liquidity on capital structure and governance. Greater liquidity may increase the agency costs of lending, prompting new means to minimize that cost and, by extension, changes in the governance function of debt. Debt may, as a result, shift from a governance function based on private loans to a greater reliance on liquid credit instruments. I also consider the implications of the evolution of debt more generally for change in capital structure and corporate governance.

In Part V, I describe some lessons to be learned from the current credit crisis. Regulatory and market responses to the recent problems, I suggest, are likely to reinforce the continued expansion of the private credit market. Part VI concludes.

II. COVENANTS, MONITORING, AND LIQUIDITY

A central theme of this Article is that capital structure and corporate governance are increasingly driven by completeness in the capital market. Covenants and monitoring, within the standard framing, are presumed to be the least costly means for lenders to mitigate credit risk—reflecting the traditional bank-borrower relationship at the time the


63. In the case of corporate loans, for example, there was a significant decline in private equity loan covenants in the year leading up to the credit slowdown, which—like in the subprime market—may have been attributed to agency problems arising from the transfer of those loans in the secondary market. See infra notes 150–54 and accompanying text (noting a decline in commercial loan covenants beginning in 1995).

agency cost construct was introduced. Subsequent changes in the lending business have introduced the possibility of lower cost alternatives, prompting an evolution in the role of debt within corporate governance.

Covenant levels, within the traditional framing, are set by reference to agency costs. The optimal level is determined by weighing the benefits of covenants against the costs to monitor, implement, and enforce the terms of the loan contract. Overall, firms choose to fund with debt so long as it is cheaper than the alternatives, such as public equity.

Within that trade-off, the traditional construct distinguishes between public and private debt. Public bonds are widely held and easily transferable, increasing their agency costs—in part, through the collective action problem of dispersed ownership—but permitting holders to inexpensively diversify, manage, and transfer credit risk. The result is typically less restrictive covenants in light of greater publicly available information about those borrowers, the higher cost to monitor and enforce compliance, and a decline in the ability to mitigate credit risk through contract.

By contrast, private debt builds on the preexisting relationship between lenders and borrowers. Lenders rely on that relationship to monitor and enforce covenants to address credit risk, typically at lower cost than public debt holders. Covenants, however, can be expensive and imperfect predictors of management behavior, reflecting the ex ante difficulty of assessing a borrower’s future performance. Thus, in order to minimize their costs, the risk that some covenants will limit profitable activity is offset by the ability, among a small group of lenders, to inexpensively renegotiate covenants that have become too restrictive, as well as to exercise control rights.

Delegating authority to an intermediary, such as a bank, may lower agency costs to the extent the bank is better able to monitor and respond to change in a borrower’s circumstances. Those functions, however, can be managed just as well by a nonbank

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65. References in this Article to “covenant levels” are to the number and restrictiveness of covenants in a loan or other credit instrument.
66. See Jensen & Meckling, supra note 2, at 342–51; Faulkender & Petersen, supra note 25, at 45–46; Saul Levmore, Monitors and Freeriders in Commercial and Corporate Settings, 92 YALE L.J. 49, 67 (1982).
67. For example, maintenance covenants, which are common in private bank loans, require the borrower to meet its obligations on a regular basis; incurrence covenants, which are more frequent in public debt, are triggered only upon occurrence of a specified event, such as a new borrowing, a dividend distribution, or an acquisition. CAREY ET AL., supra note 3, at 11–12; Ilia D. Dichev & Douglas J. Skinner, Large-Sample Evidence on the Debt Covenant Hypothesis, 40 J. ACCT. RES. 1091, 1098–1101 (2002).
70. Steven Fazzari, R. Glenn Hubbard & Bruce C. Petersen, Financing Constraints and Corporate Investment, 1988 BROOKINGS PAPERS ON ECON. ACTIVITY 141, 151–52 (explaining the negative effects of covenant restrictions on investment opportunities); Triantis & Daniels, supra note 9, at 1093–94.
71. CAREY ET AL., supra note 3, at 13–14, 36–38; Patrick Bolton & David S. Scharfstein, Optimal Debt Structure and the Number of Creditors, 104 J. POL. ECON. 1, 14 (1996) (predicting that higher default risk firms prefer to borrow from fewer creditors); Smith & Warner, supra note 2, at 150–51; Nicolae Gârleanu & Jeffrey Zwiebel, Design and Renegotiation of Debt Covenants, 22 REV. FDN. STUD. 749–53 (2009) (finding that covenants are tight at inception, but frequently relaxed upon renegotiation).
72. See Douglas W. Diamond, Financial Intermediation and Delegated Monitoring, 51 REV. ECON. STUD. 393, 393–95 (1984) [hereinafter Diamond, Intermediation] (developing a model in which a financial intermediary has a net cost advantage relative to direct lending); Fama, supra note 13, at 36–38.
intermediary, suggesting one reason for the decline in traditional banking in the face of new lenders, products, and markets over the last 30 years.73

Banks, nevertheless, remain an important source of capital. A key feature is their ability to obtain quasi-public information about borrowers at lower cost than other financial intermediaries.74 Banks rely on monitoring and long-term relationships to develop that information, without the cost of duplication across multiple lenders.75 Consequently, borrowers for whom there is less publicly available information, but whose managers are prepared to accept the greater oversight provided by bank monitors,76 are more likely to rely on banks than the public market.77

Covenant levels are determined, in part, by the amount of borrower information that a lender possesses or can cheaply acquire.78 If the lender is less well-informed, it is more likely to seek stricter covenants in order to more closely control a borrower's future activities. Accordingly, even in the case of public bonds, tighter covenants may be necessary in order to offset the lower levels of information available about a less transparent borrower.79 Covenants, however, may not be as effective if they cannot be monitored and enforced, potentially resulting in fewer covenants—and an increase in the real cost of capital—if the lender is unable to do so inexpensively.80 Thus, a bank's low-cost ability to obtain information about borrowers and monitor compliance with loan obligations creates a competitive advantage over other lenders.

Reputation may also play a role in setting covenant levels. A firm that repeatedly accesses the credit market has an economic interest to develop a reputation as a "good" borrower. If the borrower can benefit (for example, through fewer covenants or a lower real cost of capital), then—even if not contractually obligated to do so—it has an incentive to act in a manner consistent with the lender's interests. Lenders may, in turn, begin to relax their reliance on covenants and monitoring in loans to borrowers with established reputations.81


74. Fischer Black, Bank Funds Management in an Efficient Market, 2 J. FIN. ECON. 323, 323-24 (1975); Fama, supra note 13, at 35-39; Triantis & Daniels, supra note 9, at 1083-90.


77. CAREY ET AL., supra note 3, at 11; Fama, supra note 13, at 30; Hayne E. Leland & David H. Pyle, Informational Asymmetries, Financial Structure, and Financial Intermediation, 32 J. FIN. 371, 384 (1977) (noting that less risky firms have incentives to deal with intermediaries that are better able to sort risk).


79. Smith & Warner, supra note 2, at 122-24; Bradley & Roberts, supra note 6, at 2-3

80. Gärleanu & Zwiebel, supra note 71, at 751-53; Kahan & Tuckman, supra note 7, at 6-7.

81. Amoud W.A. Boot, Stuart I. Greenbaum & Anjan V. Thakor, Reputation and Discretion in Financial Contracting, 83 AM. ECON. REV. 1165, 1165-67 (1993); Douglas W. Diamond, Monitoring and Reputation:
To be sure, the traditional agency cost model considered the use of diversification to manage risk and, in particular, its relationship to optimal capital structure. Portfolio theory suggests that there should be a less costly means for banks to manage credit risk than covenants and monitoring.\(^8\) Doing so effectively, however, required a liquid market for the purchase and sale of credit, which did not exist at the time the agency cost framing was introduced.\(^8\) Thus, the benefits of diversification were presumed to be principally limited to equity, with banks instead relying on contractual protections—such as covenants and monitoring—to manage their credit exposure.\(^8\)

A bank's informational advantage also limited its ability to resell loans to investors, suggesting one reason why a liquid credit market failed to develop before changes in the lending business in the 1980s.\(^5\) Less knowledgeable purchasers were likely to discount a loan's value, or attempt to engage in their own costly monitoring of a borrower, resulting in a decline in the price at which the loan could be sold.\(^6\) Consequently, banks were better off if they held the loans they originated until maturity, informing the historical presumption that bank assets were unmarketable.\(^7\) The inability to transfer loans, in turn, reinforced the value to lenders of covenants and monitoring to manage credit risk.\(^8\)

The upshot was that covenants were costly—but, in light of the capital market of the period, they were understood to be the least costly means to manage credit risk. Alternatives had not yet been introduced, in part due to the absence of a liquid credit market, so that lenders placed greater reliance on covenants and monitoring, which limited liquidity even further. Market participants looked to minimize the related cost by relying on bank intermediaries and reputation.

In the next Part, I describe changes in the credit market that enabled banks to begin to actively manage their credit exposure. The transformation of the lending business broke the log jam between covenants and liquidity. The result was a shift in the costs and benefits that shape capital structure, and a decline in the cost of managing credit risk.

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\(^8\) Markowitz first demonstrated the benefits of portfolio diversification in 1952, for which he won the Nobel Prize in Economics in 1990. See Harry Markowitz, *Portfolio Selection*, 7 J. FIN. 77 (1952).

\(^5\) See Jensen & Meckling, supra note 2, at 348–50 (applying a diversification analysis to shareholdings).


\(^6\) Those changes are described infra at notes 91-122 and accompanying text.

Managing credit risk lies at the heart of a bank’s traditional function as an intermediary between depositors and borrowers. A key to that business model is a bank’s ability to balance the interests of investors in liquid liabilities (deposits) against its borrowers’ interests in longer-term, illiquid assets (loans), with loan portfolio risks spread across depositors and over time.

The business of banking, and the role of banks as intermediaries, began to change in the 1970s and 1980s, driven by increasing bank and nonbank competition, product and other innovation in the marketplace, and changes in financial services regulation. In particular, the introduction of new regulatory capital requirements made it more expensive for banks to continue the lending business as they had before—typically, in the past, by assessing credit risk and borrower concentrations at the time a loan was made and then holding that loan to its maturity. Banks looked to offset the resulting decline

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90. See Franklin Allen & Douglas Gale, Financial Markets, Intermediaries, and Intertemporal Smoothing, 105 J. POL. ECON. 523, 525 (1997) (discussing strategies to hedge nondiversifiable risk through intertemporal smoothing); Douglas W. Diamond & Philip H. Dybvig, Banks Runs, Deposit Insurance, and Liquidity, 91 J. POL. ECON. 401, 405 (1983) (describing the banks’ “role of turning illiquid assets into liquid assets”); Fama, supra note 13, at 34–35. Since a bank’s owners bear the residual risk of the lending business, depositors (and others who free ride on the bank’s oversight) can be assured of a credible screening and monitoring process.


91. See Lowell L. Bryan, Breaking Up the Bank: Rethinking an Industry Under Siege 22–28 (1988) (discussing the effect of deposit deregulation on competition in the financial industry); Kerry Cooper & Donald R. Fraser, Banking Deregulation and the New Competition in Financial Services 2–17 (1984) (discussing changes in depository institutions); Allen & Santomero, supra note 73, at 5–10 (discussing differences among financial systems).


95. See John B. Cauvette, Edward I. Altman & Paul Narayanan, Managing Credit Risk: The Next Great Financial Challenge 65 (1998); Altman, supra note 84, at 1.
in profitability by increasing their credit exposure,\textsuperscript{96} a trend that was boosted by the flight of higher quality borrowers to the public capital market.\textsuperscript{97} They also began to consider new businesses, such as trading for their own account and selling new products and services, which were more profitable than lending and not subject to the same levels of credit risk.\textsuperscript{98} In addition, competing products (such as money market funds) began to offer attractive alternatives to bank deposits, so that banks could no longer count on depositors to cushion against loan losses.\textsuperscript{99}

Driven by those changes, banks began to reassess the lending business—with many turning to a defensive, portfolio-based strategy in order to minimize their overall credit cost.\textsuperscript{100} A bank’s exposure was typically concentrated within the geography in which its branches were located and among clients with which it had established relationships.\textsuperscript{101} Diversifying that risk could result in a more balanced and profitable loan portfolio, for example, by limiting the impact of an economic downturn in one region by trading loans from that region for loans from another part of the country. Yet, actively managing portfolio risk was, at the time, principally limited to equities, with credit risk instead being transferred through traditional (and more costly) instruments like financial guarantees and credit insurance. A liquid market to buy and sell credit risk, as well as the creation of a measure of default risk and correlation across loans, was necessary in order for portfolio risk management to be extended to debt.\textsuperscript{102}

The banking industry responded. New technologies were developed to measure risk and diversification across loan portfolios—enabling banks to assess loans on a credit-by-credit basis and decide which assets to buy and sell, and at what price, in order to optimize a loan portfolio’s return-to-risk relationship.\textsuperscript{103} Banks also became less


\textsuperscript{97} James L. Pierce, The Twentieth Century Fund, The Future of Banking 64 (1991); Gorton & Haubrich, supra note 90, at 14–15.

\textsuperscript{98} Allen & Santomero, supra note 73, at 8–10 (describing the banks’ shift from traditional intermediation to fee-producing activities).

\textsuperscript{99} Robert DeYoung & William C. Hunter, Deregulation, the Internet, and the Competitive Viability of Large Banks and Community Banks, in The Future of Banking 173, 178–79 (Benton E. Gup ed., 2003); Wilmarth, supra note 6, at 239–42 (describing the decline in bank profits as depositors shifted funds to the capital markets).

\textsuperscript{100} See Allen & Gale, supra note 90, at 538–41; Allen & Santomero, supra note 73, at 17, 21 (relating the banks’ abandonment of temporal risk-smoothing strategies in favor of fee revenues in response to financial market competition); Berger et al., supra note 92, at 68–69, 80–81.

\textsuperscript{101} See Cauette et al., supra note 95, at 31–32; Ronald J. Gilson & Reinier Kraakman, Investment Companies as Guardian Shareholders: The Place of MSIC in the Corporate Governance Debate, 45 Stan. L. Rev. 985, 989–90 (1993) (describing the traditional limitations on banks’ influence over corporate governance).

\textsuperscript{102} See Cauette et al., supra note 95, at 231–42, 267–72; Paul Bennett, Applying Portfolio Theory to Global Bank Lending, 8 J. Banking & Fin. 153, 156–57 (1984) (noting that the measurement of covariances across different borrowers is key for efficient portfolio construction).

\textsuperscript{103} By 2002, a credit portfolio model developed by KMV, LLC, a quantitative risk management firm founded in 1989, had become the most widely used in the banking industry. See Derivatives Strategy.com, 2000
interested in holding loans to their maturity in light of the growing ability to enhance returns by selling loan interests to others. Thus, costs traditionally tied to the resale of loans were offset by the real benefits of managing credit risk. Greater competition among lenders also made long-term relationships with borrowers less valuable. The result was a shift in the lending business, as banks moved from their traditional role as intermediaries between depositors and borrowers to become brokers who originated and sold loans to others. Banks also began to more actively buy and sell loans and other credit instruments in order to better manage their credit exposure.

The loan sales market—principally comprised of a syndicated loan market and a secondary trading market—developed in response, in terms of both aggregate size and the universe of investors. The leveraged buyout wave of the mid-1980s prompted the growth of syndicated loans as a lower cost means to raise debt capital, as well as the creation of a secondary market for the trading of loans. In a syndicated loan, one or more “lead banks” negotiate the terms of the loan with the borrower and sell portions to others at the time of origination. Interests in a loan, whether or not syndicated, can also be sold in the secondary market, which is dominated by riskier borrowers and non-bank investors.

The market for syndicated loans grew from $137 million in 1987 to over $1 trillion today. Sufi, supra note 3, at 629. Loan trading also grew from $8 billion in 1991 to $238.6 billion in 2006. Steven Drucker & Manju Puri, On Loan Sales, Loan Contracting, and Lending Relationships, 21 REV. FIN. STUD. 1, 1 (2008).


The Evolution of Debt

Bank lenders, therefore, can transfer loans at the time of origination, as well as sell all or part of a loan at a later date. The new liquidity enabled banks to minimize credit cost by diversifying their exposure across a range of borrowers; and banks that participated in the loan market could hold less capital against riskier loans and more profitable loan portfolios.

The credit derivatives market also grew, partly in response to the increased demand for instruments to help lenders manage their credit exposure and minimize their cost of complying with regulatory capital requirements. Credit derivatives separate the funding obligation of a loan or bond from the credit risk of the borrower. Thus, using a credit default swap, a bank can buy or sell all or a portion of a borrower’s credit risk without transferring the loan or bond itself, enabling it to more efficiently manage and diversify exposure and expanding the universe of prospective investors beyond those with significant amounts of capital to lend. Since the credit derivatives market is largely private, and since some borrowers are reluctant to see interests in their loans sold to others, it is unclear how often lenders use derivatives to hedge their credit risk. However, total volumes have continued to grow, and there are indications that their

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113. Greater liquidity, for example, resulted in increased diversification among leveraged loan investors who, on average, committed only $5 million to a single deal during the most recent private equity wave. Appelbaum et al., supra note 109, at 3-5; Serena Ng & Henry Sender, Easy Money: Beyond Buyout Surge: A Debt Market Booms—CLOs Spark Worries of Volatility and Risk, WALL ST. J., June 26, 2007, at A1.


117. See Robert F. Schwartz, Risk Distribution in the Capital Markets: Credit Default Swaps, Insurance and a Theory of Demarcation, 12 FORDHAM J. CORP. & FIN. L. 167, 175 (2007) (describing the function and use of credit default swaps). The market also grew as a result of trading, unrelated to hedging, by banks and other institutions for their own accounts and for clients. See Duffie, supra note 16, at 4-5.

118. CAOUETTE ET AL., supra note 95, at 311-12; GLANTZ, supra note 107, at 532; Angus Duncan, Loan-Only Credit Default Swaps: The March to Liquidity, COM. LENDING REV., Sept.-Oct. 2006, at 16; Minton et al., supra note 116, at 7.
use to diversify credit risk is becoming more common.\footnote{119}

Of particular importance to the loan market was the creation of collateralized loan obligations (CLOs)—often structured by a sponsoring bank (typically, the originator of a loan pool), which sold a loan portfolio to a special purpose vehicle that, in turn, issued multiple tranches of CLO securities to investors in order to fund the purchase.\footnote{120} The ability to convert loan assets into securities, and then transfer an undivided interest in those assets through the capital market, enhanced their liquidity.\footnote{121} By 2005, almost one-half of all commercial loans were bought by CLOs.\footnote{122}

For banks, the benefits have been substantial\footnote{123}—enabling them to manage and diversify credit risk at lower cost,\footnote{124} capitalize on their ability to originate loans for sale to investors who can finance them at lower cost,\footnote{125} and realize greater returns on the loans they retain.\footnote{126} Borrowers have benefited as well. A portion of the gains realized by banks can be passed on, for example, through increased lending limits or lower interest rates, resulting in an overall decline in a borrower’s real cost of capital.\footnote{127}

None of those benefits could be duplicated, at low cost, by a bank’s or borrower’s shareholders, providing value-maximizing managers with an incentive to continue to support and grow the credit market.\footnote{128} Further innovation resulted in new and less costly


\footnote{120. Paul M. Goldschmid, More Phoenix than Vulture: The Case for Distressed Investor Presence in the Bankruptcy Reorganization Process, 2005 COLUM. BUS. L. REV. 191, 233–34; see also infra note 122 and accompanying text.}


\footnote{122. Laurie S. Goodman, Douglas J. Lucas & Frank J. Fabozzi, Financial Innovations and the Shaping of Capital Markets: The Case of CDOs, J. ALTERNATIVE INVESTMENTS, Summer 2007, at 62, 63; see also infra notes 241–45 and accompanying text.}

\footnote{123. Those benefits are described in more detail in Allen N. Berger & Gregory F. Udell, Securitization, Risk, and the Liquidity Problem in Banking, in STRUCTURAL CHANGE IN BANKING 227, 238–46 (Michael Klausner & Lawrence J. White eds., 1993), and Pennacchi, supra note 29, at 375–76.}


\footnote{125. DEMSETZ, supra note 124, at 20–22; Bolton & Freixas, supra note 106, at 326–27 (discussing gains in lending efficiency from securitization); Christopher James, The Use of Loan Sales and Standby Letters of Credit by Commercial Banks, 22 J. MONETARY ECON. 395, 396 (1988); Pennacchi, supra note 29, at 375–76, 392–93; Jackson et al., supra note 96, at 21–26.}

\footnote{126. See Masters & Bryson, supra note 115, at 57–63 (discussing the improved risk-return tradeoffs in concentrated lending activity); Mark Carey, Credit Risk in Private Debt Portfolios, 53 J. FIN. 1363, 1377 (1998); Cebenoyan & Strahan, supra note 114, at 20–21.}

\footnote{127. A. Burak Güner, Loan Sales and the Cost of Corporate Borrowing, 19 REV. FIN. STUD. 687, 713 (2006); Joseph P. Hughes & Loretta J. Mester, Bank Capitalization and Cost: Evidence of Scale Economies in Risk Management and Signaling, 80 REV. ECON. & STATS. 314, 325 (1998); Pennacchi, supra note 29, at 375–76.}

\footnote{128. Gilson & Whitehead, supra note 16, at 250–51.}
hedge instruments, with greater standardization in the loan and derivatives markets reducing transaction costs and supporting growth of the credit market across a greater number of participants.

Among those participants, bank lenders could be expected to transfer credit risk until the cost of doing so exceeded the offsetting benefit, suggesting the potential for growth in the credit market across a wide range of participants. Yet, to date, the market has remained concentrated among a small group of large banks, which may reflect real barriers to entry—the need for reputation in order to syndicate loans or economies of scale in order to efficiently manage risk, or in the case of the credit default swap market, the limited number of reference entities against which swaps are written, making that market less relevant to small lenders. Fund managers and other institutional investors, however, expect to increase their use of credit and other derivatives to hedge risk, even as they move to less complicated instruments they are better able to price and manage. In addition, some dealers have indicated that local and regional banks may be a primary source of new business, prompting the creation of a wider array of credit default swaps in order to hedge their portfolio concentrations.


133. See BEVERLY HIRTLE, CREDIT DERIVATIVES AND BANK CREDIT SUPPLY 2–3 (Fed. Reserve Bank of N.Y. Staff Report No. 276, 2008), available at http://www.newyorkfed.org/research/staff_reports/sr276.pdf (finding that the benefits of credit derivatives accrue mainly to large firms); Hughes & Mester, supra note 127, at 314–15 (discussing the positive effects of economies of scale on portfolio diversification and the cost of capital); Wilmarth, supra note 6, at 380 (discussing loan syndicates).

134. See Goderis et al., supra note 132, at 8–9 (discussing how the number of reference entities affects credit risk management). Notwithstanding a recent decline in overall credit default swap volume, single-name contracts have continued to grow. Through the first half of 2008, the total notional amount of credit default swaps rose to $33.3 trillion. BANK FOR INT’L SETTLEMENTS, MONETARY AND ECON. DEP’T, OTC DERIVATIVES MARKET ACTIVITY IN THE FIRST HALF OF 2008, at 1 (2008), available at http://www.bis.org/publ/othy0811.pdf.


A further hurdle to growth remains—namely, the informational asymmetry that has historically given banks a competitive edge over nonbank lenders. Like purchasers in the traditional loan market, investors may be reluctant to trade, or do so only at a discount, where they believe they are at an informational disadvantage.\textsuperscript{137} Thus, with respect to credit derivatives, the underlying assets historically have tended to be limited to instruments like corporate bonds, large bank loans, and loan pools (such as credit card receivables), with less transparent borrowers often not covered.\textsuperscript{138} Some information may be conveyed to less-informed investors through the price and non-price terms under which banks buy and sell loans and other credit instruments.\textsuperscript{139} Yet, the extent to which an informed bank (or other investor) participates in the market, and the prices at which it buys and sells instruments, may not be apparent to others. And, as evidenced by the recent credit downturn, those instruments may be difficult to value, potentially increasing the noise around any useful information contained in market price.\textsuperscript{140} Greater regulation, a centralized pricing service, and the requirement of enhanced transparency, proposed by some, may provide one solution.\textsuperscript{141}

The credit market, itself, may also respond. Trading among even a small group of informed investors (such as two banks) can result in the public release of a substantial amount of private information through competitive pricing. Others can then rely on that information to make their own investment decisions, resulting in an overall increase in market size.\textsuperscript{142} A further possibility is that greater and more diverse information will be reflected in market price as more participants, with sufficient resources to devote to researching credit instruments, enter the market\textsuperscript{143}—perhaps providing one reason for the recent expansion of credit derivatives to leveraged and other commercial loans\textsuperscript{144} and to

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\item[\textsuperscript{137}] See Acharya & Johnson, supra note 119, at 111–13 (discussing how insider information can affect investors' decisionmaking).
\item[\textsuperscript{138}] Duffee & Zhou, supra note 136, at 26.
\item[\textsuperscript{139}] See Partnoy & Skeel, supra note 18, at 1026 (noting that credit ratings are an important indicator of stability); Antonio Nicolò & Loriana Pelizzon, Credit Derivatives, Capital Requirements and Opaque OTC Markets 2–3 (Mar. 4, 2008) (unpublished manuscript), available at http://ssrn.com/abstract=1108253 (noting that banks can signal a low probability of loss by accepting loss exposure).
\item[\textsuperscript{140}] See Sanjiv R. Das, Pricing Credit Derivatives, in HANDBOOK OF CREDIT DERIVATIVES 101, 104–05 (Jack Clark Francis et al. eds., 1999) (describing the difficulties of modeling credit risk).
\item[\textsuperscript{141}] See infra notes 230–47 and accompanying text; see also Partnoy & Skeel, supra note 18, at 1046–47 (advocating public disclosure); Hu & Black, supra note 26, at 689–90, 693–94 (stating that "disclosure will let market participants decide which counterparts to trust"); ASHCRAFT & SANTOS, supra note 28, at 26 (suggesting that regulators require the lead bank in a syndicate to disclose any hedges of retained positions to outside investors); COMM. ON THE GLOBAL FIN. SYST., BANK FOR INT'L SETTLEMENTS, PRIVATE EQUITY AND LEVERAGED FINANCE MARKETS 36 (CGFS Paper No. 30, 2008) [hereinafter BIS, PRIVATE EQUITY], available at http://www.bis.org/publ/cgfs30.pdf?noreferrer=1 (recommending enhanced borrower disclosure in leveraged loan markets).
\item[\textsuperscript{142}] See Craig W. Holden & Avanidhar Subrahmanyam, Long-Lived Private Information and Imperfect Competition, 47 J. Fin. 247, 247–48 (1992) (demonstrating that just two informed traders, acting aggressively, will cause nearly all common private information to be incorporated into pricing and increase market depth).
\item[\textsuperscript{144}] See Duncan, supra note 118, at 16 (discussing the emergence of loan-only credit default swaps for syndicated loans).
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less transparent borrowers with below investment grade or no ratings. In addition, investors can bypass the informational problem altogether by structuring credit instruments to transfer only that portion of a borrower’s credit risk over which they do not have an informational advantage (such as risk related to a publicly disclosed project), while retaining the rest. Doing so permits them to hedge their credit exposure more discretely than if they tried to transfer a loan in its entirety—potentially expanding the scope of the derivatives market beyond the current universe of tradable reference entities. Consequently, even without regulation, access to information may continue to grow, or credit instruments may adjust to address the asymmetry, resulting in further expansion of the private credit market.

In the next Part, I consider the impact of change in the credit market—the introduction of portfolio risk management, greater liquidity, and new instruments—on the structure and function of debt. Greater liquidity in the credit market has introduced lower cost alternatives to manage credit risk—but, as we will see, it has also introduced new costs and new means to manage those costs, potentially reshaping the role that debt plays within corporate governance. To what extent will liquidity in the private credit market impact how loans are structured? And, like public equity, can the private credit market begin to provide a discipline that supplements the traditional protections provided by covenants and monitoring? We must, I suggest, begin to confront the possibility that as private credit becomes more transparent it may begin to overtake the traditional function of covenants and monitoring.

IV. CORPORATE GOVERNANCE AND THE EVOLUTION OF DEBT

The growth of credit derivatives, some have argued, raises the potential for a decline in debt governance as lenders rely on those instruments, in place of monitoring, to manage their credit risk. Likewise, covenant levels may decline if loan purchasers are unable at low cost, or have little incentive, to monitor a borrower’s compliance with its loan obligations or to renegotiate a loan following its breach. As recent experience suggests, notwithstanding differences between subprime and corporate lending, the transfer of credit risk by loan originators may increase the risk of moral hazard. Like public bonds, the outcome may reflect a trade-off—with the lower cost of managing credit risk through loan sales and hedging balanced against the increased cost arising from weaker covenants and less creditor oversight.

That description, on its face, is consistent with the decline in commercial loan covenants that began in 1995. For over a decade, federal bank regulators cautioned banks...
against weakening covenants in syndicated loans to risky borrowers.¹⁵⁰ Covenants tightened as the U.S. markets entered a recessionary period in 2001–2002, but by 2006, lending standards had eased considerably to the earlier, lower levels.¹⁵¹ Before the subprime loan meltdown in 2007, private equity sponsors saw a substantial rise in “covenant-lite” (or “cov-lite”) loans—which, as the name suggests, had substantially fewer covenants than most commercial loans¹⁵²—jumping from four in 2005 to over 100 in 2007.¹⁵³ Market participants attributed a portion of the decline in covenant levels to the increased ability to hedge risk in the credit market and the weakening incentives of banks to screen and monitor borrowers.¹⁵⁴

Thus, greater liquidity may have resulted in a new set of agency costs, reflected in the decline in covenants and monitoring across dispersed creditors. Those costs are similar to costs in the public credit market, but with a critical difference—unlike firms that typically access the public market, information regarding private borrowers is often less well known. No doubt, some portion of the increased agency cost was offset by the investors’ ability to manage credit risk at lower cost through loan sales, hedging, and diversification. Yet, even then, investors require information about borrowers, and look to minimize moral hazard and adverse selection, in order to optimize risk and return across a loan portfolio.¹⁵⁵

Not surprisingly, most loan buyers expect monitoring to decline after a loan has been sold,¹⁵⁶ and we may suppose they will anticipate a similar decline in monitoring as hedging becomes more common.¹⁵⁷ Investors may respond by demanding higher returns in order to compensate them for the greater risk—a result that would be consistent with the decline in governance, but unlikely to be sustained if there are less costly means to mitigate the increase in agency costs associated with greater liquidity.¹⁵⁸ How that

¹⁵⁰ See Wilmarth, supra note 6, at 384 (noting that regulators “admonished large banks for their underwriting of risky syndicated loans”).
¹⁵⁵ See Ashcraft & Santos, supra note 28, at 20 (discussing the type of information gathered by investors to optimize expected returns).
¹⁵⁶ See Gorton & Haubrich, supra note 90, at 31 (discussing the risks and problems associated with monitoring loans).
¹⁵⁷ See Ashcraft & Santos, supra note 28, at 25 (noting the increase in agency costs as lead banks hedge their exposure to the retained portion of a syndicated loan).
¹⁵⁸ As Fischer Black has observed, “If there is a way to limit the risk to the lender without significant cost, a correctly priced high risk loan with few restrictions may be better for the company than a correctly priced low risk loan with many restrictions and a high administrative cost.” Black, supra note 74, at 331.
balance tips is a function, in part, of the amount of borrower information available to market participants. More transparent borrowers may require lower levels of monitoring at lower cost than opaque firms. The outcome also reflects the relative cost of alternative means of raising capital. The ability to inexpensively raise funds can provide lenders and borrowers with a competitive advantage over others who must incur greater cost. Consequently, market participants have looked to minimize agency costs by changing how loans and loan syndicates are structured—and, by extension, shaping new forms of corporate governance.

I begin by describing those changes below, and then turn to a prospective change in the private credit market that may provide an even lower cost alternative. A key has been the response of the private credit market to change in the source of capital, as providers have shifted from bank lenders, within the traditional framing, to bank and nonbank investors in an increasingly liquid credit market. Features aimed at mitigating agency costs have evolved in line with growth in the credit market and the corresponding change in agency problems.

A. Syndicate Structure and Lead Bank Incentives

At the outset, syndicate structure can be modified to help minimize agency costs. The number of lenders in a syndicate can be capped and resales can be restricted in order to encourage direct monitoring and facilitate renegotiation if a loan covenant is breached. Participants in the original syndicate are more likely than later purchasers to have relationships with the borrower and syndicate manager, enabling them to acquire borrower information at low cost and facilitate coordination. Thus, a lead bank’s monitoring role may be replaced with direct oversight by syndicate members.

In addition, as a condition of sale, a purchaser can require the lead bank to continue to hold a portion of the loan until it matures. By retaining economic risk, the bank can credibly commit to continue monitoring and, as necessary, enforce a loan’s covenants. The risk that a lead bank will covertly hedge its risk, and so reduce its incentive to monitor a borrower, may be checked through the risk of loss of reputation or new regulation that requires greater transparency.

159. See ASHCRAFT & SANTOS, supra note 28, at 5–6, 19–20 (discussing how the credit default swap market may affect the costs of monitoring for different types of firms).
160. See Pennacchi, supra note 29, at 387–88 (noting how loan structures can be modified to alter the level of agency costs).
162. See Sufi, supra note 3, at 630–32 (discussing the impact of information asymmetry on costs and coordination).
163. See Diamond, Intermediation, supra note 72, at 393–95 (describing the benefits of delegating monitoring to a financial intermediary); Simons, supra note 124, at 47–49 & tbls.1 & 3 (finding that, on average, lead banks retain a third of a syndicated loan and tend to retain a larger share of the lowest quality loans).
164. See Pennacchi, supra note 29, at 387–88; Sufi, supra note 3, at 631; Gorton & Pennacchi, supra note 87, at 23, 28–29; Gorton & Haubrich, supra note 90, at 20–21.
165. See infra notes 178–79 and accompanying text.
166. See ASHCRAFT & SANTOS, supra note 28, at 26 (contemplating that regulators may require lead banks
Finally, even without retaining risk, a lender may be able to demonstrate its commitment to monitoring if, as is often the case, it has other credit relationships with the borrower that continue to motivate oversight. Those relationships, however, may not be credible since they, themselves, may result in conflict between the economic interests of loan purchasers and the originating lender.

B. Covenant Levels and Monitoring

Covenants can also be structured to reflect change in the credit market. A recent study of the secondary loan sales market, by Steven Drucker and Manju Puri, provides interesting insight. The study, which analyzed a sample of loans from January 1999 through December 2004, found that nonsyndicated loans structured for resale (typically leveraged, risky loans to nonbank, institutional investors) contained higher covenant levels than loans that were not. Those covenants were often tied to observable public information, providing investors with the right to directly accelerate or renegotiate a loan upon breach.

Why did covenant levels increase with the growth in liquidity? After all, greater liquidity in the public market has typically been accompanied by a decline in covenants and monitoring. Part of the answer lies with the borrowers. Information about private borrowers tends to be less available than for public issuers, reinforcing the need to rely on covenants. Covenant levels increased in order to offset the greater monitoring costs tied to more opaque firms. For borrowers, the cost of tighter covenants was offset, in part, by a greater ability to access capital at lower cost.

Part of the answer also lies with a change in the lenders. Nonbank investors typically do not have the close ties with a borrower traditionally maintained by banks. Consequently, by tightening covenant levels, more discrete changes in a borrower's financial position could become known more quickly to investors, in effect increasing their informational content. In addition, by tying covenants to more observable data, purchasers could mitigate the increased cost of direct monitoring. Investors, as a result, were better able to manage credit risk and provide greater funding for additional

to disclose any hedges of retained positions); Alan D. Morrison, Credit Derivatives, Disintermediation, and Investment Decisions, 78 J. Bus. 621, 642 (2005) (discussing a proposal to require the disclosure of credit derivative trades); see also supra notes 137-41 and accompanying text (discussing the historic lack of transparency in the loan market).

167. See Gorton & Haubrich, supra note 90, at 37 (finding that banks often sell the front end of a longer loan or commitment, maintaining continued credit exposure to the borrower).

168. See Hu & Black, supra note 26, at 682 (discussing the effects of hedging on a creditor's decision to exercise control rights).

169. Drucker & Puri, supra note 108, at 1-3. Those loans were primarily to smaller borrowers that were less likely to be rated and arranged by lead lenders that were ranked below tenth based on market share. Id. at 8-12.

170. Id. at 2, 5, 14, 28.

171. Id. at 21-28.

172. Advances in information technology may lower that cost even further. See William J. Wilhelm, Jr., Internet Investment Banking: The Impact of Information Technology on Relationship Banking, 12 J. APPLIED CORP. FIN. 21, 26-27 (1999) (discussing how the relationship between investment bankers and institutional investors decreases as information technology increases).
loans in the future.\textsuperscript{173} Increasing liquidity, and the change in lenders, also prompted the rise of specialist funds and other (sometimes referred to as “vulture”) investors that look to influence a firm’s management through its debt covenants.\textsuperscript{174} Loans purchased by those investors are often distressed, with the discount in purchase price (and potential for substantial return) offsetting the greater cost of monitoring.\textsuperscript{175} Investors use the borrower’s breach of its covenants to force change in its policies or a change in control\textsuperscript{176}—providing another pair of eyes over distressed borrowers, where the potential for management opportunism is the greatest.\textsuperscript{177}

C. Reputation

Reputation can also mitigate agency costs. For investors, how a bank structures a loan or monitors a borrower may not be apparent at the time a loan is sold. The purchaser, instead, must rely on the lender’s reputation based on prior sales. Structuring a bad loan, or failing to monitor a borrower, may hurt that reputation—and so, as long as loan sales are a significant part of its business, concerns over reputation may induce an originating bank to continue to monitor a borrower, even after its credit risk has been transferred.\textsuperscript{178} Transferring credit risk secretly, while possible, exposes the bank to a potential loss of reputation and the risk of a costly decline in its ability to sell loans in the future.\textsuperscript{179}

A borrower’s reputation can also play an important role—in particular, for investors who have costly or limited access to information about the borrower—as it does in the traditional framing. A reputable borrower is typically able to obtain loans with fewer

\textsuperscript{173} Drucker & Puri, supra note 108, at 24–32.

\textsuperscript{174} See Corinne Ball, Credit Crisis Enables Bold Strikes by Investors, N.Y. L.J., June 26, 2008, at 5, available at http://www.law.com/jsp/inc/PubArticleItte.jsp?id=1202422561814 (describing how the credit crisis has exposed firm weaknesses that investors can exploit).


\textsuperscript{177} See supra notes 8–10 and accompanying text (describing the role of covenants in controlling management opportunism).

\textsuperscript{178} The potential impact of securitization on a bank’s reputation, and the resulting effect of a negative reputation on its ability to transfer assets or raise capital, was highlighted by the Office of the Comptroller of the Currency in the OCC Bulletin on Securitization. OFFICE OF THE COMPTROLLER OF THE CURRENCY, OCC BULLETIN NO. 96-52, SECURITIZATION (1996); see also Dianna Preece & Donald J. Mullineaux, Monitoring, Loan Renegotiability, and Firm Value: The Role of Lending Syndicates, 20 J. BANKING & FIN. 577, 580–81 (1996); Raghuram G. Rajan, The Past and Future of Commercial Banking Viewed Through an Incomplete Contract Lens, 30 J. MONEY, CREDIT & BANKING 524, 540 (1998); Haig Simonian & Peter Thal Larsen, UBS Says Risky Loans Might Hit Banks, FIN. TIMES (London), June 20, 2007, at 25 (UBS chief warns of the potential damage to reputation of originating risky loans); Gorton & Haubrich, supra note 90, at 35–38.

\textsuperscript{179} See Drucker & Puri, supra note 108, at 22–24 (describing the impact of lender reputation on loan salability). J.P. Morgan’s concern that banking rivals would learn of its use of credit default swaps to limit exposure to WorldCom provides an example of the potential reputational impact of an originating bank’s decision to secretly reduce credit exposure. In re WorldCom, Inc. Sec. Litig., 346 F. Supp. 2d 628, 651–52 (S.D.N.Y. 2004).
restrictions than a borrower with a lesser known credit history.\textsuperscript{180} Investors may also be less concerned with the lead bank’s transfer of credit risk and, on the basis of the borrower’s reputation, not require enhanced covenant levels. A borrower, consequently, may be more inclined to act in a manner consistent with its lenders’ interests to the extent it benefits from an improved reputation.\textsuperscript{181}

One note of caution: Although the traditional framing suggests a role for reputation in reducing agency costs, it acknowledges that even “sainthood” cannot drive that cost to zero.\textsuperscript{182} Borrowers and lenders have short memories, and so the incentives that make reputation valuable can shift with change in the marketplace.\textsuperscript{183} Therefore, while greater reputation may cause a decline in loan covenants, we would anticipate some level of continued reliance on contract in order to protect lenders’ and purchasers’ interests.

Here, again, Drucker and Puri offer helpful guidance. In their study, borrowers with credit ratings evidencing a strong reputation\textsuperscript{184} were found to be more likely to have their loans sold than those without, reflecting a greater reliance on reputation by nonbank purchasers who did not have direct access to private borrower information.\textsuperscript{185} Likewise, covenants were tighter in loans to borrowers with mixed reputations, reinforcing the lenders’ reliance on traditional protections.\textsuperscript{186} The lead bank’s reputation also affected covenant levels. Covenants tightened in loans that were originated by less reputable lenders, in effect, permitting purchasers to discount the lead bank’s role by increasing the informational content of covenants and providing them with the opportunity to directly monitor and control the borrower.\textsuperscript{187}

What about the decline in covenant levels in cov-lite loans to private equity borrowers? Some portion of the decline can be explained, in part, by the excessive lending of banks that looked to pass on the resulting credit risk to other investors.\textsuperscript{188} Frenzied competition among bankers for new business and among investors for new loan assets is

\begin{footnotesize}
180. See Sufi, supra note 3, at 630–31 (describing the effect of reputation on borrowing terms).
181. See supra note 81 and accompanying text (describing the potential for lenders to shift from a reliance on covenants to reputation).
182. Jensen & Meckling, supra note 2, at 351.
186. Id. at 18–20 (describing hypotheses and study results regarding the relationship between restrictive covenants and loan salability).
188. See supra notes 147–54 and accompanying text.
\end{footnotesize}
also likely to have contributed.\textsuperscript{189} Reputation, I suggest, may have also played a role. The private equity market is principally comprised of a limited group of participants that interact frequently, suggesting that a reputation as a “good” borrower can have substantial and positive economic consequences.\textsuperscript{190} When soliciting capital, private equity sponsors must bank on their reputation as they repeatedly look to raise new funds through successive investment partnerships.\textsuperscript{191} Private equity firms also look to develop manager-friendly reputations in order to attract new investment opportunities,\textsuperscript{192} paying particular attention to the impact on their reputation of terminating unattractive deals, even during the recent economic downturn.\textsuperscript{193}

Likewise, for debt, reputation may have provided a credible discipline in light of a private equity sponsor’s ongoing need for successive loans.\textsuperscript{194} A failure to act in the lenders’ interest, even if not restricted by contract, could hurt a sponsor’s ability to borrow in the future or increase its cost of raising new debt capital. To that end, Moody’s recently announced it would assess how each sponsor used the proceeds from prior borrowing—in particular, the extent to which proceeds were used to pay dividends to the sponsor—when deciding what rating to assign to future loans.\textsuperscript{195} Thus, while reputation alone fails to explain cov-lite loans, it may have provided one basis for why banks and other lenders agreed to dilute covenants before the recent credit slowdown.\textsuperscript{196}

D. Private Credit Liquidity

My analysis, so far, has considered existing responses to change in the private credit market. Syndicate structure, bank incentives, increased covenants and monitoring, and reputation are all means to reduce the resulting agency costs and balance the potential decline in debt governance.

A more intriguing response is prompted by greater liquidity in the credit market

\textsuperscript{189} See BIS, \textsc{Private Equity}, supra note 141, at 30 (describing the influence of CLO managers); Henny Sender, \textsc{Din of Roaring Corporate-Debt Market Drowns out Growing Talk of Bubble}, \textsc{Wall St. J.}, Mar. 3, 2006, at C1 (noting private equity firms’ “clout” in getting better loan terms); Paul J. Davies & Gillian Tett, \textsc{Shiny New ‘Cov-Lites’ Show Signs of Tarnish}, \textsc{Fin. Times} (London), May 16, 2007, at 29.

\textsuperscript{190} See Diamond, \textit{Monitoring}, supra note 81, at 690, 716 (noting that borrowers with high credit ratings have lower capital costs); Jensen & Meckling, \textit{supra} note 2, at 351.

\textsuperscript{191} George W. Fenn et al., \textit{The Private Equity Market: An Overview}, 6 \textsc{Fin. Mkts., Insts. & Instruments} 1, 45 (1997).


\textsuperscript{193} See Andrew Ross Sorkin, \textit{Sorting Through the Buyout Freezeout}, \textsc{N.Y. Times}, Aug. 12, 2007, at BU6 (noting the initial hesitance of private equity groups to terminate deals due to reputation concerns); Andrew Ross Sorkin, \textit{After the Party}, \textsc{N.Y. Times}, Oct. 3, 2007, at SPG1 (stating that reputations are “as important as bank account balances”).


\textsuperscript{195} \textsc{John Rogers, Private Equity: Tracking the Largest Sponsors 2–4} (2008), \textit{available} at http://intl.fp.sandpiper.net/reuters/editorial/images/20080116/divrecaps.pdf.

\textsuperscript{196} For a discussion of the reduction of cov-lite loans following the credit crisis, see \textit{infra} note 249 and accompanying text.
itself. For equity, the informational content of public share price provides managers with a means to gauge how well their firm is performing.197 A change in price may cause managers to respond quickly to change in the business environment or discourage them from selecting suboptimal projects that erode firm value.198 Likewise, for public debt, secondary trading prices may inform the issuer’s managers of how market professionals assess their policies.199 Can private credit provide a similar discipline?

Modern financial theory suggests that equity and debt prices should move in tandem when new information regarding a firm’s credit risk is discovered. A lender, within that analysis, is characterized as the owner of a riskless claim against the borrower who has also issued a put option on the borrower to its shareholders. If the value of the firm’s assets falls below the face value of its debt, then the firm defaults—with the shareholders, in effect, exercising their right to “put” the firm to the lender in satisfaction of its claims.200 The implication is that there is a correlation between the value of a firm’s debt (including credit derivatives) and equity, and so their market prices should adjust at the same time and to the same information.

In practice, credit derivatives typically react first to new credit information—with prices in the credit derivatives market moving ahead of both equity and debt,201 as well as in advance of the public announcement of a negative change in a firm’s credit rating.202 Thus, for a public firm, a change in derivatives pricing may mirror an increase or decrease in its credit quality before any change in its debt or equity pricing—providing more accurate feedback on the perceived riskiness of the firm’s policies and projects.203 Part of the difference in response reflects the close relationship between the value of a credit derivative and changes in a firm’s default risk.204 Part of it also reflects the special

197. See Gordon, supra note 143, at 1541–63 (describing the improved relationship of price and performance since the 1950s).


199. Amihud et al., supra note 2, at 461–62 (noting that public debt prices provide managers with a market assessment of their policies).


203. See GLANTZ, supra note 107, at 518.

204. See Jochen Andrritzky & Manmohan Singh, The Pricing of Credit Default Swaps During Distress 3–4
access of market participants, like banks, to private information about borrowers. To the extent that information remains private, the market may not provide an accurate indication of a borrower's credit quality. However, as information becomes more available to others, we may expect those prices to reflect "real time" changes in the market's perception of credit risk.

The growth in private credit may, in turn, affect the terms on which subsequent loans are made. Lenders increasingly rely on the pricing of credit instruments to assess a firm's credit quality and, if necessary, determine the cost of hedging their credit exposure. Thus, a borrower's actions that change the price at which its existing loans or other credit instruments trade will influence the price and nonprice terms on which lenders make subsequent loans. In addition, lenders may tie the interest rates on outstanding loans to changes in the price of a borrower's credit instruments. Actions that increase credit risk, consequently, will result in a corresponding increase in a borrower's cost of capital.

One outcome—as changes in credit risk are reflected in a borrower's loan terms—is that private credit may begin to overtake covenants and monitoring as an efficient form of governance. Covenants, in general, are over- or under-inclusive of those circumstances that affect credit quality, reflecting the difficulty of anticipating (and drafting covenants that adequately reflect) unknown, future events. In contrast, by directly affecting a firm's cost of capital, private credit may provide a more efficient alternative that penalizes actions that increase credit risk as or shortly after they occur. To be clear, covenants will continue to play an important role in corporate governance—by providing creditors with direct control rights over borrowers—but some portion of the traditional reliance may be offset by the feedback provided by an increasingly liquid credit market. Thus, the impact of more costly debt on a firm's profitability—reflected shortly after a change in credit quality, either in an outstanding loan's interest rate or in the cost of a new loan, since firms must return frequently to the market to refinance their debt


205. See supra notes 74–77 and accompanying text (discussing the banks' ability to obtain borrower information at lower cost).

206. See supra notes 137–46 and accompanying text (addressing the flow of information to less informed investors through competitive pricing).

207. See Norden & Wagner, supra note 201, at 1–4 (discussing the impact of credit default swaps on interest rates).

208. Most of the pricing spread over the riskless rate is tied to default risk. Francis A. Longstaff, Sanjay Mithal & Eric Neis, Corporate Yield Spreads: Default Risk or Liquidity? New Evidence from the Credit-Default Swap Market, 60 J. FIN. 2213, 2214–15 (2005).


211. See supra notes 70–71 and accompanying text (explaining the imperfections of covenants).

212. As Judge Easterbrook has noted, "Additional ways to price or trade financial instruments ought to strengthen the capital market as a disciplinary force. What makes the capital market more efficient not only makes governance less important—in what field does it retain a comparative advantage?—but also makes governance better." Frank H. Easterbrook, Derivative Securities and Corporate Governance, 69 U. CHI. L. REV. 733, 737 (2002).
capital\textsuperscript{213}—may lower its share price and, like public equity, discipline managers by affecting compensation, retention decisions based on price performance, and the likelihood of a hostile takeover.\textsuperscript{214} The trick will be in balancing that discipline against the traditional role of covenants and monitoring—a balance that appears to have been missed during the market’s recent experience with cov-lite loans.\textsuperscript{215} We can, nevertheless, begin to see the outline of a new governance mechanism that reflects the increasing liquidity of an evolving private credit market.

Ron Gilson and I recently raised the possibility that public shareholders may no longer be a firm’s cheapest residual risk bearers.\textsuperscript{216} We considered the effect on equity of changes in risk management and the increasing ability of firms to transfer discrete slices of risk at lower cost through the capital market.\textsuperscript{217} Risks that were traditionally borne by the catch-all of public equity—tied, for example, to changes in weather, foreign exchange, and interest rates—can now be identified and managed separately. Like private credit, we suggested that the emergence of new financial instruments enabled firms to transfer risk more efficiently, providing them with a lower cost alternative to the traditional reliance on public equity.\textsuperscript{218}

For equity, the result has been the increasing ability of large companies to go or remain private, making the governance function of private equity available to a wider range of firms.\textsuperscript{219} Risks that would have been too concentrated among a small group of shareholders can now be transferred to others who are better able to manage those risks at

\textsuperscript{213} See Michael C. Jensen, Agency Cost of Free Cash Flow. Corporate Finance and Takeovers, 76 AM. ECON. REV. 323, 324 (1986) (describing the disciplining effect of the capital market on organizations that regularly need capital); Triantis & Daniels, supra note 9, at 1083–84 (noting the reliance by even large corporations on short- and medium-term credit).

\textsuperscript{214} See Gordon, supra note 143, at 1470 (discussing the impact of share prices on managers’ decisions).

\textsuperscript{215} Problems with cov-lite loans following the credit crisis are described infra at note 249 and accompanying text.

\textsuperscript{216} Gilson & Whitehead, supra note 16, at 231–36.

\textsuperscript{217} Id. at 243–51.

\textsuperscript{218} Id. at 251–53.

\textsuperscript{219} Following the onset of the credit crisis in 2007, there were many who predicted that private equity would die away. See, e.g., Andrew Ross Sorkin, The Ranks of the Comfortable Are Still Thinning, N.Y. TIMES, Sept. 9, 2007, at 8 (“By now, all of Wall Street understands that the private-equity gravy train has jumped the tracks.”). The decline in inexpensive debt financing will, no doubt, limit the aggregate size and returns of private equity transactions in the short term, perhaps requiring fund managers to diversify into less lucrative investments. BANK FOR INT’L SETTLEMENTS, 78TH ANNUAL REPORT 123–24 (2008) [hereinafter BIS, ANNUAL REPORT], available at http://www.bis.org/publ/arpdf/ar2008e.pdf?noframes=1; Brian Cheffins & John Armour, The Eclipse of Private Equity, 33 DEL. J. CORP. L. 1, 46 (2008). Yet, private equity has continued to raise new funds. THE BOSTON CONSULTING GROUP, THE ADVANTAGE OF PERSISTENCE: How THE BEST PRIVATE-EQUITY FIRMS “BEAT THE FADE” 7–8 (2008), available at http://www.researchrecap.com/wp-content/uploads/2008/03/private_equity_feb_2008.pdf. In addition, the prices at which portfolio companies have been sold have continued to outperform public companies, with expectations that private equity investments will pick up further when the economy returns. See ERNST & YOUNG, HOW DO PRIVATE EQUITY INVESTORS CREATE VALUE? A GLOBAL STUDY OF 2007 EXITS—BEYOND THE CREDIT CRUNCH 4–5, 14 (2008), available at http://www.ey.com/Global/assets.nsf/International/Private_Equity_Beyond_the_credit_crunch_global_study_of_2007_exits/Sfile/Private_Equity_Credit_Crunch.pdf (reaffirming that the largest businesses owned by private equity firms outperform public benchmarks).
lower cost. The result, we predicted, was a greater reliance, at the margin, on more efficient means of corporate governance (provided by private equity managers) in light of the shift toward new sources of risk capital.220

For debt, as I have argued in this Article, growth in the private credit market has increased the ability of lenders to inexpensively manage and transfer credit risk, resulting in a shift in the structure and function of debt. Greater liquidity has enabled lenders and other investors to diversify their portfolios at lower cost than presumed within the traditional framing. Going forward, we may begin to anticipate a new form of debt governance, as covenants and monitoring give way to the discipline provided by more liquid credit instruments in response to increasing completeness in the private credit market.

Both stories illustrate a characteristic of the financial system: Although its core function—namely, the inexpensive allocation of capital—is likely to remain unchanged over time, changes in the capital market and the emergence of more efficient means of raising capital may impact the institutions that support it.221 Thus, for equity, discrete slices of risk capital can increasingly be provided by sophisticated counterparties who are better able than public shareholders to manage and diversify their exposure. Likewise, for debt, greater liquidity in the private credit market has enabled new lenders and investors to provide working capital to a wider range of borrowers. The upshot is that institutions that provide capital are likely to evolve in line with growing completeness in the capital market.

Of course, new institutions and new instruments may raise their own set of agency costs. Thus, as illustrated by the evolution of debt, we may anticipate a change in how agency costs are controlled—resulting in a more efficient governance structure consistent with growth in the capital market.

Here, we begin to see a divergence between the equity and debt stories. For equity, new sources of risk capital have reinforced the staying power of private equity, but (so far) have not become a meaningful source of governance themselves. Accordingly, while new means of transferring risk may support a new governance structure, we would expect the actual oversight to be provided by private equity managers (who, as shareholders, bear the residual risk remaining in the firm). The resulting difference between who controls and who bears risk may create a mismatch between risks transferred and risks retained, commonly referred to as "basis risk."222 Nevertheless, on balance, the benefits of managing and transferring risk may be expected to outweigh the resulting cost.

For debt, the discipline imposed by an increasingly transparent market may begin to overtake the traditional reliance on covenants and monitoring. Greater liquidity and the ability to transfer credit risk at lower cost have resulted in the growth of the private credit market. Unlike equity, however, the credit market has evolved in response to changes in risk bearing—resulting in the modification of how loans and syndicates are structured in response to changing agency problems. Over time, new bearers of credit risk may begin to provide a more efficient governance function than presumed within the standard

framing. The decline in covenants and monitoring, we may expect, will be offset by a governance function that directly reflects change in credit quality in a firm's cost of capital.

Equity and debt have also diverged in what capital sources—public versus private—they have accessed as the capital market has grown more complete. Risk transfer instruments have begun to overtake public equity as lowest-cost risk bearer. The public trading of those instruments may lower transaction costs, although for the time being, a large volume remains in the private market. Private equity, as well, is characterized by limited liquidity among a small group of manager-shareholders. Private credit instruments, by contrast, have developed in line with growing liquidity in the credit market. Those instruments have been fueled, in part, by the increasing ability to buy and sell credit risk—with an expanded universe of lenders and investors who are better able to provide debt capital at lower cost. The outcome has been a shift, on the equity side, from a traditional reliance on public equity to the increasing ability to rely on private market instruments. On the debt side, greater efficiency in the debt market has resulted in a move away from covenants and monitoring in private loans toward a greater reliance on liquid credit instruments. Covenants may still play an important role, but supplemented by the disciplining effect of the private credit market. The result raises an interesting (and provocative) speculation: rather than the traditional construct—premised on public equity and private loans—can we begin to see a new capital structure grounded in private equity and a liquid credit market?

Anecdotal evidence suggests that this shift in capital structure helped fuel the most recent private equity wave—with equity moving from a reliance on public shareholders to private share ownership, and debt moving from illiquid to increasingly liquid credit instruments, resulting in a corresponding change in corporate governance. Rather than the absence of external oversight, as is often claimed when firms go private, the increasing liquidity of the private credit market—and, over time, the ability of market participants to raise or lower a firm's cost of capital—may begin to provide an effective

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223. This question comes at an interesting time, as the distinction between the private and public markets has become increasingly blurred. Most recently, a liquid secondary market for the purchase and sale of private equity shares has developed among large institutional investors through the creation of trading platforms by Wall Street's largest firms, resulting in the introduction of a consolidated platform operated by NASDAQ. See Anuj Gangahar, Wall Street Banks Create Private Placements Market, FIN. TIMES (London), Aug. 15, 2007, at 17, available at http://www.ft.com/cms/s/0l274a3b/c-4ac8-lldc-95b5-0000779fd20c.html?nclick_check=1 (discussing Wall Street banks' joint venture to create a new market for private placements). The effect is potentially to permit private equity to combine the traditional agency cost benefits of control and monitoring by a single large shareholder with the liquidity of an active trading market. Larry Ribstein describes the declining benefits of being public, and the shift toward new business forms, in Larry E. Ribstein, The Rise of the Uncorporation 3–21 (Univ. of Ill., Law & Econ. Research Paper No. LE07-026, 2007), available at http://ssrn.com/abstract=1003790.

substitute (in addition to emerging guidelines on voluntary public disclosure\textsuperscript{225}), with the resulting decline in agency costs making this new capital structure a competitive alternative. The outcome, like the standard construct, reflects the capital market of the period—but, with increasing completeness, it may now also reflect costs and benefits beyond those arising from the sibling rivalry of debt and equity.

V. SOME LESSONS FROM THE CREDIT CRISIS

Current turmoil in the financial markets has called into question the nature and extent of change in the private credit market. The subprime loan crisis triggered a more general scrutiny of credit instruments,\textsuperscript{226} resulting in a slowdown in commercial lending, an uptick in loan defaults, and in the short term, a contraction in the private credit market.\textsuperscript{227} I suggest some preliminary lessons from the credit crisis—specifically, from the perspective of debt governance—although the global financial markets remain fragile and further change is likely.\textsuperscript{228} Predicting how, and whether, those lessons are reflected in the credit market is beyond the scope of this Article. Yet, increased regulatory and market focus suggest that, rather than halting growth, the current downturn may lead to a healthier financial system and further expansion of private credit.\textsuperscript{229}

Perhaps most significantly, the breadth and impact of the credit crisis—extending beyond risky mortgage loans to multiple asset classes, including commercial loans—suggests a shift in how the financial markets should be regulated. The current crisis has differed in scope from financial crises in the past—reflecting transactions between bank and nonbank investors, from around the world, that arose out of innovative financial instruments, complex investment strategies, and a less-than-transparent credit market. Rather than a focus only on banks, greater private credit liquidity argues for measures that broadly address the capital market as a whole and the enhanced corporate governance function provided by new lenders and investors.\textsuperscript{230} Thus, regulators have

\begin{itemize}
  
  
  \item \textsuperscript{227} See Robert Cookson, Sarah O’Connor & Paul J. Davies, Painful Lessons to be Learnt for CDSs, Fin. Times (London), Jan. 11, 2008, at 23 (describing the spread of credit problems beyond the subprime mortgage market); James Saft, Sharp Drop in Services Bodes Ill, INT’L HERALD TRIB. (Paris), Feb. 8, 2008, at 14 (describing credit contraction and potential downgrade in corporate bond issues).
  
  
  \item \textsuperscript{229} See Bernanke, supra note 226 (noting enhancements in underwriting standards and due diligence for structured credit products that have emerged); Carter Dougherty, Can Banks Self-Regulate? In Wake of Turmoil, Calls Grow for New Sorts of Supervision, INT’L HERALD TRIB. (Paris), Jan. 26, 2008, at 11 (noting proposed regulatory responses to the current economic crisis).
  
  \item \textsuperscript{230} See Steven L. Schwarz, Protecting Financial Markets: Lessons from the Subprime Mortgage Meltdown, 93 Minn. L. Rev. 1, 2–3 (2008) (discussing flawed responses to the subprime mortgage crisis that fail to account for the trend towards greater disintermediation).
\end{itemize}
began to reassess financial regulation, suggesting that the traditional focus, for banks, on capital regulation to cushion against financial shocks may need to be supplemented by a new system of supervision that increasingly takes into account growth and innovation in private credit.\textsuperscript{231}

In addition, traditional means to monitor borrowers may no longer be able to keep up with innovation in the capital market. In the past, investors who lacked direct access to borrower information could, in part, make up the difference by relying on credit rating agencies to monitor in their place; changes in credit quality were reflected in a borrower’s credit rating.\textsuperscript{232} The credit crisis revealed problems with the rating process itself, raising questions regarding the integrity of rating agencies’ reviews.\textsuperscript{233} More troubling, however, was the apparent difficulty that rating agencies faced when assessing increasingly complex credit instruments, drawing into question the ability of investors to rely on future ratings pronouncements.\textsuperscript{234} Stated differently, while increased liquidity may have enabled a growing dispersion of credit risk, the transfer of risk to investors who were unable—or unwilling—to assess their exposure may have resulted in an overall decline in oversight.\textsuperscript{235}

One solution is increased regulation of the rating agencies, supporting a more rigorous credit rating process and reinforcing the agencies’ role as low-cost providers of monitoring services.\textsuperscript{236} Another is enhanced risk management—imposed by regulators\textsuperscript{237} or the result of self-imposed market discipline\textsuperscript{238}—as investors become more


\textsuperscript{232} The due diligence process was normally extensive, with rating agency representatives typically meeting with the borrower’s management and developing the same sort of information that was traditionally provided to a bank lender. Yi & Mullineaux, supra note 194, at 482–83.

\textsuperscript{233} See supra note 184 (noting the recent decline of credit rating agency credibility).


\textsuperscript{235} See Nelson D. Schwartz & Julie Creswell, What Created This Monster?, N.Y. TIMES, Mar. 23, 2008, at BU1 (noting that senior Wall Street bankers did not completely understand new products).


sophisticated in analyzing the credit instruments they buy and sell, and, more importantly, realizing the competitive benefits of an enhanced risk management system.\textsuperscript{239} A third response, also market-imposed, may be a decline in the complexity of instruments that are used to hedge credit risk. In the face of greater uncertainty, firms may choose to hedge risk with less complicated, and more transparent, instruments that they are better able to price and manage.\textsuperscript{240} The result, in all three cases, would be a greater ability of investors to assess their credit exposure—and, in turn, manage that exposure directly or reflect it in the price at which they buy and sell instruments in the private credit market.

The credit crisis also reinforced the need for enhanced transparency regarding the products being sold. Before the credit downturn, a substantial portion of commercial loans was bought by CLOs, which sold interests in loan pools to investors in order to fund their purchases.\textsuperscript{241} The transfer of risk, from banks to the holders of CLO securities, potentially resulted in a decline in the sponsor's incentive to monitor portfolio borrowers—perhaps offset by the sponsor's continued retention of some portion of the risk or its concern over reputation in the event of default.\textsuperscript{242} Going forward, investors may insist that a CLO sponsor increase its credit exposure to the underlying loan portfolio, perhaps through changes in the off-balance-sheet treatment of securitized assets in CLO or other vehicles\textsuperscript{243} or by requiring the sponsor to retain some portion of the most junior CLO tranche rather than repackaging it for sale to other investors.\textsuperscript{244} Investors may also require greater information on the underlying loan portfolio, as well as the sponsor's determination of asset value and credit quality, in order to conduct their own credit analysis of the borrowers.\textsuperscript{245}

\textsuperscript{239} See Senior Supervisors Group, supra note 237, at 1–6 (finding that differences in risk management practices affected losses incurred during the credit crisis); James Maxwell, Ratings Agencies Eye ERM for All Industries, Fin. Executive, Mar. 2008, at 44, 46.

\textsuperscript{240} See supra note 135 and accompanying text (noting that fund managers expect to increase their hedging of risks, as well as a reduction in the complexity of derivative instruments); see also Schwarcz, supra note 230, at 405 (noting that “[s]olving problems of financial complexity may well be the ultimate twenty-first century market goal”).

\textsuperscript{241} See supra notes 120–22 and accompanying text (discussing the creation of CLOs).

\textsuperscript{242} See Duffie, supra note 16, at 10–12; Goldschmid, supra note 120, at 256 n.229; see also supra notes 163–66, 178–79 and accompanying text.


\textsuperscript{245} Platt, supra note 238, at 62. Greater transparency, in order to be effective, may also require a decline in the complexity of the instruments that are purchased. See Schwarcz, supra note 64, at 11–15.
Market transparency may also improve. Although regulators may be able to assess firms under their authority, the private credit market is comprised of investors, such as hedge funds, who fall outside of regular review. Regulations or industry initiatives that enhance transparency—in pricing, secondary trading, and ownership—may help address systemic concerns arising from the possibility of accumulations of risk over which neither regulators nor market participants today are aware. Doing so may also enhance the availability of information in the private credit market and the informational content of trading prices. Likewise, a centralized derivatives counterparty or clearinghouse may improve market transparency and enhance liquidity in the credit default swaps market.

Finally, the credit crisis has reinforced the importance of covenants to lenders, notwithstanding the increased ability to manage and transfer credit risk. Cov-lite loans, in hindsight, failed to strike a proper balance between liquidity and a lender’s traditional reliance on covenants and monitoring. Thus, even though the default rate on leveraged loans has been relatively low, it more likely reflects a decline in covenant levels rather than the borrowers’ credit quality. Absent those trip-wires, lenders have been handicapped in exercising control rights, reducing their ability to minimize any resulting loss. In the face of the credit downturn, however, prospective lenders are likely to return to more prudent practices.

VI. CONCLUSION

In this Article, I have argued that a presumption underlying the traditional framing of the firm—namely, the reliance of debt on covenants and monitoring—may no longer be settled. Changes in the credit market have provided lower cost alternatives, resulting in an evolution in the role of debt in corporate governance.

The traditional framing was premised on the relative illiquidity of debt. Banks with access to private information were able to extend loans at lower cost than other lenders, but looked to covenants and monitoring as a principal means to manage credit risk. Alternatives, such as portfolio risk management, were limited to equity.

The last two decades, however, have witnessed a transformation in the traditional bank-borrower relationship. Prompted by regulatory and competitive change, banks began to reconsider the lending business—looking to minimize portfolio-level credit risk by actively buying and selling loans and other credit instruments. The result was growth in the private credit market, with greater liquidity generating higher returns on a bank’s loan portfolio, a portion of which could be passed on to borrowers through increased

246. See Acharya et al., supra note 154, at 53.
247. See supra notes 137–46 and accompanying text.
248. See Heather Landy, Credit Default Swaps Oversight Nears; SEC, Federal Reserve, CFTC Pledge to Work Together on Regulating Derivatives, WASH. POST, Nov. 15, 2008, at D3 (reporting pressure from government officials for Wall Street to develop a central credit default swap clearinghouse); Stephen Labaton, Obama Plans Fast Action to Tighten Financial Rules, N.Y. TIMES, Jan. 25, 2009, at A1 (noting plans for credit default swaps to trade through a central clearinghouse and one or more exchanges).
lending limits and lower interest rates. Market participants have relied on syndicate structure, lead bank incentives, increased covenants and monitoring, and reputation to minimize the resulting agency costs and, in turn, introduce new forms of corporate governance.

Over time, with greater liquidity, changes in a firm's credit quality may increasingly be reflected in the pricing of its credit instruments. And, to the extent that pricing is reflected in subsequent loans, changes that increase a firm's credit risk may be contemporaneously reflected in a higher cost of capital. Private credit may, as a result, begin to provide a more efficient "real time" discipline that supplements a lender's traditional reliance on covenants and monitoring.

A central theme of this Article has been that change in the capital market may increasingly affect capital structure and corporate governance. My principal focus has been on the implication of that change for how firms are governed. It may be useful to end this Article by considering the other side of the coin—namely, the implication for capital market regulation of the evolution of debt. To the extent that change in the capital market affects corporate governance, should we begin to consider the impact of that regulation—beyond its traditional focus on market integrity and systemic risk—on how firms are governed?

Consider, for example, a bank's regulatory capital requirements. Changes in minimum capital levels may lower systemic risk, but will also affect how private credit instruments are structured and traded. Should their impact on corporate governance become a part of the calculus in deciding which regulations to adopt? Likewise, regulating the credit derivatives market may level the playing field among participants, but potentially lower the market's ability to reflect information about a firm's credit quality. Again, should the impact on corporate governance be weighed against concerns over market integrity?

Those questions mirror the evolving nature of debt and its transition away from the sibling rivalry that previously fixed a firm's capital structure and corporate governance. They suggest, as well, that corporate governance may increasingly become an important consideration in our regulation of the capital market. I have offered some initial lessons from the credit crisis, reflecting its impact on debt governance. However, a more comprehensive analysis of the new construct—and how it plays into regulating change in the capital market—must be left for another day.

250. See Nicolò & Pelizzon, supra note 139, at 2-3 (discussing the potential implications of different capital adequacy rules).

251. See Acharya & Johnson, supra note 119, at 113 (cautioning that regulatory action against insider trading in the credit default swap market may have negative effects on liquidity and pricing).