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CREDITORS AND DEBT GOVERNANCE

By Charles K. Whitehead

*Forthcoming, Research Handbook on the Economics of Corporate Law
(Claire Hill & Brett McDonnell, eds.)*

1. Introduction¹

Most corporate debt is private, and most private lenders are banks (although increasingly they include non-bank lenders). (Kahan & Tuckman 1993; Amihud *et al.* 1999; Wilmarth 2002).² Even among public firms, which typically have access to larger pools of capital, roughly 80 percent maintain private credit agreements. (Nini *et al.* 2009). Consequently, debt's role in corporate governance (sometimes referred to as "debt governance") has mirrored changes in the private credit market.³ Within the traditional framing, bank lenders tend to rely on covenants and monitoring as the most cost-effective means to minimize agency costs and manage a borrower's credit risk.⁴ Loans were historically illiquid, and so lenders had a direct and long-term say in how a firm was managed. As liquidity increased, banks began to manage credit risk through purchases and sales of loans and other credit exposure, lowering capital costs, but potentially weakening their incentives and ability to monitor and enforce covenant protections. The 2007-2008 financial crisis – and recognition that shareholder oversight, without the offsetting discipline provided by creditors, could cause financial firms to incur socially suboptimal levels of risk⁵ – re-focused attention on the importance of debt governance.⁶

¹ Portions of this chapter are derived from Whitehead (2009).

² Many firms use both public and private sources of debt capital, including bank debt, program debt (such as commercial paper), and public bonds. Investment-grade firms often rely on senior unsecured debt and equity, while lower-credit firms rely on a combination of secured bank debt, senior unsecured debt, subordinated bonds, convertible securities, and equity. (Rauh & Sufi 2010).

³ "Corporate governance," in this chapter, is defined as a mechanism to reduce or deter agency costs arising from management incentives or actions that impede the maximization of firm value.

⁴ "Credit risk" is defined as the possibility that a borrower will fail to perform its obligations under a loan or other credit instrument, mainly the payment of principal and interest.

⁵ Section 971 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010) (Dodd-Frank Act), strengthens shareholder governance by expressly authorizing the Securities and Exchange Commission (SEC) to introduce rules that increase a shareholder's ability to mount a campaign for minority board representation without a costly proxy fight. Diversified shareholders, however, may benefit if a financial firm incurs significant (and socially suboptimal) levels of risk. Some portion of that risk can be managed directly through financial regulation. (Whitehead 2010). New proposals also focus on the balancing effect of debt holders. Creditors tend to be more conservative risk-takers than shareholders, and to the extent debt (by its terms) converts into equity upon a financial firm's credit downgrade, those debt holders would have a significant incentive to oversee how the firm is managed and minimize risk-taking. (Coffee 2010).

⁶ New credit instruments have been blamed for the 2007-2008 financial crisis, calling into question the viability of a corporate governance mechanism that relies, in part, on an increasingly liquid credit

There is relatively little “law” in the law and economics of debt governance beyond the legal infrastructure necessary to implement debt’s oversight function (including contract law, enforcement of contract rights, and bankruptcy law) and a greater reliance on debt (with shorter maturities) in countries with higher levels of corruption. (La Porta *et al.* 1998; Fan *et al.* 2010). Governance, in most corporation codes, is typically relegated to a firm’s stockholders. No state, for example, affirmatively grants debt holders the right to vote, although a few state codes – such as California Corporation Code § 204(a)(7) and Delaware General Corporation Law § 221 – expressly make it optional. Creditors, nevertheless, can significantly influence how a firm is governed – through contractual protections and self-interested actions that protect their investment, as well as the disciplining effect that debt can have on a firm’s budget and use of free cash flow.

The traditional construct distinguishes between public and private debt, although how each is structured turns on many issues (described below) that are common to both. Borrowers in the public market are often larger, more profitable, and have higher credit ratings than private firms, and so benefit less from bank monitoring (Diamond 1991; Bolton & Freixas 2000). Lower-credit firms can borrow in both the public and private markets, partly because public creditors can free ride on the enhanced oversight provided by bank lenders. (Rauh & Sufi 2010). Public bonds are widely held and easily transferable, increasing agency costs – due to the collective action problem of dispersed ownership – but permitting holders to inexpensively diversify, manage, and transfer credit risk. Balanced against greater liquidity, public debt typically has less restrictive covenants in light of the public availability of information, the higher cost to directly monitor and enforce compliance, and a decline in the ability (or, for higher-quality borrowers, the need) to mitigate credit risk through contract. (Smith & Warner 1979; James 1987; Carey *et al.* 1993; Triantis & Daniels 1995; Amihud *et al.* 1999; Rauh & Sufi 2010). Consequently, a firm that initially issues public debt may see a decline in its share price – reflecting a drop in debt governance, which can be even more pronounced if, at the same time, the borrower reduces bank monitoring (perhaps by paying down its bank debt). (Denis & Mihov 2003).

This chapter traces changes in the private credit market. It begins with a look at the traditional role of debt, focusing on the impact of debt on corporate governance and, in particular, the effect of an illiquid credit market on creditors’ reliance on covenants and monitoring – a reliance that has continued even as the credit market has evolved. It then turns to changes in the private credit market and their effect on lending structure. Greater liquidity raises its own set of agency costs. In response,

market. There are, however, important differences between those instruments – primarily tied to subprime mortgages – and unsecured corporate debt. By their nature, subprime mortgage instruments rely principally on collateral to manage credit risk. Unsecured loans, however, are much more dependent on covenants and monitoring without any offsetting protection. As described later in this chapter, changes in the credit market are more likely to result in the introduction of alternative means for lenders to help oversee borrowers. (Whitehead 2009).

loans and lending relationships have adjusted to mitigate those costs, providing new means by which debt can influence corporate governance.⁷

Going forward, a firm's decision to borrow must increasingly take account of the costs and benefits of a liquid credit market. How firms are governed is closely related to how they raise capital. (Williamson 1988). Managers who maximize firm value can finance their business at lower cost than managers who pursue personal goals. Thus, actions that affect a firm's credit quality are likely to be reflected in changes in the secondary price at which its loans and other credit instruments trade. Those changes, in turn, may affect a borrower's cost of capital, providing managers with a real incentive to minimize risky behavior. The intuition, which I describe at the end of this chapter, is that a liquid private credit market may begin to provide a discipline that complements the traditional protections of contract. Changes in the cost of private credit may provide a governance function similar to that provided by changes in the price of public equity.

2. Debt's Role in Corporate Governance

In a perfect world, investors would be as familiar as managers with projects that require new financing. Investors often have less information, however, permitting managers to invest in less profitable projects that benefit them personally or that favor one class of investors over another, without investors being aware of the project's value or the managers' actions. (Jensen & Meckling 1976; Smith & Warner 1979; Arrow 1981). Thus, in order to attract new capital at low cost, managers must credibly commit to behave in a manner consistent with investor interests.

Debt can help curb management excess, in large part through its reliance on contractual provisions, like loan covenants, that require the debtor to make specified payments (principal and interest), meet minimum financial criteria, report periodically, and operate within bounds specified by creditors. (Williamson 1988).⁸ Debt financing increases the risk of bankruptcy because payouts are compulsory. For example, although the board can choose to suspend dividend payments, suspending interest payments is typically a breach of the firm's debt obligations and may trigger a bankruptcy filing. Consequently, greater leverage increases a firm's risk of incurring the real costs of financial distress – the actual costs of bankruptcy, as well as a rise in risk premiums demanded by customers, suppliers, and employees. The likelihood that a borrower will fail to repay or otherwise meet its debt obligations can, in turn, lower a firm's stock price and increase the risk of takeover.⁹ In order to reduce those risks,

⁷ There is a substantial literature on why firms choose to fund with varying amounts of debt, beginning with the Miller-Modigliani claim that, absent frictions, capital structure is irrelevant to firm value. Scholarship regarding tax and other real world frictions demonstrate that firm value may be enhanced through a capital structure that includes both debt and equity. I do not address that scholarship in this chapter, except to the extent it relates to our principal focus on debt governance.

⁸ A description of standard loan covenants appears in Tung (2009).

⁹ By contrast, greater leverage can also be used to deter a hostile takeover, perhaps incurred to finance a defensive self-tender offer that increases management's percentage of voting control, with

managers are motivated to maximize profitability, including by reducing business expenses, working harder, and investing more carefully. (Grossman & Hart 1982; Jensen 1989; Harris & Raviv 1990; Zwiebel 1996). Managers also have a direct interest in avoiding bankruptcy, since directors and officers of bankrupt firms tend to do poorly in the labor market. (Gilson 1989, 1990).

Debt also affects a borrower's investment policies. Start-up firms with high growth opportunities, for example, are likely to benefit if management's hands remain untied, permitting them to allocate capital to the most profitable projects. Such firms often have fewer tangible assets, with lenders relying on more costly loan restrictions or shorter maturities (both discussed below) to manage risk. (Billett *et al.* 2007). Slower-growing firms, by contrast, face a greater possibility of managers making unprofitable investments, perhaps in areas outside their expertise, driven by an interest in building empires for personal benefit. In those cases, covenants that restrict overinvestment or a borrower's ability to incur more debt may benefit both creditors and stockholders. Thus, explicitly limiting a firm's capital expenditures, particularly after its credit quality has declined, is likely to result in an increase in operating performance and a rise in stock price. (Nini *et al.* 2009). At the very least, new capital investments that extend beyond existing limits – either investment or leverage limits, or both – will need to be reviewed and agreed by a firm's creditors before they can go forward. In addition, by contractually committing to make future payments, increased debt reduces the agency costs of free cash flow, making less cash available to be spent at management discretion. (Jensen 1986; Stulz 1990). Here, again, a significant change in a borrower's cash flow – perhaps prompted by a change in its business operations – may require its creditors' consent, providing them with the ability to oversee and influence certain fundamental business decisions.¹⁰

Debt maturity can also affect corporate governance. For example, a firm that is focused on maximizing stockholder value may underinvest in new projects whose benefits would likely accrue to the firm's creditors.¹¹ If funding is short-term, however, the projects' success will be reflected in a lower cost of refinancing, resulting in a decline in the firm's overall cost of capital that benefits stockholders. (Myers 1977; Barclay & Smith 1995). Short-term debt also motivates managers to invest in profitable projects or risk the loss of future, near-term financing. Before "rolling over" existing loans, or financing new ones, lenders must be convinced of management's capability and may increase the cost of financing (including adding more restrictive terms) to reflect any rise in credit risk. (Rajan & Winton 1995; Stulz 2002; Nini *et al.* 2009). Long-term debt, by contrast, postpones a borrower's need for

entrenched managers weighing the benefits of continued control against the potential cost and disciplining effect of greater indebtedness. (Harris & Raviv 1988; Stulz 1988; Zwiebel 1996).

¹⁰ Note that lenders have an incentive to over-regulate a firm's risk-taking in an effort to protect their own investments, potentially causing managers to forego value-enhancing projects that would otherwise benefit stockholders. (John *et al.* 2008).

¹¹ This might occur if the project's payouts are positive – resulting in an overall increase in firm value – but only sufficient to make payments of interest and other amounts owed to the firm's creditors (who are paid first before the shareholders receive anything). (Myers 1977).

refinancing, potentially reflecting concerns over the borrower's future credit quality. (Flannery 1986). Its repayment, however, is dependent on future earnings and so longer maturities may also help to motivate managers to pursue value-additive projects. (Hart & Moore 1995).

By incurring more debt, managers can commit to making profitable investments and operating improvements, also signaling their willingness to pay out cash flows or be monitored by lenders, or both. (Leland & Pyle 1977; Diamond 1991). The result can be a boost in the borrower's stock price, enhancing the managers' job security. (Zwiebel 1996; Berger *et al.* 1997). Higher leverage also gives superior managers the ability to signal their quality, separating them from managers who suffer a greater risk of bankruptcy. (Grossman & Hart 1982). Conversely, entrenched managers may prefer less leverage than is optimal in order to reduce the firm's risk of financial distress (and, in turn, the risk of losing private benefits). They may also limit their reliance on debt financing or choose only longer-term debt in order to minimize the limitations imposed by creditors and reduce external monitoring. (Garvey & Hanka 1999; Datta *et al.* 2005; Lundstrum 2009).

Notwithstanding the incentive to understate leverage, recent research suggests that under some circumstances entrenched managers – those whose interests may be less aligned with shareholders – may actually incur greater debt than less-entrenched managers. Managers whose interests are aligned with shareholders (for example, whose compensation may be tied to stock price) may make riskier policy choices whose returns are more likely to benefit shareholders at the expense of creditors, particularly as the firm nears insolvency. (Coles *et al.* 2006).¹² Lenders may, therefore, consider entrenched managers to be less risky – for example, by adopting more conservative investment policies (John *et al.* 2008) – and so be willing to provide them with better financing terms, resulting in an overall increase in leverage. (John & Litov 2010). From that perspective, a greater reliance on debt may reflect weaker governance rather than a mechanism to improve management performance. (Denis & Mihov 2003).

Debt can contractually limit managerial discretion through restrictive covenants, with lenders monitoring compliance in order to minimize exposure to the borrower's credit risk. With the protection of limited liability, shareholders of a leveraged firm have incentives to increase the firm's risk-taking once debt is in place. Lenders, therefore, also rely on covenants to mitigate conflicts with managers who may favor

¹² A well-known example is found in footnote 55 of the Delaware Chancery Court's decision in *Credit Lyonnais Bank Nederland, N.V. v. Pathe Communications Corp.*, 1991 WL 277613 (1991). There, Chancellor Allen posed a hypothetical where a corporation's sole asset was a judgment (\$51 million) against a solvent debtor. The case was on appeal, with the corporation receiving offers to settle for an amount that would satisfy both shareholders and debt holders. Diversified shareholders, nevertheless, would be likely to reject the offers and appeal, since the additional upside if the corporation won would be theirs, whereas the downside of losing would be borne by both shareholders and debt holders.

the interests of equity over debt.¹³ (Smith & Warner 1979; Sufi 2007). To that end, covenants act as early warning “trip wires” (Triantis & Daniels 1995) that enable lenders to reassess a borrower’s credit risk under weakened financial conditions and mitigate loss by renegotiating loans (and reducing leverage) following a breach. (Fischel 1989; Hart & Moore 1998; Dichev & Skinner 2002). Covenant violations can be costly, typically resulting in tighter restrictions, lower caps on capital expenditures, and an increase in real costs. For those reasons, managers have a strong incentive to ensure the firm complies with their terms. (Smith & Warner 1979; Roberts & Sufi 2009a; Nini *et al.* 2009). Tighter covenants, in turn, can result in a decline in real borrowing costs. A firm can also 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. (Fama 1985; Myers 1989).

Covenants, however, are imperfect predictors of management behavior, reflecting the difficulty of assessing a borrower’s future actions and performance. (Triantis & Daniels 1995). Covenant violations are not uncommon, but typically do not result in lenders accelerating repayment of the loan or taking control of the borrower. Instead, those violations are often waived, but prompt closer scrutiny of credit quality and tighter restrictions on the borrower in both renegotiated and future loans. (Tung 2009). Through covenants, creditors can also limit expenditures that might otherwise be available to repay a loan in order to ensure a fair return on their investment. (Chava & Roberts 2008). Although there is a risk that some covenants will limit profitable activity, that cost 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. (Myers 1977; Smith & Warner 1979; Bolton & Scharfstein 1996).

A loan agreement may include pre-agreed contingencies that trigger modification of a term (or terms) of the loan.¹⁴ A pricing grid provides one example. Under normal circumstances, a decline in cash flow may cause the borrower, in light of its riskier position, to be better off under the loan’s original terms than if it entered into a new loan, creating a strong incentive for it to avoid any renegotiation. A pricing grid can adjust the amount of interest payable by the borrower based on changes in its financial ratios or credit rating. Thus, by increasing interest payments, a pricing grid shifts relative bargaining power to the lender, which can then restructure the loan to reflect the borrower’s changed circumstances. Conversely, improved performance can cause a drop in interest payments, reflecting the borrower’s better credit quality. (Roberts & Sufi 2009b). Loan covenants are typically tied to the same measures used in setting the pricing grid. Together, they establish minimum performance standards for the borrower, but also reward actions that improve its credit quality. (Tung 2009).

In order to minimize agency costs, private debt relies on long-term relationships between lenders and borrowers – very often tied to the traditional relationship between banks and customers. (Diamond 1984; Baird & Rasmussen 2006). Banks often take

¹³ Examples of the tension between debt and equity, and potential risk-shifting by managers, are set out in Amihud *et al.* (1999).

¹⁴ Examples of loan agreement contingencies appear in Roberts & Sufi (2009b) and Tung (2009).

deposits and provide financial advice to their borrowers, which provides them with ready access to quasi-public information. (Black 1975; Fama 1985). As a result, banks can assess credit quality and monitor compliance with covenants at lower cost than others, particularly with small- and medium-sized firms. They are also better able to detect and deter managerial slack at an early stage, providing stockholders and other investors with a credible signal of the firm's performance. (Smith & Warner 1979; Triantis & Daniels 1995).¹⁵ The resulting benefits can be tangible – a decline in the overall cost of capital as other investors, including stockholders, free-ride on the enhanced oversight provided by self-interested bank monitors. Reflecting a bank's superior knowledge, the renewal of an existing loan facility can result in an increase in the borrower's stock price. Less-informed creditors, by contrast, are more likely to seek stricter covenants than banks in order to more closely control a borrower's future actions in light of the higher cost of monitoring. (Rajan & Winton 1995; Denis & Mihov 2003; Shepherd *et al.* 2008).

Note that a bank's superior information can give it greater bargaining power over the borrower than a more arm's-length lender – a potential hold-up problem if the bank demands surplus from successful projects as a condition to continued lending. Borrowers, as a result, may choose to diversify sources of capital in order to reduce the bank's ability to appropriate rents. (Rajan 1992). Likewise, having made a loan, a bank may be compelled to extend further credit to a shaky borrower, or otherwise forestall a default, rather than risk losing the value of its original investment. Granting the bank a preference over the borrower's assets may address part of the problem, but the bank may still be reluctant to call a default if it results in a drop in the value of its original loan. (Boot 2000).

Reputation can also affect covenant levels.¹⁶ A firm that repeatedly accesses the credit market has an economic interest in developing a reputation as a “good” borrower. If it can benefit (for example, through fewer covenants), then it has an incentive – even if not contractually obligated to do so – 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. (Diamond 1991; Boot *et al.* 1993; Sufi 2007).¹⁷

A bank's informational advantage makes it less costly for it to extend loans than a more arm's-length creditor. Yet, it also makes it more difficult to resell loans to less knowledgeable purchasers, a classic “lemons problem” that originally impeded the

¹⁵ Recent research suggests that banks may also facilitate acquisitions through the information they receive as lenders and transmit to potential acquirers, possibly in order to reduce their default risk by seeking to transfer debt from weak to strong borrowers. (Ivashina *et al.* 2009).

¹⁶ Credit ratings historically have provided an important assessment of market reputation, even though recent findings regarding conflicts of interest, inadequate staffing, and a failure to follow their own guidelines has drawn the credibility of rating agencies into question. (Partnoy 1999; Hill 2004).

¹⁷ As Jensen & Meckling (1976) famously noted, although reputation can reduce agency costs, even “sainthood” will not drive those costs to zero. Moreover, lenders and borrowers have short memories, and so the incentives that make reputation valuable can shift with changes in the marketplace. (Bratton 1989).

creation of a liquid credit market. The inability to transfer loans, in turn, reinforced the value to lenders of covenants and monitoring. (Diamond 1984). To be sure, the traditional agency cost model considered diversification as one means to manage risk. Portfolio theory suggested there should be a less costly means for banks to manage credit risk than covenants and monitoring.¹⁸ 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 analysis of corporations was first introduced.¹⁹ Thus, the benefits of diversification were understood to be principally tied to public equity, with banks instead relying on contractual protections to manage credit exposure.

3. Private Credit Liquidity

The business of banking began to transform in the 1970s and 1980s, driven by increasing competition, innovation in the marketplace, and changes in financial regulation. In particular, new regulatory requirements encouraged banks to change their business models, making it more expensive to continue as they had before.²⁰ Banks began to reassess lending, with many adopting strategies to minimize their overall credit cost. (Berger *et al.* 1995; Allen & Gale 1997; Allen & Santomero 2001).

Debt's role in corporate governance has remained largely unchanged even as the credit market has evolved. The traditional tools that have helped minimize agency costs and curb management excess remain applicable. Differences in lending structure, however, have prompted changes in how creditors oversee borrowers. They have also raised their own set of agency costs, which market participants have needed to address.

Banks began to diversify their credit risk, requiring a new approach to risk management, as well as a liquid market to buy and sell loans and other credit instruments. New technologies were developed to measure risk and diversification across loan portfolios – enabling banks to decide which assets to buy and sell, and at what price, in order to optimize a portfolio's return-to-risk relationship. (Whitehead 2009). The costs traditionally associated with the resale of loans were offset by the real benefits of managing credit risk. Banks that participated in the loan market could hold less capital against riskier loans and more profitable loan portfolios. (Berger & Udell 1993; Simons 1993; Cebenoyan & Strahan 2004). A portion of the gains could be passed on to borrowers, for example, through increased lending or lower interest rates, potentially resulting in an overall decline in a borrower's real cost of capital. (Hughes & Mester 1998; Güner 2006; Duffie 2008). The lending business evolved as banks

¹⁸ Markowitz first demonstrated the benefits of portfolio diversification in the early 1950s, for which he won the Nobel Prize in Economics in 1990. (Markowitz 1952).

¹⁹ I mark the introduction of the agency cost framework as the publication of Jensen & Meckling (1976).

²⁰ For example, the greater regulatory capital charges imposed on banks prompted an increase in loan securitizations and syndications, as banks moved assets from their balance sheets in order to reduce their effective capital requirements. (Basel Committee on Banking Supervision 1999; Wilmarth 2002; Whitehead 2006).

originated loans for sale to others and bought and sold credit risk in order to better manage their overall exposures. (Llewellyn 1996; Caouette *et al.* 1998; Bolton & Freixas 2000; Calomiris 2000).

Today's private credit market is increasingly liquid. Banks have an incentive to minimize the agency costs of lending to private borrowers for whom there is limited public information. Spanning that gap – by designing resale arrangements that help address the problems of limited information – can reduce the lemons problem, increasing a bank's ability to transfer loans at lower cost, as well as enhancing profitability. (Pennacchi 1988). Thus, beyond the traditional bank-borrower relationship, a firm's decision to borrow must increasingly take account of the costs and benefits of a liquid credit market, with the resulting changes likewise shaping the role that debt plays in corporate governance. (Whitehead 2009).

Bank lenders can arrange for others to participate in a loan at origination, as well as sell all or part of a loan at a later date. In loan syndications, one or more “lead banks” (or “arrangers”) negotiates the terms of the loan and invites other creditors to participate at origination. Interests in a loan, whether or not syndicated, can also be sold in the secondary market, which riskier borrowers and non-bank investors tend to dominate.²¹ Through collateralized loan obligations (CLOs), a portfolio of loans can be sold to a special purpose vehicle that, in turn, issues multiple tranches of CLO securities to diversified investors in order to fund the purchase. Converting loan assets to securities, and then transferring an undivided interest through the capital market, enhances their liquidity. (Frankel 1999).

In addition, credit derivatives enable lenders to transfer credit risk to other investors, permitting the separation of a loan's working capital from its risk capital. Using a credit default swap (CDS),²² for example, a lender can buy or sell all or a portion of a borrower's credit risk without transferring the loan itself, enabling the lender to more efficiently manage and diversify its credit exposure. In effect, a CDS permits the lender to outsource credit risk to a new group of CDS investors, who can assume (and manage) the borrower's credit risk without funding the working capital component of the loan. (Whitehead 2010).²³ The benefits to a creditor of greater liquidity could not be replicated at low cost by a creditor's or borrower's stockholders, providing value-maximizing managers with an incentive to continue to support and

²¹ A description of the syndicated loan market, and how it differs from secondary trading, can be found in Sufi (2007).

²² A CDS permits a counterparty to a swap contract to buy or sell all or a portion of the credit risk tied to a loan or bond. The CDS customer pays the “writer” of the swap a periodic fee in exchange for a contingent payment in the event of a credit default. If a credit event occurs, typically involving default by the borrower, the CDS writer must pay the counterparty an amount sufficient to make it whole or purchase the referenced loan or bond at par. Although there are important differences, a CDS is, in substance, economically similar to a term insurance policy written against the credit downgrade of the referenced borrower. (Masters & Bryson 1999; Glantz 2003; Sjostrom 2009).

²³ A description of different credit derivatives appears in Masters & Bryson (1999) and Glantz (2003).

grow the private credit market. (Merton 1992; Merton & Bodie 2005; Gilson & Whitehead 2008).

The new credit market has been concentrated among large banks. (Wilmarth 2002; Minton *et al.* 2009). Part of the reason may be the informational asymmetry that historically has given banks a competitive edge over non-bank lenders. (Acharya & Johnson 2007). Trading among a small group of informed investors, however, can still result in the public release of a substantial amount of private information through competitive pricing. Others can rely on that information to make their own investment decisions, resulting in an overall increase in market size. (Holden & Subrahmanyam 1992). Greater and more diverse information may also be reflected in price as more participants enter the market.

Balanced against liquidity's benefits is the risk that the "decoupling" of economic and control rights – for example, through securitization and credit derivatives – may result in less effective governance. Having transferred the credit risk of a loan to someone else, a lender – who, nevertheless, retains full contractual rights – may have less incentive to monitor the borrower or act in the interest of those who own interests in the loan. Accordingly, while purchasers of credit risk may be better able to manage it through diversification, they may be less able to oversee borrowers as effectively, resulting in an increase in agency costs and an overall decline in corporate governance. (Partnoy & Skeel 2007). Transferring credit risk, however, may also enable a creditor to more effectively enforce its covenant protections. The decline in risk exposure raises the lender's relative bargaining power, enabling it to more easily refuse to renegotiate a loan unless the terms are attractive. In the extreme, a creditor who transferred its economic risk may have less incentive to renegotiate or restructure a loan altogether, potentially reducing the value of the borrower's outstanding debt or even pushing the borrower into bankruptcy. (Hu & Black 2008; Bolton & Oehmke 2010).

Likewise, covenant levels may drop if creditors are unable at low cost to monitor a borrower's compliance with its loan obligations or to renegotiate a loan following its breach. As noted earlier, public bonds typically contain less restrictive covenants than loans, in part due to the higher cost of monitoring. Banks, in turn, have an incentive to transfer lower quality assets to third parties – with the result that covenants and oversight may decline for those borrowers most in need of closer monitoring. The outcome reflects a trade-off, with the lower cost of managing credit risk being offset by increased agency costs.²⁴

²⁴ That description 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. (Wilmarth 2002). 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. In particular, before the beginning of the financial crisis 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 loans – jumping from four loans in 2005 to over 100 in 2007. Competition among bankers for new business and among investors for new loan assets is likely to have contributed. Reputation may have also played a role. The private equity market is comprised of a

Those costs are similar to costs that arise in the public market, but with a critical difference: Unlike firms that typically issue public bonds, information regarding private borrowers is often less well-known. Some portion of the cost is offset by the creditors' ability to manage credit risk more efficiently. Yet, as covenants and monitoring decline, investors are likely to demand higher returns to compensate for the greater risk – a result that is consistent with the drop in governance, but unlikely to be sustained if there are less costly means to mitigate the increase in agency costs. (Black 1975; Ashcraft & Santos 2007). Market participants, therefore, have looked to change how loans are structured and, by extension, have shaped new forms of corporate governance. (Pennacchi 1988). A key to that change has been the response of the private credit market to shifts in the source of capital, as providers have moved from bank lenders within the traditional framing to bank and non-bank investors in an increasingly liquid credit market.

3.1 Syndication

A loan is more likely to be syndicated as information about the borrower becomes more transparent (for example, through a credit rating or listing on a stock exchange). (Dennis & Mullineaux 2000). For less well-known borrowers, the number of lenders may be capped and resales restricted in order to encourage direct monitoring and renegotiation if a covenant is breached. (Demsetz 1999; Lee & Mullineaux 2004). Participants in the original syndicate are more likely than later purchasers to have long-term relationships with the borrower and syndicate manager, enabling them to monitor the borrower at lower cost and facilitating coordination. (Haubrich 1989; Sufi 2007). Thus, a lead bank's traditional governance role may be replaced by the collective oversight of a syndicate's 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.²⁵ By retaining economic risk, the bank can credibly commit to continued monitoring and, as necessary, enforcing a loan's covenants. (Diamond 1984; Pennacchi 1988; Gorton & Pennacchi 1990). A lender can also commit to monitoring if, as is often the case, other relationships with the borrower continue to motivate oversight. Those relationships, however, may be of

limited group of participants that interact frequently, suggesting that a reputation as a “good” borrower can have substantial and positive economic consequences. Market participants also 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. (Whitehead 2009).

²⁵ That condition is now mandatory for most securitizations, even though not a legal requirement for a loan syndication. Section 941 of the Dodd-Frank Act added new Section 15G of the Securities Exchange Act of 1934, which generally requires securitizers to retain at least 5% of the credit risk of any asset included in a securitization. The requirement does not apply to asset-backed securities comprised of “qualified residential mortgages” (no credit risk retention required) or that otherwise meet underwriting standards established by regulation (less than 5% credit risk retention required). Securitizers are prohibited from directly or indirectly hedging or transferring the credit risk they are required to retain, unless permitted by regulation. The Dodd-Frank Act also requires the Chairman of the Financial Services Oversight Council to study the macroeconomic effects of the new requirements.

questionable value to the extent they potentially result in conflict between the economic interests of the loan purchasers and the originating lender. (Hu & Black 2008).

3.2 Covenant Levels

Greater liquidity (as in the public debt market) is typically accompanied by a decline in covenants and monitoring. Information about private borrowers, however, tends to be less available than for public issuers, reinforcing the need to rely on covenants. Covenant levels, therefore, may also increase in order to offset the greater monitoring costs tied to more opaque firms. Non-syndicated loans structured for resale (typically leveraged, risky loans to non-bank, institutional investors) may contain higher covenant levels tied to observable public information. By tightening covenants, lenders can more quickly discover changes – including relatively discrete changes – in a borrower’s financial position. In addition, by tying covenants to observable data, purchasers can mitigate the increased cost of direct monitoring. Investors, as a result, may be better able to manage credit risk and provide greater funding. (Drucker & Puri 2009).

Growing liquidity has also prompted the rise of specialist investors (sometimes referred to as “vultures”) that look to influence a firm’s management through its debt covenants. 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. (Hotchkiss & Mooradian 1997). Investors use the borrower’s breach of its covenants to force change in its policies or a change in control – providing another pair of eyes over distressed borrowers, where the potential for management opportunism can be the greatest. (Harner 2008).

3.3 Reputation

Reputation can also help mitigate agency costs. A reputable borrower is more likely to be able to obtain loans with fewer restrictions than a borrower with a less well-known credit history. Consequently, like in the traditional model, a borrower may be more inclined to act in a manner consistent with its lenders’ interests to the extent it benefits from an improved reputation.

Bank reputation can also be important. (Dennis & Mullineaux 2000; Drucker & Puri 2009). 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, can 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. (Preece & Mullineaux 1996; Rajan 1998; Lee & Mullineaux 2004). Transferring credit risk

secretly, while possible, exposes the bank to a potential loss of reputation and a costly decline in its ability to sell loans in the future. (Duffie 2008).²⁶

4. Debt's Evolution

So far, we have considered how loan structure has changed in response to greater liquidity in the private credit market. Syndicate structure, covenant levels, and reputation are all means to reduce the resulting agency costs and balance the potential decline in debt governance.

A further possibility is prompted by increasing liquidity in the credit market itself. For public debt, secondary trading prices inform the issuer's managers of how the market assesses the borrower's credit quality. (Amihud *et.al* 1999). Likewise, in a more complete market, actions that affect a firm's credit risk will increasingly be reflected in changes in the price at which a firm's loans and other private credit instruments trade. Those changes may affect a borrower's cost of capital – including a change in the price and non-price terms on which the loans are made – providing a discipline, through the feedback furnished by market participants, that complements the traditional protections provided by contract. (Whitehead 2009).

In a frictionless world, a firm's equity and debt prices should move in tandem when new information is discovered. A loan, in that world, is economically equivalent to the lender owning a riskless claim on the borrower and also issuing a put option on the borrower to the borrower's stockholders. If the value of the borrower's assets falls below the face value of the loan, then the borrower defaults – with the stockholders, in effect, exercising their right to “put” the firm to the lender in satisfaction of its claims. The implication is that there is a correlation between the value of a firm's debt (including credit derivatives tied to that debt) and equity, so that market prices should adjust at the same time and to the same information. (Merton 1974).

In practice, however, credit derivatives often react first to new credit information – with their prices moving ahead of changes in both equity and debt (Chan-Lau & Kim 2004; Norden & Weber 2004; Blanco *et al.* 2005), as well as in advance of the public announcement of a negative change in a firm's credit rating (Hull *et al.* 2004). Thus, for a public firm, a change in derivatives pricing may mirror an increase or decrease in its credit quality *before* a change in its debt or equity pricing – providing more accurate feedback on the perceived riskiness of the firm's policies and projects. (Glantz 2003). No doubt, part of the difference in response reflects the special access

²⁶ The Dodd-Frank Act, while enhancing public disclosure around swaps and security-based swaps, restricts disclosure of individual trading participants. Title VII of the Dodd-Frank Act, among other provisions, requires the Commodity Futures Trading Commission (CFTC) or the SEC to prescribe rules for swap execution facilities and security-based swap execution facilities to make public timely information on price, trading volume, and other trading data related to swaps and security-based swaps. The CFTC and the SEC are also authorized to adopt rules that enhance price discovery around swap and security-based swap transactions. The CFTC and SEC rules, however, must contain provisions that ensure that publicly-disclosed information does not identify the participants involved in the transaction.

of market participants, like banks, to private information about borrowers. (Acharya & Johnson 2007). Part of it also reflects the close relationship between the value of a credit derivative and changes in a firm's default risk. (Andritzky & Singh 2006).

The growth in private credit may, in turn, affect the terms on which subsequent loans are made. (Norden & Wagner 2008). Loan agreements already include features, like pricing grids (described earlier), that can adjust the real cost of capital based upon pre-agreed changes in a borrower's financial condition or credit rating. Going forward, lenders can 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. A borrower's actions that change the price at which its existing loans or other credit instruments trade can alter the terms of a loan or influence the price and non-price terms on which lenders make subsequent loans. Since most loan pricing over the riskless rate is tied to default risk, actions that increase credit risk will result in a corresponding increase in a borrower's cost of capital. (Longstaff *et al.* 2005).

One outcome is that secondary trading in private credit may begin to overtake covenants and monitoring as an efficient form of governance. Covenants may be over- or under-inclusive, reflecting the difficulty of anticipating future events and drafting covenants that properly reflect them. By contrast, since firms access the credit market on a regular basis (Triantis & Daniels 1995), changes in credit pricing that directly affect a firm's cost of capital may provide a more efficient alternative.²⁷ The impact of more costly debt can be reflected shortly after a change in the firm's credit risk, either through a higher interest rate on an existing loan or the increased cost of a new loan. That cost may, in turn, lower the firm's share price and, like public equity, discipline managers by affecting compensation, retention decisions based on share price performance, and the likelihood of a hostile takeover. To be clear, covenants will continue to play an important role in corporate governance, but some portion of the traditional reliance may be offset by the feedback provided by an increasingly liquid credit market. The trick, as the markets become more complete, will be to balance that new discipline against the traditional role played by covenants and monitoring.

5. Conclusion

Debt governance is an important piece of the corporate governance puzzle. Understanding its effects is a principle challenge for the theory of the firm. Some have been concerned, in the wake of the 2007-2008 financial crisis, that leverage – and, in particular, new credit instruments – can weaken the general economy. No doubt, excessive leverage can be problematic. Debt, however, can also assist productivity through its ability to control agency costs and discipline sub-optimal

²⁷ 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.” (Easterbrook 2002).

managers. Properly managed, it can result in the effective use of available capital, enhancing profitability and raising stock prices.

Debt governance may be particularly important for traditional financial intermediaries, like banks, that rely on debt (including deposits) for capital. Unlike traditional lenders, consumer creditors – such as depositors – are unable to effectively monitor a financial intermediary’s credit quality. They tend to have limited information (and, with government-sponsored insurance, less incentive) to assess whether a firm is investing their capital profitably. To date, an important function of financial regulation has been to bridge that gap. (Whitehead 2010). Financial firms may also benefit through mechanisms that increase the role of debt governance. A greater focus on creditor interests may help balance some of the apparent weaknesses resulting from particular focus on equity governance leading up to the financial crisis. (Coffee 2010).

Traditional debt governance is premised on debt’s relative illiquidity. 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. The last three decades have witnessed a transformation in the traditional bank-borrower relationship, resulting in growth in the private credit market. Over time, with greater liquidity, changes in a firm’s credit quality may increasingly be reflected in the pricing of its credit instruments, creating a more efficient “real time” alternative that supplements a lender’s traditional reliance on covenants and monitoring. In short, changes in the capital market have affected capital structure and corporate governance, and will likely continue to do so.

It may, therefore, be useful to consider the extent to which financial regulation – beyond its traditional focus on market integrity, customer protection, and systemic risk – may increasingly affect how firms are governed. Consider, for example, the increased regulation of the credit rating agencies.²⁸ A principal focus has been on the role of the agencies in informing prospective investors of the quality of the securities they purchase. Yet, just as important is the role they play in corporate governance. Changes in a firm’s credit rating affect its real cost of capital, as well as the relative mix of debt funding it relies on, providing managers with an incentive to minimize risky activities. (Rauh & Sufi 2010). To what extent should the impact on corporate governance be reflected in the new regulation? Consider also a bank’s regulatory capital requirements. Changes in minimum capital levels may help minimize systemic risk, but they will also affect how private credit instruments are structured and traded. (Nicolò & Pelizzon 2008). Should the effect of those instruments on debt governance also inform policymakers’ deliberations over new regulation? Those questions mirror

²⁸ Subtitle C of Title IX of the Dodd-Frank Act institutes reforms in the regulation, oversight and accountability of nationally recognized statistical rating agencies. It reflects concerns over conflicts of interests faced by credit rating agencies and that “inaccurate” ratings played a role in the mismanagement of risk by large financial institutions and investors leading up to the financial crisis. Its purpose is to identify and eliminate conflicts of interest and restore confidence in the ratings process. Accordingly, Subtitle C substantially expands credit rating agency accountability and the scope of SEC regulation and oversight.

the evolving nature of debt and debt governance. They suggest, as well, that debt governance must become an increasingly important consideration in regulating the private credit market.

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