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In This Issue: Preserving Value by Restructuring Debt

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Coming Through in a Crisis: How Chapter 11 and the Debt Restructuring Industry Are Helping to Revive the U.S. Economy

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During the recent financial crisis, U.S. bankruptcy courts and the debt restructuring industry were faced with the largest wave of corporate defaults and bankruptcies in history. Given the depth of the crisis and the limited capacity of the courts, one might have expected many of the defaulting companies to end up in liquidation, unable to shed their debt burdens. The sheer amount of debt that needed to be restructured posed a seemingly insurmountable challenge. At one point during the crisis, over *$3.5 trillion* of corporate debt was distressed or in default. During the two-year period 2008-2009, $1.8 trillion worth of public company assets entered Chapter 11 bankruptcy protection—almost *20 times* more than during the prior two years.[1] And with the portfolio companies of U.S. private equity firms facing a towering "wall of debt" coming due within the next two or three years, much of the private equity industry was widely believed to be on the verge of extinction.

In sum, the global financial crisis left the U.S. economy in a condition that economists refer to as massive "debt overhang"—that is, carrying a burden of debt that not only siphoned off corporate cash flow and reduced or eliminated current profit, but threatened to drag down the economy further by choking off the flow of new capital and corporate investment.[2] With the virtual shutdown of credit markets and disappearance of liquidity during the peak of the crisis, restructuring this mass of debt seemed even more improbable. And without enough cash or capital to finance a restructuring, distressed companies would have no choice but to liquidate their assets.

Adding to the challenge, the capacity of the system was further tested by the unprecedented complexity of some very large, high-profile cases. Most notably, when Lehman Brothers filed for bankruptcy in September 2008, the company had over $600 billion of liabilities, tens of thousands of creditors and counterparties, and 7,000 subsidiaries and affiliates located in over 40 countries.[3]

And yet, in a relatively short time, much of the corporate debt that defaulted during the crisis has since been managed down, "mass liquidations" have been averted, and corporate profits, balance sheets, and values have all rebounded with remarkable speed. For an instructive contrast, the U.S. residential real estate market continues to be mired in debt overhang, as reflected by the 50-year backlogs for processing foreclosures in states like New York and New Jersey. Even the case of Lehman Brothers took only three-and-a-half years in bankruptcy court, having emerged recently with a confirmed plan of reorganization that was approved by 95% of its creditors.

How do we account for this success in reorganizing the distressed debt of U.S. companies? Despite longstanding criticism of Chapter 11 by economists and businessmen as too costly, slow, or inequitable, recent experience suggests that the legal process—including the people who advise, manage, and finance distressed companies—has evolved and adapted to deal with this brave new world of large, complex cases.[4] New legal strategies, new ways of financing distressed companies, and increases in the experience and sophistication of the participants have all helped make the U.S. restructuring process much more efficient than it was 20 years ago.

To many economists, moreover, such developments may have come as a pleasant surprise. At the end of the 1980s, when we were about to experience another wave of defaults and bankruptcies—then mainly of LBOs and other highly-leveraged transactions—Michael Jensen hailed a new development that he called the "privatization of bankruptcy." According to Jensen, investors in overleveraged companies were increasingly finding ways to bypass the expensive

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1. Following common industry practice, "distressed" debt is here defined as debt that trades at a yield of more than 1000 basis points above comparable-maturity U.S. Treasury securities. Data on the amount of distressed and defaulted debt comes from Edward Altman and Brenda Karlin, "Defaults and Returns in the High-Yield Bond Market: Third-Quarter 2010 Review," NYU Salomon Center, Oct. 29, 2010; data on Chapter 11 filings comes from *The Bankruptcy Almanac & Yearbook,* New Generation Investments, 2009 edition.

2. If not the first discussion of "debt overhang," the most rigorous was that by MIT professor Stewart Myers in his classic article, "Determinants of Corporate Borrowing," *Journal of Financial Economics* 5 (1977). The essence of the argument is that debt overhang creates a corporate "underinvestment problem" by discouraging potential new investors, who are concerned that much of their new investment will go to shoring up the value of the underwater debt claims.

3. "Lehman Brothers Holdings Inc. Bankruptcy Plan Has Overwelming Support of Creditors," *Business Wire,* November 29, 2011.

4. For two critiques of Chapter 11, see Barry Adler, "Bankruptcy and Risk Allocation," *Cornell Law Review* 77 (1992) and Douglas Baird and Robert Rasmussen, "The End of Bankruptcy," *Stanford Law Review* 55 (2002). In contrast, two recent empirical studies conclude that Chapter 11 works relatively well and generates certain benefits for distressed companies: Elizabeth Warren and Jay Westbrook, "The Success of Chapter 11: A Challenge to the Critics," *Michigan Law Review* 107 (2009) and Avner Kalay, Rajeev Singhal, and Elizabeth Tashjian, "Is Chapter 11 Costly?," *Journal of Financial Economics* 84 (2007).

Chapter 11 process and pursue less costly and more efficient ways to restructure their debt out of court. Academic research, some of it my own, seemed to confirm this trend, producing evidence that the vast majority of troubled companies first sought to restructure their debt outside of bankruptcy.[5]

And this argument seemed to make sense at the time. Chapter 11 was administratively burdensome, generating high professional fees and distracting management from the important task of turning around the business. Bankruptcy judges who were not trained in business or finance sometimes, with the best of intentions, presided over decisions that ended up reducing creditors' recoveries. And customers and suppliers were thought to be reluctant to deal with any company in Chapter 11 in the belief that being bankrupt meant going out of business.

At the same time that Chapter 11 was viewed as a last resort for troubled companies, finance practitioners came up with legal and financial innovations, designed in response to the perceived deficiencies of the court process, that significantly reduced the costs of restructuring debt out of court. Chief among them was the "3(a)(9) exchange offer"—named after a section of the 1933 Securities Act—that was pioneered by Drexel Burnham Lambert's Michael Milken and provided an efficient and speedy way to restructure large tranches of publicly traded debt. Such offers proved to be remarkably cost-effective in "encouraging" bondholders to voluntarily return their bonds to the company in exchange for bonds of lesser value or new shares in the company.[6] (And, in fact, my own research suggests that the total costs associated with Milken's method of reorganizing troubled companies were as little as one tenth of those associated with a conventional corporate bankruptcy.[7])

But since the days of Milken and Drexel, the world has changed in a number of significant ways. Legal innovations have blurred the line separating Chapter 11 from out-of-court restructuring. Recognizing that both methods of restructuring have certain benefits, distressed companies have increasingly filed for "prepackaged" or "prenegotiated" Chapter 11, which combines the most attractive features of both methods.

Distressed companies now also have access to more financing. Much of this shift can be attributed to the increasing involvement of hedge funds and private equity firms in the debt restructuring process. Many of these investors, who specialize in buying and trading distressed debt, bring impressive operating expertise as well as an enormous pool of capital to the table. And more often than not, they seek to influence the outcome of a restructuring—and in many cases even end up taking a direct role in company management.[8]

As discussed below, however, achieving these goals today can be easier in Chapter 11, where voting rules give minority holders greater power to block a restructuring plan.[9] And hedge funds and PE firms have become active in investing directly in companies in Chapter 11, either by purchasing new debt or equity securities under the plan of reorganization (many times for a controlling stake), or by providing "debtor-in-possession" financing (in what historically had been the exclusive preserve of commercial banks).

Increasingly, distressed companies have also taken advantage of Chapter 11 as a more efficient way to sell assets. Section 363 of the U.S. Bankruptcy Code allows a bankrupt company to sell assets in a competitive auction overseen by the court, with little risk that the transaction will later be challenged on legal grounds. This option has always been available under the Code, but its use has grown significantly in recent years (including in some of the largest and most complex bankruptcies of the financial crisis). This development reflects a convergence of the traditional negotiation-based approach to corporate reorganization with the (at least theoretically) more efficient value-maximizing auction model favored by many economists.[10]

The efficiency of the U.S. restructuring process—both in and outside of Chapter 11—has also improved significantly due to the greater knowledge and experience of the key participants. Many of the leading bankruptcy attorneys have accumulated decades of experience working on complex cases. Bankruptcy judges in general have become more sophisticated—and, in some cases, even received formal training—in matters of finance and business valuation.[11] And thanks to the demonstrated effectiveness of the process, bankruptcy today has lost much of its stigma. Far more ordinary citizens today than 20 years ago understand that a Chapter 11 bankruptcy generally does not mean the death of the organization.

5. See Michael Jensen, "Active Investors, LBOs, and the Privatization of Bankruptcy," *Journal of Applied Corporate Finance* (Spring 1989) and Stuart Gilson, Kose John, and Larry Lang, "Troubled Debt Restructurings: An Empirical Study of Private Reorganization of Firms in Default," *Journal of Financial Economics* 26 (1990). Analyzing financially distressed companies from the 1980s, Gilson et al. found that 70% of such companies first sought to restructure their debt out of court rather than file for Chapter 11.

6. In fact, one could argue that Milken's success in developing the high yield market was dependent, in large part, on his ability to develop such a low-cost reorganization method for companies that were almost certain, given their aggressive use of leverage, to become distressed at some point during the life of the bonds.

7. Gilson, John, and Lang (1990).

8. The investment strategies used by these investors are described in Stuart Gilson, "Investing in Distressed Situations: Strategies, Opportunities, and Risks" (Chapter 1 in Stuart Gilson, *Creating Value Through Corporate Restructuring: Case Studies in Bankruptcies, Buyouts, and Breakups (Second Edition),* John Wiley & Sons, Inc. (2010).

9. As discussed later, in Chapter 11 a class of creditors is deemed to accept the plan if at least two-thirds in value (and one-half in number) of the claims represented by that class vote to accept the plan. Therefore, to block a class from accepting the plan, an investor need only control slightly more than one-third of the claims in the class – a relative bargain compared to when debt is restructured out of court, and approval of a plan requires a much higher percentage of 'yes' votes (usually 100% in the case of proposed changes to the debt's face amount, maturity, or interest).

10. Baird and Rasmussen (2002) even go so far as to argue that traditional negotiation-based corporate reorganizations have been almost entirely replaced by bankruptcy court auctions.

11. Thomas Salerno and Jordan Kroop, *Bankruptcy Litigation and Practice: A Practitioner's Guide* (Fourth Edition), Aspen Publishers (2012).

One other notable feature of today's restructuring landscape, as suggested above, is the large number of distressed private equity-financed companies that have experienced (or are still experiencing) financial distress during the recent crisis and downturn. Such distress is, of course, a consequence of the enormous wave of leveraged buyouts that peaked just before the crisis. In contrast to the mainly passive shareholders of public companies, private equity firms often take an active role in the restructuring of the debt of their portfolio companies, investing new money or using their operating knowledge of the company to restructure the business. Their participation in such restructuring can be explained not only by their concern about their reputation with investors (not wishing to abandon a portfolio company), but also by their better information and deeper understanding of the business, which may enable them to see opportunities to restore or create value where most other investors see only risks.

In either case, we now have convincing academic research—not to mention considerable anecdotal evidence—of the willingness and ability of private equity to make the restructuring process work more efficiently. For example, the authors of a recent study of corporate debt restructurings between 1997 and 2010 report that distressed private equity-backed companies were more likely to restructure their debt out of court, did so in less time, and were more likely to survive afterwards than otherwise comparable distressed public companies.[12]

In the pages that follow, I discuss the tradeoffs that companies and their constituencies face between restructuring debt in Chapter 11 or out of court, given the aforementioned changes in how companies now deal with financial distress. To illustrate how these concepts apply in practice, I conclude by presenting two case studies of companies that, faced with severe financial distress during the darkest days of the financial crisis, successfully restructured their debt. In one of the cases—that of Realogy Corp.—the reorganization took place outside of court. In the other—that of LyondellBasell—most of the work of reorganization was done after filing for Chapter 11. Both companies, however, were created in leveraged buyouts; and both in the wake of the crisis appeared to have little chance of surviving intact.

Value Created by Restructuring Debt

When a company's financial performance declines and it defaults on its debt, or it is at significant risk of defaulting, its options are straightforward. Either it must raise cash through asset sales, operating improvements, and new financing; or it must negotiate with its creditors to reduce or postpone interest and principal payments on the debt. Each of these options for dealing with financial distress—cash generation and debt reduction—can be pursued either in bankruptcy court or through a consensual agreement negotiated outside of court. In either case, debt restructuring creates value by enabling temporarily overleveraged companies to continue to operate their businesses, thereby preserving value that would otherwise be lost if they were shut down or liquidated.

Whether a company restructures its debt in bankruptcy court or out of court depends mainly on two things: (1) the comparative benefits and costs to the company of each restructuring option; and (2) the level of consent needed from creditors to effect a restructuring plan. The economically optimal choice is the one that maximizes the value of the firm's assets and operations and, by so doing, provides the greatest possible recovery to all of the firm's claimholders.[13]

Of course, even the best-laid plans can go wrong. Overall firm value may appear to be maximized by restructuring out of court, but there are a number of obstacles that could end up preventing such a solution: creditors may fail to agree on a plan because they cannot agree on an equitable division of the gains; certain influential creditors strategically could hold out for a higher recovery at the expense of other creditors or shareholders; or there may be irresolvable disagreements about how much value is at stake (or even about which restructuring option is most likely to maximize overall value). What's more, these same factors can undermine efforts to restructure *in* bankruptcy court even when that option is value-maximizing. And when a restructuring fails, the result may be the forced liquidation or sale of the company at a distressed valuation.[14]

The preceding description of the restructuring decision process applies equally to companies in all countries. But the actual path that distressed companies take is obviously greatly affected by the legal and institutional environment in which the companies operate. In the U.S., bankruptcy is governed by Chapter 11 of the U.S. Bankruptcy Code, which favors the reorganization and rehabilitation of all

12. Edie Hotchkiss, David Smith, and Per Strömberg, "Private Equity and the Resolution of Financial Distress," manuscript (2012).

13. Agency conflicts could cause management to prefer the less-highly valued option; but in the U.S. at least, legal rules help to blunt the impact of these incentives. For example, under certain conditions creditors can force the firm into Chapter 11 through an "involuntary" bankruptcy filing. In addition, following a 1991 decision by the Delaware Court of Chancery in the case of *Credit Lyonnais Bank Nederland, N. V. v. Pathe Communications Corporation,* if management favors keeping the firm out of Chapter 11 in order to preserve the option value of the equity (e.g., through "risk shifting," by investing in excessively risky projects that reduce the value of the debt), managers and directors can be in breach of their fiduciary duty. Under this ruling, when a firm enters the "zone of insolvency," management's fiduciary duty expands to encompass a duty to both shareholders *and creditors*. (See Stuart Gilson and Michael Vetsuypens, "Creditor Control in Financially Distressed Firms: The Empirical Evidence," *Washington University Law Quarterly* 72 (1994) for a discussion of this ruling, and Bo Becker and Per Strömberg, "Fiduciary Duties and Equity-Debtholder Conflicts," *Review of Financial Studies* (forthcoming) for evidence that it has had an observable impact on the management of distressed companies).

14. See Andre Shleifer and Robert Vishy, "Liquidation Values and Debt Capacity: A Market Equilibrium Approach," *Journal of Finance* 47 (1992) for an analysis of how financial distress impacts liquidation values.

financially troubled companies that are deemed to be worth saving—in other words, worth more as going concerns than liquidated in piecemeal form. Other countries, however, often use bankruptcy for a different purpose: to liquidate insolvent businesses for the benefit of creditors, or to safeguard, to the extent possible, the rights of workers and other non-financial stakeholders.[15] And these objectives can be quite contrary to the U.S. goal of maximizing economic value by preserving all economically sustainable firms—and ensuring that the rest are liquidated. Such differences can create formidable obstacles to restructuring for multinational companies that operate in multiple legal jurisdictions (such as LyondellBasell, whose successful reorganization is discussed in detail below).

Costs of Chapter 11

All else equal, companies will seek to restructure out of court when Chapter 11 is relatively more costly. Costs of restructuring debt include out-of-pocket administrative expenses, court costs, and fees for legal, financial, and other professional services. But in addition to such "direct" costs, the costs of reorganizing a company using Chapter 11 also include any economic losses that are attributable to the adverse impact of the restructuring on the investment decisions and operations of the business—which economists call "indirect" costs.

Direct costs clearly have attracted the most public scrutiny. Over the course of Lehman Brothers' three-and-a-half year stay in bankruptcy, total court costs and professional fees exceeded $1.6 billion.[16] Direct costs in Enron's bankruptcy came in at nearly $800 million. The administrative protocols of Chapter 11 virtually guarantee that, in larger and more complex cases, these costs will rapidly escalate. The bankrupt company pays for the professionals it hires to advise it; it also pays professionals' fees incurred by official committees appointed to represent unsecured creditors and other claimholders.[17] Although fee applications have to be approved by the court, it's relatively uncommon for bankruptcy judges to deny these requests. In one recent case, the judge even allowed certain individual members of the unsecured creditors committee to hire their own advisors—separate from the committee's advisors—at the company's expense. And court costs also add up as complexity increases. When funeral home consolidator Loewen Group filed for Chapter 11, it had to pay a $750 filing fee for each of its nearly 900 subsidiaries.[18]

Although they are hard to measure, the indirect costs of Chapter 11 can also be significant. Suppliers and customers may be reluctant, or unable, to conduct business with a bankrupt firm. When K-12 textbook publisher Houghton Mifflin Harcourt sought to restructure its debt in 2008-2009, its primary customers—state and local government education agencies—were prohibited by contract from doing business with companies that were currently or recently in Chapter 11. The additional legal and administrative demands of a formal bankruptcy proceeding can also consume precious management time that would be better spent addressing the company's business problems. And bankrupt companies may be considered easier prey by competitors, or forced to sell assets at fire-sale prices.[19]

Despite the attention given professionals' fees in Chapter 11 cases, however, academic research suggests that direct costs are relatively small after adjusting for a company's size. Estimates of average direct costs come in at under 5% of total assets.[20] For example, the $1.6 billion bill for Lehman's bankruptcy represented only 0.25% of its assets when it filed for Chapter 11, or 0.5% of the claims submitted by creditors. But because direct costs also exhibit economies of scale, the relative burden on smaller companies can be substantial.

Indirect bankruptcy costs are generally thought to be higher, although estimating these costs is challenging since observed business losses or performance declines around bankruptcy may well be the cause, rather than a consequence, of the bankruptcy filing. Estimates of indirect costs range from 10% to 25% of firms' stock market values before bankruptcy. The economic significance of indirect costs is also consistent with the finding that some kinds of highly leveraged companies—particularly companies in industries like high tech or pharma, where maintaining investment in R&D is considered critical to future business—suffer greater losses of business than less leveraged firms during industry downturns.[21]

While Chapter 11 can be an expensive process, it doesn't necessarily follow that it is always cheaper to restructure debt out of court. Direct costs are more easily estimated for Chapter 11 because these costs are explicitly disclosed in

15. Indeed, outside the U.S., "bankruptcy" is generally considered synonymous with "liquidation." But it would be incorrect to conclude from this discussion that U.S. bankruptcy law is inherently "debtor friendly" (as opposed to "creditor friendly"), as has been asserted in some academic research. In fact, as discussed later in this article, the relative treatment of shareholders, managers, and creditors—which allows for differences in security, subordination agreements, and complicated parent-subsidiary holding company structures—is far more nuanced and complex than this simple dichotomy allows.

16. Brenna Working, "Lehman Brothers Bankruptcy Cost $1.6 Billion," *Bankruptcy News,* March 16, 2012 (http://www.totalbankruptcy.com/bankruptcy-news/bankruptcy-information/lehman-ends-bankruptcy-800130942.aspx, accessed October 2012).

17. An official committee of unsecured creditors is appointed in every Chapter 11 case. The bankruptcy judge can, if circumstances warrant, also appoint committees to represent other creditor groups, including bank lenders, tort claimants, and equityholders.

18. Stuart Gilson, "The Loewen Group Inc.," Harvard Business School case, 9-201-062.

19. An academic study finds that highly-leveraged supermarket chains are more likely to face price predation by their less-leveraged competitors; see Judith Chevalier, "Do LBO Supermarkets Charge More? An Empirical Analysis of the Effects of LBOs on Supermarket Pricing," *Journal of Finance* 50 (1995). Another study shows that bankrupt airlines operating in Chapter 11 or Chapter 7 sell used aircraft at discounts to fundamental value that have been estimated to range from 14% to 46%; see Todd Pulvino, "Do Asset Fire-Sales Exist? An Empirical Investigation of Commercial Aircraft Transactions," *Journal of Finance* 53 (1998).

20. See Jerold Warner, "Bankruptcy Costs: Some Evidence," *Journal of Finance* 32 (1977) and Lawrence Weiss, Bankruptcy Rsolution: Direct Costs and Violation of Priority of Claims," *Journal of Financial Economics* 27 (1990).

21. See Edward Altman, "A Further Investigation of the Bankruptcy Cost Question," *Journal of Finance* 39, (1984), Steven Kaplan and Gregor Andrade, "How Costly Is Financial (Not Economic) Distress? Evidence from Highly Leveraged Transactions That Became Distressed," *Journal of Finance* (1998), and Tim Opler and Sheridan Titman, "Financial Distress and Corporate Performance," *Journal of Finance* 49 (1994).

Figure 1 **Hierarchy of Claims in Chapter 11 From Most Senior to Most Junior**

1. Secured claims
2. Superpriority claims (e.g., debtor-in-possession financing)
3. Priority claims
   - 3a. Administrative expenses (including legal and professional fees incurred in the case)
   - 3b. Wages, salaries, or commissions
   - 3c. Employee benefit claims
   - 3d. Claims against facilities that store grain or fish produce
   - 3e. Consumer deposits
   - 3f. Alimony and child support
   - 3g. Tax claims
   - 3h. Unsecured claims based on commitment to a federal depository institution's regulatory agency
4. General unsecured claims
5. Preferred stock
6. Common stock

Source: Stuart C. Gilson, Creating Value Through Corporate Restructuring: Case Studies in Bankruptcies, Buyouts, and Breakups (Second Edition). John-Wiley & Sons, 2010.

court; similar reporting is generally not required out of court. In my 1990 study with Kose John and Larry Lang, we found that the directs costs of public bond exchange offers (which are disclosed in the exchange offer prospectus) have in fact been quite small—indeed, less than 1% of the face value of the affected bonds. (What we don't report, however, is that the costs of restructuring other debt, which are not reported, could be considerably greater. And useful comparisons of restructuring costs need to control for all of the factors that can affect these costs, including complexity of the capital structure, the number of creditors, ownership of the debt, and the firm's financial condition.)

Benefits of Chapter 11

All else equal, companies will seek to restructure their debt in Chapter 11 if they expect to realize greater net benefits relative to those expected from restructuring out of court. Chapter 11 provides a number of important benefits for distressed companies. These benefits come in the form of provisions that help companies reduce their debt burden, generate cash and liquidity, and address underlying problems in managing the business. Certain features of Chapter 11 also arguably help to reduce "agency" problems—conflicts of interest between managers and investors, and creditors and equity holders—that can lead to value-reducing investment decisions when firms are highly leveraged. Although Chapter 11 is costly, it is designed to support the reorganization of troubled businesses and preservation of going concern value.

One of the most valuable provisions of Chapter 11 is the *automatic stay*, a legal injunction that immediately goes into effect when a company files for bankruptcy protection (and remains in place for the duration of the case) and blocks creditors from seizing their collateral, or taking any other actions to collect their debt, while the firm is under court protection. The automatic stay therefore allows the company to retain control of its assets and operations; and it avoids a "race against the assets" by creditors, and the dismemberment of the business that is likely to result. Despite the injunction, secured creditors retain their standing in the capital structure, which means that if the firm is eventually liquidated, they retain priority over other creditors. Moreover, the debtor must show that the value of secured creditors' collateral is "adequately protected;" this ensures that if the company tries to use the assets for a different purpose, it needs the court's permission to do so, and secured creditors can file objections or seek to have the stay lifted. The provision is also flexible, in the sense that when business circumstances warrant, the judge can temporarily lift the stay and allow money to leave the estate—for example, to pay critical pre-petition vendors so they continue to supply the firm while it remains in bankruptcy.[22]

Chapter 11 also helps companies raise significant amounts of cash. Cash benefits a bankrupt company in multiple ways: it gives vendors and employees assurance that the company can continue to support them; it can be used to finance investment in new capital equipment, marketing budgets, and other expenditures needed to improve the business operations; and it can be included in the package of new financial claims that is distributed to creditors under the plan of reorganization, making creditors more willing and likely to vote for the plan.

While a company operates in Chapter 11, it pays no interest or principal on any of its pre-petition debt, and interest accrues only on secured debt (up to the amount, if any, by which the value of the collateral exceeds the debt's face value). For highly leveraged companies, the savings can be considerable.

Chapter 11 also gives the debtor access to "debtor-in-possession" (DIP) financing. Under Section 364 of the Bankruptcy Code, lenders or investors who provide credit to a firm in Chapter 11 are granted superior priority relative to the firm's pre-petition creditors, and are among the first to be repaid when the firm leaves bankruptcy. At a minimum, DIP lenders will be given an unsecured first-priority administrative claim (see Figure 1); at most they can be given a secured claim—even one that has a senior claim on assets that have

22. Such "critical vendor motions" are common in retail and manufacturing bankruptcies, where the continued supply of merchandise or parts is necessary for the business to continue operating.

previously been pledged to other lenders, putting the DIP lender at the very top of the capital structure.[23]

DIP financing represents a major source of funding to bankrupt companies, and is often lined up in advance so it can be accessed the moment a company files. Because of their seniority, DIP lenders rarely fail to be fully repaid, and lending fees can be lucrative. This market has attracted capital from both traditional lending institutions and, more recently, hedge funds and other investors.[24] During the period 2000-2008, almost $100 billion was raised through DIP financing. Even in 2009, when U.S. credit markets had all but shut down, Lyondell Chemical, as I discuss at some length below, was able to raise an $8 billion DIP facility.

Because a DIP loan enters the firm's capital structure as a senior claim, ranking alongside or ahead of its prepetition debts, DIP financing offers a solution to the "debt overhang" problem—a financing difficulty facing highly leveraged companies that was analyzed by MIT finance professor Stewart Myers in his classic 1977 paper, "Determinants of Corporate Borrowing." Outside of bankruptcy, if a highly leveraged distressed company has access to only equity or junior debt financing, it may forgo investing in positive net present value projects because any increase in the firm's value—accomplished, for example, by an infusion of new capital—would accrue primarily to current creditors (whose claims are risky and worth less than full face value). DIP financing provides a way to break this financing impasse. Since it ranks ahead of most other debts, and is often secured, DIP financing also reduces any potential adverse impact of asymmetric information on the cost or availability of new financing to distressed companies—financing that might otherwise be constrained by existing debt covenants to include only junior debt, which is especially susceptible to asymmetric information problems.[25]

Another important benefit companies can realize from Chapter 11 comes from Section 365 of the Bankruptcy Code, which allows a debtor to reject leases, licensing agreements, supply contracts, and other so-called "executory" contracts that it deems to be inconsistent with the viability of the firm.[26] Under Section 365, for example, a debtor can elect to walk away from an above-market real estate lease. The landlord that is rejected can in turn assert a claim against the estate for damages (because he or she is forced to re-lease the property at lower market rates), but allowed damages are capped. And the threat of rejection is often enough to induce the landlord to grant concessions.[27] Access to Section 365 is especially valuable for companies that lease a large fraction of their assets, such as retail chains and commercial airlines. To cite just one example, United Airlines was able to cut its total aircraft lease costs by 50% when it was in Chapter 11.

Chapter 11 also helps companies raise cash by making it easier for them to sell assets. Through Section 363 of the Bankruptcy Code, a debtor can sell assets in an open competitive auction overseen by the bankruptcy court;[28] and, perhaps most important, the winner acquires the assets free of any liens and encumbrances. In practical terms, this means that the buyer acquires only the assets, leaving behind any liabilities (e.g., claims for product liability or employee retirement benefits) that may have arisen through use of the assets.[29] Because the transaction is "blessed" by the judge, the buyer faces almost no risk that the transaction will be later challenged on legal grounds. For all these reasons, distressed companies may be able to realize substantially greater proceeds from selling assets while in Chapter 11.[30] Section 363 sales played a critical role in the restructuring of General Motors, Chrysler, Lehman Brothers, Adelphia Communications, and Delphi.

Chapter 11 also provides a process for managing complex "non-financial" liabilities such as obligations to employees under defined benefit pension plans and other post-employment benefit (OPEB) plans. Under Section 1113 of the Bankruptcy Code, a debtor can seek permission from the bankruptcy court to reject a collective bargaining agreement with unionized labor, which, if granted, gives the company flexibility to modify wages, benefits, and work rules under the agreement. Section 1114 of the Code provides the debtor with options to reduce its liabilities under OPEB plans (for

23. The latter case is referred to as a "priming" DIP loan. Before the court will approve such a loan, it must be satisfied that the security interests of the pre-petition secured lenders who share their collateral with the DIP lender are "adequately protected." For a more complete discussion of DIP financing, see Stuart Gilson, "Lyondell Chemical Company," Harvard Business School case, N2-210-001.

24. In 2003, bankrupt US Airways even obtained $500 million in DIP financing from the Retirement System of Alabama, which also paid $240 million for a 37% equity stake in the airline under its reorganization plan.

25. To be sure, giving distressed companies expanded access to new financing also increases the danger they will engage in risk-shifting, and "roll the dice" on excessively risky projects that have negative expected payoffs. But such behavior will be moderated by the requirement that any actions taken by a company in Chapter 11 that are outside the ordinary course of business can be challenged by creditors in court, and ultimately must be approved by the judge. Companies in Chapter 11 are also restricted from redeploying assets that are pledged as collateral to prepetition secured lender without showing that lenders' interests are "adequately protected."

26. These are contracts in which each of the parties to the contract has an ongoing obligation to perform.

27. Alternatively, if the debtor were to assume the lease, it would continue to lease the property in compliance with the lease contract terms (although these could still be modified by agreement with the landlord). Before a lease can be assumed, all arrearages and defaults on the contract have to be cured. Since enactment of the 2005 Bankruptcy Abuse Prevention and Consumer Protection Act (BAPCPA), debtors must decide whether to assume or reject non-residential real property leases within X days of the bankruptcy filing, otherwise the landlord can reclaim the property. The time limit for assuming or rejecting other executory contracts can run for as long as the firm is in Chapter 11. See Stuart Gilson, "Note on the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 (BAPCPA)," Harvard Business School case, 9-209-133.

28. Because the auction is transparent, the initial bidder or "stalking horse" faces the risk that it will be outbid by later bidders who "free ride" off its due diligence. To address this problem, the auction is usually structured to include a break-up fee, payable to the stalking horse if another bidder wins.

29. An exception is claims for environmental damages, which are far more likely to travel with the assets.

30. Cash raised from Section 363 sales helps explain why distressed companies that restructure in Chapter 11 are able to reduce their debt by significantly more than companies that restructure out of court. See Stuart Gilson, "Transaction Costs and Capital Structure Choice: Evidence from Financially Distressed Firms," *Journal of Finance* 52 (1997).

example, those covering health care and life insurance for retirees).[31] Companies that recently made use of Section 1113 and/or Section 1114 include Delphi Corporation, American Airlines, and Hostess Brands.

Chapter 11 also provides companies with a way to efficiently manage complex asbestos litigation. Section 524(g) of the Bankruptcy Code establishes a process for restructuring mass tort claims for asbestos-related personal injury and property damage, by allowing a company to create and fund a special trust through which all current *and future* asbestos claims will be channeled. Once the reorganization plan is confirmed, these claims have no future recourse against the company's business, giving it a fresh start. Outside of Chapter 11, achieving such closure would be impossible. Between 1982 and 2010 there have been nearly 100 asbestos-related bankruptcy filings, over half of them since 2000.[32]

Finally, by filing for Chapter 11, a distressed company may be able to reduce its tax burden, freeing up cash for investment in the business. Under Section 382 of the Internal Revenue Code, a company's ability to use accumulated net operating losses (NOLs) to shield taxable profits can be severely limited, or even eliminated, if it experiences a significant ownership change. For many distressed companies, NOLs can be a significant source of value. When it filed for Chapter 11 in 2009, General Motors had *$45 billion* of NOLs, representing over $15 billion in potential tax savings.[33] Because debt restructuring often involves issuing significant quantities of common stock to creditors or new investors, distressed firms are especially at risk of triggering Section 382. If debt is restructured in Chapter 11, however, this potential tax hit is reduced. The additional tax liability that a distressed company faces from writing down its debt (through creation of "cancellation of indebtedness" income) can also be lower in Chapter 11.[34]

Beyond how it addresses the creditors' race against the assets, or facilitates cash generation, Chapter 11 also makes it easier to get a restructuring plan passed. Voting on a plan of reorganization takes place by classes of creditors. A class is deemed to accept the plan if at least one-half in number, and two-thirds in value, of the creditors in the class vote for the plan. Subject to certain other conditions being met, the plan will be confirmed by the court if all impaired classes vote to approve it. Importantly, this binds all dissenting creditors within each class to the will of the majority.[35] Even if a class rejects the plan, the court can "cram down" the plan on the class as a whole.

By contrast, when debt is restructured out of court, any change to the debt's "core terms"—face value, interest rate, or maturity—generally must be approved by 100% of creditors, giving individual creditors substantially greater power to block or delay the plan.[36] By reducing the creditor holdout problem, Chapter 11's voting rules therefore reduce the total time needed to restructure the company (thereby lowering both direct and indirect financial distress costs), and lessen the risk that the restructuring will fail altogether (and end up as a liquidation).[37] A related benefit of the Chapter 11 plan approval process is that it generally facilitates a greater reduction in the firm's debt load than can be achieved out of court.[38]

Although past academic research on financial distress has mostly focused on the *costs* of Chapter 11, researchers have begun to examine the *benefits* of Chapter 11 as well. For example, a study published in 2007 reported finding that companies that file for Chapter 11 experience increases in industry-adjusted operating profits during their stay in bankruptcy court, which the authors attribute to provisions of Chapter 11 (like the automatic stay) that enable companies to refocus operations and cut costs more effectively.[39] And a 2003 study reported that companies that obtain debtor-in-possession (DIP) financing while in Chapter 11 are more likely to reorganize successfully, and to reorganize in less time than firms that do not obtain such financing.[40]

31. Implementation of either Section 1113 or Section 1114 is a far more complex process than this short description implies. Before the court will grant a Section 1113 motion, for example, the debtor must first make a good-faith proposal to the union to modify the labor agreement, provide the union with all relevant information, and demonstrate that the modifications are necessary to permit the reorganization of the debtor and that the treatment of all parties is "fair and equitable." If the union cannot show good cause for rejecting the proposal, and the motion to reject is granted, the union still retains the right to strike, however. For a discussion of Sections 1113 and 1114, see Stuart Gilson, "Restructuring at Delphi Corporation (A)," Harvard Business School case, 9-208-069, and Stuart Gilson, "Navistar International," Harvard Business School case, 9-295-030.

32. See Lloyd Dixon, Geoffrey McGovern and Amy Coombe, "Asbestos Bankruptcy Trusts. An Overview of Trust Structure and Activity with Detailed Reports on the Largest Trusts," *RAND Institute for Civil Justice* (2010) and Stuart Gilson, "W.R. Grace & Co: Dealing with Asbestos Torts," Harvard Business School case, 9-213-046.

33. This figure assumes the top U.S. marginal corporate tax rate of 35%, and assumes the NOLs would be used immediately.

34. The tax treatment of NOLs and cancellation of indebtedness income is discussed in Gilson (1997).

35. Separate classes are also created to represent administrative claims, equityholders, and others with claims against the estate. A class that is unimpaired (i.e., whose claims receive full payment) is assumed to vote in favor of the plan. Voting percentages are calculated only with respect to claims that are actually voted.

36. One way to reduce creditors' holdout power in an out-of-court restructuring is to avoid taking an explicit vote altogether, by offering them instead the opportunity to voluntarily participate in a offer to exchange their current claims for new claims (including debt of lesser face value and new equity). However, such exchange offers are mainly effective in restructuring bonds or similar securities that are widely held (Gilson, John and Lang (1990)).

37. Another benefit of the Chapter 11 plan confirmation process is that most of the firm's prepetition debts are "discharged," so after it leaves bankruptcy, creditors are legally prohibited from pursuing collection actions against the firm on account of their prepetition claims. (Certain exceptions exist with respect to tax claims, liability for fraud, and other claims.) This gives the firm a "fresh start" and provides certainty around the resolution of its debts.

38. Gilson (1997) shows this outcome is driven by several factors: Chapter 11 facilitates asset sales, proceeds from which can go to pay down debt; Chapter 11 imposes less of a tax penalty on the cancellation of debt; and before a reorganization plan can be confirmed, the judge must determine that the plan is "feasible," and does not overburden the company with debt (thus offsetting any tendency by the company to offer individual creditors too much debt in settlement of their claims in order to "buy" their votes).

39. See Kalay et al. (2007).

40. See Sandeep Dahiya, Kose John, Manju Puri, Gabriel Ramirez "Debtor-in-Possession Financing and Bankruptcy Resolution: Empirical Evidence," *Journal of Financial Economics* 69 (2003).

Implications for Restructuring Strategy

As we have seen, the choice between restructuring in court and out of court involves a complicated set of tradeoffs that need to be balanced in a way that reflects each company's specific circumstances. The ability to reject burdensome leases and executory contracts makes Chapter 11 particularly attractive to commercial airlines, retail chains, and auto or steel makers, or any firm with a large unionized workforce; it may be less important for a bank or a mining company. At the same time, Chapter 11 is likely to be prohibitively costly for a consulting firm, whose most valuable assets are intangible or capable of walking out the door; a steel manufacturer, in contrast, may suffer much less damage to its business if it files for bankruptcy.

The optimal restructuring strategy also depends critically on the composition of the firm's capital structure—including both debt and equity. Attempts to restructure out of court may be more likely to fail when the debt is held by many creditors, or when ownership of the debt is shared by the original lenders and distressed investors who have acquired portions of the debt at significant discounts to face value and have different goals. Conflicts are also possible among creditors who are owed money by affiliated parent/subsidiary entities (with creditors of an operating subsidiary arguing they are entitled to a higher recovery than creditors of the parent holding company, because the latter are "structurally subordinated" and located further away from the assets). Conflicts can arise between creditors who share collateral, and dispute the relative priority of their claims on that collateral. And creditors with different seniority in the capital structure may disagree over what the firm is worth, with more junior creditors arguing for higher valuations, and more senior creditors proposing lower values.[41] In these situations, Chapter 11 may be preferable to restructuring out of court, despite possibly being more costly, because voting rules in bankruptcy do not require as large a majority (or unanimity) to pass a plan, and the judge can resolve disputes by invoking the court's cram down powers, or serving as arbiter.

The choice of restructuring strategy can also be affected by the composition of the company's shareholders. As holders of call options on the firm's value, shareholders will generally favor continuation over liquidation; and as the residual claimants, they will be especially supportive of restructuring that maximizes the firm's value. Shareholders will have greater ability to influence this choice when their claims are still in the money; and in Chapter 11, this fact may cause the judge to appoint an official committee to represent their interests. And as mentioned earlier, shareholder influence in restructurings tends to be increased by the presence of a dominant private equity investor. According to the recent study I cited earlier, distressed private equity-backed companies are more likely to restructure their debt out of court, do so in less time, and are more likely to survive than comparable public companies in similar circumstances.[42]

Over the years, one of the most important legal innovations to emerge in the restructuring industry has been the use of "prepackaged" and "prenegotiated" bankruptcy, which combine the most attractive features of Chapter 11 and out-of-court restructuring. In a prepackaged bankruptcy, the firm negotiates a restructuring plan with creditors, and formally solicits their votes, *prior to* filing for bankruptcy; this way it enters Chapter 11 with a reorganization plan and disclosure statement already in place. A prenegotiated Chapter 11 is similar except instead of formally soliciting creditors' votes, the firm asks key creditors to sign a "lock-up" agreement in which they promise to vote for the plan once the firm is in Chapter 11.[43] The advantage of either type of filing (over a traditional "free fall" bankruptcy) is that it reduces the amount of time the firm spends in bankruptcy court, lowering direct and indirect financial distress costs. It also lets the firm take advantage of Chapter 11's more lenient voting rules, minimizing the holdout problem that can frustrate attempts to restructure out of court.[44] In 2009 alone, prepackaged bankruptcies accounted for $124 billion corporate assets filing for Chapter 11, including CIT Group, Six Flags, Lear Corp., and Charter Communications.

Case Study: Realogy Corp.

In early October 2012, Realogy Corp., the world's largest real estate company, raised $1.1 billion in a highly successful IPO. Owner of such renowned brands as Century 21, Coldwell Banker, ERA, Sotheby's International Realty, and Corcoran Group, the company had been acquired in the spring of 2007 by the private equity firm Apollo Management in a $7 billion leveraged buyout.[45] However, getting to the IPO had been a difficult journey. With the buyout's unfortunate timing at the peak of the U.S. housing boom, the company had struggled to manage its $6 billion debt load almost from the start,

41. Stuart Gilson, Edith Hotchkiss, and Richard Ruback, "Valuation of Bankrupt Firms" *Review of Financial Studies* 13 (2000).

42. Hotchkiss, Smith, and Strömberg (2012).

43. The chief disadvantage of a prepackaged bankruptcy is that the court must be satisfied that during the pre-bankruptcy solicitation period, the company disclosed the same amount of information to creditors that it would have been obligated to disclose had the negotiations all taken place in Chapter 11. This is easier to prove for publicly traded debt (where a regular securities prospectus will generally meet the Chapter 11 disclosure threshold), than for vendor claims and other non-traded debt.

44. See Elizabeth Tashjian, Ronald Lease, and John McConnell, "Prepacks: An Empirical Analysis of Prepackaged Bankruptcies," *Journal of Financial Economics* 40 (1996) for evidence that the costs of prepackaged Chapter 11 fall in between the costs of conventional Chapter 11 and out-of-court restructuring. Moreover, it's worth noting that an accelerated bankruptcy is not in every distressed company's best interests. For companies that suffer from more serious business problems (that can be more effectively addressed through an extended stay in Chapter 11) or that have more complex debt structures (that hinder any pre-petition solicitation of votes), prepackaged or prenegotiated Chapter 11 will be less attractive or feasible.

45. Realogy's time as a public company had been brief, however, as it had been spun out of Cendant Corporation and listed on the New York Stock Exchange barely a year earlier.

as real estate values collapsed and housing sales plummeted under the weight of the Great Recession. With over $600 million in interest to pay every year, Realogy's annual revenues had declined by nearly 40% over its first four years as a private company (from $6.5 billion in 2006 to $4 billion in 2010), and operating cash flows were negative. By 2010, its unsecured debt had traded as low as 10 cents on the dollar.[46]

In financial terms, Apollo stood to lose a great deal—including its $2 billion equity investment in the buyout—if Realogy ended up in liquidation. As financial pressure continued to mount, and the company's debt covenants were increasingly at risk of being violated, the company announced in late November 2008 an exchange offer for $1.2 billion (face value) of its unsecured publicly traded bonds (spread over three issues). Under the offer, bondholders were asked individually to tender their bonds to the company in exchange for new bonds of lesser face value (and somewhat longer maturity). Since the total face value of the new bonds was $500 million, a successful offer would have cut Realogy's debt by $700 million. And because participation in the offer was voluntary, it was not necessary to obtain creditors' unanimous consent to any modification of debt principal, as required under the Trust Indenture Act. The downside, however, was that if too few bondholders tendered their bonds, Realogy's debt might not fall by a meaningful amount. To reduce the incentive of individual bondholders to "hold out" and keep their principal intact, the exchange offer was structured to reward holders who tendered—and punish those who didn't. This was accomplished by offering the new bonds a security interest in certain assets, thereby making them senior to the unsecured bonds.[47]

But the creditors didn't get a chance to accept the deal. Hedge fund investor Carl Icahn, who held a position in the unsecured debt, sued to block the restructuring on the grounds that the grant of security was a fraudulent conveyance, while another suit charged that the offer violated the terms of Realogy's existing secured debt. And in early December, after an unfavorable ruling by the court, the exchange offer was called off.

Apollo's response to this setback was to "double down" on its Realogy bet. A few months later, the private equity firm announced it would provide Realogy with financial support to ensure that it stayed current on its debt obligations. Efforts to restructure the debt continued. In September 2009, Realogy raised $515 million through a new debt issue (30% of it placed with Carl Icahn), and used $365 million of the proceeds to pay down existing debt, thereby reducing its interest burden and lengthening the maturity of its debt. The company also proposed a new series of exchange offers. And Apollo committed to buy almost $1 billion (face value) of debt in the market at heavily discounted prices (including $91 million of debt held by Icahn, purportedly for almost double what he paid).[48] By acquiring Realogy's debt, Apollo elected to wear two hats—as shareholder and creditor. Besides signaling Apollo's view that the debt was undervalued, purchasing the debt facilitated a consensual debt restructuring by reducing potential conflicts between shareholders and creditors (in what might be characterized as a form of "back door" strip financing).[49]

With the real estate recovery still unrealized, and total debt of $6.6 billion, the company undertook additional measures to stabilize its finances in late 2010. An exchange offer to unsecured bondholders allowed them to swap their bonds for new bonds that matured three years later and were convertible into shares of the company. To restructure its secured debt, the company issued $700 million of new secured bonds that ranked between outstanding first- and second-lien debt and matured in 2018, and used the proceeds to repay first-lien secured debt.[50] The company also renegotiated its debt covenants to ensure that the restructuring would not put the company in technical default.[51]

From Apollo's perspective, restructuring Realogy's debt in Chapter 11 would have been undesirable, for several reasons. Most of Realogy's operating cash flows were derived from franchise agreements with local real estate agencies that operated under one of its brands. (In late 2012, following the IPO, Realogy franchisees operated 13,500 offices and employed 239,500 independent sales associates around the world.[52]) The value of these agreements, and a franchisor's ability to grow its network of operators, depends critically on the level of trust that franchisees have in the franchisor's ability to provide continued support for advertising, marketing, and other essential services under the agreement. But since franchise agreements are executory contracts, and in a bankruptcy are considered property of the debtor's estate, Realogy would have had the right to reject individual franchise agreements under Section 365 of the Bankruptcy Code.

46. Steven Davidoff, "The Private Equity Wizardry Behind Realogy's Comeback," *The New York Times*, October 9, 2012.

47. Specifically, the new bonds were secured by a second-lien on assets that had already been pledged as collateral for the company's secured lenders.

48. "Realogy, Owned by Apollo, Sells Debt in Deal with Icahn," *The New York Times*, September 30, 2009.

49. Michael Jensen argues that "strip financing, the practice in which risky non-equity securities are held in approximately equal proportions, limits the conflict of interest among such securities' holders and therefore limits bankruptcy costs." See Michael Jensen, "Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers," *The American Economic Review* 76 (1986).

50. When secured lenders formally share collateral, "first-lien" lenders are entitled to the proceeds of liquidating the collateral until either they are made whole, or the collateral value runs out. In principle, "second lien" lenders are only entitled to collect any proceeds that remain after first-lien lenders are paid in full. In a restructuring, however, the relative allocation of value can be contentious, because lenders may disagree over how the lien agreement should be interpreted, or how the collateral should be valued.

51. See John Hintze, "Debt Do-over at Realogy," *Treasury & Risk,* June 29, 2011. Importantly, Realogy was allowed to exclude the new secured bonds from the definition of "secured debt" used to calculate a key debt-to-income covenant, giving it a significant cushion.

52. Source: Realogy Corp. web site, http://www.realogy.com/about/rfg.cfm (accessed November 25, 2012).

While Realogy may have benefitted from rejecting unprofitable agreements, uncertainty among franchisees about which offices might be closed, coupled with concern over whether a bankrupt Realogy would even have had the financial means to honor its agreements, could have undermined the company's relationships with its franchisees and hurt the business.[53] (Even without having filed for bankruptcy, Realogy's troubled ERA franchise was said to have lost more than half of its sales agents.[54]) This risk is corroborated by academic research that shows that the debt overhang problem and associated financial distress costs, and thus the incentive to restructure debt out of court, are greater when relatively more of a company's assets are intangible.[55]

In addition, and perhaps even more importantly, had Apollo let Realogy slip into bankruptcy, the appearance of "giving up" on an important investment could have sent a strong negative signal to the limited partners—and to its competitors as well—that the firm was not willing to support its less successful investments, undermining future fund-raising efforts or its ability to restructure other portfolio companies. This reputation-based incentive for a controlling private equity investor to support, and even finance, the debt restructuring of a troubled company—and thereby overcome the paralysis that can arise from debt overhang—represents a further benefit of the private equity model of ownership and governance.[56]

Having gained breathing room through the financial restructuring, Realogy was able to address the challenges that its businesses faced. On one front, the company aggressively cut operating costs, closing or consolidating 350 brokerage offices and reducing employee headcount by a third, for total annual savings of $2.5 billion.[57] Being a private concern, and not operating in Chapter 11, probably allowed Realogy to make these changes more quickly than would have been possible otherwise, especially since the workforce was not unionized (in which case Chapter 11 might, as discussed earlier, provide major benefits). In addition to cutting expenses, the company also sought opportunities to grow the business, and in 2007 it acquired the Better Homes & Gardens name, launching a new division under that name the following year.

Although as of this writing (December 2012) too little time has passed to be able to put Realogy's restructuring in proper long-term context, some preliminary results are encouraging. The company's equity market value currently exceeds $5 billion, compared to total debt of $7.2 billion, and EBITDA for the first nine months of 2012 was $502 million —10% higher than the previous year. Operating improvements made during the restructuring have positioned the company to take full advantage of any recovery in real estate values. And Apollo, which still owns more than 50% of the company, continues to have a significant stake in the company's future.

Case Study: LyondellBasell Industries

On January 6, 2009, the U.S. subsidiaries of Netherlands-based LyondellBasell Industries filed for Chapter 11 bankruptcy protection in the Southern District of New York with over $30 billion of liabilities.[58] LyondellBasell was a global diversified chemicals company—the third-largest in the world—with revenues of $55 billion, 15,000 employees, and 60 manufacturing sites. The filing covered almost 80 subsidiaries, including the company's most important U.S. operating business, Lyondell Chemical Company. Also included in the filing was the company's indirectly owned German subsidiary, Basell Germany Holdings. In 2008, these businesses accounted for nearly 60% of LyondellBasell's consolidated revenues. None of the company's other operations were included in the Chapter 11 filing. (To get a sense of the complexity of the firm's organization structure, see Figure 2.)

LyondellBasell was a 97%-owned subsidiary of Access Industries, a private U.S.-based holding company founded and owned by investor Len Blavatnik. Barely a year earlier, in December 2007, Access had acquired Lyondell Chemical in a highly-leveraged transaction, and merged it with its existing chemical holdings to form LyondellBasell. The newly merged company produced and sold a diversified mix of products, and its operations were vertically integrated and highly intertwined. Roughly two-thirds of its revenues came from the production of a wide range of industrial chemicals used in everything from detergents, cosmetics, and paints, to medical devices and automotive parts; the balance of revenues came from various fuel production and oil refining activities. The company held over 10,000 patents.

Although the buyout had been expected to generate substantial operating synergies, in 2008 the company's fortunes declined dramatically, as increasing raw materials costs, plummeting oil prices, and production disruptions

53. Of course this argument assumes that an out of court restructuring would not have generated the same level of concern among Realogy's franchisees as a Chapter 11 filing. But this may not be an unreasonable assumption to make, as considerably more information about any restructuring would likely have been made public in a Chapter 11 proceeding (in contrast to an out-of-court restructuring where, as a private company, Realogy would have been better able to "fly below the radar").

54. "Realogy: Colossus or Troubled Giant?" Franchise Times, February 2010, http://www.onlinedigitalpubs.com/display_article.php?id=307793 (accessed November 25, 2012).

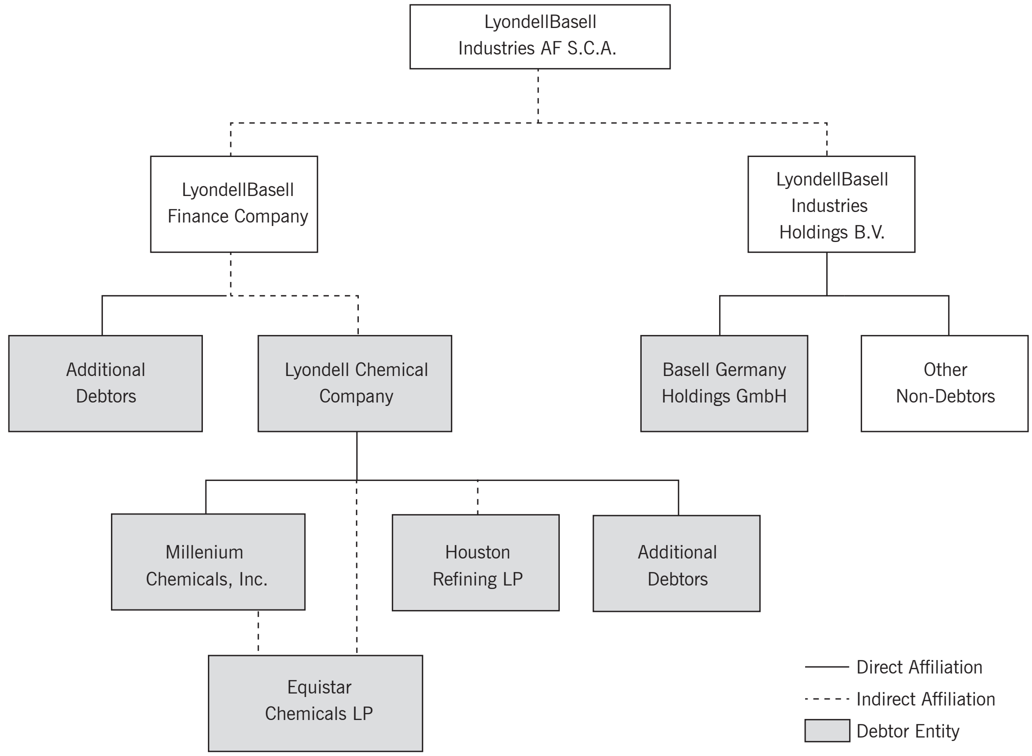
55. Myers (1977) shows that the debt overhang problem is more severe when relatively more of a firm's assets are intangible. Arthur Korteweg ("The Costs of Financial Distress across Industries," manuscript (2007)) shows empirically that indirect financial distress costs are higher for such firms. Gilson, John, and Lang (1990) show that the likelihood that a financially distressed firm restructures its debt out of court, rather than files for Chapter 11, increases significantly with Tobin's Q, a proxy for the importance of intangible assets and growth opportunities.

56. Also see the study by Hotchkiss, Smith, and Stromberg (2012) cited earlier. Of course this argument does not imply that private equity firms *always* prefer restructuring out of court to filing for Chapter 11; the same tradeoffs affecting this choice apply as much to private equity-sponsored firms as to others (as illustrated by the next case study on LyondellBasell). Nor does Realogy's case imply that private equity firms are always successful at restructuring debt out of court. In 2008, the retail chain Linen 'n Things, another distressed portfolio company owned by Apollo, failed to restructure its debt and filed for Chapter 11 (ultimately ending in liquidation).

57. See Davidoff (2012).

58. This section is based on Stuart Gilson and Sarah Abbott, "Lyondell Chemical Company" Harvard Business School case, 9-210-001.

Figure 2 **LyondellBasell Industries AF S.C.A.: Corporate Structure**



Source: First Day Affidavit of Alan S. Bigman pursuant to Rule 1007-2 of the local bankruptcy rules for the Southern District of New York, January 6, 2009, United States Bankruptcy Court, Southern District of New York, In re: Lyondell Chemical Company, Exhibit A.

caused by Hurricane Ike led to a $5.9 billion operating loss for fiscal 2008.[59] These developments were compounded by the global economic slowdown that began in the wake of Lehman Brothers' collapse in September. Despite attempts to raise cash through outside funding or cuts in capital expenditures and working capital, by year-end the company faced the near-certain prospect of defaulting on its debt.[60] Already, the decline in oil prices had triggered prepayments of over $2 billion on the company's secured bank debt, and several of its public bonds were trading as low as 23 and 30 cents on the dollar.

Restructuring LyondellBasell's debt out of court was a practical impossibility. The company's capital structure was breathtakingly complex. Debt was owed to almost 25,000 creditors, including hedge funds that had acquired the debt at steep discounts. Total funded debt of $23.2 billion was spread across many different borrowing entities, some located in the U.S. (and governed by U.S. law), others in Europe or elsewhere. Over 93% of this debt was secured, but collateral for a particular debt issue might come from multiple borrowing entities, or be shared among lenders who held competing liens of different priority. For some debt, multiple LyondellBasell entities were co-borrowers under the same debt agreement (which meant that if a lender was not paid by one borrower, it could seek payment from the other co-borrowers). And virtually all of the debt was guaranteed by multiple LyondellBasell entities (so if one borrower defaulted, the debt might become an obligation of an altogether different entity).

In short, given the complexity of LyondellBasell's capital structure, it would have been nearly impossible to "wall off" and restructure only a portion of the debt, or to obtain creditors' unanimous consent to any restructuring plan, given the sheer number and diversity of their claims. And with almost all of the debt secured, the risk of a creditor race to grab assets was considerable.

59. Source: LyondellBasell Industries AF S.C.A. Consolidated Financial Statements for the year ended December 31, 2008.

60. In March 2008, LyondellBasell had entered into a $750 million senior unsecured revolving credit facility with an affiliate of Access Holdings, and in April it negotiated an increase in its inventory-based lending facility from $1 billion to $1.6 billion. These efforts were not enough to close the company's growing cash deficit, however.

Restructuring out of court also would not have provided the company with much-needed cash. In the wake of Lehman's bankruptcy and the unfolding financial crisis, credit markets had seized up, and new borrowing—especially for a deeply troubled company like this—was not a practical option. Support from Access Industries in the form of an equity investment or junior loan was also unlikely, given the overhang of $23 billion of risky senior debt. And with the disappearance of liquidity from the market, there was little reason to expect the company could have financed itself out of its predicament by selling assets.

The LyondellBasell case illustrates how Chapter 11 effectively provides legal solutions to market "imperfections" that, outside of bankruptcy, can undermine a financially distressed firm's ability to restructure its debt and efficiently redeploy its assets. With the Chapter 11 filing, LyondellBasell's U.S. operations were immediately protected by the automatic stay from creditor actions to collect debt and seize collateral, limiting creditors' ability to disrupt the business. (This protection did not, however, extend to its subsidiaries that were ineligible to file for Chapter 11 because they were based mostly in Europe, and subject to bankruptcy laws that favored liquidation. These businesses were deeply intertwined with the rest of LyondellBasell's operations, and their failure might well have brought down the whole company. Without the benefit of the automatic stay, it was therefore necessary to persuade creditors of these non-U.S. subsidiaries to voluntarily forbear pursuing their claims.[61])

Freed from paying interest on its prepetition debt (a nearly $2.5 billion expense the previous year), the company gained immediate access to liquidity to fund operations. And although a literal interpretation of the automatic stay would prohibit a debtor from paying *any* of its prepetition claims, the bankruptcy judge, as often happens, permitted the company to pay certain key vendors and suppliers, whose continued support was critical to the ongoing business.

LyondellBasell was able to generate substantial additional liquidity by using Section 365 of the Bankruptcy Code to reject or renegotiate unfavorable leases and supply contracts, producing estimated savings of $110 million a year (as well as one-time savings of $35 million in secured and administrative expense claims).[62]

Finally, the company was able to raise *$8.0 billion* in DIP financing—one of the largest such financings ever, and an especially remarkable achievement given economic circumstances at the time. All of the lenders under the facility held prepetition claims against the company, some as original par lenders who had financed the merger, and others as investors who had acquired the claims at discounted prices. Represented in the latter group were some of the best-known hedge funds and private equity funds operating in the distressed debt market, including Cerberus, Oaktree, Apollo, and Appaloosa.[63]

The financing had three tranches: a $1.515 billion revolving credit facility; a $3.25 billion term loan facility; and a matching $3.25 billion "roll-up" facility. All three tranches were treated as super-priority administrative claims, payable in full when the firm exited from Chapter 11, and secured by "priming" liens that gave the DIP lenders a more senior security interest in collateral that was already pledged to other lenders. Fees and interest on the debt exceeded 15% annually. As a further incentive to lend, proceeds from the roll-up facility were to be specifically used to repay an equal face amount of *prepetition* debt held by participating DIP lenders, effectively letting this debt "leap frog" over other prepetition debt to the top of the capital structure.[64]

By allowing LyondellBasell to issue new debt that was senior to (and better collateralized than) its existing debt, DIP financing therefore provided relief from the debt overhang problem.[65] By filing for Chapter 11, LyondellBasell was able to raise billions of dollars in new financing to fund operations and investment in working capital, reduce its operating costs by restructuring leases and supply contracts, and reorganize its business operations under protection of the automatic stay.

After 16 months in bankruptcy court, the company emerged from Chapter 11 on April 30, 2010 with a confirmed plan of reorganization. By almost any measure, the company's financial situation had improved dramatically. Under the plan, debt was reduced from $25.5 billion to $7.2 billion, and the company now held $2 billion of cash. Funding for the plan came from a $3.2 billion debt issue, and a $2.8 billion equity rights offering with three private equity funds—Apollo Management, Access Industries, and Ares Management—making them the largest owners with a combined 39% stake. As for value created or preserved by the restructuring, LyondellBasell's financial advisors estimated that the company's enterprise value at emergence was approximately $15 billion, as compared to an estimated liquidation value of

61. For example, at the time of the Chapter 11 filing, four company entities jointly owed $12.2 billion under a senior secured credit facility. Two of these entities—Lyondell Chemical Company and Basell Germany Holdings GmbH—were included in the filing, while the other two—LyondellBasell Industries Holdings B.V. and Basell Finance Company B.V.—were not. To further complicate matters, the debt was guaranteed by LyondellBasell Industries AF S.C.A., which also had not filed for Chapter 11.

62. Third Amended Disclosure Statement, *In re: Lyondell Chemical Company, et al.,* March 12, 2010, p. 63.

63. Apollo alone held $2 billion (face value) of debt, which it had acquired from Citigroup for approximately 85 cents on the dollar.

64. To participate in the roll-up facility, a creditor also had to participate in the term loan facility; for every dollar of new money that it lent under the latter, it would be allowed to roll up a dollar of prepetition debt under the former. Liens that secured the roll-up facility were junior to those that secured the other two DIP loan tranches.

65. As noted earlier, however, to determine whether DIP financing increases economic efficiency, the benefit of greater access to financing has to be weighed against the costs that DIP can impose on the company, including transaction fees and the agency costs associated with increased risk-shifting. In addition, litigation costs may increase if prepetition creditors who lose priority to DIP lenders challenge the financing. LyondellBasell's DIP financing structure was contested by nonparticipating prepetition creditors on multiple grounds.

$3.7-$4.5 billion.[66] Of course, these values are only estimates, but as of this writing they been supported by the company's subsequent performance. Between 2009 and 2011, revenues increased from $31 billion to $51 billion, while operating income increased from $317 million to $4 billion. And during the two-and-a-half years since LyondellBasell emerged from Chapter 11, its stock price has increased by nearly 150% —and now represents a total enterprise value of *$35 billion*.[67]

Conclusion

Over the past two decades, the arsenal of strategies for restructuring corporate debt has grown considerably, and choosing among these strategies has become more complicated. At the most basic level, financially distressed companies can choose to restructure their debt through the formal Chapter 11 bankruptcy process, or instead try to settle with their creditors out of court. Until fairly recently, out-of-court restructuring was thought to dominate this choice because it was faster and less costly—just as a plaintiff and defendant litigating over a property dispute would always first seek to settle out of court to avoid a costly trial.

This calculus has shifted, due to legal innovations and institutional changes that have taken place in the restructuring business. The impact of these changes has been to make restructuring debt in Chapter 11 a relatively more efficient process. There has also been a growing appreciation that Chapter 11 can provide companies with a number of important benefits, including access to new financing, the ability to renegotiate unfavorable leases and supply contracts, and an expedited process for selling assets. Chapter 11 also establishes a lower voting threshold for getting a plan approved. These factors, and the increasing experience of managers, their advisors, and investors, have lowered the costs of restructuring debt.

In the end, Chapter 11 works by furthering the central goal of debt restructuring: helping financially distressed companies to reduce their debt burdens, thereby making it easier to raise new capital to fund the investment needed to preserve the company's value as a going concern. The financial crisis demonstrates that Chapter 11, and the debt restructuring industry more broadly, has played a key role in the ongoing recovery of the U.S. economy.

The crisis further demonstrates the importance of U.S. bankruptcy laws and restructuring practices in driving the competitiveness of U.S. companies. Beyond helping financially distressed companies preserve value and recover from financial distress, Chapter 11 also encourages risk-taking by giving managers and entrepreneurs a "second bite at the apple" if they take reasonable risks that turn out badly. In the U.S., sick businesses are not automatically taken off life support. Given the contrast between Chapter 11 and bankruptcy laws in many European countries, which either favor the liquidation of distressed companies, or seek to protect the interests of non-financial stakeholders, it will be interesting to see what role bankruptcy law has in promoting, or impeding, the ongoing restructuring of Europe.

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66. Third Amended Disclosure Statement, *In re: Lyondell Chemical Company, et al.,* March 12, 2010, p. 145 and Exhibit B ("Hypothetical Liquidation Analysis").

67. This figure is calculated as the sum of long-term debt ($4.3 billion as of September 29, 2012) plus the market value of common stock ($30.7 billion as of October 31, 2012, based on 575 million shares and a $53.39 stock price).

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