Bankruptcy or Bailouts?

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The onset of the current financial crisis brought with it an unprecedented intervention in financial markets by the Federal Reserve and the United States Treasury. With each major financial market player that encountered financial distress, these governmental bodies and their leaders were prominently involved in the negotiations and the ultimate resolution. The government arranged outcomes on an ad-hoc basis, with varying degrees of taxpayer support behind them. In one case (Bear Stearns), taxpayer funds were used to facilitate a merger. In another (AIG), the Federal Reserve made a substantial direct loan to the company. In another (Lehman Brothers), the government declined to offer any money, and the company ultimately filed for Chapter 11.

Although it is hard to distill a clear policy rule from the government's efforts to date to rescue financial firms, two common forces appear to have guided the decisions of Federal Reserve Chairman Ben Bernanke and former Treasury Secretary Henry Paulson. The first is a desire to punish shareholders and corporate managers for their firms' distress, so as to prevent the appearance of rewarding failure (a phenomenon economists call *moral hazard*). The government has forced chief executives to resign, and has severely diluted shareholders or wiped them out entirely. The second guiding principle has been a clear preference to avoid bankruptcy filings by the distressed firms if at all possible, based on the belief that if a troubled firm files for bankruptcy, the consequences would be severe. Indeed, the Chapter 11 filing by Lehman Brothers has been singled out as the defining moment in the financial crisis—according to many, the decision to allow

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Lehman to file for bankruptcy, instead of providing a government rescue, is the primary cause of the severe economic and financial contraction that followed.[2]

Two reasons have been suggested for avoiding bankruptcy. The first focuses on the effect of bankruptcy on the value of the distressed firm itself. Bankruptcy, the reasoning goes, would severely dissipate the value of the firm's assets. We will refer to this first set of concerns as the *firm-specific risks* of a bankruptcy filing. The second rationale focuses on the negative repercussions of a bankruptcy filing outside the firm. A bankruptcy filing directly affects the firm's counterparties, some of whom (such as lenders and derivatives counterparties) have direct claims on the firm, while others hold contracts whose value is tied to the distressed firm.[3] A bankruptcy filing also could have broader spillover effects, such as a general effect on confidence. We will call these direct and indirect spillover effects *systemic risks*.[4] It is the widespread perception that firm-specific and systemic risks make bankruptcy untenable for financial firms that we seek to explore in detail in this article.

Our first goal is to carefully assess the trade-offs between bankruptcy and the discretionary, government-orchestrated rescue system that has been used in the current crisis. We will use theoretical tools from the corporate finance literature, applying them to key institutional features of the bankruptcy process, and will draw on empirical observations from the current financial crisis and its most relevant predecessors. Based on this analysis, we then will pose a normative question: what role should bankruptcy law

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[2] One example of the supposed causal link as reported in the media: "Lehman's collapse was a decisive moment in the 13-month-old credit crisis. The government's decision not to bail out the firm set off a near panic among investors and lenders world-wide, forcing the U.S. to push through a historic rescue plan for the financial system." Carrick Mollenkamp, Susanne Craig, Jeffrey McCracken & Jon Hilsenrath, *The Two Faces of Lehman's Fall -- Private Talks of Raising Capital Belied Firm's Public Optimism*, WALL ST. J., October 6, 2008.

[3] If investor A sold protection on Lehman Brothers to another investor B in the credit default swap market, for example, neither A nor B would hold a direct claim on Lehman, but both would be affected by Lehman's bankruptcy filing (A would owe a payment to B). Credit default swaps are analyzed in detail in Frank Partnoy and David A. Skeel, Jr., *The Promise and Perils of Credit Derivatives*, 75 U. CINN. L. REV. 1019 (2007).

[4] *See, e.g.*, Steven L. Schwarcz, *Systemic Risk*, 97 GEO. L.J. 193 (2008)(outlining nature and causes of systemic risk).

play in the distress resolution process in the future, particularly when financial firms and systemic risk considerations are involved?[5]

Our view can be simply stated: we are skeptical about the necessity of government intervention to prevent bankruptcy filings with last-minute, ad-hoc rescue efforts. The rescue loans have likely increased uncertainty, increased the costs of moral hazard, and dampened the incentive of private actors to resolve distress before a desperate "day of reckoning" arises. These forces create costs, over and above the direct and substantial cost to the taxpayer of rescue funding. While there is also a downside to allowing distress to be resolved through Chapter 11, we believe the firm-specific costs of Chapter 11 are overstated, and are not sufficient to justify recent policy. On the firm-specific dimension, the law gives distressed firms several advantages in bankruptcy that are unavailable outside of bankruptcy. These advantages help preserve firm value, allocate control rights to residual claimants, and do a more effective job of handling moral hazard concerns than taxpayer-funded rescue loans on the eve of bankruptcy.

Concerns about the systemic consequences of financial distress, by contrast, are a more serious, and more viable, objection to Chapter 11. Some of these systemic costs follow, however, from the recognition of the firm's insolvency (that its claims exceed the value of its assets), not from the procedure used to resolve it. These costs would arise in any procedure that forces counterparties to bear losses when there are not enough assets to satisfy all counterparty claims. The costs could perhaps be reduced through the use of a "prompt corrective action" regime designed to shut down institutions before they become truly insolvent, as with commercial banks. But this approach brings important costs of its own, and it does not eliminate systemic risk.[6] More importantly, recent

[5] We confine our analysis in this paper to entities that can file for bankruptcy. This includes many financial firms and the parent companies of subsidiaries that cannot themselves file. Although we compare Chapter 11 to commercial bank-style resolution rules, *see infra* notes 77-82 and accompanying text, we do not discuss using Chapter 11 to resolve distress in government-insured commercial banks and governmental units such as Fannie Mae and Freddie Mac. We do so primarily because the underlying issues in these entities are different: because of (implicit or explicit) government guarantees on the claims on these entities, taxpayers are residual claimants, which creates an inherent value of government involvement in the resolution process.

[6] The collapse of IndyMac bank and the botched resolutions of Washington Mutual and Wachovia, all in 2008, illustrate some of the limitations of prompt corrective action.

examples suggest that prompt resolution can only be guaranteed with taxpayer assistance behind it. The distress of financial firms thus poses an inescapable choice: regulators must either rely on bankruptcy to resolve the distress, and thus confront the possibility of systemic effects, or they must use taxpayer money to prevent the losses from being realized.[7]

The general "crisis of confidence" effects that follow from a bankruptcy filing of a major financial institution that is greatly interconnected with the financial system (like Lehman Brothers and AIG) cannot be discounted entirely, even if they flow purely from a self-fulfilling prophecy rather than from fundamentals. It is entirely possible, for instance, that Lehman's bankruptcy had severe effects on the financial system simply because people believed that it would. Yet there is reason to believe, as we shall see, that any blame for the effects of the Lehman crisis should not be laid on the doorstep of the bankruptcy laws. Other major events that took place during the same time period (in particular, the announcement of the AIG rescue) produced immediate negative reactions that were equally severe.[8] This suggests that the "Lehman effect" on the markets stemmed more from the news that a major investment bank was financial distressed than from the news that the bank had filed for bankruptcy. It is not obvious that a rescue loan to Lehman would have prevented the general disruption and crisis of confidence in financial markets that followed.

Given the inherent challenges that these issues present to policymakers, we do not mean to suggest that government should not intervene in financial markets generally. In particular, we do not address the efficacy of the numerous broad-based infusions of capital into financial markets, some of which seem to have had stabilizing effects.[9] We also stop short of arguing that eve-of-bankruptcy rescue lending can never be warranted under any circumstances.

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[7] Some systemic risks may be exacerbated by the bankruptcy process itself. We discuss this possibility in Part VI, *infra*, which explores the effects of the special treatment given to derivatives and other financial contexts in bankruptcy.

[8] Lehman filed for Chapter 11 on September 15, 2008. Merrill Lynch agreed to be acquired by Bank of America the day before, and the AIG rescue loan was announced two days later.

[9] We thus do not focus directly on the interventions of the Federal Reserve in the commercial paper and other markets.

Nevertheless, we hope that this article will provide a useful framework for understanding the complicated issues involved in the interaction between financial firms, systemic risk, and Chapter 11. We also hope to challenge the common view that Chapter 11 bankruptcy is an inappropriate vehicle for resolving distress in financial firms. In particular, the common phrases used to describe Chapter 11 filings in these circumstances (such as "failing," "collapsing" or "going under") provide a very misleading view of the bankruptcy process and its actual consequences, compared to the taxpayer-funded non-bankruptcy alternative. We hope that a better understanding of the actual consequences of bankruptcy will provide a helpful tool to aid policy decisions in the future.

We begin by describing the principal problems created by financial distress—debt overhang and creditor runs—and the mechanisms bankruptcy provides for addressing these problems in Parts I and II respectively. In Part III we provide historical context, looking to Drexel Burnham's bankruptcy in 1990 for further lessons about the efficacy of bankruptcy. In Part IV, we turn to firm-specific bailouts, describing this strategy's benefits and the distortions it causes. We then shift our focus back to bankruptcy, considering the (legitimate) concern that it may not adequately counteract systemic risk in Part V, and exploring its treatment of derivatives, one of the chief new habitats of systemic risk, in Part VI. Part VII is a brief conclusion.

I. Theories of Financial Distress: Firm-Specific Costs

Any discussion of distress resolution ultimately requires an analysis of the causes and consequences of financial distress, and the means of resolving it. Although there is no universally accepted definition, we characterize an entity as *financially distressed* if it possesses investment opportunities that are valuable to its investors if these opportunities are undertaken (or continued),[10] but for which the firm is not able to obtain financing.

[10] To use finance terminology, the firm has investments that have positive net present value (NPV). In the bankruptcy literature, *financial distress* is distinguished from *economic distress*, in which a firm has only negative-NPV projects. *See, e.g.,* Michelle White, *Corporate Bankruptcy as a Filtering Device: Chapter 11 Reorganizations and Out-of-Court Debt Restructurings,* 10 J.L. ECON. & Org. 268 (1994). One goal of

The term *investment opportunities* should be interpreted broadly. In a commercial bank, for example, these opportunities are the origination and funding of loans to businesses and individuals. In an investment bank, these opportunities include the ability to provide advisory services for mergers and acquisitions, the ability to raise capital on behalf of its clients in exchange for fees, and the management of trading portfolios.

This description of financial distress suggests a natural question: why would any entity ever suffer costs of financial distress? In other words, if an investment is expected to generate value for investors, why wouldn't some investor step in to fund it? Economists have proposed many explanations, but we focus on two that we believe are most relevant to the issues at hand.

A. *Debt Overhang*

When a firm is highly levered (when its debt-to-equity ratio is high), profitable investments may be forgone because of debt overhang.[11] The idea is as follows: suppose a firm on the verge of default tries to fund itself by issuing new equity (we consider equity for simplicity, but the argument works with any low priority security like unsecured debt). Equity holders are aware, of course, that their interest is last in priority: in a default, they get paid only if debt holders are paid in full. If the firm's prospect of default is sufficiently high, new investors may refuse to contribute new equity. These investors are aware that, while the firm's projects may be valuable, they will not see any of that value. Instead, the cash flows made possible by their investment will merely enhance the recovery of debt holders in the event that a default occurs.[12]

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bankruptcy law is to separate out the financially distressed firms from the economically distressed ones, allowing those with financial distress to continue in business, and liquidating the economically distressed ones.

[11] The concept of debt overhang was first formalized in Stewart C. Myers, *The Determinants of Corporate Borrowing*, 5 J. FIN. ECON. 147 (1977).

[12] A related and important theory that we omit due to space is the adverse selection ("lemons") problem. Like debt overhang, it predicts that investments may be foregone when they must be funded with low-priority securities like equity (because the willingness to issue equity to outsiders signals to the market that the stock must be overvalued, so the stock price falls). *See* George A. Ackerlof, *The Market for 'Lemons': Quality Uncertainty and the Market Mechanism*, 84 Q.J. ECON. 488 (1970).

B. *Creditor runs*

Financial firms typically have a very particular capital structure: they borrow money on a very short term basis, while their assets produce returns over a longer term.[13] A classic example of this is a commercial bank. Much of a bank's funding comes from consumer deposits, which can be withdrawn from the bank at any time. Its assets, by contrast, are loans to businesses and entrepreneurs, which may have maturities of many years. As we have seen in the current crisis, investment banks (which are funded heavily by short-term "repo" loans)[14] and money market funds also fit this pattern.

This "maturity mismatch" between assets and liabilities can be perfectly functional in normal times. Banks will hold short-term assets in proportion to the amounts they expect depositors to withdraw, but they will not hold enough short-term assets to satisfy all depositors at once if everyone withdraws. By limiting their short term assets to amounts needed to meet expected withdrawals, banks free up the rest for more productive use. The danger of this type of capital structure is that it can be susceptible to "panic runs." All depositors are aware that if other depositors choose to withdraw, the bank will need to liquidate long-term assets, perhaps at steep losses, to satisfy depositor withdrawals. If these liquidation losses are steep enough, the bank will be insolvent and depositors will suffer losses if they do not withdraw their money quickly enough. The fear of a bank run can thus become a self-fulfilling prophecy: even if the bank funds valuable loans and is solvent when depositors do not run, the bank will be insolvent when depositors do run. Thus, the fear of a run can provoke the run itself.[15]

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[13] This observation and the implications discussed in the next two paragraphs is generally associated with the seminal work of Diamond and Dybvig. See Douglas W. Diamond & Philip H. Dybvig, *Bank Runs, Deposit Insurance, and Liquidity*, 91 J. POL. ECON. 401 (1983).

[14] In a repo—or repurchase—loan, the financial institution borrower sells a security or other asset to the lender and agrees to buy it back at a higher price on a later date. The difference in prices is the loan. For a discussion of these markets and the perverse feedback loop they can generate in a crisis, see Markus K. Brunnermeier, *Deciphering the Liquidity and Credit Crunch 2007-08*, 23 J. ECON. PERSP. (forthcoming, 2008).

[15] With commercial banks, the risk of runs is reduced by deposit insurance, which guarantees that customers will not lose their deposits up to a specified ceiling. But the investors in other firms do not have the same protection.

II. Bankruptcy Law and Firm-Specific Solutions to Financial Distress

U.S. bankruptcy law provides several important features that are designed to cure the debt overhang and panic run problems that cause financial distress. The first is debtor-in-possession (DIP) financing. Bankruptcy's DIP financing rules allow firms to issue senior, secured claims that take priority over other creditors.[16] It is well-understood in the corporate finance literature that senior securities are an effective cure for the debt overhang problem, because the new lender is less likely to be subsidizing old claimholders with the new loan if the lender has priority. A priority lender will receive more of the return from its new investment and thus will be more willing to lend. While it is certainly possible that senior, secured loans are available outside of bankruptcy, in many cases they will not be possible. Most bond indentures, for example, contain negative pledge clauses that limit or prevent the incurrence of new, senior debt. In bankruptcy, these clauses are rendered ineffective.[17]

A second feature that relates to curing debt overhang is the ability to sell assets free and clear of liens and other liabilities.[18] A firm whose liabilities exceed its assets is less likely than a healthy firm to be acquired, because the acquiror could be assuming a net liability. Although an acquirer can circumvent this problem by buying only the distressed firm's assets, there is always a risk that the acquirer will be held responsible for some of the liabilities it sought to avoid. In bankruptcy, the acquirer can purchase the assets free and clear of any claims, with the proceeds from the sale distributed to creditors through the reorganization plan.[19] In recent history, this has been the most common outcome in large Chapter 11s. A recent empirical study co-authored by one of us finds,

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[16] 11 U.S.C. sec. 364. The role of DIP financing as a solution to deep overhang is explored in George G. Triantis, *A Theory of the Regulation of Debtor-in-Possession Financing*, 46 VAND. L. REV. 901 (1993), and its historical antecedents in David A. Skeel, Jr., *The Past, Present and Future of Debtor- in-Possession Financing*, 25 CARD. L. REV. 1905 (2004).

[17] 11 U.S.C. sec. 541(c)(1)(B). The Fed's original $85 billion loan to AIG resembled a DIP loan in some respects: it was a senior loan secured by all free assets of AIG, which is common in DIP lending. The amount is, of course, unprecedented. But if AIG had filed for Chapter 11, it would not have needed this much, as it would not have had to pay its counterparties. As we will discuss later, the terms were subsequently revised to be more favorable to AIG and include more junior securities.

[18] The key provision is 11 U.S.C. sec. 363, which authorizes bankruptcy sales.

[19] For a discussion of free and clear sales as a major attraction of bankruptcy, see Douglas G. Baird, *The New Face of Chapter 11*, 12 AMER. BANKR. INST. L. REV. 69 (2004).

for instance, that roughly two-thirds of all large bankruptcy outcomes involve a sale of the firm, rather than a traditional negotiated reorganization in which debt is converted to equity through the reorganization plan.[20]

A third feature that deals with the "panic run" problem is bankruptcy's automatic stay.[21] The banking literature suggests that *suspending convertibility* (prohibiting depositor withdrawals, so that the bank need not liquidate long-term assets) is perhaps the most effective response to a panic run.[22] The automatic stay serves the same function in bankruptcy: it effectively places a shield around the firm's assets, and ceases creditor collection efforts. This can provide the firm with the breathing space it needs to conduct its business in an orderly fashion, preventing a desperate scramble to satisfy the claims of withdrawing creditors. This breathing space can be valuable not only if the firm plans to remain as a going concern, but also if it plans to liquidate its assets but needs time to do so.

The widespread belief that bankruptcy is not a plausible response for a troubled financial institution is only compelling if the mechanisms we have just described are not likely to prove effective. But in many cases, they are.

Consider how some of these issues played out in the case that is often viewed as an irrefutable indictment of bankruptcy: Lehman Brothers. Lehman filed for Chapter 11 on September 15, 2008.[23] Three days later, Lehman arranged a sale of its North American investment banking business to Barclays, and the sale was quickly approved by the court after a lengthy hearing. Barclays provided a $450 million debtor-in-possession loan to fund Lehman's operations through the completion of the sale. As is common, the

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[20] Kenneth Ayotte & Edward Morrison, *Creditor Control and Conflict in Chapter 11*, J. LEG. ANAL. (forthcoming 2009), *available at* http://ssrn.com/abstract=1081661.

[21] 11 U.S.C. sec. 362(a).

[22] See Diamond & Dybvig, *supra* note 13.

[23] Accounts of the Lehman crisis already are legion. For a thorough and colorful retrospective, see Yalman Onaran & John Helyar, *Lehman's Last Days*, BLOOMBERG MARKETS, Jan. 2009, at 50. For a detailed analysis and criticism of the government's decision to provide a rescue loan for Bear Stearns rather than letting it file for bankruptcy, see David A. Skeel, Jr., *Governance in the Ruins*, 122 HARV. L. REV. 696, 733-42 (2008).

loan agreement required Lehman to appoint a professional turnaround manager to run the company. Its operations in Europe, the Middle East, and Asia were bought by Nomura, a large Japanese brokerage firm. By September 29, Lehman had agreed to sell its investment management business to two private equity firms.[24]

The Lehman bankruptcy illustrates several key features of Chapter 11. First, it shows that the law can facilitate an acquisition inside bankruptcy that would be troublesome outside bankruptcy. Barclays had expressed interest in Lehman prior to its filing, but would not acquire Lehman without substantial government assistance. After Lehman filed, Barclays was willing to purchase the assets it found most valuable, and also provided the financing required to keep Lehman liquid. The second feature is the speed with which acquisitions can be completed. Some commentators have argued that Chapter 11 is an inappropriate solution to distress because the process is too slow and costly.[25] The Lehman case shows exactly the opposite: faced with extreme time pressure, buyers materialized, and Lehman quickly sold its viable subsidiaries, allowing them to remain in business under different ownership.

Other commentators have expressed the opposite concern: that bankruptcy leads to an immediate dumping of assets.[26] The "fire sale" of valuable assets at depressed prices in a bankruptcy reduces creditor recoveries,[27] and can lead to failures in other firms that hold the same assets. This concern was an important motivation for the decision to extend rescue financing to AIG.[28] Whatever its accuracy with AIG, the fire

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[24] These sales are described in Ben Hallman, *A Moment's Notice*, AMER. LAWYER, Dec. 2008, at 85.

[25] *See* Luigi Zingales, *Why Paulson is Wrong*, ECONOMISTS VOICE, Sept. 2008, Berkeley Electronic Press.

[26] For an apocalyptic version of this complaint, see Lynn M. LoPucki & Joseph W. Doherty, *Bankruptcy Fire Sales*, 106 MICH. L. REV. 1 (2007).

[27] Some commentators have suggested that Lehman sold its investment banking businesses at too low a price. But any inadequacy in the price seems to have stemmed more from Lehman's failure to prepare for a bankruptcy filing than from bankruptcy itself. *See, e.g.*, Jeffrey McCracken, *Lehman's Chaotic Bankruptcy Filing Destroyed Billions in Value*, WALL ST. J., Dec. 29, 2008. The prospect of a rescue loan, which Lehman fully expected, created a disincentive to take steps to maximize value the firm's value in the event of bankruptcy. This effect in discussed further at *infra* notes 58-59 and accompanying text.

[28] Fed officials used precisely these terms to defend the AIG loan. While acknowledging that "[a]n eventual liquidation of the company is most likely," they argued that "with the government loan, the company won't have to go through a tumultuous fire sale." The Fed also issued a statement suggesting that "a disorderly failure of AIG could add to already significant levels of financial market fragility and lead to

sale objection has no more support in the Lehman case than worries about bankruptcy delay. As of early 2009, Lehman continues to hold a significant portfolio of assets, including a loan portfolio, real estate, and private equity investments.[29] The firm's ability to obtain priority financing in bankruptcy allows them to take time with these assets, and sell them into the market at a time and price that is driven more by value maximization, than by a desperate scramble for liquidity.[30]

Third, the bankruptcy laws provide numerous formal and informal mechanisms for creditors to exercise control over the liquidation process. These include formal rights given to creditors committees, the opportunity of creditors to object to the terms and timing of asset sales, and indirect control over the debtor through covenants in DIP loan agreements.[31]

To be sure, the process of selling assets in bankruptcy is not without its conflicts and inefficiencies, as we have each written in prior work.[32] In particular, a recent study co-authored by one of us finds some evidence that fire sales do occur in Chapter 11, due to the control rights in bankruptcy exerted by senior, secured lenders.[33] Thus, it is overly simplistic to assume that creditors in bankruptcy act as a single, value-maximizing constituency. But the government-managed alternative has its own corporate governance problems. We will discuss this issue in more depth in Part IV.

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substantially higher borrowing costs, reduced household wealth and materially weaker economic performance," the Fed said in a statement. Tami Luhby, *Fed in AIG Rescue - $85B Loan*, cnnmoney.com, September 17, 2008, available at http://www.cnnmoney.com.

[29] *See* Alvarez and Marsal, *The State of The Estate*, Jan 14, 2008, available at http://www.lehmanbrothersestate.com/#filings.

[30] According to a recent report to the creditors committee, Lehman currently holds nearly $6 billion in cash (almost twice its cash holdings on the day it filed for bankruptcy), which suggests that its liquidity position has improved in the months after its bankruptcy filing. *Id.*

[31] *See, e.g.*, 11 U.S.C. sec. 363(b)(requiring notice and hearing for sale of assets); David A. Skeel, Jr., *Creditors Ball: The 'New' New Corporate Governance in Chapter 11*, 152 U. PENN. L. REV. 917 (2003)(DIP financer control); Douglas G. Baird & Robert K. Rasmussen, *The End of Bankruptcy*, 55 STAN. L. REV. 751 (2002)(same).

[32] Ayotte & Morrison, *supra* note 20; Kenneth Ayotte & David A. Skeel, Jr., *An Efficiency-Based Explanation for Current Corporate Reorganization Practice*, 73 U. CHI. L. REV. 425 (2006); Skeel, *supra* note 16.

[33] Ayotte & Morrison, *supra* note 20.

III. Financial Institution Bankruptcy: A Brief Historical Tour

Lehman was not the first major investment bank to file for bankruptcy. Two decades ago, Drexel Burnham did the same thing after rising to prominence based on its preeminence in the market for high yield debt. Drexel's trip through Chapter 11 puts the key lessons of the previous parts in historical perspective, and offer additional insights as well. In the discussion that follows, we revisit the Drexel bankruptcy, then briefly describe the move recent wave of subprime failures.

A. *The Drexel Burnham Bankruptcy*

A mediocre bank when Michael Milken arrived in the early 1970s, Drexel rose on the wings of the junk bond franchise Milken created, first through investments in "fallen angels" and other junk bonds, and then by issuing junk bonds as a form of takeover financing.[34] After earning enormous profits in the 1980s takeover boom, Drexel was hobbled at the end of the decade by Milken's indictment for securities violations, the bank's own $650 million securities fraud settlement, and the collapse of the junk bond market. In early 1990, Drexel desperately needed short term financing to remain afloat. Unable to roll over $250 million in commercial debt, Drexel negotiated for a loan from a group of banks led by Citibank and explored possible sales to foreign buyers, while the Securities and Exchange Commission (SEC) and Federal Reserve closely monitored its travails.[35] The regulators' principal concern was the stability of the financial markets and the banking system. Once they concluded that neither would be jeopardized by a Drexel bankruptcy, "the officials saw no reason to launch any heroic efforts to keep the company alive" when Drexel's prospects for a loan or sale fell through.[36] On February 13, 1990, Drexel's holding company filed for Chapter 11. "In allowing the fall," the *Wall Street*

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[34] The most entertaining account of Drexel's rise, and still one of the best, is CONNIE BRUCK, THE PREDATOR'S BALL: THE INSIDE STORY OF DREXEL BURNHAM AND THE RISE OF THE JUNK BOND RAIDERS (1989).

[35] *See, e.g.,* Michael Siconolfi, Robert Guenther, William Power & Laurie P. Cohen, *Embattled Drexel Puts Itself up for Sale—Financial Vise Tightens as Firm Asks for Loans*, WALL ST. J., Feb. 13, 1990, at C1.

[36] Alan Murray & Kevin G. Salwen, *The End of Drexel: Fed, SEC Officials Decided Hands Off Policy Was Best*, WALL ST. J., Feb. 14, 1990, at A6.

Journal wrote, "the government backed away from a policy that has guided regulation since the New Deal: that some financial institutions are too big to fail."[37]

Drexel's difficulties with the government did not end with its bankruptcy filing. Drexel's single largest creditor was the Justice Department, which was owed $650 million under Drexel's securities fraud settlement, and government regulators were actively involved in the case. The SEC asked to be included on the creditors committee, an unprecedented request given that the committee ordinarily consists of private individuals and institutions.[38] S&L regulators also thrust themselves into the case, claiming that Drexel owed $6.8 billion dollars to compensate S&Ls that had been taken over by the regulators for the losses they suffered from Drexel-related investments. The most obvious effect of this intense government involvement was to limit Drexel's options for reorganization. Bank regulators insisted that Drexel not re-enter the investment banking business in anything like its former capacity.

The patina of fraud surrounding Drexel, and the stance the government took in response, distinguishes its travails from banks like Bear Stearns or Lehman Brothers that did not have quite the same reputation for misbehavior. But the general trajectory of the case is revealing nonetheless. And Drexel itself was a harbinger of current investment banks. Its business was much more similar to today's investment banks—and its bankruptcy is thus more relevant—than many of its peers would have been.

For much of the nineteenth and twentieth centuries, investment banks profited from their superior knowledge about the value of the companies whose stock and debt the banks underwrote.[39] When J.P. Morgan, the preeminent bank of the era, agreed to sell a company's stock or bonds, the bank was in essence certifying that its partners had concluded, based on their tacit knowledge of the market, that the company was high

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[37] *Id.*

[38] 11 U.S.C. sec. 1102 instructs the U.S. Trustee to select a committee from the seven largest creditors who are willing to serve. The provision does not distinguish private and governmental creditors, so the SEC was not speaking out of school when it asked to be included.

[39] The discussion in this paragraph draws on important recent work by Alan Morrison and Bill Wilhelm. ALAN D. MORRISON & WILLIAM J. WILHELM, JR., INVESTMENT BANKING: INSTITUTIONS, POLITICS, AND LAW (2007).

quality. But technological advances had made it easier to value companies by the 1960s, eroding the value of the soft information that had been investment banks' key asset. By the 1970s and 1980s, investment banks' emphasis on traditional advisory services had diminished considerably and their reliance on proprietary trading operations increased.[40] Drexel stood squarely in the middle of this transition. Drexel profited handsomely from the advisory services it provided in connection with takeovers. But it also held an extensive portfolio of securities for itself, and traded actively for its own account. As a result, Drexel had substantial assets when it filed for bankruptcy.

Drexel's efforts to maximize the value of its assets proceeded in three general steps. First was the bank's human capital. Even before Drexel filed for bankruptcy, it began trying to sell some of its trading operations. Given the likelihood that "strategic personnel [would quickly] flee a sinking Drexel," as a media account put it, Drexel was particularly anxious to sell its "big equity trading and research operation," which the department's head touted as "an equity department for hire, with instant credibility, instant distribution."[41] These efforts to profit from Drexel's human capital before it walked out the door met only limited success, largely because competitors knew they could simply hire many of the employees directly, without giving a cut to Drexel. Second, Drexel moved nearly as quickly to sell the most liquid securities in its portfolio, in part to provide funding for the bankruptcy process and in part to assuage the government's concerns that Drexel's predicament would interfere with the market for government bonds.[42] Within a week, the bank had sold 82% of its securities, leaving mostly low quality, hard to value junk bonds in its portfolio.[43] Third, with the remainder of its assets, which included illiquid junk bonds and tangible assets-- Drexel moved much more slowly. Four months after the filing, Drexel held a liquidation sale that featured

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[40] The shift to proprietary operations, which require that banks have much more capital, is the principal reason that nearly every major investment bank has shifted to the corporate form and raised money through an IPO. *Id.* at 278-80 (noting that by 1987 the only holdouts were Goldman Sachs and Lazard Freres, which finally went public in 1999 and 2005).

[41] William Power, *Drexel's Wall Street Rivals Swoop in to Pick Over What's Left of Dying Firm*, WALL ST. J., Feb. 15, 1990, at C1.

[42] *See generally* Michael Siconolfi, *Drexel Has Sold 82% of its Stock, Bonds Since Feb. 9*, WALL ST. J., Feb. 21, 1990, at C13 (stating that Drexel announced sales "to 'comfort a lot of people' who were worried that a mass liquidation could disrupt the markets").

[43] *Id.*.

the "desks, computers, kitchen equipment and even [the] brass coat racks" in its New York City headquarters.[44] It held onto its most hard-to-value junk bonds even longer, leaving much of the portfolio for the entity that later emerged from Drexel's reorganization.

The most sensitive and contentious issue in Drexel's bankruptcy was resolving a blizzard of securities fraud litigation, which consisted of dozens of suits in which Drexel was a defendant and another set of claims (mostly suits against Milken, current Drexel president Fred Joseph and other Drexel executives) in which Drexel was one of the plaintiffs. Both bundles of cases were eventually assigned to District Judge Milton Pollack, who had developed a national reputation for resolving complex, nationwide litigation.[45] Judge Pollack was initially asked to value the suits against Drexel for the purposes of determining the amount of their claims in the bankruptcy case. He subsequently pushed for a global settlement of the litigation against Milken and the other defendants. Once Judge Pollack successfully brokered a deal on the Milken litigation—which he tearfully proclaimed as the crowning achievement of his judicial career—the case quickly moved to completion. Drexel was reorganized as a much smaller firm, known as New Street Capital, that would manage $450 million in junk bonds that had not been sold and also provide advisory services.

Drexel's trip through the bankruptcy courts offers several early lessons about resolving the financial distress of investment banks and other financial institutions. The first was simply that that investment banks are not precluded from reorganizing in bankruptcy. Although brokerages theoretically must be liquidated under Chapter 7 if they file for bankruptcy, Drexel sidestepped this obstacle by putting its holding company rather than the brokerage subsidiaries into bankruptcy.[46] The brokerage subsidiary was

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[44] George Anders, *From Junk Market to Flea Market: Drexel Holds Liquidation Sale*, WALL ST. J., June 11, 1990, at C1.

[45] *See, e.g.*, Jonathan M. Moses, *Pollack to Oversee Big Milken Settlement*, WALL ST. J., Feb. 19, 1992, at B10.

[46] The exclusion from Chapter 11 is in 11 U.S.C. sec. 109(d), which excepts stockbrokers and commodities brokers from Chapter 11.

kept out until all of the customer accounts had been moved to other entities.[47] Second, Drexel showed, nearly two decades before Lehman, that bankruptcy need not take too long to effectively resolve the financial distress of a financial institution. Drexel filed for bankruptcy in 1990, at a time when delay was seen as a great shortcoming of Chapter 11.[48] To be sure, the case did take more than two years to complete. But even in an era of long cases, Drexel's most time sensitive assets were redeployed almost immediately, long before the eventual reorganization.[49] Although Drexel's competitors derived more benefit from the redeployment than Drexel did, this is not problematic from the perspective of overall social welfare. Assuring that value not be destroyed is the principal concern; it is less important who gets the value.

Even from an ex post perspective, the Drexel bankruptcy was surprisingly successful. Drexel's general creditors received more than half of what they were owed,[50] and the company managed to achieve a limited reorganization despite the government's refusal to allow it to resume its former business. Drexel was further constrained by a perception that the reorganized entity might still be subject to litigation based on its prior misbehavior. Financial institutions that did not enter bankruptcy under similar clouds have much more room to maneuver in Chapter 11.

B. *The Recent Subprime Failures*

During the real estate boom of the early 2000s, numerous subprime lenders set up shop as corporations that made loans but did not take deposits—that is, as nonbank

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[47] *See, e.g.*, Siconolfi et al, *supra* note 35 (brokerage not initially put in bankruptcy); Wade Lambert, *Drexel Subsidiaries Seek Protection Under Chapter* 11, WALL ST. J., May 30, 1990 (brokerage and fourteen other subsidiaries file for Chapter 11).

[48] *See, e.g.*, Lynn M. LoPucki, *The Trouble with Chapter 11*, 1993 WISC. L. REV.

[49] During the same period as Drexel's bankruptcy, many bank and S&L holding companies also filed for bankruptcy. These bankruptcies followed a very similar pattern, with the debtor dealing with its human capital assets quite quickly and deploying its tangible assets on a more leisurely time frame. One intriguing illustration is Southeast Banking Corp., a large Miami-based bank that had a large contemporary art collection. After its assets were sold, the firm eventually reorganized as an art dealership. *See, e.g.*, Martha Brannigan, *Buy Our Art, Please: Southeast Banking to Return as Gallery*, WALL ST. J., Nov. 18, 1994, at B9C.

[50] Drexel's nonlitigating creditors would be paid $1.53 billion on their $2.6 billion of claims, and the securities claimants would divvy up $475 million.

lenders. A few, such as American Home Mortgage and Countrywide Financial, became enormous businesses. Starting with the early tremors of the subprime crisis in 2007, well over a hundred failed, more than forty filing for bankruptcy and the rest liquidating outside of bankruptcy.[51] Although most of the subprime lenders were creatures of the boom, and they had little value once the credit crisis hit, the general pattern of the cases follows the same trajectory as the Drexel Burnham bankruptcy. As with Drexel, the companies focused first on human capital, trying to arrange immediate sales of human capital operations. Most successful in this regard was Countrywide, whose managers sold the entire business to Bank of America. After filing for bankruptcy in Delaware, American Home mortgage moved quickly to sell its servicing platform, and many of its employees were hired by other firms.[52] It has subsequently sold its fixed assets on a more leisurely basis, much as with Drexel, Lehman and other financial firm bankruptcies.

C. *Conclusion*

This brief survey of the recent history of financial institution bankruptcy suggests that bankruptcy is surprisingly well-designed to handle the failures of these firms. Contrary to the assumption of many commentators, bankruptcy judges are perfectly capable of overseeing prompt sales of assets where speed is essential. Not only have complaints about delay diminished in the past two decades, but quick sales of human capital intensive assets were possible even in prior years.

The most obvious difference between Drexel, on the one hand, and the more recent failures of Bear Stearns and Lehman Brothers, on the other, is the complexity of the cases. Drexel predated the explosion of financial innovation that brought credit derivatives and other new financial instruments that figured prominently in the wave of

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[51] A list and information about nearly all of the subprime lenders that have failed can be found at The Mortage Lender Implode-O-Meter, *available at* http://ml-implode.com/imploded/lender_BrooksAmericaMortgageCorp._2007-10-18.html.

[52] *See, e.g.*, Hahn & Hessen LLP, *Hahn & Hessen Selected as Counsel to Creditors' Committee in American Home Mortgage Bankruptcy Case*, PR NEWWIRE, Aug. 15, 2007 ("The case is also expected to follow a track not dissimilar to New Century in that there are currently motions before the Court to sell the servicing platform on an expedited basis"); *One Mortgage Lender, at Least, is Hiring*, BLOOMBERG NEWS, Aug. 29, 2007 (600 employees of American Home Mortgage hired by IndyMac).

major financial institution collapses in 2008. Given this complexity, we must be cautious about extrapolating from the earlier cases. The earlier cases are suggestive, but we will need to delve more deeply into the increasing complexity in the financial markets, and its implications for systemic risk.

IV. Firm-Specific Costs of Government Ad-Hoc Rescue

The discussion thus far has sought to dispel the widespread belief that bankruptcy could not possibly be an effective means of resolving the financial distress of a financial institution. We will later consider the most significant limitation of bankruptcy—that it does not address systemic risk concerns. But we first explore the strategy that has been used throughout the recent financial crisis: ad hoc rescues. We begin by describing the conditions under which rescues are most effective. We then show the serious distortions they can cause.

A. *The Case for Rescue Loans: Illiquidity vs. Insolvency*

Understanding the key differences between bankruptcy resolution and rescue lending requires us to introduce one more distinction, the distinction—familiar to the finance literature—between illiquidity and insolvency.[53] When a company arrives at the brink of a bankruptcy filing and is seeking a rescue loan, it is at minimum *illiquid*—it does not have access to enough cash to remain current on its immediate obligations. At the same time, it is likely, but not guaranteed, that the firm is also *insolvent*--the value of all its liabilities exceed the total value of its assets. The two are usually observed together in the rescue context because if a firm is illiquid but obviously solvent it should be able, at least under ordinary circumstances, to obtain new financing backed by its existing assets without the need for government assistance. Given that financial markets are imperfect, though, it is possible for a firm to be illiquid yet solvent.

[53] This terminology is common in the finance literature. *See, e.g.*, Douglas W. Diamond & Raghuram G. Rajan, *Liquidity Shortages and Banking Crises*, 60 J. FIN. 615 (2005).

With a rescue loan, as contrasted with a bankruptcy filing, the government uses outside money to keep the firm liquid so that it can continue paying its debts, rather than suspending the firm's obligations through bankruptcy's automatic stay. In the rescue loan context, the degree of taxpayer commitment will depend on the relationship between its liquidity and its solvency. If the firm is only slightly illiquid and obviously solvent, a small, short-term government loan can be extended to the firm in exchange for a security that is very likely to repay taxpayers in full. The loan need only remain in place until the firm's liquidity problem subsides, and the temporary intervention will prevent firm value from being destroyed through premature liquidation. This ideal scenario is the best-case-scenario for government intervention.[54]

B. *Direct Costs to Taxpayers*

More frequent, however, particularly with financial firms during an economic crisis, is the opposite scenario: the firm has large and prolonged liquidity shortfall, and liabilities that greatly exceed its assets.[55] Financial firms rely heavily on short-term liabilities, and in financial crisis, of course, new lending is difficult to obtain.[56] In such circumstances, the government faces a difficult choice: if provides a rescue loan, the government may be stuck with a large and long-term commitment of taxpayer money; whereas not intervening could mean a fire sale liquidation of assets that damages the firm, its counterparties, and possibly the financial system more generally.

This tension was demonstrated clearly in the rescue of AIG. Fearing that default would have devastating effects, particularly on the credit default swap market, regulators arranged a rescue loan. Given the extent of AIG's illiquidity problem, the original loan was of unprecedented size ($85 billion). The terms (short maturity and high interest rate) were intended to give AIG a clear incentive to pay back the loan quickly to avoid a long-

[54] The Chrysler bailout of the 1980s and, internationally, the bailout of Mexico in 1994 are often cited as examples of rescue loans that successfully quelled a liquidity crisis at relatively little cost to taxpayers.. This is not to say that either was cost-free. Both introduced some of the distortions discussed below.
[55] This certainly was the case with Lehman, as its unsecured debt traded for less than ten cents on the dollar after its bankruptcy filing, suggesting deep insolvency.
[56] *See, e.g.,* Brunnermeier, *supra* note 14.

term taxpayer commitment.[57] This soon proved to be impossible. By November, AIG convinced the Fed and Treasury that the initial loan terms could not be met without forcing AIG to conduct a fire sale of its assets. As a result, the government extended the maturity of the loan (to five years from two), dramatically cut interest rates (by 5.5%), increased the amount of committed funding (to nearly $150 billion), and agreed to take lower priority securities (preferred stock) in exchange for some of the new money. All of these changes reduce the possibility of a fire sale, but they require a longer and larger taxpayer commitment to the firm.

C. *Moral Hazard (of Equity and Debt)*

If the firm is in fact insolvent (that is, its liabilities exceed its assets), losses must be borne by someone. Rescue lending is designed to prevent firm's creditors and counterparties from bearing these losses (at least temporarily), for fear of the systemic consequences that would follow. Taking extraordinary steps to protect the credit markets can have a significant price tag, however, in terms both of the direct costs discussed in the previous section and of the incentives it creates for investors.

The principal incentive problem is moral hazard. Moral hazard is the familiar concern that someone who is protected against the consequences of a risk has less incentive to take precautions against the risk. If the investors who finance a financial institution by lending money or buying its stock anticipate that the firm will be rescued if it runs into trouble, they may extend funding beyond what they would extend otherwise. This willingness to continue funding may enable the firm to delay a needed restructuring of operations or a merger with a healthy acquirer.

The possibility of subsidized taxpayer funding on the eve of bankruptcy also encourages both potential investors and the firm itself to play a dangerous "game of chicken" with the government. A potential acquirer of a distressed firm might, in lieu of

[57] The original $85 billion loan was for a 24 month term, the interest rate on the loan was 8.5% above LIBOR, and AIG was required to pay 8.5% on the undrawn portion of the credit facility.

making the acquisition at an earlier date, wait until the target's condition is so desperate that it can argue for taxpayer assistance as a prerequisite to completion of the deal.[58] Similarly, the managers of the troubled firm may deliberately fail to take steps to prepare for bankruptcy since, if bankruptcy is not a realistic option, the firm's case for a governmental subsidy becomes stronger.[59] Thus, the possibility of rescue funding may contribute to the exact instability that government backing is trying to prevent.

In several of the distressed resolutions, particularly those that occurred at the onset of the crisis, the government made a deliberate attempt to penalize shareholders in connection with government-backed rescue deals. When government loans were used to back a sale of Bear Stearns to J.P. Morgan Chase, for example, all of Bear Stearns' liabilities were assumed by the buyer, but the original purchase price of the shares was forced substantially below the trading price of the stock.[60] In the original terms of the AIG rescue loan, the government took warrants allowing it to purchase 80% of the equity, which severely diluted AIG's existing shareholders. These measures were designed to limit some of the moral hazard concerns expressed above, while at the same time limiting the systemic risks that come from allowing creditors to take losses.

This "hybrid" solution (subsidizing creditors, and penalizing shareholders) addresses the problem of shareholder moral hazard, but magnifies the moral hazard of debt. Investors may bid down the stock of the debtor, but the policy gives lenders no reason to stop extending credit. If markets anticipate the policy, distressed firms might find it even more difficult to issue new equity to repair their balance sheets.[61] The penalty to shareholders thus adds to market frictions like debt overhang that make equity

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[58] *See, e.g.*, Onaran & Helyar, *supra* note 23 (discussing expectations by Lehman and its potential purchasers that the government would provide funding).

[59] During the recent crisis, both Lehman and General Motors seem to have deliberately failed to prepare for bankruptcy, quite possibly for these reasons.

[60] Indeed, the Treasury apparently pressured the buyer to pay less than it originally intended, precisely to insure that Bear Stearns' shareholders were punished. *See, e.g.*, Kate Kelly, *Bear Stearns Neared Collapse Twice in Frenzied Final Week*, WALL ST. J., May 29, 2008, at A1.

[61] The expectation of future government intervention seems to have played a role in the ultimate resolution of Fannie Mae and Freddie Mac: "Two things would soon force Treasury's hand. Uncertainty about Treasury's plans and how any intervention would affect shareholders caused shares of Fannie and Freddie to fall sharply, making it all but impossible for them to raise equity." Deborah Solomon, Sudeep Reddy, & Susanne Craig, *Mounting Woes Left Officials With Little Room to Maneuver*, WALL ST. J., Sept. 8, 2008.

issues difficult already, as we have discussed. Rather than attempting to sell stock to raise capital when they face a liquidity crisis, firms will turn toward the most subsidized security (debt). The added debt can exacerbate the firm's financial distress and create a greater necessity for last-minute rescue efforts.

D. *Corporate Governance Distortions*

Still another cost of rescue loans is corporate governance distortions. Rescue loans often bring government intervention in the internal governance of the company receiving a loan. Management turnover is the norm for companies in financial distress, but ordinarily the company's investors drive the decision. When the government insists that a CEO be replaced—as when Treasury Secretary Paulson insisted that AIG's CEO resign as a condition of government help-- the decision is likely to influenced by factors other than optimal corporate governance, such as concern for the public response to the rescue.[62] The distortions may be still greater if the government oversees the investment decisions made by the company even after the initial rescue loan.[63] Both because of the limits of their expertise and because of the conflicting pressures they face, the government's track record when it shifts from regulator to decision maker is not a good one.[64]

E. *A Comparison to Bankruptcy Resolution*

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[62] Several of the recent rescues also interfered with established corporate law doctrine. The sale of Bear Stearns to J.P. Morgan, for instance, included deal protection provisions (such as a 39.9% share exchange) that cannot easily be squared with the fiduciary duty standards of Delaware corporate law. *See, e.g.*, Edward Rock & Marcel Kahan, *How to Prevent Hard Cases from Making Bad Law: Bear Stearns, Delaware and the Strategic Use of Comity* (unpublished manuscript 2008). The government-brokered interference with settled law may be treated as sui generis, but it also could add uncertainty to corporate transactions.

[63] The recent bailout of General Motors raises these issues. The government originally planned to put significant decision making authority in a single "car czar." GM and its unions delayed serious negotiations while they awaited appointment of the czar. The Obama administration later shifted course, appointing a panel rather than a single czar.

[64] The most notorious illustration was the National Recovery Administration during the New Deal, which attempted to establish guidelines for industry cooperation. The shortcomings of the NRA, "a big, splashy bad idea that lasted only a couple of years," are discussed in JONATHAN ALTER, THE DEFINING MOMENT: FDR'S HUNDRED DAYS AND THE TRIUMPH OF HOPE 301-303 (2007).

As discussed earlier, the bankruptcy process provides alternative solutions to the firm's liquidity problems through the automatic stay and DIP financing.[65] The automatic stay puts a stop to creditor collection activity. As a result, the size of a new loan required to maintain operations need not be as large inside of bankruptcy as a rescue loan would be, because the loan proceeds can be directed to operations and not to the repayment of pre-bankruptcy creditors. This increases the likelihood that a private loan will be available. Also, because a DIP loan is senior in priority to pre-bankruptcy unsecured creditors, the pre-bankruptcy creditors bear more of the costs of the reorganization process. As compare to rescue loans, DIP loans are likely both to be smaller in size and to significantly reduce the moral hazard of debt.[66]

Finally, since the priority of DIP lenders, pre-bankruptcy creditors and shareholders is determined by the rules of the bankruptcy process, predictability of recoveries are greater than it would be under an ad-hoc system of rescue lending. Shareholder interests can be, and usually are, eliminated in bankruptcy. But if the firm is solvent, shareholders are entitled to receive a distribution.[67] Relative to the hybrid solution described above, this facilitates the issuance of equity prior to bankruptcy.

A system-wide lending crisis like the recent credit crisis raises the question whether private sources of bankruptcy financing will always be available. Through much of 2008, few companies that filed for bankruptcy were able to obtain financing.[68] It is important to keep in mind that the absence of lending at the height of the crisis was aberrational. But if private financing is not available, nothing about the bankruptcy framework prevents the Treasury from serving as a troubled firm's DIP financer. The

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[65] *See supra* notes 16-17, 21-22 and accompanying text.

[66] In this respect, the AIG circumstances were particularly favorable to a rescue loan. AIG was apparently able to make the rescue lender senior to all existing liabilities (as a DIP loan would have been) without triggering a negative covenant in its existing debt that would have accelerated other obligations. In most circumstances, however, a loan with the priority of a DIP lender would not be available outside of bankruptcy. Thus, the rescue loan would need to be a low-priority, subsidized loan.

[67] The absolute priority rule set forth in 1129(b) assures the creditors in a class that, unless the class will be paid in full, lower priority creditors or shareholder are not entitled to any payout.

[68] Lending did not disappear altogether. Some companies, such as Circuit City and Pilgrim Pride, managed to obtain DIP financing. *See, e.g.*, Testimony of Dr. Edward I. Altman before House of Representatives, at 4 (Dec. 5, 2008), *available at* http://www.w4.stern.nyu.edu/news/docs/12-05-08-TestimonyEx1-12BN-18BN.pdf.

government could provide enough financing to continue the firm's operations, while leaving the negotiations and the restructuring to the parties themselves.[69]

V. Systemic Risk Considerations: Is Bankruptcy Appropriate?

With respect to firm-specific costs, we are skeptical that government rescue is likely to create more value than simply allowing firms to file for bankruptcy. Systemic risk issues pose a more difficult question, however. In their recent interventions, government officials were concerned not only about the going concern value of the troubled entities themselves, but especially about the impact that their bankruptcy filings would have on creditors and other counterparties. The principal precedent for this concern was the collapse of Long Term Capital Management, a hedge fund whose founders included two Nobel laureates, in 1998.[70]

This fear is certainly not without foundation. When Lehman Brothers filed for bankruptcy, these effects did materialize. Lehman had a substantial amount of commercial paper (short-term, unsecured debt) at the time of its filing.[71] This paper was held by numerous money market funds. Since commercial paper has such short maturity, it is usually considered quite safe, and carries a high credit rating. When Lehman filed for Chapter 11, holders of commercial paper suddenly became unsecured creditors in a bankruptcy that promises a low recovery.

The consequences of the counterparties' newly precarious status were immediate and substantial. Money market funds that held Lehman commercial paper, including one prominent fund called the Reserve Primary Fund, were forced to mark down the value of

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[69] As of this writing, the possibility of a government funded DIP loan is finally being considered as a possible response to GM's financial distress. *See, e.g.*, Jeffrey McCracken & John D. Stoll, *Bankruptcy Funding Solicited for Car Makers*, WALL ST. J., Feb. 23, 2009, at B1.

[70] *See, e.g.*, President's Working Group on Financial Markets, Hedge Funds, Leverage, and the Lessons of Long-Term Capital Management (April 1999)(outlining the systemic risk implications of the Long-Term Capital Management collapse).

[71] Commercial paper is unsecured debt issued by companies that wish to borrow funds on a short-term basis. Because the borrowers have traditionally been large stable companies, and the obligation is repaid or rolled over quickly, the risk to lenders ordinarily is quite low.

these holdings. This led to investor redemption requests, forcing the fund to sell its holdings into the market at depressed prices, which exacerbated the fund's problems. Reserve Primary Fund ultimately "broke the buck" (valued its holdings at less than $1 per share). This precipitated a run on the fund that led it to suspend redemptions.[72]

While causality is difficult to establish, most observers believe that the fear resulting from the Lehman filing and its implications for Reserve Primary Fund spilled over into redemption requests at other money market funds, many of which had negligible exposure to Lehman. Systemic concerns were substantial, because many corporate borrowers rely on the commercial paper market to fund their short-term operations, and a run on money market funds takes needed capital out of this market. The Fed was forced to step in and provide government guarantees of money market funds, which provided some relief. Nevertheless, short-term debt markets were severely strained.

The Lehman/Reserve Primary Fund illustrates the difficult choice between providing a government rescue to prevent systemic consequences like these, on the one hand, and limiting moral hazard, on the other. Reserve Primary Fund was far from typical in the money market world. It offered its investors some of the highest yields in the industry and was known to be a substantial risk taker.[73] Its investors understood (or at least should have understood) that these outlier rates could only be had by accepting large risks. Had the government provided a rescue loan to Lehman to prevent a bankruptcy filing, it would have subsidized this type of speculation (commonly known as a "moral hazard play")[74], and lessened the incentive of investors to monitor borrowers and take sensible risks. On the other hand, the panic run from the money market industry

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[72] *See, e.g.*, Diana B. Henriques, *Buck Broken, But Timing May Affect Redemptions*, N.Y. TIMES., Nov. 27, 2008, at B4.

[73] According to an article in Morningstar.com: "Morningstar has data on just over 2,100 money market funds, and the Reserve Primary Fund clocked in at an average trailing 12-month yield of 4.04%--the highest in our universe--while the average was 2.75%."

[74] This phrase and the associated behavior are well-recognized in the context of sovereign rescue lending by the International Monetary Fund. See Timothy Lane & Steven Phillips, Does IMF Financing Result in Moral Hazard?, IMF Working Paper, WP/00/168.

might have been prevented by a loan (or a subsidy) that enabled Lehman to make its counterparties whole.

These trade-offs are real and difficult to resolve. The most important systemic consequences of its bankruptcy followed not from its direct effects, but from a crisis of confidence. Economic theories can explain the consequences of panic runs when they occur, but they do not explain what triggers them in the first place. Could an eve-of-bankruptcy rescue loan or merger have prevented the crisis of confidence that led to the money market run? More generally, could a Lehman rescue loan have prevented the severity of the financial crisis that followed?

These questions are impossible to answer with certainty, but a casual look at the data surrounding these events provides reason to be skeptical. Below is a chart that documents changes in several major indices that occurred the day after the Lehman bankruptcy filing was announced, compared with the day following the AIG rescue loan.

	Lehman			AIG		
Index	**12-Sep**	**15-Sep**	**change**	**16-Sep**	**17-Sep**	**change**
S&P 500	1251.7	1192.7	-4.71%	1213.6	1156.39	-4.71%
Volatility (VIX)	25.66	31.7	23.54%	30.3	36.22	19.54%
TED spread	1.35	2.01	0.66	2.19	3.02	0.84
13 week treasury bill	1.46	0.81	-0.65	0.86	0.02	-0.84

Looking across the four indices, the daily market reactions surrounding the news of the Lehman bankruptcy filing and the AIG rescue loan indicate that the reaction to the AIG news was of equal, if not greater magnitude. The fall in the stock market, as measured by the S&P 500 index, was nearly identical. The rise in the VIX, an index used to measure volatility (and informally known as the "fear index") saw a slightly higher percentage increase following Lehman. The TED spread, an indicator of credit market risk, saw a larger percentage point increase following AIG[75]. Similarly, yields on short-term U.S.

[75] The TED spread is the difference between 3-month LIBOR (an interest rate at which banks lend to each other) and the 3 month U.S. Treasury Bill rate. Data from www.bloomberg.com.

Treasury bills (a measure of investor flight to safe assets) saw a larger fall following the AIG news.

This evidence is far from conclusive. But it suggests, at a minimum, that the widespread belief that the Lehman Chapter 11 filing was the singular cause of the collapse in credit that followed is greatly overstated. The comparison also highlights that news of a major event can convey two distinct pieces of news at the same time: first, that a large important entity is severely distressed and illiquid; and second, that a particular procedure was triggered to address it. In Lehman, the procedure was bankruptcy, while in AIG, the procedure was a rescue loan. The indicators above suggest that the market did not distinguish between the distress resolution procedures; it focused instead on the implications of the distress itself.

Moreover, as we have already indicated, the choice between bankruptcy and a rescue loan is not an either/or choice. If regulators conclude that the systemic risk concerns are so great that intervention is necessary, they could use an intermediate strategy of allowing the firm to file for bankruptcy, while selectively guaranteeing certain "dangerous" liabilities as an alternative to a rescue loan.[76] With hindsight, it appears that guaranteeing AIG's credit default swaps while allowing the company to file for Chapter 11 might have been a much better solution than the increasingly expensive rescue loan used to forestall AIG's default. The government might have facilitated a restructuring of AIG while protecting the CDS market, at substantially lower cost.

It may be useful at this point to compare the approach just suggested—an intermediate bankruptcy strategy—to the "prompt corrective action" approach now used to resolve bank and S&L failures, which has some features in common. Under the prompt corrective action rules, bank regulators are authorized to intervene even before a bank becomes insolvent. Regulators step in and generally arrange an immediate sale—

[76] For a suggestion along these lines, see Oliver Hart & Luigi Zingales, *Economists Have Abandoned Principle*, WALL ST. J., Dec. 3, 2008, at A17.

which is set up in secret, often over a weekend-- of the bank's assets to another bank.[77] While deposits are guaranteed, other liabilities are not.[78] The immediate sale guarantees liquidity, assuring that depositors never lose access to their funds, and minimizes the systemic disruption of the bank's default. The rules also are designed to avoid any possibility of a disruption to the payment system. In theory, the same approach might be used to resolve the financial distress of investment banks or hedge funds, which have similar characteristics.[79]

In comparing the two options side-by-side, it is crucial to understand that the "prompt corrective action" approach requires several elements to make it function effectively that are not needed for Chapter 11. It requires a pool of taxpayer money to cover depositor losses,[80] persistent ex-ante regulatory oversight of bank assets and liabilities to limit the magnitude of these losses, and the power of a regulator to trigger the resolution unilaterally. As a result, the chief benefits of this approach are most valuable in the commercial bank context. As guarantor of bank deposits, the government (and taxpayers) has an enormous stake in the health of banks. Given this stake— and the vulnerability of deposits, which are simply unsecured claims-- it is sensible to couple deposit insurance with ex-ante regulatory oversight, and the power to determine how distress is resolved.

There are important downsides to the prompt corrective action approach, in addition to the need for taxpayer funds to back it. The system is designed to assure early

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[77] For a good overview of bank insolvency regulation, and a comparison to Chapter 11, see Robert R. Bliss & George G. Kaufman, *U.S. Corporate and Bank Insolvency Regimes: A Comparison and Evaluation*, 2 VA. L. & BUS. REV. 143 (2007).

[78] When Washington Mutual was merged with J.P. Morgan Chase through FDIC receivership, the depositors and secured debt were assumed by J.P. Morgan. The senior unsecured and subordinated debt were not assumed, and will presumably be paid from the sale proceeds. The FDIC announced that subordinated debt investors should not expect to recover anything. *See* Information for Claimants in Washington Mutual Bank, *available at* http://www.fdic.gov/news/news/press/2008/pr08085b.html. The terms of the original Wachovia merger with Citigroup, by contrast, involved taxpayer rescue money to shield investors from losses. See "Citigroup Inc. to Acquire Banking Operations of Wachovia", available at http://www.fdic.gov/news/news/press/2008/pr08088.html

[79] This possibility has indeed entered current policy discussions. *See, e.g.*, Deborah Solomon & Damian Paletta, *Treasury Plans More Expansive Approach to Financial Rescue*, WALL ST. J., Feb. 6, 2009.

[80] If the government did not step in to cover depositor losses when a distressed bank is insolvent, a healthy bank could be assuming a bank with liabilities that exceed assets. This could exacerbate distress in the financial system rather than containing it.

closure of troubled banks, and it relies on regulators to determine when and how to intervene, rather than the parties with the best information, the bank's managers and investors.[81] Guaranteeing promptness of the resolution procedure requires denying the rights of the bank's unprotected investors (unsecured creditors and shareholders) to affect the terms and timing of the resolution. To use bankruptcy lingo, the FDIC must have the immediate authority to "cram down" a plan to resolve distress, over any objection by unprotected investors who are subject to bearing losses. The relative slowness of Chapter 11 resolutions is driven in large part by the attempt to guarantee that the firm's stakeholders have some control over the firm's fate, so that the value of the estate is preserved for investors. Thus, the "prompt corrective action" model has some attractive features (namely, speed) that are more appropriate to limiting systemic risk. On the other hand, this system may create serious firm-specific costs that Chapter 11 does not.[82]

VI. Systemic Concerns within Bankruptcy

To this point, we have assumed that bankruptcy itself is essentially neutral with respect to systemic risk—that it neither addresses systemic risk issues nor exacerbates them. The most important exception to this agnosticism is derivative contracts and other new financial instruments.[83] In an effort to counteract systemic risk, lawmakers have excepted derivatives and other financial contracts from several key bankruptcy rules.

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[81] Regulators' track record on closing commercial banks during the current crisis has been checkered, with IndyMac (which was not closed until well after its financial distress was obvious and is expected to cost taxpayers $8.5-9.4 billion) and Wachovia (where regulators arranged a lowball sale to Citigroup that was quickly trumped) each involving significant miscues. One of us has argued elsewhere for an incentive system that would encourage managers of troubled banks to initiate insolvency proceedings, as a supplement to FDIC oversight. David A. Skeel, Jr., *The Law and Finance of Bank and Insurance Insolvency Regulation*, 76 TEX. L. REV. 723 (1998).

[82] Another alternative that lies between a government-controlled, fast resolution like receivership and a decentralized, investor-driven resolution like Chapter 11 would be a distress resolution mechanism that is pre-arranged contractually. For example, key financial institutions could be required to issue securities that automatically convert from debt to equity under pre-specified conditions. One such proposal, and the difficulties in its implementation are discussed in Barry E. Adler, *Financial and Political Theories of American Corporate Bankruptcy*, 45 STAN L. REV. 311 (1992).

[83] A derivative is a contract whose payment terms are based on the change in value of something else, such as an interest rate, a national currency, or a stock index. The bankruptcy laws give special treatment to five categories of derivatives of derivatives and other financial contracts: repurchase agreements, commodity contracts, forward contracts, swap agreements and securities contracts. *See, e.g.*, Shmuel Vasser, *Derivatives in Bankruptcy*, 60 BUS. L. 1507, 1511-25 (2005)(outlining the treatment of each).

Although the raison d'etre of these provisions is reducing systemic risk, their efficacy is subject to legitimate question.

Although most bankruptcy lawyers and bankruptcy judges do not know a great deal about derivatives, the industry trade group and regulators who deal with them have long insisted that these instruments must be exempted from the automatic stay and several other core bankruptcy provisions so that a debtor's counterparties can close out their contracts after the debtor files for bankruptcy. The International Swaps and Derivatives Association (ISDA) has argued, with the support of the Fed and Treasury, that the bankruptcy of a company that has entered into a significant number of derivatives could snarl the financial system if the automatic stay applied.[84] A solvent counterparty's inability to immediately terminate its contract could interfere with its efforts to hedge and possibly even jeopardize the counterparty's solvency.[85] The counterparty's instability could, in a worst case scenario, have a similar effect on its own counterparties as the contagion worked its way through the market. Exempting derivatives from the automatic stay minimizes the risk of these ripple effects, ISDA and other proponents argue, because it enables counterparties to close out their contracts and to quickly re-hedge their risks. Based on this reasoning, Congress has amended the bankruptcy laws four different times-- most recently and sweepingly in 2005-- to provide increasingly expansive protection for derivatives.[86]

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[84] "Participants in the swap market," an ISDA representative testified in 1989, "that if a counterparty files for bankruptcy, the automatic stay and other provisions could be interpreted to bar [termination] … These bankruptcy-related issues create uncertainty among participants in [derivatives markets], created a risk that, particularly in periods of volatility, the liquidity of the market will be restricted." Hearing before the Subcomm. on Courts and Administrative Practice of the Committee on the Judiciary, 101st Cong., 1st Sess. 18 (April 11, 1989)(testimony of Mark C. Brickel, Chairman, ISDA)(hereinafter, *1989 Swap Hearing*. *See also id.* at 18 (noting Federal Reserve support for the proposed amendments).

[85] *See, e.g., id.* at 12.

[86] The original exclusion, which was included in the 1978 Code, applied only to commodities and futures. The bankruptcy laws were subsequently amended to protect securities contracts in 1982, repurchase transactions in 1984, swaps in 1990, and, among other things, cross-produce netting in 2005. *See, e.g.,* Edward R. Morrison & Joerg Riegel, *Financial Contracts and the New Bankruptcy Code: Insulating Markets from Bankrupt Debtors and Bankruptcy Judges*, 13 AM. BANKR. INST. L. REV. 641, 644 (2005). The 2005 changes were designed to ensure that any transaction that can plausibly be construed as a derivative is protected. As Edward Morrison and Joerg Riegel have pointed out, the derivatives provisions now insulate entire markets, rather than just particular counterparties before 2005. *Id.* at 641, 652. *See also* Rhett G. Campbell, *Financial Markets Contracts and BAPCPA*, 79 AM. BANKR. L.J. 697 (2005)(outlining the 2005 changes).

Although the special provisions could reduce systemic risk in some cases, they may throw oil on the fire in others. Counterparties' ability to jettison their contracts when a debtor files for bankruptcy can create a run on the debtor's assets, as numerous counterparties terminate their contracts and seize any collateral securing the contracts.[87] If the debtor is one of the handful of major derivatives counterparties, the debtor's failure could itself cause marketwide damage, since the glut of terminated contracts may overwhelm the market's ability to provide replacements.[88]

Recent developments show that this concern is not simply hypothetical. When Lehman filed for bankruptcy, its counterparties canceled more than 700,000 of its over 900,000 derivatives contracts.[89] The simultaneous closing out of 700,000 contracts threatened to create chaos both in the Lehman bankruptcy and in the derivatives market generally. The effects were diminished somewhat by the inability of many counterparties to retrieve assets to satisfy their claims.[90] Counterparties whose contracts were collateralized could terminate their contract and use the collateral to satisfy Lehman's obligations. Counterparties that did not have collateral, on the other hand, could close out the contract but they could not take further steps to collect what they were owed.[91] If the counterparties had been able not only to close out their contracts, but also to insist on

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[87] *See, e.g.*, Franklin R. Edwards & Edward R. Morrison, *Derivatives and the Bankruptcy Code: Why the Special Treatment?*, 22 YALE J. REG. xxx (intro)(2005).

[88] For an analysis of this risk that now looks prescient, given the Lehman and AIG crises, see Robert R. Bliss & George G. Kaufman, *Derivatives and Systemic Risk: Netting, Collateral, and Closeout*, 2 J. FIN. STAB. 55, 67-68 (2006). As Bliss and Kaufman note, the advent of master agreements that provide for cross-product netting may have magnified the concentration of the derivatives industry, since the ability to net contracts entered into with a particular counterparty creates an incentive to deal with a single counterparty. By explicitly protecting these netting agreements, the 2005 bankruptcy changes reinforced the competitive advantage of the biggest counterparties.

[89] *See, e.g.*, Debtor's Motion for an Order Pursuant to Sections 105 and 365 of the Bankruptcy Code to Establish Procedures for the Settlement or Assumption and Assignment of Prepetition Derivatives Contracts at 4, *In re* Lehman Brothers Holdings Inc. et al (Bankr. S.D.N.Y. Nov. 13, 2008)("Debtors are party to approximately 930,000 Derivative Contract transactions of which approximately 733,000 are purported to have been terminated").

[90] After establishing a protocol and netting out many of the contracts, ISDA claimed credit for reducing the confusion. *See, e.g.*, ISDA, 2008 Lehman Protocol (Oct. 6, 2008), *available* at http://www.isda.org.

[91] In many cases, this seems to have been true even with contracts involving a nonbankrupt Lehman affiliate. Because Lehman co-mingled its assets, even claims against nonbankrupt entities were effectively subject to the automatic stay, because the assets that would be used for repayment also were assets of the holding company debtor.

immediate payment, Lehman would have been forced to liquidate many of its assets, which would have seriously complicated the orderly resolution of the case.

From the perspective of Lehman's counterparties, who have been forced to stand in line with other unsecured creditors, the uncertainty about the status of their claim could make it difficult to re-hedge their risk. But this is not an insurmountable problem in most cases. The counterparty can use the standard procedures for establishing its damages—which generally involves determining the cost of an alternative transaction.[92] The counterparty could then purchase the alternative hedge. The principal cost is uncertainty as to when, and how much of its claim, the counterparty will be paid in the debtor's bankruptcy case. If the contract is unusually large, the cost of re-hedging could be prohibitive. But for other contracts, the delay in recovering is less problematic (and is no different that of other creditors in a bankruptcy case).

The current framework—in which counterparties can terminate their contract but are vulnerable if they do not have collateral—gives counterparties a strong incentive to assure that they are fully collateralized. The pressure to grab collateral was a central feature of the AIG collapse. When AIG's fortunes deteriorated, its counterparties forced the insurer to begin posting collateral. To continue satisfying these demands, the company would have been forced to liquidate assets to generate collateral, perhaps destroying going concern value in the process.[93] The risk of value destruction is magnified by the potential consequence of the bankruptcy filing itself. Because it is an event of default under existing derivatives contracts, bankruptcy effectively terminates all of the debtor's contracts at the same time. To avoid this massive termination event, a company's managers can be expected to take extraordinary steps to avoid bankruptcy. The powerful bankruptcy avoidance incentive makes it even more likely that managers

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[92] *See, e.g.*, The Lehman Brothers Guide to Exotic Credit Derivatives 4-6 (2005)(describing the settlement options).

[93] Ordinarily, if a debtor posted new collateral within three months of bankruptcy, this value could be retrieved from the counterparty as a preferential transfer. 11 U.S.C. sec. 547(b). But this is one of the provisions that has been waved off for derivatives counterparties. *See, e.g.*, 11 U.S.C. sec. 546(e)(protecting margin arrangements).

will destroy going concern value as they liquidate assets to post sufficient collateral to avoid bankruptcy.

Lawmakers could address these concerns in a variety of ways. Most sweepingly, they could simply reverse the special protections altogether. Applying bankruptcy's automatic stay and avoidance provisions to derivatives contracts would diminish the danger of a run on a major derivatives counterparty. But this benefit would come at the cost of slowing the resolution of derivatives contracts in cases that did not threaten to shake the markets to the same extent. A more nuanced response might be to invalidate the provisions in derivatives contracts that make bankruptcy an event of default, as is done with most other contracts, so that the bankruptcy filing itself would have less dramatic consequences.[94] Lawmakers might also distinguish among different kinds of derivatives contracts. The case for imposing a stay on termination of credit default swaps, for instance, is stronger than the case for halting termination of an interest rate or currency swap.[95]

The current framework is far from perfect. Given the systemic concerns outlined in this part and the last, rescue loans may sometimes be defensible as an alternative to bankruptcy. But in most cases, either a traditional bankruptcy filing, or a bankruptcy filing backed by government financing or a government guarantee of vulnerable assets, will be a superior mechanism for resolving financial distress.

VII. Conclusion

The usual reaction if one mentions bankruptcy as a mechanism for addressing a financial institution's default is incredulity. Those who favor the rescue of troubled

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[94] *See* 11 U.S.C. sec. 541(c)(1)(B); 365(b)(2)(over-riding such provisions). For an argument along these lines, see Partnoy & Skeel, *supra* note 3.

[95] As proponents of the 1990 amendments that extended special treatment to swaps frequently pointed out, the interest rate protection provided by an interest rate swap will generally not be essential to a bankruptcy debtor, because debtors are not required to make interest payments during the bankruptcy case. *See, e.g., 1989 Swap* Hearings, supra note 84, at 70 (statement of John J. Jerome)("the need for interest rate protection is a fiction because you don't pay, for the most part, postpetition interest"). Credit default swaps, by contrast, are more likely play an important role.

financial institutions, and even those who prefer that their assets be promptly sold to a healthier institution, treat bankruptcy as anathema. Everyone seems to agree that nothing good can come from bankruptcy.

In this article, we have tried to complicate that assumption. We do not wish to go to the opposite extreme and suggest that bankruptcy is always and everywhere the optimal solution to financial institution distress. But bankruptcy has been surprisingly effective in most cases, and it avoids many of the distortions and taxpayer commitments required from the standard, more popular strategy of last-minute rescue lending.