Derivatives and the Bankruptcy Code: Why the Special Treatment?

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The collapse of Long Term Capital Management ("LTCM") in Fall 1998 and the Federal Reserve Bank's subsequent efforts to orchestrate a bail-out raise important questions about the structure of the Bankruptcy Code. The Code contains numerous provisions affording special treatment to financial derivatives contracts, the most important of which exempts these contracts from the "automatic stay" and permits counterparties to terminate derivatives contracts with a debtor in bankruptcy and seize underlying collateral. No other counterparty or creditor of the debtor has such freedom; to the contrary, the automatic stay prohibits them from undertaking any act that threatens the debtor's assets. It is commonly believed that the exemption for derivatives contracts helps reduce "systemic risk" in financial markets, that is, the risk that multiple major financial market participants will fail at the same time and, as a result, drastically reduce market liquidity. Indeed, Congress is now contemplating reforms that would extend the exemption to include a broader array of financial contracts, all in the name of reducing systemic risk. This is a mistake. The Bankruptcy Code can do little to reduce systemic risk and may in fact exacerbate it, as the experience of LTCM suggests. Risk of a systemic meltdown arose there and prompted intervention by the Federal Reserve precisely because derivatives contracts were exempt from the automatic stay. Derivatives contracts may merit special treatment, but fear of systemic risk is a red herring.

A better, efficiency-based reason for treating derivatives contracts differently arises naturally from the economic theory underlying the automatic stay. The stay protects assets to the extent they are needed to preserve a firm's going-concern surplus (its value above and beyond the sale value of its assets). Assets are needed to preserve going-concern surplus only if they are firm-specific, that is, only if they are worth more inside the firm than outside it. This is often true for plant and equipment. It is rarely true for derivatives contracts. This observation, we think, helps rationalize the Code's treatment of derivatives contracts and other features of the automatic stay. There are, however, downsides to treating derivatives contracts differently (creditors, for

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example, would like to disguise loans as derivatives contracts). These downsides are probably not significant, but they highlight the fragility of the Code's treatment of derivatives contracts, which should worry members of Congress as they consider arguments to expand the Code's exemptions for derivatives contracts.

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Introduction

In Fall 1998 the Federal Reserve Bank (the "Fed") arranged a bailout of the massive hedge fund, Long Term Capital Management ("LTCM"), which faced the prospect of immediate liquidation if it filed a petition under Chapter 11 of the Bankruptcy Code. Although the Code generally prevents creditors from seizing assets of a firm in bankruptcy (this provision is called the "automatic stay"), counterparties to financial derivative contracts (options, swaps, repos, and the like) receive special treatment under the Code and are free to terminate contracts and seize collateral to the extent they are owed money. Defending the Fed's decision to assist LTCM, Federal Reserve Chairman Alan Greenspan explained:

> [T]he act of unwinding LTCM's portfolio in a forced liquidation [precipitated by LTCM's derivatives counterparties] would not only have a significant distorting impact on market prices but also in the process could produce large losses, or worse, for a number of creditors and counterparties, and for other markets participants who were not directly involved with LTCM . . . .[1]

The Fed believed that its intervention was necessary to avoid a systemic meltdown that might arise from LTCM's liquidation—a liquidation made possible by the Bankruptcy Code's special treatment of derivative contracts.[2]

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1 *Hedge Fund Operations: Hearing Before the House Comm. on Banking and Fin. Servs.*, 105th Cong. 5 (1998) (testimony of Alan Greenspan, Chairman, Board of Governors of the Federal Reserve System).

2 On this point, see, e.g., Michael Krimminger, *Insolvency in the Financial Markets: Banks, Hedge Funds, and Other Complications*, BANKING POL. REP., Jan. 18, 1999, at 1.

The irony here is that the Bankruptcy Code's special treatment of derivatives contracts is, according to academics and members of Congress, designed to avoid systemic risk. A *derivative* is a financial instrument whose price depends on the value of an underlying asset, such as common stock.[3] A *derivatives contract* defines the rights and obligations of the buyer and seller of the derivative (the "counterparties"). Examples include forward contracts (obligating one party to buy the underlying asset from another party at a certain price at a future date), options (giving one party the right but not the obligation to buy the underlying asset at a certain price at a future date), and swaps (obligating the two parties to exchange cash flows from underlying assets for a set period).[4] The Code recognizes these and other kinds of derivatives contracts, including securities contracts,[5] commodity contracts,[6] forward contracts,[7] repurchase agreements ("repos"),[8] and swap agreements.[9]

Thanks to an exemption from the Code's automatic stay—which bars all other creditors from terminating contracts with or seizing assets from a firm in bankruptcy—counterparties to these derivatives contracts are free to terminate the contracts and then seize collateral to the extent that they are owed money. As reported in legislative history, Congress believed this exemption from the automatic stay was necessary to prevent the "insolvency of one commodity or security firm [from] spreading to other firms and possibly threatening the collapse of the affected market."[10] This belief is shared by some academics.[11] In

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3 *See generally* JOHN C. HULL, OPTIONS, FUTURES, AND OTHER DERIVATIVES 1 (5th ed. 2003).

4 For a description of these instruments and the benefits of derivatives (namely, the ability to hedge hard-to-hedge risks), see Rene M. Stulz, *Should We Fear Derivatives?*, 18 J. ECON. PERSP. 173, 174-76, 179-80 (2004).

5 11 U.S.C. § 741(7) (2004) ("'Securities contract' means contract for the purchase, sale, or loan of a security, including an option for the purchase or sale of a security, certificate of deposit, or group or index of securities . . . .").

6 A "commodity contract" includes, inter alia, "with respect to a futures commission merchant, contract for the purchase or sale of a commodity for future delivery on, or subject to the rules of, a contract market or board of trade." § 761(4)(A).

7 § 101(25) ("'Forward contract' means a contract . . . for the purchase, sale, or transfer of a commodity . . . or any similar good . . . which is presently or in the future becomes the subject of dealing in the forward contract trade . . . with a maturity date more than two days after the date the contract is entered into, including . . . a repurchase transaction, reverse repurchase transaction, consignment, lease, swap, hedge transaction . . . .").

8 § 101(47) ("'Repurchase agreement' . . . means an agreement . . . which provides for the transfer of certificates of deposit, eligible bankers' acceptances, or securities that are direct obligations of, or that are fully guaranteed as to principal and interest by, the United States . . . against the transfer of funds by the transferee . . . with a simultaneous agreement by [the] transferee to transfer to the transferor thereof [instruments] at a date certain not later than one year after such transfers or on demand, against the transfer funds.").

9 A "swap agreement" includes a broad range of instruments, including a "rate swap agreement, basis swap, foreign rate agreement, commodity swap" and "any other similar agreement." § 101(53B).

10 H.R. REP. NO. 97-420, at 1 (1982).

11 Although academics have questioned the likelihood and gravity of a systemic collapse in derivatives markets, many have at least implicitly accepted the proposition that the Bankruptcy Code's special treatment of derivatives reduces the risk of a collapse. *See, e.g.*, William J. Bergman et al.,

other words, Congress amended the Bankruptcy Code to prevent a systemic collapse that might arise if a derivatives counterparty were unable to liquidate its contracts with a bankrupt debtor immediately.[12] But, as the LTCM experience demonstrates, permitting the immediate liquidation of a large financial institution counterparty such as LTCM can generate another form of systemic risk, namely the risk that a "run" by derivatives counterparties on the debtor will itself destabilize financial markets.

The Fed's intervention to aid LTCM, therefore, calls into question the policy rationale underlying the Bankruptcy Code's special treatment of derivatives. In this paper, we make the following claim: derivatives may deserve special treatment, but not for the reason commonly given. When systemic risk is a legitimate concern, the Code can do little to mitigate it, and may even make matters worse, especially in cases in which large financial institutions (such as LTCM) are involved. But if systemic risk is a red herring, is there any justification for treating derivatives contracts differently under the Bankruptcy Code? We think there is: derivatives (and the associated cash collateral) are generally not firm-specific assets and therefore giving them special treatment will increase economic efficiency. This observation may help rationalize many features of the Code's automatic stay, which offers the greatest protection to potentially firm-specific assets (such as plant and equipment), less protection to assets (such as cash collateral) that are fungible but may be hard to replace without substantial investments in relationships with new lenders, and the least protection to assets (such as derivatives contracts) that can be replaced easily.

Part I describes the Code's special treatment of derivatives contracts and the common justification given for it. In Part II, we challenge this conventional wisdom, arguing that the Code is a poor tool for reducing systemic risk. Indeed, as the case of LTCM illustrates, the Code may in fact exacerbate this risk. Part III asks whether there are alternative (efficiency-based) justifications for the special treatment given to derivatives contracts under the Bankruptcy Code. Derivatives contracts are different, we argue, because they are fungible assets and can be seized by creditors without endangering a firm's going-concern value. Part IV looks closely at the ex ante costs of a rule that treats derivatives contracts differently. We focus particularly on the rent-seeking behavior induced by such a rule. The benefits arguably outweigh the costs, but only if the rule

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Netting, Financial Contracts, and Banks: The Economic Implications 30-32 (August 2003) (working paper, on file with author); *see also* Stulz, *supra* note 4, at 188 (2004) (suggesting that the Code's treatment of derivatives may play a role in reducing systemic risk).

12 Of course, members of Congress might have considered other purported benefits to giving derivatives contracts special treatment under the Bankruptcy Code. One such benefit is growth in over-the-counter (OTC) derivatives markets, emphasized by Bergman et al., *supra* note 11, at 24-27. By allowing counterparties to closeout contracts with and seize collateral from insolvent debtors, the Code reduces the costs of entering derivatives contracts and thereby encourages growth in OTC markets. We suggest, *infra* Section V.A, that this purported benefit is as questionable as the Code's role in reducing systemic risk.

either reduces systemic risk (which we doubt) or singles out fungible assets that creditors can seize without endangering a firm's going-concern value (which we think is the case). If neither condition holds true, there is no principled reason for offering special treatment under the Bankruptcy Code to derivatives contracts. Part V concludes.

I. Derivatives Contracts and the Bankruptcy Code

When a firm files a bankruptcy petition, it immediately enjoys the benefit of the Bankruptcy Code's "automatic stay," which forbids any creditor from taking steps to collect debts, seize assets, or otherwise "exercise control over property" of the debtor firm.[13] The automatic stay is a core element of any attempt to reorganize under the Code. By shielding the debtor's assets and preventing a race that rewards the first creditor to the courthouse, it avoids dismemberment of a firm with going-concern value and facilitates a collective proceeding in which the parties (debtor and creditors) can negotiate the terms under which the firm will continue as a going concern.

There are, however, many exceptions to the automatic stay. Some are intuitive. The stay, for example, does not extend to the government's police or regulatory power; a debtor cannot avoid criminal prosecution or the enforcement of environmental protection laws (unless, of course, the government is simply using its regulatory powers to collect debts).[14] Along the same lines, a bankrupt educational institution cannot use the stay to prevent accrediting agencies, state licensing bodies, or the Secretary of Education from reevaluating the institution's quality and eligibility for funding.[15] Here we see a congressional judgment that the benefits of government regulation outweigh the costs to the debtor.

Other exceptions are less intuitive, especially those involving derivatives contracts, such as futures, forwards, repos, and swaps.[16] Generally, when a debtor firm enters bankruptcy, it is party to many ongoing ("executory") contracts, in which the debtor and its counterparties have continuing obligations to each other. Some of these contracts will be profitable to the debtor (they are "in the money"); others will not be (they are "out of the money"). The automatic stay prevents counterparties from taking any step to terminate these ongoing contracts.[17] Instead the debtor has an exclusive right to "assume" profitable contracts and "reject" (i.e., breach) unprofitable ones, the consequence being that the counterparty to the "rejected" contract will receive an unsecured claim for damages, which will usually be paid a few cents on the

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13 11 U.S.C. § 362(a)(3) (2000).

14 § 362(b)(1), (4).

15 § 362(b)(14), (15), (16).

16 For a description of these and other derivatives contracts, see Stulz, *supra* note 11, at 174-76.

17 § 365(a).

dollar. In other words, the Bankruptcy Code generally allows debtors to "cherry pick" profitable from unprofitable contracts. This cherrypicking power comes to an end, however, when the underlying contracts are derivatives contracts. Thanks to an exemption from the automatic stay, derivatives counterparties typically[18] may terminate ongoing contracts when a debtor enters bankruptcy. Moreover, if a counterparty has entered multiple derivatives contracts with the debtor, the counterparty can set-off in-the-money contracts against out-of-the-money contracts. (The process of terminating and setting-off contracts is often termed "close-out netting.") Finally, if a debtor posted margin or other collateral to support its obligations under these contracts, the counterparty is free to seize it to the extent that the debtor is a net obligor to the counterparty.[19] In other words, thanks to an exemption from the automatic stay, derivatives counterparties can *minimize* their exposure to losses arising from the insolvency of a debtor. If the debtor has posted collateral sufficient to cover its obligations, the exemptions from the automatic stay effectively *eliminate* a counterparty's exposure to loss.

The special treatment of derivatives contracts is not new. When the Bankruptcy Code was enacted in 1978, it contained an exemption from the automatic stay for non-debtor brokers and forward merchants with respect to transactions involving margin payments or deposits received from a debtor under a commodities contract or a forward contract.[20] Amendments to the Code in 1982, 1984, and 1990 expanded the exemption to include an array of financial transactions known as "derivatives securities" contracts, including forward contracts, commodity contracts, repos, and swaps. Counterparties to a derivatives securities contract with a debtor in bankruptcy may now terminate or modify it and then liquidate the debtor's assets irrespective of whether the debtor is actually in default under the contract. Further, if counterparties hold other assets of the debtor they can typically effect an "offset" so long as they can enforce their rights against such assets without having to require the assistance of the debtor. Thus, in general, the rights of counterparties to derivatives transactions with respect to collateral and its liquidation are derived from the

18 The qualifier "typically" must be used because some of the Code's provisions depend on the characteristics of the counterparty. A counterparty to an option, for example, can seize collateral only if it is a "commodity broker, forward contract merchant, stockbroker, financial institution, or securities clearing agency." §362(b)(6). In contrast, *any* counterparty to a swap agreement can seize collateral. For closer analysis of these provisions, see Harold S. Novikoff, Special Bankruptcy Code Protections for Derivative and Other Financial Market Transactions (2002) (working paper, on file with author).

19 *See* § 362(b)(6), (7), (17). The Code adds provisions that protect the counterparty's right to terminate contracts and seize collateral. First, the counterparty's contractual right to terminate the contract when the debtor becomes insolvent is not treated as a voidable "ipso facto" clause. §§ 555-556, 559-560. Second, a debtor's eve-of-bankruptcy margin payments to a counterparty are not considered either preferential, § 546(c), (f), (g), or fraudulent, § 548(d)(2)(B), (C), (D), provided the payments were not intentionally fraudulent. For in-depth analysis of these provisions, see Novikoff, *supra* note 18.

20 § 362.

contract or agreement between the protected party and the debtor, as opposed to the Bankruptcy Code.

The exceptions are set to grow. Recently proposed legislation[21] would, among other things, extend the bankruptcy stay exemption to a wide variety of equity and credit derivative transactions,[22] and would further extend the rights of counterparties to enforce netting arrangements documented under the International Swaps and Derivatives Association (ISDA) Master Agreements. Specifically, it would allow counterparties to set-off their obligations and rights under swap and repo agreements, on the one hand, against their obligations and rights under securities and forward contracts, on the other. [23] Under current law, it is unclear whether such "cross-product netting" is permissible; the Code explicitly permits cross-product netting of only securities contracts, forward contracts, and commodity contracts. [24]

Why are derivatives contracts treated differently? If legislative history is to be credited,[25] Congress reasoned that special treatment of derivatives was necessary to prevent the "insolvency of one commodity firm from spreading to other brokers or clearing agencies and possibly threatening the collapse of the market."[26] It believed that: "The prompt liquidation of an insolvent's position is generally desirable to minimize the potentially massive losses and chain reaction of insolvencies that could occur if the market were to move sharply in the wrong direction."[27] Congress, then, carved derivatives out of the scope of the automatic stay in order to reduce the likelihood of systemic risk, i.e., the possibility that the insolvency of a party to a derivatives contract might expose a counterparty (such as a commercial or investment bank) and that counterparty's counterparties (other banking institutions) to financial distress, which would destabilize financial markets.

Congress' concern with systemic risk has some basis. Fear that a counterparty insolvency could trigger a systemic meltdown in the "over-the-counter" (OTC) derivatives market[28] stems partly from the fact that this huge

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21 *See, e.g.*, Bankruptcy Abuse Prevention and Consumer Protection Act of 2004, S. 1920, 108th Cong. § 907 (2004); Financial Contracts Bankruptcy Reform Act of 2003, H.R. 2120, 108th Cong. § 8 (2003).

22 The proposed legislation would, for example, expand the definitions of "forward contract," "repurchase agreement," "swap agreement," and "securities agreement" to encompass a wider array of financial instruments. *See* S. 1920 § 907(a).

23 *See id.* § 907(d). For a helpful overview of the proposed legislation, see Kenneth N. Klee & Daniel J. Bussell, *The Bankruptcy Abuse and Prevention Act of 2003—Business Bankruptcy Amendments* WL SH054 ALI-ABA 1 (May 2003).

24 11 U.S.C. § 362(b)(6); *see also* Klee & Bussell, *supra* note 23; Novikoff, *supra* note 18.

25 The origins of the legislation could, of course, be explored using public choice theory. We do not undertake this line of analysis here, largely because we are concerned with efficiency-based justifications for the Code's special treatment of derivatives contracts.

26 H.R. REP. No. 97-420, at 2 (1982).

27 *Id.* at 4.

28 An "over-the-counter" market is one where trading is done outside of an organized exchange, such as the New York Stock Exchange or the Chicago Board of Trade. In an OTC market, traders deal by phone and computer. *See generally* HULL, *supra* note 3.

market is dominated by a few large international banks and securities firms.[29] At year-end 2002, for example, the notional value of interest-rate, credit, and equity derivatives amounted to over $140 trillion, with a gross market value of about $6.4 trillion.[30] During that same year, the ten largest OTC derivatives dealers were counterparties to most of the derivatives transactions that took place, and seven U.S. banks held over 95% of the U.S. banking system's notional derivatives exposure.[31] This raises the possibility that a problem (such as insolvency) with a major derivatives dealer (i.e., a bank) could reverberate throughout the entire OTC derivatives market and cause financial distress far beyond derivatives markets.

While Congress' concern with systemic risk is understandable, its decision to address it through the Bankruptcy Code is deeply puzzling. At the very least, the language of the Code encompasses far too many transactions. Fear of systemic risk is warranted only in cases involving the insolvency of a major financial market participant, with whom other firms have entered derivatives contracts of massive value and volume. Yet the Code offers special treatment to derivatives no matter how large or small the counterparty. Thus, Congress' stated justification for the special treatment is incomplete, as it applies only to a fraction of all firms that enter into derivatives contracts.

At the same time, the Code's special treatment of derivatives contracts seems far too narrow. Fear of systemic risk justifies special treatment of a broad range of financial market transactions and participants, especially commercial banks. Indeed, fear of systemic risk originated in the banking sector, yet a bank cannot seize collateral whenever a debtor firm enters bankruptcy. Surely the risks that (apparently) motivated Congress' concern with derivatives are equally present when Enron, WorldCom, or United Airlines enters bankruptcy and, say, Chase Manhattan cannot collect its collateral (if it is a secured creditor) or expects only a few cents on the dollar (if it is unsecured) when the case concludes several years later. Yet nothing in the Code allows Chase to collect

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29 *See generally* Franklin R. Edwards, *OTC Derivatives Markets and Financial Fragility*, J. FIN. SERVS. RES. (Dec. 1995).

30 *See* BANK FOR INT'L SETTLEMENTS, INTERNATIONAL BANKING AND FINANCIAL MARKET DEVELOPMENTS (2004), *available at* http://www.bis.org/publ/quarterly.htm (last visited, Nov. 4, 2004). Notional value is a standard measure of market size and is equal to the aggregate "notional principal" employed in derivatives contracts (adjusted for double-counting). Suppose, for example, that party *A* enters an interest rate swap with party *B*. The parties will agree to make periodic payments for a limited period to each other. Each party's payment will be based on a stated interest rate applied to a particular principal amount (the "notional principal"). Party *A*, for example, may agree to pay a variable ("floating") market-based interest rate (say, three-month LIBOR) with respect to a notional principle of $100 million. Party *B* will agree to pay a "fixed" rate (say, 3%) with respect to the same principal amount. The notional principal is $100 million, but that sum will never change hands. Only the interest payments will be made. As a result, notional principal overstates the size of derivatives markets. An alternative measure is "gross market value," which measures the replacement cost of outstanding derivatives contracts. *See, e.g.*, Stulz, *supra* note 4, at 177-79; *see also* Press Release, Bank for International Settlements, Acceleration of OTC Derivatives Market Activity in the First Half of 2002 (Nov. 8, 2002), *available at* http://www.bis.org/publ/otc_hy0211.pdf (last visited Dec. 5, 2004).

31 U.S. OFFICE OF THE COMPTROLLER OF THE CURRENCY, OCC BANK DERIVATIVES REPORT, SECOND QUARTER 2002, at 1 (2002).

its collateral; nothing in the Code gives Chase or any other bank priority in payment when the case concludes. If systemic risk arises from transactions other than derivatives contracts, as it undoubtedly does, the Code's singular focus on derivatives contracts is puzzling.[32]

It might be argued that this singular focus merely reflects the reality that commercial banks are subject to federal regulation while many derivatives counterparties are not. We do not fear a systemic collapse when Chase is unable to collect collateral from Enron because, thanks to capital requirements and other regulatory and supervisory constraints, Chase is unlikely to become financially distressed. This argument is troubling for two reasons. First, it seems odd to regulate some financial institutions directly (through capital requirements and the like) and others indirectly (through the Bankruptcy Code). The costs of direct regulation are borne by the institution itself; the costs of indirect regulation through the Code are borne by other creditors of a distressed firm. More importantly, it seems highly unlikely that the Code is an effective means of reducing systemic risk, as we show in the next section.

II. Can the Bankruptcy Code Reduce Systemic Risk?

An answer to this question was suggested recently during the insolvency of LTCM, which was founded in 1994.[33] LTCM was highly leveraged and its operations in derivatives markets were broad and complex. While approximately 80% of LTCM's balance sheet positions were in seemingly safe treasury securities of major industrial countries, these were highly leveraged, at a ratio of 28-to-1 on-balance sheet as of August 31, 1998. LTCM's off-balance sheet leverage was much greater. As of August 31, 1998, it held derivatives of about U.S. $1.4 trillion in notional value, even though it had only U.S. $4.1 billion in capital as of July 31, 1998.[34] LTCM held OTC swap contracts with a gross notional value in excess of $750 billion, futures contracts with a gross notional value in excess of $500 billion, and options and other derivatives with a notional value in excess of $150 billion. It is estimated that LTCM had between 20,000 and 60,000 trades on its books, and more than seventy-five counterparties to its derivatives contracts.[35]

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32 The puzzle, of course, may simply reflect lobbying efforts of special interest groups, such as ISDA, which desire special treatment of derivatives regardless of its effects on social welfare. As noted, *supra* note 25, we are interested in efficiency-based justifications for the special treatment and put aside (at least for purposes of this paper) public choice-based accounts.

33 For a discussion of LTCM and the Federal Reserve-led creditor rescue of LTCM, see Franklin R. Edwards, *Hedge Funds and the Collapse of Long Term Capital Management*, 13 J. ECON. PERSP. 189 (1999).

34 PRESIDENT'S WORKING GROUP ON FIN. MKTS., HEDGE FUNDS, LEVERAGE, AND THE LESSONS OF LONG-TERM CAPITAL MANAGEMENT 11-12 (1999); U.S. GEN. ACCOUNTING OFFICE, LONG-TERM CAPITAL MANAGEMENT: REGULATORS NEED TO FOCUS GREATER ATTENTION ON SYSTEMIC RISK 7 (1999).

35 PRESIDENT'S WORKING GROUP ON FIN. MKTS, *supra* note 34, at 11-12; U.S. GEN. ACCOUNTING OFFICE, *supra* note 34, at 7.

After a series of large losses during 1998, by September 1998 LTCM had lost 50% of its equity and was in danger of not being able to meet the collateral obligations on its derivatives positions. Only the timely intervention of the Federal Reserve in organizing a creditor-bailout of LTCM prevented LTCM's default and collapse. A consortium of 14 banks and securities firms, the large creditors of LTCM, recapitalized LTCM to the tune of $3.6 billion and took over the responsibility and obligations of resolving LTCM's financial difficulties. In essence, LTCM's large counterparties participated in a Federal Reserve-organized out-of-court "work-out" for LTCM. Why was the intervention of the Federal Reserve necessary to do what one might expect could be done under standard bankruptcy law?

In explaining the role of the Federal Reserve, William McDonough, the president of the Federal Reserve Bank of New York, stated that it was the Federal Reserve's judgment that the "abrupt and disorderly close-out of LTCM's positions would pose unacceptable risks to the American economy."[36] According to McDonough, the rush of more than seventy-five counterparties to close out simultaneously hundreds of billions of dollars of derivatives contracts would have adversely affected many market participants with no connection to LTCM and would have resulted in tremendous uncertainty about how far prices might move. According to McDonough, "[u]nder these circumstances, there was a likelihood that a number of credit and interest rate markets would experience extreme price moves and possibly cease to function for a period of one or more days and maybe longer. This would have caused a vicious cycle: a loss of investor confidence, leading to further liquidations of positions, and so on."[37] (At the time LTCM's own estimate was that its largest seventeen counterparties, in closing out their positions with LTCM, would have incurred losses in the aggregate of between U.S. $3 billion and U.S. $5 billion, with some individual firms losing as much as $500 million.[38])

At the root of the Federal Reserve's concern was the current U.S. insolvency law.[39] As we have seen, current U.S. bankruptcy law exempts derivatives counterparties from the normal operation of the Code's automatic stay. Thus, if LTCM had filed a bankruptcy petition, its derivatives counterparties would have been free to terminate and liquidate their contracts

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36 *Hedge Fund Operations: Hearing Before the House Comm. on Banking and Fin. Servs.*, 105th Cong. 5 (1998) (statement of William McDonough, President, Federal Reserve Bank of New York).

37 *Id.*

38 *See* Paul N. Roth & Brian H. Fortune, *Hedge Fund Regulation in the Aftermath of Long-Term Capital Management*, *in* HEDGE FUNDS: LAW AND REGULATION 109 (Iain Cullen & Helen Parry eds., 2001).

39 Cayman Islands' bankruptcy law was also a concern, because LTCM's sole general partner was a Cayman Islands limited partnership. The Fed analyzed the implications of bankruptcy filings both in the U.S. and abroad. *See* PRESIDENT'S WORKING GROUP ON FIN. MKTS., *supra* note 34, at app. E (1999).

with LTCM. And each counterparty would have surely done this, because the sale price of the underlying collateral would be *higher* and the cost of rebalancing a portfolio of derivatives contracts would be *lower* for the first parties to terminate their contracts with LTCM. A counterparty that was slow to terminate a contract would have found that the sale price of its collateral had fallen dramatically (because other counterparties had previously sold off their collateral en masse). The counterparty would have also found it very difficult to rebalance its portfolio. For every contract with LTCM, the counterparty would have entered a variety of "hedging" transactions that counterbalanced the risk associated with the LTCM contract. Once the LTCM contract is terminated, however, the counterparty must take steps to rebalance its portfolio (perhaps by finding a replacement for the original LTCM contract). Rebalancing is very costly in an environment where every other counterparty is trying to do precisely the same thing.

If LTCM's counterparties had taken steps to terminate and liquidate their derivatives contracts, the effects would have been analogous to a "bank run" on LTCM's assets, possibly resulting in the systemic ramifications articulated by Federal Reserve officials. As economists have argued recently, bank runs can cause or exacerbate liquidity shortages, resulting in systemic illiquidity with the potential to cause widespread contagion.[40] A run by derivatives counterparties of the kind that could have occurred in the LTCM episode seems similar to a bank run in that it too could result in the immediate and widespread liquidation of assets at firesale prices.

In contrast, the financial instability that (Congress feared) might arise if derivatives transactions were not exempt from the automatic stay seems less systemic in nature and less likely to destabilize financial markets. Congress worried that losses by a derivatives counterparty could trigger a chain reaction of insolvencies by making it impossible for a counterparty experiencing losses to meet its obligations to other counterparties. In general, this is implausible. Although a derivatives counterparty may suffer significant losses if it is unable quickly to terminate and close out its positions with a financially-stressed counterparty, this is also true for most other creditors of the firm (those subject to the automatic stay provision). In this sense derivatives counterparties seem no different from other creditors, and we rarely worry about a chain reaction of insolvencies when, say, United Airlines defaults on obligations to its vendors.

A "chain reaction of insolvencies" might, however, be worrisome in two situations. One is where a distressed counterparty is a particularly large player in the market and suffers distress as a result of unanticipated economic turmoil that reduces market liquidity. LTCM's distress, for example, was precipitated by Russia's devaluation of the ruble and declaration of a debt moratorium in

40 Douglas Diamond & Raghuram Rajan, Liquidity Shortages and Banking Crises (August 2003) (working paper, on file with authors).

August 1998.[41] This unexpected event led to a so-called "flight" to liquidity and quality: investors sold-off or avoided high-risk, illiquid financial products and gravitated toward safer, more liquid instruments, sharply increasing yield spreads. LTCM suffered massive losses as yield spreads widened around the world, and found itself on the verge of default in a highly illiquid market.[42]

Suppose that LTCM had filed a bankruptcy petition and, thanks to the Code's special treatment of derivatives contracts, its counterparties had closed out their contracts and seized collateral. Would this have avoided the risk of a "chain reaction" of insolvencies? No. Indeed, it would have exacerbated the risk. As one of us has explained elsewhere,[43] wholesale liquidation of LTCM's assets would have benefited few counterparties (prices would have collapsed long before most would have had a chance to liquidate their positions) and could have had serious "knock-on" effects because other counterparties and other financial firms held positions similar to LTCM's. Thus, counterparties could have suffered large losses and been forced to default on their own obligations to other parties, resulting in precisely the same "chain reaction of insolvencies" that Congress sought to avoid by exempting derivatives from the stay. This explains why LTCM's counterparties did not attempt to close out their positions and seize collateral when LTCM entered financial distress. Instead, with encouragement from the Fed, they put an additional $3.6 billion into LTCM to ensure that it remained solvent so that they would have time to unwind LTCM's derivatives positions in an orderly fashion. For the counterparties, the additional investment in a failing LTCM was obviously viewed as less costly than the expected losses from the wholesale liquidation of LTCM's positions and collateral. As the President's Working Group on Financial Markets put it, "[t]he self-interest of these firms was to find an alternative resolution that cost less than they could expect to lose in the event of default."[44]

A chain reaction of insolvencies may also be a possibility if the distressed counterparty is a particularly large player in the market and counterparties generally failed to employ sound risk management procedures when dealing with the distressed counterparty. Derivatives counterparties, like all other creditors, have strong incentives to manage their credit risks prudently so that losses do not cause them financial distress. The insolvency of a small derivatives counterparty should not result in a "chain reaction" effect because losses will be small, and even the insolvency of a large counterparty like LTCM should not have this effect unless its counterparties behaved imprudently in their dealings with the distressed counterparty (which may have

41 *See* Edwards, *supra* note 33, at 199-200.

42 *Id.*

43 *Id*. at 202.

44 PRESIDENT'S WORKING GROUP ON FIN. MKTS, *supra* note 34, at 13. *See also* Edwards, *supra* note 33, at 202.

been the case with LTCM[45]). But the better solution to this failure is better risk management by counterparties, rather than amendments to the Bankruptcy Code exempting derivatives counterparties from its automatic stay provisions. Or, in the case of banks and other regulated financial institutions—which constitute the major derivatives counterparties in OTC derivatives markets—the answer should be either better supervision or a regulatory structure that increases incentives to manage counterparty risk more effectively.

Thus, one view of the potential for LTCM to have caused a systemic crisis is that this crisis was precipitated by the very provisions of the Bankruptcy Code that were designed to assure stability in derivatives markets. Had these provisions not been adopted, it is very likely that there would not have been either an "abrupt and disorderly close-out of LTCM's positions" or an "unwinding [of] LTCM's portfolio in a forced liquidation." There probably would have been no need for the Federal Reserve to intervene to prevent a "seizing up of markets . . . [that] could have potentially impaired the economies of many nations, including our own." While counterparties of LTCM might have suffered losses had they been stayed by the Code, it is unlikely that these losses would have been large enough to bring down large banks and securities firms. If they had been stayed by the Code, LTCM's major creditors almost certainly would have opted to facilitate a bankruptcy-supervised creditor "work-out" by putting in more capital and reorganizing the ownership structure of LTCM, just as they did under the Federal Reserve arranged work-out. Indeed, as subsequent events showed, it was clearly in the collective interest of LTCM's counterparties and creditors to avoid a "run" on LTCM and the accompanying firesale of its assets. Thus, in the absence of the Bankruptcy Code's special treatment of derivatives, Fed intervention may have been unnecessary.

LTCM is not the only large-scale derivatives counterparty to suffer financial distress. Indeed, an even more spectacular failure occurred recently in the form of Enron, which dominated many energy derivatives markets. One scholar estimates that Enron made more money trading derivatives during the year 2000 than LTCM made in its entire history—if we believe Enron's 2001 10-K.[46] Unlike LTCM, the federal government did not intervene to help Enron as it entered financial distress (despite lobbying efforts by the firm's bankers).[47] Unlike LTCM, Enron did file a Chapter 11 petition. And in stark contrast to

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45 Available evidence suggests that LTCM's counterparties did indeed behave imprudently (by, for example, extending credit at below-market rates and by entering under-collateralized derivatives contracts without verifying the scale or scope of LTCM's trading operations). *See, e.g.*, PRESIDENT'S WORKING GROUP ON FIN. MKTS., *supra* note 34, at 14-17; U.S. GEN. ACCOUNTING OFFICE, *supra* note 34, at 10-12 (1999); *see also* Edwards, *supra* note 33, at 204-05.

46 Frank Partnoy, *Enron and the Derivatives World*, *in* ENRON: CORPORATE FIASCOS AND THEIR IMPLICATIONS 169 (Nancy B. Rapoport & Bala G. Dharan eds., 2004).

47 STAFF OF SENATE COMM. ON GOVERNMENTAL AFFAIRS, 107th CONG., ENRON'S CREDIT RATING: ENRON'S BANKERS' CONTACTS WITH MOODY'S AND GOVERNMENT OFFICIALS (Comm. Print 2003).

the Fed's expectations in LTCM, Enron's bankruptcy did not destabilize either energy derivatives markets or financial markets generally.

This was, to many observers,[48] a surprising outcome.[49] Indeed, the absence of systemic effects in the wake of a major counterparty's collapse might be seen as evidence that the Code's special treatment of derivatives worked as intended. The International Swaps and Derivatives Association (ISDA) has made precisely this argument:[50] counterparties were free to terminate contracts and seize collateral, thereby minimizing losses. The result might also be seen as evidence that the Fed's concerns in LTCM were misplaced: just as in Enron, LTCM's collapse would not have destabilized financial markets.

But Enron's insolvency presented fundamentally different issues than LTCM's. First, it is *not* true that Enron's failure had little effect on financial markets. Liquidity in energy markets and many specialized markets (such as telecommunications bandwidth trading) collapsed in the wake of the bankruptcy filing.[51] What is true, however, is that this collapse was not as severe as that experienced in the LTCM crisis. Also, LTCM's insolvency was driven by mounting losses in its derivatives positions, while Enron's insolvency was driven by sustained and increasing losses in its core non-financial businesses—losses that were covered up by a massive accounting fraud. If its annual reports offer any guidance, Enron's derivatives trading arm was its *only* profitable operation.[52] Enron indicated, post-petition, that its derivatives trading business accounted for the "lion's share" of its income.[53] Before and after Enron filed its bankruptcy petition in December 2001, many derivatives counterparties with in-the-money contracts with Enron canceled these contracts and seized collateral.[54] But many counterparties had out-of-the-money contracts and Enron

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48 *See, e.g.*, *Upended: The Imminent Bankruptcy of Enron Could Destabilise Energy and Financial Markets Around the World*, ECONOMIST.COM, Nov. 30, 2001 (predicting that Enron's imminent collapse would resemble the LTCM debacle).

49 *See, e.g.*, Susan Lee, *The Dismal Science: Enron's Success Story*, WALL ST. J., Dec. 26, 2001, at A11 ("At the end of September, Enron had 25% of the energy-trading market. Just two months later, its business had disappeared but that disappearance didn't cause the tiniest ripple in the market. The swift collapse of what once was a $77 billion dollar company failed to generate either a price spike or a supply interruption because the market was sufficiently liquid and deep to absorb it."); *A Fresh Look at Rules for Energy and Finance*, FIN. TIMES, Feb. 19, 2002, at 19; *see also* Jacqueline Lang Weaver, *Can Energy Markets Be Trusted? The Effect of the Rise and Fall of Enron on Energy Markets*, 4 HOUSTON BUS. & TAX L.J. 1, 24-25 (2004).

50 *See CFTC Oversight of Derivatives Markets: Hearing Before the Senate Comm. on Agric., Nutrition and Forestry*, 107th Cong. (2002) (statement of Ernest T. Patrikis on behalf of the International Swaps and Derivatives Association); INT'L SWAPS & DERIVATIVES ASS'N, ENRON: CORPORATE FAILURE, MARKET SUCCESS (2002).

51 INT'L SWAPS & DERIVATIVES ASS'N,, RESTORING CONFIDENCE IN U.S. ENERGY TRADING MARKETS 9 (2003).

52 *See* Partnoy, *supra* note 46, at 183 (making this point and reproducing data from Enron's 2000 income statement).

53 Response and Objection of Exco Resources, Inc. at 3, *In re* Enron Corp., No. 01-16034 (Bankr. S.D.N.Y. Jan. 8, 2002).

54 *See* Emergency Motion for an Order Pursuant to Sections 105 and 363 of the Bankruptcy Code and Rule 9019(b) of the Federal Rules of Bankruptcy Procedure for Authority to Negotiate and

immediately took steps to collect amounts owed to it ("termination payments").[55] These amounts totaled over $3 billion as of November 2003 (an additional $2.2 billion was sought in litigation against counterparties that terminated contracts that, in Enron's view, were disguised loans).[56] More importantly, Enron's derivatives trading arm continued operating despite the firm's Chapter 11 filing, and the firm moved[57] quickly to sell the operation to a third-party (ultimately to UBS Warburg[58]), thereby minimizing disruption to OTC markets.

For these reasons the collapse of Enron was much different from the collapse of LTCM. Enron's bankruptcy filing did indeed create a "counterparty run" that consumed assets, but the effect of this run was limited by the fact that Enron's trading operations were, it seems, largely profitable: some counterparties (with in-the-money positions) were free to seize Enron assets, but another large group of counterparties (with out-of-the-money positions) found themselves liable to Enron. There was no wholesale run on Enron's assets, and no firesale of assets. Although Enron's collapse did create a liquidity vacuum in certain energy derivatives markets, it did not threaten liquidity in overall financial markets—something the Fed feared in the LTCM crisis.[59] Put differently, Enron's collapse did not pose a risk of a systemic meltdown. Its insolvency, therefore, neither supports nor undermines ISDA's claim that the Code's special treatment of derivatives minimizes systemic risk nor our claim that the Code can, in some cases, exacerbate systemic risk.

In sum, then, the LTCM episode suggests that the most important risk to financial stability may come from the possibility that derivatives counterparties, exempt from the automatic stay provisions of the Bankruptcy Code, may "run" on a financially distressed firm (or firms), causing a liquidity shortage that has the potential to spill over to other firms and markets and cause widespread instability in financial markets. In contrast, in the absence of a systemic liquidity shortage, there is no reason to think that derivatives counterparties could not adequately manage their counterparty risks or could not absorb counterparty losses without triggering a chain reaction of insolvencies.

Does this mean that the Code's special treatment of derivatives contracts is a mistake? Are derivatives contracts no different from other contracts and

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Enter into Termination or Sale Agreements with Counterparties to Certain "Safe Harbor" Contracts Without Further Court Approval, *In re* Enron Corp., No. 01-16034 (Bankr. S.D.N.Y. Dec. 10, 2001).

55 *Id*.

56 Disclosure Statement for Fifth Amended Joint Plan of Affiliated Debtors Pursuant to Chapter 11 of the United States Code *In re* Enron Corp., No. 01-16034 at 236-37 (Bankr. S.D.N.Y. Jan. 9, 2004).

57 Motion of Enron Corp. [to Sell Wholesale Trading Business], *In re* Enron Corp., No. 01-16034 (Bankr. S.D.N.Y. Dec. 14, 2001).

58 Order Pursuant to Sections 105, 363, and 365 of the Bankruptcy Code [Approving Sale of Wholesale Trading Arm to UBS Warburg], *In re* Enron Corp., No. 01-16034 (Bankr. S.D.N.Y. Jan. 22, 2004).

59 PRESIDENT'S WORKING GROUP ON FIN. MKTS., *supra* note 34, at 17-22.

assets of a troubled firm? Not necessarily; in the next section we offer an alternative justification for the Code's treatment of derivatives. The real lesson to draw from the LTCM episode, however, is that the systemic risk rationale for exempting derivatives contracts does not make much sense. A Bankruptcy Code exemption for derivatives offers little help in alleviating the potential systemic risk associated with the insolvency of a large derivatives counterparty like LTCM, and may even exacerbate or create a systemic risk. The better approach to mitigating possible systemic risk from a derivatives counterparty failure is to increase incentives for counterparties and creditors to use better risk management procedures, either by enhancing market discipline or by more effective regulatory oversight of regulated financial institution counterparties. But in the event of a market failure, central bank intervention may be the only recourse.

III. A Better Reason for Treating Derivatives Differently

Derivatives contracts are different. To see why, we need to consider the theoretical foundations for the automatic stay. The stay serves the same purposes as government regulation of common pool resources and other externality-creating activities.[60] As others have noted, a firm in distress is analogous to a scarce resource (e.g., fish in a lake) to which users have unlimited, non-exclusive rights of access.[61] In the absence of regulation or the creation of exclusive property rights, the resource will be overused. The first user to exploit the resource will be satisfied, the last will not; therefore, every user rushes to consume the resource first. This will be true even if the resource would have more value per user if exploited in a more restrained fashion.

Unsecured creditors have similar incentives to descend upon the limited assets of a distressed firm. The first creditor to reach state court and obtain a judgment lien will be paid in full; later creditors will be paid only cents on the dollar. Thus every creditor rushes to dismember the firm, to the disadvantage of all other creditors. Even when this rush to the courthouse does not result in premature dismemberment of a firm (perhaps the firm plans to liquidate), it is nonetheless wasteful. Every creditor incurs legal costs trying to monitor other creditors in order to ensure that it is first (or at least not last) in line for repayment when the debtor becomes insolvent.[62] The automatic stay prevents this destructive race, thereby preserving firms with going concern value and reducing creditor collection costs.

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60 In this context "externality-creating" activities are those that may indirectly impose costs on other creditors of the firm.

61 *See, e.g.*, THOMAS H. JACKSON, THE LOGIC AND LIMITS OF BANKRUPTCY LAW 10-13 (1986).

62 *See, e.g.*, Robert K. Rasmussen, *Bankruptcy and the Administrative State*, 42 HASTINGS L.J. 1567, 1573-74 (1991).

Secured creditors, on the other hand, would seem to have little incentive to take part in this race. They have obtained exclusive rights to particular assets of the debtor, i.e., collateral. Yet the automatic stay applies to them too.[63] If Bank loaned $1 million to Debtor and took a security interest in Debtor's machinery as collateral, the automatic stay prevents Bank from seizing the machinery when Debtor stops repaying the loan and files a bankruptcy petition. This is because the machines may be essential to Debtor's viability.[64] Removal of collateral benefits the secured creditor but harms other creditors by destroying firm value. Bank ignores this harm to other creditors because "it has nothing to gain from waiting and attempting to keep the firm intact, but . . . can do worse if the firm continues and its fortunes decline."[65] Thus, even a secured creditor has strong incentives to remove collateral, creating an externality vis-à-vis other creditors of the debtor firm. The automatic stay limits this externality much as environmental regulation limits environmental externalities.

This is the traditional view of the automatic stay, which is grounded in a traditional view of Chapter 11: troubled firms use Chapter 11 to establish a collective proceeding that preserves firms with going concern surplus and reduces creditor collection costs. Recent scholarship questions this view of Chapter 11 and suggests that, in modern practice, Chapter 11 is primarily a vehicle for selling assets or implementing capital restructuring plans devised by a majority of creditors.[66] Outside of Chapter 11, these goals may be difficult or impossible to achieve.[67] Under this revisionist view, the automatic stay functions simply to prevent actions (by the debtor or its creditors) that might disrupt a proposed sale or agreed-upon restructuring. This account of the automatic stay differs from the traditional account only in cases where creditor conduct might disrupt, say, a proposed sale but would neither induce a costly rush to the courthouse nor generate other externalities. Such cases are probably

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63 *See* 11 U.S.C. § 362(a)(5) (2000) (prohibiting "any act to create, perfect, or enforce against property of the debtor any lien to the extent that such lien secures a claim that arose before the commencement of the case under this title").

64 *See generally* Douglas G. Baird & Thomas H. Jackson, *Corporate Reorganizations and the Treatment of Diverse Ownership Interests: A Comment on Adequate Protection of Secured Creditors in Bankruptcy*, 51 U. CHI. L. REV. 97, 116-21 (1984); JACKSON, *supra* note 61, at 181-83.

65 Baird & Jackson, *supra* note 64, at 106.

66 Douglas G. Baird & Robert K. Rasmussen, *The End of Bankruptcy*, 55 STAN. L. REV. 751 (2002).

67 Asset sales outside of bankruptcy are problematic because the seller's creditors may claim that the sale was a de facto merger of the buyer and seller, meaning that the buyer assumed the seller's liabilities when it purchased the seller's assets. This problem is avoided in bankruptcy because, under 11 U.S.C. § 363 (2000), assets are sold free and clear of creditor claims. Similarly, capital restructuring outside of bankruptcy is difficult because, under the federal Trust Indenture Act, the most important terms of a bond indenture (interest and principal) cannot be altered without unanimous consent of all bondholders. This problem is avoided in bankruptcy because, under section 1129, debt can be restructured with the consent of creditors holding two-thirds in value and a majority in number of the claims in each class. Even if such consent is absent, two-thirds restructuring may still be possible. Dissenting creditors can be "crammed down" under certain conditions. *See* Baird & Rasmussen, *supra* note 66, at 786-88.

rare; it is hard to identify creditor conduct that would harm a firm's sale value but not its going-concern value, or would benefit the individual creditor but not generate costly competition among other creditors to obtain the same advantage.[68]

A. *General Limits on the Stay*

The foregoing view of the Bankruptcy Code suggests natural limitations on the scope of the automatic stay: the stay should exempt creditor collection efforts that raise no common-resource problem or do not generate other externalities that reduce the debtor's going-concern value. The Bankruptcy Code does indeed create exceptions to the automatic stay, and many exceptions fit within the theory outlined above.

The most important exception is the judge's discretion, under section 362(d), to grant a creditor's motion to terminate the automatic stay with respect to particular assets. A court may grant the motion either "for cause" or if the creditor offers proof that the debtor firm has no equity in the asset and that the asset is "not necessary to an effective reorganization." The automatic stay, then, creates a rebuttable presumption that a debtor's assets are firm-specific and therefore "necessary to an effective reorganization."[69]

Beyond this general exception to the stay, there are many specific exceptions targeting particular creditors or particular assets. As we noted previously, the stay does not extend to the government's police or regulatory power. A debtor cannot avoid criminal prosecution or the enforcement of environmental protection laws, and a troubled educational institution cannot prevent accrediting agencies from reevaluating the institution's eligibility for state funding.[70] In these situations, the government is acting as regulator, not creditor, and is therefore not attempting to gain an advantage over other

68 We are assuming, as do many others, that the primary goals of bankruptcy law are to maximize creditor recovery ex post by preserving firms with going concern surplus (i.e., firms worth more intact than sold piecemeal) and to encourage investment ex ante. *See* Alan Schwartz, A Normative Theory of Business Bankruptcy (Apr. 2004) (working paper, on file with author). Alternative goals could be proposed: the law might serve to reduce creditor collection costs through a collective proceeding in a single federal court (instead of multiple proceedings brought by individual creditors in various state courts), or the law might be thought to distribute losses in a manner that promotes particular social policies (e.g., favoring employees who are "ill-suited to bear the costs of default" over secured creditors who anticipated default). Elizabeth Warren, *Bankruptcy Policy*, 54 U. CHI. L. REV. 775, 790 (1987). We ignore these goals for two reasons. First, bankruptcy law will play an important role in reducing creditor collection costs only in cases where creditor collection efforts generate a common-resource problem. If a firm is insolvent, creditors will race to dismember the firm. Bankruptcy law will prevent this destructive race and, at the same time, reduce collection costs. If a firm is solvent (or not expected to become insolvent), creditors have little or no incentive to dismember the firm. Second, like many other scholars, we suspect that bankruptcy is a poor vehicle for promoting social welfare policies. *See generally* Schwartz, *supra*; Douglas G. Baird, *Bankruptcy's Uncontested Axioms*, 108 YALE L.J. 573 (1998); Robert K. Rasmussen, *An Essay on Optimal Bankruptcy Rules and Social Justice*, 1994 U. ILL. L. REV. 1 (1994).

69 11 U.S.C. § 362 (d)(1), (2).

70 § 362(b)(1), (4), (14), (15), (16) (2003).

creditors. Although the government's efforts may reduce firm value to the detriment of all creditors (e.g., an order to remediate polluted land), the reduction in value is the unavoidable result of compliance with the law. On the other hand, when the government's regulatory efforts become debt-collection efforts (as when the state seeks compensation for pre-petition remediation efforts), the automatic stay steps into place.[71]

Another exception to the automatic stay ensures that the Bankruptcy Code does not alter the substantive state-law rights of one creditor vis-à-vis others. Consider Vendor that sold equipment to Debtor on credit; to ensure repayment, the sale agreement gave Vendor a security interest in the equipment. This security interest, however, is not enforceable against subsequent lenders (who may also use the equipment as collateral) unless Vendor perfects the security interest by filing a financing statement with the appropriate state official (usually the secretary of state). What if Debtor files a bankruptcy petition after receiving the equipment but before Vendor has perfected its security interest? Although the automatic stay would generally prevent Vendor from taking steps to perfect its interest, section 362(b)(3) creates an exception: provided Debtor filed the petition only a few days after receiving the equipment, Vendor may perfect its security interest by filing a financing statement with the appropriate public official.[72] This rule ensures that Vendor has the same right to perfect a security interest in bankruptcy that it would have enjoyed outside of bankruptcy.[73] More importantly, this exception to the automatic stay permits acts that generate neither common-pool problems nor other externalities that reduce firm value. When Vendor perfects a security interest, it is merely announcing rights to collateral pursuant to a pre-petition contract. There is no rush to seize assets; there is no adverse effect on the viability of the firm.

Other exceptions make clear that the automatic stay has no effect on creditor efforts to reach property that is not part of the debtor's estate. Thus, a creditor may present a check or other negotiable instrument to the debtor, have it dishonored, and then seek payment from a guarantor.[74] And a landlord may repossess commercial real estate if the terms of the lease have expired; such property is not part of the debtor's estate.[75] In each case it is obvious that the creditor's collection efforts generate neither common-pool problems nor

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71 *See, e.g.*, Ohio v. Kovacs, 469 U.S. 274 (1985). More generally, see the discussion in Rasmussen, *supra* note 68, at 1596-1602.

72 This narrow exception is available only to suppliers who sold goods on credit to the debtor no more than twenty days before the debtor filed a bankruptcy petition. *See* 11 U.S.C. § 362(b)(3) (2000); U.C.C. § 9-317(e) (1999).

73 Outside of bankruptcy, Vendor has twenty days to perfect its interest and claim priority to the collateral (other than inventory). It would enjoy the same priority even if another creditor obtains a security interest in the same collateral and perfects its interest before Vendor does. U.C.C. § 9-324(a) (1999).

74 11 U.S.C. § 362(b)(11) (2000).

75 § 362(b)(10).

externalities. The creditors are seizing assets that no longer belong to the debtor.

B. *Cash and the Automatic Stay*

Perhaps the most important limitations on the automatic stay involve cash and cash equivalents. The Bankruptcy Code freezes any cash, securities, or other "cash equivalents" in which a creditor has taken a security interest, no matter where that cash was deposited. Unless the creditor consents—or unless the court finds good reasons for overcoming the creditor's lack of consent—the debtor cannot use the "cash collateral."[76] At the same time, the creditor cannot use the collateral either. The creditor remains obligated to return the collateral to the debtor either when the court orders its return or when the debtor complies with the terms of the underlying contract.

A similar set of rules govern "setoffs." Frequently a firm and its creditor have offsetting obligations. A commercial bank will extend a loan to the firm, which in turn deposits cash in an account at the bank; a landlord will lease real estate to the firm and the firm will post a deposit; an investment bank will extend a loan and the firm will pledge securities as collateral. In each case the firm is indebted to a creditor, but the creditor is also indebted to the firm (the landlord, for example, must return the deposit if the firm honors the terms of the lease). And under state law, each has a right of setoff: the creditor may offset debts owed to the firm against debts owed by the firm. When the firm files a bankruptcy petition, this right of setoff is only partially limited by the automatic stay.[77] Although the stay prevents each creditor from exercising its right of setoff and seizing any cash posted by the debtor,[78] the stay nevertheless does permit the creditor to limit the debtor's ability to use this "cash collateral" (i.e., cash or cash equivalents, such as securities, that serve as collateral).[79] A commercial bank can freeze the debtor's account, at least temporarily.[80] A landlord (or an investment bank) can retain a deposit (or margin), unless the debtor proves to the court that the landlord's interest[81] in the deposit will be "adequately protected" by the debtor taking possession.[82]

Along the same lines, the automatic stay does not prevent a creditor from unilaterally terminating a contract to loan money to a debtor firm. Generally,

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76 § 363(c)(2).

77 § 553(a) ("Except as otherwise provided in this section and in sections 362 and 363 of this title, this title does not affect any right of a creditor to offset a mutual debt owing by such creditor to the debtor that arose before the commencement of the case under this title against a claim of such creditor against the debtor that arose before the commencement of the case .").

78 § 362(a)(7).

79 § 363(a).

80 Citizens Bank of Md. v. Strumpf, 516 U.S. 16 (1995).

81 The landlord's interest is limited by § 502(b)(6), which puts a cap on the damages a landlord can claim for breach of a lease of real estate.

82 United States v. Whiting Pools, Inc., 462 U.S. 198, 207 (1983).

the stay prevents any contractual partner from terminating ongoing ("executory") contracts with a firm that has filed a bankruptcy petition. The debtor firm is given the exclusive right—for a limited period—to choose whether to continue ("assume") or terminate ("reject") ongoing contracts. The Code, however, carves out an exception for contracts "to make a loan, or extend other debt financing or financial accommodations, to or for the benefit of the debtor, or to issue a security of the debtor."[83]

The Code's treatment of cash, cash equivalents, and contracts to loan cash may seem puzzling. After all, a creditor generally cannot place a "freeze" on collateral. If Bank has taken a security interest in a firm's plant or equipment, it cannot prevent the firm from using the plant or equipment in its operations. What distinguishes this example from the previous ones, we believe, is asset specificity. Plant and equipment may be firm-specific or industry-specific assets. Cash is never specialized; it is a fungible asset.

This distinction—between specialized and fungible assets—is critical to the economic theory of corporate reorganization.[84] A firm is worth reorganizing if its assets generate greater value in their current configuration than in a market sale. This difference is generally called "going concern surplus." It exists, however, only if the firm's assets are worth more to the firm than to any outsider. This asymmetry arises when assets are customized to meet a firm's idiosyncratic needs or the needs of firms in the same industry (examples include airplanes, railroad tracks, and brewery equipment). These specialized assets cannot be readily redeployed by other firms (if the assets are firm-specific) or by firms outside the industry (if they are industry-specific). As a result, plant, equipment, and other specialized assets are relatively illiquid: there are few buyers for the assets, and any potential buyers will value the assets significantly less than the seller does.[85] A basic function of bankruptcy law is to protect these illiquid assets. If creditors could seize and sell these assets, they would fetch firesale prices and the firm's going-concern surplus would be destroyed.[86]

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83 §365(c)(2).

84 We are hardly the first to make this point. For similar arguments, see Viral V. Acharya et al., On the Capital-Structure Implications of Bankruptcy Codes (Mar. 28, 2004) (working paper, on file with author); Douglas G. Baird & Robert K. Rasmussen, *Chapter 11 at Twilight*, 56 STAN. L. REV. 673, 685-93 (2003); Baird & Rasmussen, *supra* note 66, at 768-77.

85 *See* Oliver Williamson, *Corporate Finance and Corporate Governance*, 43 J. FIN. 567 (1998), showing the link between asset specificity and corporate finance.

86 Andrei Shleifer & Robert Vishny, *Liquidation Values and Debt Capacity: A Market Equilibrium Approach*, 47 J. FIN. 1343 (1992), develop this point. They show that when financial distress is correlated within an industry, bankruptcy law prevents inefficient liquidation of industry-specific assets. In the absence of bankruptcy law, these assets would be sold at fire-sale prices to lower-value users outside the industry; the assets will not be purchased by higher-valuing users within the same industry because they too are suffering distress and are therefore liquidity constrained. For empirical evidence supporting this theory, see Per Strömberg, *Conflicts of Interest and Market Illiquidity in Bankruptcy Auctions: Theory and Tests*, 55 J. FIN. 2641 (2000); Todd C. Pulvino, *Do Asset Fire Sales Exist? An Empirical Investigation of Commercial Aircraft Transactions*, 53 J. FIN. 939 (1998).

The same cannot be said for cash and other fungible assets. They are worth as much to the firm as they are to outsiders; a $100 bill is worth $100 whether it is held by the firm or by one of its competitors. Indeed, cash is the benchmark liquid asset; many financial instruments are nearly as liquid. No firm derives going concern surplus from its holdings of cash or similarly liquid instruments (which explains why insolvent broker-dealers are liquidated, not reorganized).[87] To be sure, the firm may need access to cash in order to run its operations and preserve going concern surplus. But there is nothing about cash collateral (cash in which a creditor has rights) that makes it more important to a firm's survival than cash available from any potential lender. If the Code allowed a bankrupt firm free access to cash collateral, it would effectively force creditors to extend new loans to the debtor on non-competitive terms. But the Code generally does not force loans, and in some cases it does just the opposite. Thus, under section 365(c)(2), a debtor cannot force lenders to honor pre-bankruptcy commitments to extend credit. The debtor is forced to seek credit ("debtor-in-possession financing") on competitive terms.

A puzzle remains, however. Why does the Code merely freeze cash collateral? The theory developed here suggests that the automatic stay should allow a secured creditor both to freeze and seize cash collateral when a debtor seeks bankruptcy protection. The Code, however, not only prohibits the creditor from seizing the collateral, but also creates an opportunity for the debtor to use the cash collateral over the creditor's objection. If the bankruptcy judge is convinced that the debtor can "adequately protect"[88] the creditor's interest in the collateral, the judge may allow the debtor to use the collateral. Here we see a case where the Code can in fact force existing creditors to "loan" cash collateral to the debtor. This provision of the Code is troubling. Logically, it does not sit well with other provisions: although a debtor cannot force creditors to honor pre-existing agreements to loan cash in their possession, the debtor can force the same creditors to loan cash in the debtor's possession. Equally troubling is the well-known danger that judges will force loans on terms that are less favorable than comparable loans negotiated in the marketplace.[89]

We might make some sense of the Code's treatment of cash collateral by looking more closely at the extent to which it is a firm-specific asset. Cash is indeed the benchmark fungible asset, but it may not be easy to replace. As

87 *See* § 741.

88 Just as a bank typically will not extend credit without assurance of repayment, a court will not permit access to cash collateral unless the debtor can assure the creditor that it will be no worse off as a result. This assurance, or "adequate protection," may come in the form of a lien on newly-acquired assets or a promise to make periodic cash payments in the future (if a debtor owns an apartment complex, for example, it might assign future rents to the creditor).

89 *See, e.g.*, George G. Triantis, *Financial Slack Policy and the Laws of Secured Transactions*, 29 J. LEGAL STUD. 35, 67-68 (2000).

economists have shown empirically,[90] lending relationships are valuable. A bank generally gathers extensive information about its borrowers, and the closer the relationship between a bank and borrower, the greater the availability of financing. Because of this phenomenon, a troubled firm has strong incentives to continue dealing with existing creditors and could face a hold-up problem if the Bankruptcy Code gave creditors free reign to seize cash collateral. The Code helps protect a firm's investment in pre-existing lending relationships and reduces hold-up problems by prohibiting creditors from seizing cash collateral. At the same time, the Code recognizes that cash is not a firm-specific asset and prohibits the firm from using it unless the secured creditor consents or the court gives permission. The Code therefore abandons the usual rebuttable presumption that assets are firm-specific. Instead, with respect to cash, it creates a rebuttable presumption that the assets are not firm-specific. A debtor firm can overcome this presumption either by convincing the secured creditor to permit access to the cash collateral or by convincing the court that it should permit access over the creditor's objection.

This argument is not wholly satisfactory. Although lending relationships are important firm-specific assets, would these relationships be destroyed if lenders were free to seize cash collateral? Lending relationships are the product of bilateral investments by the lender and the borrower; a bank generally has as much interest in continuing a relationship as does the borrower. If lenders were free to seize cash collateral, debtor firms would be forced to apply for new loans and might be vulnerable to hold-up problems. But this phenomenon is largely a distributional concern. The bargaining power of the pre-existing lender may enable it to extend credit on terms that are less favorable to the debtor, but the loan will be made in any event. Moreover, if hold-up problems are significant in bankruptcy, the Code's provisions for cash collateral are patently inadequate. Most firms enter bankruptcy with little in the way of cash. They may, however, enter bankruptcy with lines of credit or other commitments from lenders to extend cash. Yet the Code does nothing to protect these commitments. The debtor is forced to bargain anew with pre-existing creditors.

It is possible, then, that the terms of the automatic stay are overbroad and provide too much protection for cash collateral. This observation may help explain the popularity of asset securitization, a practice in which debtors obtain financing by selling assets (typically receivables and other assets that generate cash collateral) to a separate legal entity, which then issues debt claims to creditors.[91] Because the assets are owned by a separate legal entity, they are beyond the reach of the automatic stay when the debtor files a bankruptcy

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90 *See generally* Mitchell A. Petersen & Raghuram G. Rajan, *The Benefits of Lending Relationships: Evidence from Small Business Data*, 49 J. FIN. 3 (1994).

91 *See, e.g.*, Comm. on Bankr. and Corp. Reorganization of the Ass'n of the Bar of the City of New York, *New Developments in Structured Finance*, 56 BUS. LAW. 95 (2000).

petition. Asset securitization, then, can negate the Code's overbroad rules governing cash collateral.

III. Derivatives Contracts and the Automatic Stay

Unlike cash collateral, nothing prevents a counterparty from closing out existing contracts, netting them, and then seizing collateral, which generally consists of cash, treasury bills, and other financial instruments.[92] These provisions governing derivatives contracts make sense under the simple theory of the automatic stay outlined in the previous section. Derivatives contracts are fungible, replaceable assets much like cash; indeed, the Code's definition of "cash collateral" lumps cash and financial securities together. Just as a firm's going-concern surplus will rarely depend on its cash holdings, its surplus will rarely depend on its derivatives contracts or the collateral posted to support those contracts.[93] If one contract is canceled, it can typically be replaced with an identical contract. If a counterparty seizes government securities posted as collateral, these securities are easily replaced. For this reason, meaningful externalities will rarely (if ever) arise when a counterparty cancels a derivatives contract with an insolvent debtor and seizes collateral.

This theory of derivatives contracts and the automatic stay is fairly straightforward in cases involving financial enterprises, such as hedge funds, that become insolvent. The assets of these firms consist entirely of financial contracts. Although much talent and energy may have been spent to assemble and manage its contracts, there is little or no going-concern surplus in an insolvent hedge fund. If a fund is insolvent, it is because the value of its portfolio has diminished, at least in the short term. The portfolio may increase in value in the long-term, but this is not a reason to attempt to reorganize the firm. The firm's assets are fungible and its long-run potential is not destroyed when these assets are seized by creditors. Provided the managers can prove that this long-run potential exists (something the managers would have to do even if the firm were reorganized under Chapter 11), outside investors would be willing to pay the firm to reassemble the portfolio. To be sure, transaction costs will be incurred when the firm reassembles its portfolio, but the small costs of trading in financial markets seem trivial compared to the costs that would be borne by counterparties forced to participate in the bankruptcy process[94] and continue dealing with a firm that may be unable to demonstrate its long-run potential.

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92 U.S. dollars and government securities account for about 75% of collateral posted by derivatives counterparties; foreign currency, major index equities, AAA-rated bonds, and other securities make up the balance. INT'L SWAPS AND DERIVATIVES ASS'N, INC., ISDA COLLATERAL SURVEY 29 (2000).

93 This assumes, of course, that the collateral underlying the derivatives contracts consists of non-firm specific assets. This is the case in practice. *Id.*

94 Professional fee and expense awards (which make up only a fraction of total expenses incurred by the debtor and its creditors) consume about 2% of firm value. Lynn M. LoPucki & Joseph

Our claim—that the automatic stay should permit derivatives counterparties to cancel contracts and seize collateral—is more complicated when we consider non-financial firms, such as manufacturing, energy supply, and telecommunications concerns, that enter insolvency. When a counterparty cancels a derivatives contract and seizes collateral, it may expose the distressed firm to increased risk that reduces the value of its non-financial assets. The firm may have entered the derivatives contract in the first place to hedge particular risks, such as interest rate and exchange rate fluctuations. This hedge disappears when a counterparty cancels a derivatives contract. The increased exposure to, say, exchange-rate risk can harm the firm's operations and its other creditors.

Again, however, the harm to the debtor firm is generally equal to the counterparty's gain: upon cancellation of the contract, the firm loses a hedge against, say, interest-rate fluctuations and the counterparty ceases providing this hedge. The firm can regain the benefits of hedging simply by entering a new derivatives contract. Indeed, the more specialized the derivative, the more likely a counterparty may be to reenter a contract with the debtor firm. If the debtor is party to a highly specialized contract, for example, neither debtor nor its counterparty may be able to replace it and both will have strong incentives to renegotiate. To be sure, a firm in bankruptcy generally will be unable to replace a derivatives contract on precisely the same terms. New counterparties will charge a premium to deal with a distressed firm, which may be unable to perform its future obligations under the contract. The premium may be so high that the firm can no longer hedge certain risks; as a result, firm value may fall, to the detriment of all creditors.

Put this way, it may seem that a derivatives counterparty imposes an externality on other creditors when it unilaterally cancels a contract. But this is what economists call a "pecuniary externality" and is present in any competitive market (indeed, pecuniary externalities are the mechanism guaranteeing Pareto optimal outcomes in competitive markets).[95] Whereas a secured creditor's decision to seize a debtor firm's core specialized assets will directly reduce the value of the firm as a going concern,[96] a derivatives counterparty's decision to cancel a contract affects firm value only by affecting the price the firm must pay to hedge risk in the future.[97] This indirect effect on firm value is no different from the effect of an economy-wide increase in demand for a critical input (say, oil). Assuming a stable supply, the increase in demand will raise the price of fuel, thereby increasing debtor's costs, reducing profits, and reducing (at least temporarily) firm value. This "pecuniary" externality is the desirable by-product of a price system: the increase in price reflects the

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W. Doherty, *The Determinants of Professional Fees in Large Bankruptcy Reorganization Cases*, 1 J. EMPIRICAL LEGAL STUD. 111 (2004).

95 *See, e.g.*, RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 7 (5th ed. 1998).

96 By "value of the firm as a going concern," we mean the present value of expected returns from future operations.

97 *See* ANDREU MAS-COLELL ET AL., MICROECONOMIC THEORY 352 (1995).

increased scarcity of the good. The Bankruptcy Code should be as (un)concerned about an increase in demand as it is about a derivatives counterparty's decision to cancel a contract. Both decisions merely expose the debtor firm to the desirable discipline of market-based prices.

In any event, a firm's going-concern value is unlikely to be affected by having to replace its derivatives contracts. To illustrate, consider a typical fixed-income derivative, the interest-rate swap. For both solvent and insolvent firms, the cost of entering a new derivatives contract is typically the same as continuing an existing one. A large fraction (perhaps all) of swaps contracts are collateralized, meaning that the counterparties post liquid assets (typically cash and U.S. government securities) as collateral to support their obligations under the contracts.[98] Additionally, most of these contracts are "marked to market" at least daily,[99] meaning that the counterparties effectively settle their existing contract and reenter an identical contract every day. Thus, for most firms, little or no cost is incurred when one contract is replaced with another. The same is true for both solvent and insolvent firms, with one exception—any firm with a poor financial history, not merely a firm in bankruptcy, might be required to post margin when the contract is first signed. Swaps, then, provide a nice illustration of the phenomenon that a firm's going-concern value will rarely, if ever, depend upon its derivatives contracts.

The foregoing discussion is undoubtedly controversial, but this only underscores the difficulty in justifying the Code's special treatment of derivatives contracts. If the Code can do little to reduce systemic risk (which, we think, is clear) and if our theory of the automatic stay is in error, then there is no principled reason for treating derivatives differently.

IV. Ex Ante Effects of Treating Derivatives Differently

Our analysis is incomplete, as it has focused entirely on the ex post costs and benefits of the Code's treatment of derivatives contracts. From an ex ante perspective, two effects are notable. First, the Code lowers the cost of hedging risk generally, by reducing costs to counterparties from entering contracts with firms that might suffer distress. Second, the Code encourages rent-seeking behavior[100] by would-be creditors, who have strong incentives to structure loan agreements as derivatives contracts. Interestingly, both effects have social costs and may cut against an efficiency-based argument in favor of treating derivatives differently.

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98 Michael S. Johannes & Suresh Sundaresan, Pricing Collateralized Swaps 8-9 (May 2003) (working paper, on file with author).

99 *Id*.

100 By "rent-seeking behavior" we mean costly efforts undertaken by creditors and counterparties of a debtor to transfer value ("rents") from other creditors and counterparties to themselves. *See generally* Thomas H. Jackson & Robert E. Scott, *On the Nature of Bankruptcy: An Essay on Bankruptcy Sharing and the Creditors' Bargain*, 75 VA. L. REV. 155, 201-02 (1989).

A. *The Code and Liquidity in OTC Markets*

The Code undoubtedly reduces the transactions costs of hedging risk. A counterparty is more willing to enter a derivatives contract with a firm (or will enter at a lower price) if it can minimize the costs it may incur if the firm suffers financial distress. The Code reduces these costs by protecting counterparties against "cherry-picking" and by increasing the speed with which a counterparty can seize collateral. A debtor generally is free to choose which contracts to perform (accept) and which to breach (reject). If the debtor chooses to breach a contract, the non-breaching counterparty receives a low-priority unsecured claim that will typically be paid a few cents on the dollar. This rule creates strong incentives for debtors to engage in "cherry-picking": to reject all losing contracts (and pay a few cents in damages) and accept all winning contracts (and enjoy the full benefits).

Suppose, for example, that a firm has entered two supply agreements with a contractual partner. When the firm files a bankruptcy petition, one contract is profitable (to the firm) and one is unprofitable, and the cost of the unprofitable contract exceeds the benefits of the profitable one. The firm, in other words, has a net obligation owing to the contractual partner. But netting is generally not allowed under the Bankruptcy Code.[101] Instead, the firm is free to treat the contracts independently and breach the losing contract, pay pennies in damages, and continue the winning contract. The result is that the debtor enjoys a net gain, not a net loss, from the two contracts. Every contractual partner of a distressed firm faces the prospect of cherry-picking—everyone, that is, except derivatives counterparties. These counterparties, consequently, anticipate lower costs in the event that the debtor enters bankruptcy.

Counterparties anticipate lower costs for another reason as well: if the debtor firm enters bankruptcy, counterparties can immediately seize the cash, securities, and other collateral posted by the debtor. This is a benefit not enjoyed by any other creditor, which must typically wait weeks, months, or years before a court grants it permission to seize collateral (and if the firm reorganizes, the creditor may never obtain the collateral).

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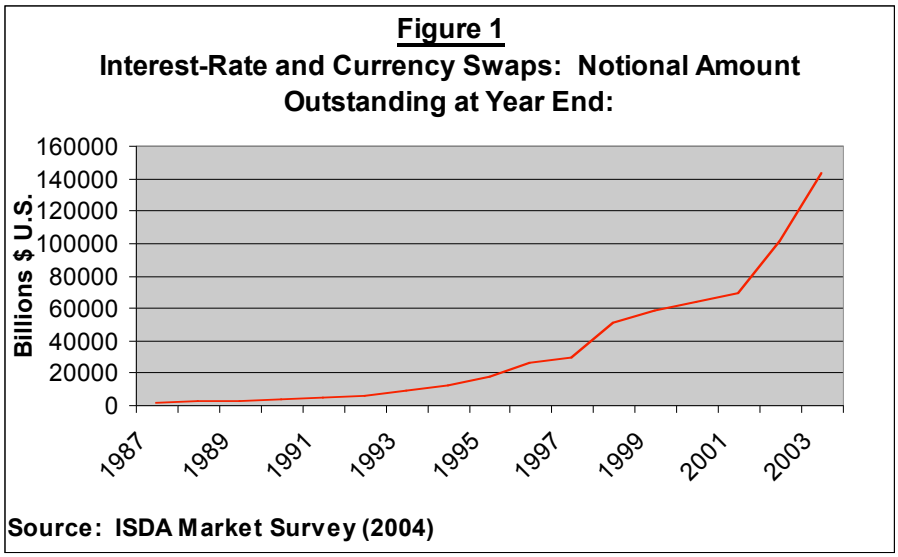
101 Netting is possible in limited cases subject to the judge-made doctrine of "recoupment," which permits a creditor to net two contracts if they arise from the same transaction or occurrence. *See generally* COLLIER ON BANKRUPTCY ¶ 553.10 (Lawrence P. King ed., 15th ed. 2004).



Together, these cost-reducing features of the Bankruptcy Code give derivatives counterparties strong incentives to enter contracts with firms even if those firms have a high likelihood of insolvency. Indeed, many economists suggest that the principal benefit of the Code's special treatment of derivatives is that it contributes significantly to the availability of over-the-counter derivatives and therefore has lowered the cost of hedging risk.[102] A casual glance at the data, plotted for interest-rate and currency swaps, suggests this might be true. The 1990s saw a significant increase in the notional value of swaps transactions in particular and OTC derivatives contracts generally. In June 2000 OTC derivatives accounted for more than 90% of the $108 trillion in derivatives notional principal accounted for by both exchange-traded and OTC derivatives. Only a decade ago exchange-traded and OTC derivatives markets were roughly equal in size. In 1998, the average daily turnover in OTC markets was estimated to be about $2.7 trillion (about $675 trillion on an annualized basis). By comparison, in 1999, world GDP was about $31 trillion, and global net capital flows totaled $394 billion.[103] Increased liquidity in OTC markets and firms' greater access to derivatives contracts enables firms to better hedge risk.

Increased liquidity does not come free, however. The Code reduces the transaction costs of hedging risk by placing derivatives counterparties ahead of

102 *See, e.g.*, Bergman et al., *supra* note 11, at 24-25.

103 INT'L MONETARY FUND, OCCASIONAL PAPER NO. 203, MODERN BANKING AND OTC DERIVATIVES MARKETS 9 (2000).

other creditors in bankruptcy proceedings. Counterparties are free to cancel executory contracts and seize collateral while other contractual partners are vulnerable to cherry-picking and other secured creditors must bear some of the costs of the bankruptcy proceedings (including delay in accessing collateral). The Code, then, redistributes wealth from ordinary creditors to derivatives counterparties. Ordinary creditors can respond by increasing the price of credit, which may limit the investment opportunities of some firms, or by seeking to limit (via contract) a borrower's access to OTC markets. But such contracting generates transaction costs, which are presumably non-trivial (otherwise the Code's effect on the transaction costs of hedging is implausible).

We therefore question the net social benefit of increasing liquidity in OTC markets via redistributive provisions in the Bankruptcy Code. Enhanced liquidity is undoubtedly a social good, especially when it is the product of technological innovation (such as the growth of organized exchanges). It is less obviously a social good when it is the product of a government subsidy, paid for by other creditors.[104]

V. Effects on Rent Seeking

In Part III we presented an argument in favor of exempting derivatives contracts from the automatic stay, but we assumed that the identities of creditors and counterparties were fixed. If, instead, a *would-be* creditor could switch to being a derivatives counterparty prior to a counterparty's insolvency,

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104 It may be worth mentioning another potential downside to the Code's cost-reducing provisions. As derivatives counterparties bear less of the costs of a firm's insolvency, they have fewer incentives to monitor its financial condition. This effect is important, however, only if the reduction in monitoring incentives is significant, if monitoring by other creditors and by shareholders is inadequate, and if derivatives counterparties would continue to deal with the firm even if Congress eliminated the Bankruptcy Code's special treatment of derivatives. We doubt that these conditions are satisfied in the vast majority of cases. For example, notwithstanding the Code's special treatment of derivatives contracts, counterparties still have strong incentives to monitor the firm's financial condition. Most derivatives contracts are marked-to-market and require the firm to post additional collateral as its estimated liability under the contract increases. Consider, again, an interest-rate swap: the firm agrees to pay the counterparty, say, 5% per annum for two years on a notional principal (perhaps $10 million); in return, the counterparty agrees to pay the firm the six-month LIBOR rate on the same principal. As the LIBOR rate dips below 5%, the firm is a net debtor under the contract. Most interest rate swaps will require the firm to post collateral to support its net indebtedness, and the farther LIBOR dips below 5%, the more collateral must be posted. Although the contract is fully collateralized at any point in time and although the Code permits the counterparty to seize this collateral upon the firm's insolvency, the counterparty continues to have incentives to monitor the firm's financial condition. The possibility remains that LIBOR will dip further below 5%, but the firm will be unable to post the requisite collateral. Neither collateralization nor the Code therefore eliminates monitoring incentives.

Additionally, and perhaps more importantly, counterparties now deal with the firm precisely because the Code has lowered the costs of contracting. If these costs are increased, perhaps by eliminating the Code's special treatment of derivatives, counterparties will be less interested in dealing with and monitoring firms. Thus, it is difficult to assess whether the Code raises or lowers counterparty-monitoring. Put differently, we suspect that the Code's effect on creditor monitoring probably exists but is trivial in magnitude. See Bergman et al., *supra* note 11, for additional, related arguments.

there could be significant distributional effects. For example, an existing creditor might take steps to convert its debt contract into a derivatives contract, or a bank might enter a derivatives contract instead of lending directly to a firm.

There are, in fact, many ways to offer financing through a derivatives contract rather than an ordinary debt contract. One is to use total return swaps. Debtor, for example, wants to borrow $1 million from Bank in order to purchase bonds. If Debtor borrowed directly from Bank, it would pay interest equal to LIBOR plus, say, 2.5% per annum. The spread above LIBOR compensates Bank for the risk of default and the costs of bankruptcy. This type of loan agreement, however, would subject Bank to the automatic stay if Debtor entered bankruptcy. To avoid the stay, Bank proposes the following transaction: Bank will purchase $1 million worth of the bonds and pay the total return (coupons, appreciation, etc.) on the bonds to Debtor for T periods. In return, Debtor will pay Bank LIBOR plus 1.5% per annum on a $1 million notional amount. At the end of the life of the contract (in period T), the value of the bonds will either exceed or fall below $1 million. If it exceeds $1 million, Bank pays Debtor the difference; if it falls below that amount, Debtor pays Bank the difference. Finally, and most importantly, throughout the life of the contract, Debtor (the more risky party) must post collateral equal to its expected obligation at date T. Although functionally equivalent to an ordinary debt contract, this transaction creates a derivatives contract subject to the Code's special provisions. If Debtor seeks bankruptcy protection, Bank is free to terminate the contract and seize collateral the Debtor posted.

More exotic contracts are possible.[105] Again, suppose that Debtor wants to borrow $1 million from Bank. Suppose also that Debtor's Affiliate is willing to guarantee the indebtedness. The guarantee, however, is of little use to Bank if Affiliate and Debtor are likely to enter bankruptcy at the same time. To take advantage of the Code's special treatment of derivatives contracts, Bank proposes the following contract: Bank loans $1 million to Debtor in exchange for an unsecured note. Bank simultaneously enters a credit default option with Affiliate, a company related to Debtor. This option allows Bank to put the note to Affiliate in the event Debtor defaults. The option contract requires Affiliate to post margin equal to its expected obligation (which varies with Debtor's financial condition). Thus, if Debtor and Affiliate enter bankruptcy, Bank enjoys the Code's special treatment of derivative contracts and can seize margin posted by Affiliate.

These types of contracts, which substitute derivatives contracts for debt contracts, are relatively costly to write and are vulnerable to the risk that a court will look beyond their formal trappings and recharacterize them as ordinary debt contracts. On the other hand, the gain from writing these contracts increases as a potential borrower's financial condition worsens. Thus, if the Bankruptcy Code creates significant incentives for lenders to structure debt contracts as

105 We thank Hal Novikoff for this example.

derivatives contracts, these incentives should be strongest when the borrower is financially distressed. Empirically, this suggests that we should see a firm's involvement in derivatives contracts (as measured by the notional value of such contracts) increase in the months or years before it enters bankruptcy.

In the absence of comprehensive data on this issue, we can point to anecdotal evidence that the Bankruptcy Code does encourage creditors to exploit the special provisions for derivatives contracts, at least in extreme cases. The case of Enron is again instructive. During the months before filing its Chapter 11 petition, the firm entered a wide range of derivatives contracts that appear to have disguised some loans as derivatives contracts,[106] structured other loans as sales combined with derivatives contracts,[107] and gambled on the firm's stock price.[108] Most of these contracts are now the subject of litigation, with Enron attempting to recover collateral seized by the counterparties to these contracts.

We are not the first to notice that the Code encourages creditors to use derivatives contracts to reduce the costs of bankruptcy. Indeed, a recent textbook[109] encourages creditors to enter debt contracts and interest rate swaps simultaneously in order to circumvent some of the Code's restrictions on debt contracts.[110] We are, however, among the first to show the strength of the Code's incentives to engage in such rent-seeking behavior. The Code does not merely encourage creditors to enter debt and derivatives contracts simultaneously; it encourages creditors to avoid debt contracts entirely.

This type of rent-seeking behavior shifts wealth from general creditors to derivatives counterparties ex post. If Affiliate and Debtor file bankruptcy petitions, Bank is better off than if it entered an ordinary loan agreement with

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106 Enron is currently attempting to recharacterize these contracts as loans and thereby prevent counterparties from benefiting from the Code's special treatment of derivatives. *See* Enron Corp. v. Citigroup Inc., No. 03-09266 (Bankr. S.D.N.Y. Sept. 24, 2003). Also see defendant Deutsche Bank's partial motion to dismiss, asserting its right to take advantage of exceptions to the automatic stay for derivatives contracts, in Memorandum of Law in Support of Defendants the Deutsche Bank Entities' Partial Motion to Dismiss, Enron Corp. v. Citigroup, Inc., No. 03-09266 (Bankr. S.D.N.Y. Feb. 17, 2003).

107 This transaction is at issue in Enron Corp. v. Citigroup Inc., No. 03-09266 (Bankr. S.D.N.Y. Sept. 24, 2003) and Enron Corp. v. Barclays Bank PLC, No. 03-93597 (Bankr. S.D.N.Y. Dec. 1, 2003).

108 This was one function of the equity swaps and equity forwards at issue in Enron Corp. v. Lehman Bros. Fin., S.A., No. 03-93383 (Bankr. S.D.N.Y. 2003) (complaint filed Nov. 21, 2003).

109 LYNN M. LOPUCKI & CHRISTOPHER R. MIRICK, STRATEGIES FOR CREDITORS IN BANKRUPTCY PROCEEDINGS (4th ed. 2003).

110 Although the Code prevents a creditor from collecting "unmatured interest" due under a debt contract (i.e., interest payments expected in the future), 11 U.S.C. § 502(b)(2) (2000), the creditor can take steps to circumvent this rule by executing an interest rate swap agreement that imposes a termination fee (equal to the unmatured interest) on the defaulting party. For a case acknowledging this strategy but arguing that the strategy may not be profitable in practice and that, in any event, "the speculative possibility that a lender could use interest rate swaps to evade [the Code's limits on unmatured interest] does not overcome the strong Congressional policy of encouraging the innovative use of interest rate swaps," see Thrifty Oil Co. v. Bank of Am. Nat'l Trust and Sav. Ass'n, 322 F.3d 1039 (9th Cir. 2002).

Debtor. Other creditors are worse off. Some creditors may be able to protect themselves ex ante, by charging higher interest rates as compensation for the losses resulting from rent-seeking. Other creditors may be unable to protect themselves, including accident victims (non-consensual creditors). In addition, the Code may unintentionally alter the debt structure of firms towards a greater reliance on derivatives by favoring derivatives counterparties over other creditors. The implications of such shift for firms and debt markets are unclear.

VI. Conclusion

Our analysis suggests that the Code's special treatment of derivatives contracts cannot be justified by a fear of systemic risk in derivatives markets. Indeed, exempting derivatives counterparties from the automatic stay may make matters worse by increasing systemic risk. But this conclusion does not necessarily imply that it is a mistake to afford derivatives special treatment under the Code. We propose an efficiency-based rationale for treating them differently that has nothing to do with fear of systemic risk: that derivatives contracts merit special treatment because they, like cash, are not firm-specific assets. A firm's going concern value does not depend on retention of pre-petition contracts or cash. To be sure, a firm cannot survive without cash, and may be less likely to survive without derivatives contracts. But a firm can replace pre-petition cash with post-petition loans, and can replace pre-petition derivatives contracts with post-petition derivatives contracts. Although it may be costly to replace a customized machine, little cost is incurred in replacing cash and derivatives contracts. Thus, there is no efficiency-based reason for the Bankruptcy Code to interfere with the non-bankruptcy-law entitlements of derivatives counterparties and creditors with security interests in cash collateral. They should be free to seize their collateral.

But the case for reordering priorities in bankruptcy to favor derivatives counterparties on grounds of economic efficiency is an uneasy one for two reasons. First, it undermines the current treatment of cash collateral under the Code (which is subject to the automatic stay). Second, it does not take account of possible ex ante effects of giving special treatment to derivatives contracts. In particular, there will be redistribution costs because ordinary creditors will take steps to prevent (or at least receive compensation for) the costs associated with the substitution of derivatives contracts for debt contracts when debtors are threatened with financial distress. These costs must be weighed against the potential benefits of giving special treatment to derivatives contracts.

Our analysis, however, should worry members of Congress and legislators in other countries. They have been lobbied heavily by special interest groups (such as ISDA) to expand the special treatment of derivatives on grounds that such legislation is necessary to prevent a systemic meltdown in OTC derivatives markets should a derivatives counterparty suffer financial distress.

Our analysis casts serious doubt on this proposition. Systemic risk may be a real threat, but bankruptcy law has no role to play in addressing it.