2012

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I. Introduction

In the three and a half years since 157-year-old Lehman Brothers made the largest bankruptcy filing in U.S. history, the regulatory and financial landscape has shifted in many ways. As expected after any market crash of such severity and duration, policy makers considered, among many issues, whether the U.S. Bankruptcy Code had functioned effectively, and concluded that it had not. Ben S. Bernanke, chairman of the Board of Governors of the Federal Reserve System, testified to the House Committee on Financial Services on October 1, 2009, that:

> In most cases, the federal bankruptcy laws provide an appropriate framework for the resolution of nonbank financial institutions. However, the bankruptcy code does not sufficiently protect the public's strong interest in ensuring the orderly resolution of a nonbank financial firm whose failure would pose substantial risks to the financial system and to the economy. Indeed, after Lehman Brothers' and AIG's experiences, there is little doubt that we need a third

option between the choices of bankruptcy and bailout for such firms.[1]

Congress and the White House enshrined that third option into Title II of the Wall Street Reform and Consumer Protection Act ("Dodd-Frank"), signed into law by President Obama on July 21, 2010. Title II of Dodd-Frank promulgated an entirely new insolvency regime for large, interconnected financial companies whose possible failure would portend the sort of economic devastation that policy makers assumed the Lehman Brothers bankruptcy unleashed.

The purpose of this chapter is to examine how Lehman Brothers' bankruptcy has unfolded to date with respect to its U.S. derivatives portfolio and how that would be different had Dodd-Frank been in effect in September 2008.[2] It concludes that, with respect to the derivatives portfolio of any failed company captured by the resolution procedures of Title II of Dodd-Frank, Congress's efforts neither resulted in a significant change to the way derivative trades are handled postbankruptcy nor provided comfort that a government bailout of the clearinghouses that are an important feature of the new regime will be avoided.

II. LEHMAN BROTHERS—HOW HAS ITS DERIVATIVES PORTFOLIO FARED POSTBANKRUPTCY?

Contemporary financial institutions, particularly those that are arguably most systemically important, operate globally. A mix of

1. Testimony of Ben S. Bernanke, Chairman of the Board of Governors of the Federal Reserve System, to the U.S. House of Representatives Committee on Financial Services (October 1, 2009), 7.

2. This chapter is based on publicly available information through February 3, 2012.

banks, broker-dealers, commodity brokers, futures commission merchants, and corporations and insurance companies under the financial institution's umbrella engage in business twenty-four hours a day, seven days a week, in dozens of jurisdictions. Upon insolvency, each entity becomes subject to its own insolvency regime, dependent upon its jurisdictional location, its organizational form, and its activities. Lehman Brothers' bankruptcy, in the broadest sense, involved five bodies of laws applicable to its various corporate entities: (1) the Federal Deposit Insurance Act applied to its U.S. banks;[3] (2) the Bankruptcy Code applied to its insolvent corporations, such as its Delaware corporations that traded derivatives, including Lehman Brothers Special Financing, Inc.; (3) the Securities Investor Protection Act regime applied to the insolvent broker-dealer, Lehman Brothers Inc.; (4) state insurance laws applied to its insurance subsidiaries; and (5) more than 80 jurisdictions' insolvency laws applied to the insolvent non-U.S. Lehman Brothers entities.[4]

Lehman Brothers Special Financing, Inc. (LBSF) was the primary, although not the exclusive, entity through which Lehman Brothers' U.S. derivatives business was done. Outside of the United States, derivatives transactions were done through Lehman Brothers

3. The federal bankruptcy court in Manhattan approved the sale of Aurora Bank FSB, formerly known as Lehman Brothers Bank, and ordered the sale to be complete by May 2012. Woodlands Commercial Bank, formerly known as Lehman Brothers Commercial Bank, went out of business on December 30, 2011.

4. Lehman Brothers Holdings Inc.—The State of the Estate, http://www.srz.com/files/upload/Alerts/Lehman_Brothers_State_of_the_Estate.pdf (September 22, 2010), 8. *See also* Financial Crisis Inquiry Commission, *The Final Report of the National Commission of the Causes of the Financial and Economic Crisis in the United States*, http://fcic.law.stanford.edu/report (January 2011), 340. Note that, as discussed in this volume, the Resolution Project has recommended a new addition to the U.S. Bankruptcy Code, Chapter 14, which would reduce the number of bankruptcy proceedings for systemically important entities and would capture previously distinct provisions applicable to stockbrokers, commodity brokers, and domestic and foreign insurance companies.

International (Europe) (LBIE).[5] When Lehman Brothers filed for bankruptcy, the U.S. estate reported that it was a counterparty to 930,000 derivatives transactions documented under 6,120 International Swaps and Derivatives Association (ISDA) Master Agreements.[6] The vast majority of those derivatives transactions involved LBSF, a Delaware corporation, with documentation being executed pursuant to the industry standard ISDA Master Agreement.[7] While the exact size of LBSF's derivatives portfolio in September 2008, on a prebankruptcy basis, has not been published, Lehman Brothers' global derivatives portfolio was estimated to be $35 trillion in notional value, representing about 5 percent of derivatives transactions globally.[8] In addition, the Examiner's Report to the U.S. Bankruptcy Court noted that the Lehman Brothers' U.S. derivatives portfolio had a net value of $21 billion as of May 31, 2008.[9] That net value equaled 3.3 percent of Lehman Brothers' total assets.[10]

Under the ISDA Master Agreement, upon a counterparty's (or guarantor's) default, such as a voluntary or involuntary bankruptcy, the nondefaulting party has the right to designate a date on which the portfolio of derivatives will be valued and terminated, to terminate the transactions on such date, and to liquidate and apply any

5. Note that this chapter does not address how derivatives claims against LBIE are proceeding.

6. Lehman Brothers Holdings Inc. First Creditors Section 341 Meeting, http://dm.epiq11.com/lehman/Document (January 29, 2009), 19–20. Note that Lehman Brothers Holdings Inc.—The State of the Estate, http://dm.epiq11.com/lehman/Document (November 18, 2009), 28, reports a slightly different figure of 6,355 contracts.

7. Other U.S. Lehman entities engaged in derivatives trading, but LBSF was by far the largest among the U.S. entities trading.

8. Bank for International Settlements, *Semiannual Over-the-Counter (OTC) Derivatives Markets Statistics*, www.bis.org/statistics (June 2009).

9. Report of Anton R. Valukas, Examiner, to the U.S. Bankruptcy Court, http://lehmanreport.jenner.com (March 11, 2010), 569.

10. *Id.*

collateral. Once Lehman Brothers Holdings Inc. filed for bankruptcy on September 15, 2008, its status as the guarantor for LBSF's derivatives transactions meant that nondefaulting parties were able to elect to terminate their transactions, even though LBSF did not file for bankruptcy until October 3, 2008. Approximately 80 percent of the derivatives counterparties to LBSF terminated their derivatives transactions under the ISDA Master Agreement within five weeks of bankruptcy.[11]

The estate was successful in capturing receivables almost immediately postbankruptcy. On September 14, 2008, the estate reported that LBSF had a then-current cash position of $7 million. Within three and a half months, LBSF had a current cash position of $925 million.[12] By November 18, 2009, the Lehman estate reported that figure had grown dramatically to $5.025 billion in current cash and investments for LBSF;[13] adding in the other U.S. entities involved in trading derivatives increased that figure to $8 billion.[14] By June 30, 2010, LBSF had approximately $7.355 billion in current cash and investments,[15] and $11.467 billion when other U.S. Lehman entities were included.[16] By February 1, 2011, LBSF had $8.79 billion in current cash and investments,[17] and $15 billion in aggregate being

11. Debtors' Motion for an Order pursuant to Sections 105 and 365 of the Bankruptcy Code to Establish Procedures for the Settlement or Assumption and Assignment of Prepetition Derivatives Contracts, Lehman Brothers Holdings Inc., et al., No. 08-13555 (U.S. Bankr. Ct. S.D.N.Y., November 13, 2008).

12. Lehman Brothers Holdings Inc. First Creditors Section 341 Meeting (*supra* n. 6), 6 (reflects figures as of January 2, 2009).

13. Lehman Brothers Holdings Inc.—The State of the Estate (November 18, 2009), 9.

14. *Id.* at 26.

15. Lehman Brothers Holdings Inc.—The State of the Estate (September 22, 2010), 10.

16. *Id.* at 11.

17. Lehman Brothers Holdings Inc., Monthly Operating Report, http://idc.api.edgar-online.com (March 18, 2011).

received to the credit of the estate.[18] LBSF represents nearly half of all cash and cash investment positions in the Lehman Brothers estate as compared to the aggregate of all Lehman U.S. debtor entities.[19]

While the administrator has worked effectively to increase the assets of the estate, as noted previously, and the ISDA Master Agreement offered a well-understood process and approach to calculating the value of terminated transactions, these factors have not lessened the sheer magnitude of effort involved in the most complex derivatives business unwinding in history. While the vast majority of counterparties quickly terminated their derivatives transactions with U.S. Lehman Brothers entities, including LBSF, that termination under the contractual mechanics did not mean the process was at an end. Rather, a multistep process was required for reconciling, reviewing counterparty valuations of the terminated transactions, and then moving to settlement. The last time Lehman Brothers published its resolution process figures in November 2009, 61 percent of derivatives claims had been reconciled and 50 percent had their valuation completed.[20] In that same report, the estate reported that LBSF had 3,222 claims against it, presumably all or mostly all derivatives claims since that was LBSF's principal business. At the time, this figure represented 5 percent by volume and 11 percent by dollars of the top five debtor entities' claims in aggregate.[21]

18. Lehman Brothers Holdings Inc., Plan Status Report, http://www.dm.epiq11.com/lehman/Document (January 13, 2011), 16.

19. Lehman Brothers Holdings Inc.—The State of the Estate (September 22, 2010), 10.

20. Lehman Brothers Holdings Inc.—The State of the Estate (November 18, 2009), 28.

21. *Id.* at 32. Duplicate claims were often filed against LBSF and the parent company, but LBSF had a relatively small percentage of the claims made against the various U.S. Lehman Brothers entities, as most were understandably against the parent company.

As the estate's work progressed, the administrator took the view that many counterparties were inflating their derivatives claims. Daniel Ehrmann, a managing director at Alvarez & Marsal and co-head of derivatives at Lehman Brothers Holdings Inc., stated: "We discovered that out of all the claims against the Lehman estate, those in the derivatives subset were most inflated."[22] In fact, in April 2010, Lehman Brothers Holdings Inc. sued Nomura Holdings Inc., arguing that Nomura's $720 million of derivatives claims relating to 2,464 transactions were the product of "egregious inflation" and reflected a desire to "secure a windfall" from Lehman's bankruptcy at the expense of creditors.[23] Indeed, the week prior to Lehman Brothers' bankruptcy, Nomura reported that it owed more than $200 million to LBSF.[24] At the time of this writing, the case had not settled.

While the mechanics of the ISDA Master Agreement functioned effectively (and quickly postbankruptcy) so that the vast majority of derivatives transactions were terminated, the legal obligations imposed on the administrator are such that a high standard of care is required before claims can be finalized for settlement. The statutory duties of the trustee in a Chapter 11 case are set forth in § 1106 of the U.S. Bankruptcy Code.[25] In addition, case law imposes fiduciary obligations on a trustee, including treating all beneficiaries fairly and equally.[26] With thousands of derivatives claims, the administrator has a fiduciary duty to review and reconcile the process and conduct of how each nondefaulting party reached its early

22. Matt Cameron, "LBHI Administrators Push for Settlement of Derivatives Claims," *Risk*, March 2, 2011.

23. Adversary Complaint and Objection filed by Lehman Brothers Holdings Inc. in Bankr. Ct. S.D.N.Y. (April 23, 2010), 2.

24. *Id*. at 3.

25. 11 U.S.C. § 1106.

26. Restatement (Second) of Trusts, §§ 170, 174, and 183.

termination amount relating to each derivative trade—this for more than 6,000 counterparties and around one million transactions. The goal of this painstaking but required process is to ensure that no creditor is preferred over another and to maximize the size of the estate for the benefit of all creditors. Practically, what this means is that the administrator's staff conducts daily meetings with creditors to review the proposed settlement of each derivative claim—in essence, the early termination amount for each individual derivative transaction must be reviewed in accordance with the administrator's fiduciary duty requirements to ensure that the estate's beneficiaries are being treated fairly and equally.

The settlement of the derivatives portfolio should be considered in the context of the overall bankruptcy process to date. On March 15, 2010, Lehman Brothers Holdings Inc. and its 22 affiliated Chapter 11 debtors filed a joint Chapter 11 plan with the U.S. Bankruptcy Court for the Southern District of New York. The following month, Lehman Brothers filed its liquidation plan with the bankruptcy court. The liquidation plan called for maintaining the corporate distinction of each Lehman entity that had filed for bankruptcy in 2008. This approach ensured that each affiliate would make payments to its creditors on the basis of its own asset base. However, creditors of the parent company, Lehman Brothers Holdings Inc., argued that parent company guarantees of affiliates such as LBSF meant that more debt resided at the parent level while more assets were at the subsidiary level. For example, after the liquidation plan was filed in April 2010, Lehman Brothers Holdings Inc. reported $2 billion in cash and investments on June 30, 2010, whereas LBSF had $7.35 billion in cash and investments.[27] Perhaps not surprisingly,

27. Lehman Brothers Holdings Inc.—The State of the Estate (September 22, 2010), 10.

a group of 10 creditors led by Paulson & Co., Canyon Partners LLC, the California Public Employees Retirement System, and Pacific Investment Management Company countered with their own liquidation plan to consolidate all affiliates' assets into one Lehman entity—resulting in holders of parent company claims receiving more than if the corporate entity structure remained intact. This group of 10 represented $20 billion of Lehman Brothers Holdings Inc. claims, including $16 billion of senior bonds.[28] In essence, this group of bondholders wanted to reduce the assets available to the derivatives creditors to the benefit of the bondholders.

In response, on January 25, 2011, Lehman Brothers filed an amended version of its liquidation plan seeking compromise with those creditors.[29] The new plan retained the corporate formalities of each debtor entity, but redistributed the payouts made to certain creditors. In essence, between 20 and 30 percent of payments owed to creditors of various operating companies, such as LBSF, would be forfeited and reallocated to the parent company's creditors. For example, under Lehman Brothers' April 2010 liquidation plan, derivatives creditors of LBSF—such as Bank of America, Credit Suisse, and Goldman Sachs—would have received a 24.1 percent payout, while under the amended January 2011 liquidation plan, those derivatives creditors would have received a 22.3 percent payout while creditors of the parent entity received slightly more than originally proposed.

The differing views among Lehman Brothers' creditors rested on the disparity of the recovery pool available to counterparties of LBSF and the recovery pool available to bondholders and other creditors of the parent company. Jostling among these groups coincided with

28. Linda Sandler and David McLaughlin, "Lehman's $61 Billion Plan Has Carrot, Stick for Paulson-Calpers," *Bloomberg*, January 26, 2011.

29. *See* www.lehmancreditors.com for a copy of the liquidation plan.

the administrator's efforts to find a more streamlined mechanism to settle greater numbers of derivatives claims. According to the *Plan Status Report* submitted to the bankruptcy court on January 13, 2011, out of $45.4 billion in claims made with regard to derivatives transactions, only $5 billion (or 11 percent) had been settled by the Lehman administrator by January 2011.[30] As noted previously, there was frustration on the part of the administrator that, at best, there were duplicative derivatives claims submitted and, at worst, exaggerated derivatives claims. In an effort to address the fact that 48 percent of those outstanding claims, or $22 billion, were from 30 of Lehman Brothers' largest bank counterparties, the estate changed its tactics for resolution. Citing the time and costs involved in settling the remaining derivatives claims, Lehman Brothers asserted that it would develop "consistent, transparent, derivative valuation rules."[31] Following months of meetings with some of its largest bank counterparties, the estate published its Derivatives Claims Settlement Framework (the "framework") on May 31, 2011.[32]

The framework offered a standardized methodology for valuing the remaining derivatives claims. The estate proposed to establish the date and time for the calculation of midmarket values for the terminated transactions, calculate the midmarket values, and account for collateral and cash payments, among other items.[33] Specifying a uniform time for the calculation of values for terminated transactions may not seem like a big deal and, in fact, it may even appear to be fair as it applies equally to all parties bound by the framework, but it can lead to significant disparity in outcomes. For

30. Lehman Brothers Holdings Inc.—Plan Status Report (*supra* n. 18).
31. *Id.* at 17.
32. Lehman Brothers Holdings Inc., Derivatives Claims Settlement Framework, http://dm.epiq11.com/lehman/Document (May 31, 2011).
33. *Id.* at 5.

example, the framework proposed that the preponderance of a big bank's transactions that terminated on or prior to Friday, September 19, 2008, would be valued on one single business day during the week of September 15, 2008. That approach intentionally overlooked the fact that significant intraday fluctuations occurred on Monday, September 15, for example, the date that the parent company filed for bankruptcy. Moreover, it jettisoned the fact that different legal entities located in different geographic regions globally were the nondefaulting parties. For example, a nondefaulting party located in Japan would be forced to select the same termination date as a nondefaulting party located in New York, even though the former, under the governing contract for the transaction, would be permitted to terminate 13 hours earlier in an entirely different market. This approach, particularly in the volatile markets following the Lehman Brothers' bankruptcy filing, pushed efficiency ahead of contractual rights.

While details of the component transactions representing Lehman Brothers' derivatives portfolio are not public, based on data that the Office of the Comptroller of the Currency (OCC) and the Bank for International Settlements (BIS) publish, one could reasonably assume based on the last filing made by the estate on May 31, 2008, that the majority of its portfolio represented interest rate and foreign exchange derivatives.[34] If we assume that Lehman Brothers' derivatives portfolio was reasonably proximate to that of other large banks, the bulk of the outstanding transactions were interest rate swaps, the most ubiquitous derivative. Hence, the selection of one point in time for the valuation of that transaction type may be problematic. Interest

34. Report of Anton R. Valukas, Examiner, to the U.S. Bankruptcy Court, http://lehmanreport.jenner.com (March 10, 2011), 572. Note that, unfortunately, interest rates and credit default swaps are combined into one category in the May 31, 2008, filing.

rate swaps, for example, are not typically closed out at the same time on the same day, as trades may be booked in different jurisdictions and therefore time zones. For example, the BIS triennial survey reported that for all interest rate and foreign exchange derivatives, 70 percent of trading occurs with counterparties outside the United States.[35] This aspect of the market may make it more challenging for the administrator to argue that it is fair to select one point in time to value the terminated transactions.

In addition, the framework proposed to reduce the number of maturity "buckets" used for aggregating and offsetting exposures and to have Lehman Brothers determine the bid-ask spread that is typically provided by the nondefaulting party. To date, when a derivatives portfolio is being terminated, the components of that portfolio are divided into buckets organized by maturity of the individual transaction type. The nondefaulting party can then net those exposures. A bid-offer adjustment is often made to the netted exposure amount—a cost to the defaulting party and one that represents uncollateralized risk. The challenge in closing out transactions in the volatile markets of September and October 2008 meant that more bid-offers were included in the nondefaulting parties' closeout prices and fewer exposures were netted. The administrator's postcontract reduction of the number of maturity buckets meant that the bid-offer adjustment would be retroactively reduced, thereby significantly impacting the value of the terminated transactions. Thus, while spreads on normally liquid transactions, such as interest rate swaps, increased in the aftermath of Lehman Brothers' bankruptcy, the administrator imposed a narrower and more uniform

35. Federal Reserve Bank of New York, "The Foreign Exchange and Interest Rate Derivatives Markets: Turnover in the United States" (April 2010), 9–10. Note that this survey is coordinated by the BIS with 53 central banks in April of every third year.

approach that will minimize the valuations produced by those volatile markets.

The framework that Lehman Brothers proposed essentially concluded that the methodology for valuing terminated transactions under an ISDA Master Agreement should shift in an effort to address the formidable stack of derivatives claims. The administrator's goal of providing "consistent, transparent, derivative valuation rules" is certainly achieved through the framework: the methodology is published and therefore transparent. In addition, adherents to the framework will experience significant cost savings of time and resources.

Ultimately, virtually all creditors agreed to support the framework and its inclusion in the Third Amended Joint Chapter 11 Plan. On December 6, 2011, Judge James Peck confirmed this plan and the estate indicated its intent in a January 27, 2012, filing to distribute between $8.1 billion and $10.7 billion, with distributions commencing on April 17, 2012. Derivatives counterparties received between 10.36 and 32 cents on the dollar.[36]

The plan offered predictability and closure for creditors 40 months after the largest bankruptcy in the United States occurred. But it also subordinated the contractual rights the parties bargained for at the outset of the trading relationship to the valuation mechanic the Lehman Brothers estate developed and the creditors and bankruptcy court approved. The Lehman Brothers' plan inserted itself as the sole party, despite being the defaulting party, able to make the termination amount determination, arguing that it was well placed to ensure that its methodology avoided exaggerated and self-serving claims made by nondefaulting parties. In essence,

36. Lehman Brothers Holding Inc., Third Amended Joint Chapter 11 Plan Notice Regarding Initial Distribution, Exhibit A, http://www.dm.epiq11.com/lehman/Document, April 11, 2012.

Lehman Brothers argued that its counterparties' variance in the interpretation of the contractual methodology for the value of the terminated derivatives transactions added to the time and costs involved in settling the derivatives portfolio. Rather than continue to negotiate each derivatives transaction with its counterparties, Lehman Brothers wanted instead to substitute a new methodology, postcontract and postbankruptcy. As a general matter, courts are reluctant to interfere with the parties' contract unless certain circumstances such as mistake, duress, or other factors are present. But here, perhaps given the uniqueness of the circumstances, the estate's derivatives counterparties agreed to a contractual modification of their rights as a nondefaulting party, most likely in an effort to remove the uncertainty of payment and the duration of negotiation with the administrator.[37] In essence, then, Lehman Brothers' ordinary creditors were not overlooked at the expense of its derivatives counterparties. The derivatives counterparties effectively subsidized the amounts payable to the bankrupt bank's other creditors.

III. WOULD DODD-FRANK HAVE CHANGED THE SETTLEMENT OF LEHMAN BROTHERS' DERIVATIVES PORTFOLIO?

Ben Bernanke, chairman of the Board of Governors of the Federal Reserve System, and Timothy Geithner, Secretary of the U.S. Treasury, perhaps more than most of their predecessors, were policy

37. The big banks are Bank of America Corporation, Barclays PLC, BNP Paribas, Citigroup Inc., Credit Suisse Group, Deutsche Bank AG, Goldman Sachs Group Inc., JPMorgan Chase & Co., Merrill Lynch & Co. Inc., Morgan Stanley, Royal Bank of Scotland Group PLC, Société Générale, and UBS AG.

mavens well suited in many respects for the roles economic history thrust upon them. After all, Chairman Bernanke was steeped in the arcane details of the Great Depression, while Secretary Geithner spent 13 years at the U.S. Treasury in the 1980s and 1990s, followed by more than 5 years at the Federal Reserve Bank of New York, tenures marked by currency crises and a large hedge fund failure, among other events.[38] These two gentlemen were instrumental in crafting proposals for how the financial regulatory framework should be modified, focusing in part on the "opaque" nature of derivatives and connecting derivatives to bankruptcy. For example, on April 20, 2010, U.S. Treasury Secretary Geithner testified that "the market turmoil following Lehman's bankruptcy was in part attributable to uncertainty surrounding the exposure of Lehman's derivatives counterparties."[39] Secretary Geithner added that "in this regard, Lehman's bankruptcy highlights another flaw in our financial infrastructure: the opacity and complexity of the OTC [over-the-counter] derivatives markets. These products grew exponentially in the run-up to the crisis. The notional amount of outstanding credit default swaps grew from about $2 trillion in 2002 to over $60 trillion at year-end 2007. Because these trades are conducted on a bilateral basis, the market has very little visibility into the magnitude of derivatives exposures between firms."[40]

The Financial Crisis Inquiry Commission's report, among other sources, has already noted that the market turmoil following Lehman Brothers' bankruptcy was more likely connected with former Secretary of the U.S. Treasury Hank Paulson's unveiling of the Troubled

38. David Skeel, *The New Financial Deal: Understanding the Dodd-Frank Act and Its (Unintended) Consequences* 44 (John Wiley & Sons, 2011).

39. Testimony of U.S. Treasury Secretary Timothy Geithner before the Committee on Financial Services, U.S. House of Representatives, April 20, 2010.

40. *Id.*

Assets Relief Program and the $85 billion government bailout of AIG rather than the failure of Lehman Brothers and uncertainty about derivatives counterparty exposure.[41] Moreover, policy makers likely conflated or failed to appreciate the distinctions in the principal causes of failure of AIG (unhedged, noncollateralized credit derivatives trading), Bear Stearns (failure to sustain liquidity as a result of its reliance on the overnight repo market), and Lehman Brothers (poor risk management of its real estate portfolio and overreliance on overnight financing), thereby leading to policy conclusions that perhaps are unsupported by the complex reality of why those firms and others failed. Rather, policy makers focused on two objectives: (1) preventing or mitigating systemic risk when a major derivatives participant fails, and (2) granting regulators new resolution authority to prevent the government from bailing out the failing or failed firm. Policy makers accomplished these two objectives by: (1) crafting legislation in Title VII of Dodd-Frank that attempts to manage counterparty risk by requiring mandatory clearing of certain derivatives through a central counterparty and the consequent imposition of more uniform derivatives collateralization, and (2) introducing resolution authority in Title II of Dodd-Frank to address failed or failing covered financial entities with, among other businesses, a derivatives portfolio. Title VII is inextricably linked to Title II because the former aims to prevent or mitigate failure in the first place as it relates to derivatives, in part by enhancing information available to regulators, while the latter has

41. Financial Crisis Inquiry Commission, *Final Report of the National Commission* (*supra* n. 4), 356, 372. On September 15, 2008, when Lehman Brothers Holding Company filed for bankruptcy, the Dow Jones Industrial Average fell 4 percent, as contrasted to September 29, 2008, when the U.S. House of Representatives voted 228 to 205 to reject the Troubled Asset Relief Program and the Dow Jones Industrial Average fell 7 percent. *See also* Testimony of John B. Taylor before the Committee on Banking, Housing and Urban Affairs, U.S. Senate, March 17, 2011.

broad power available to regulators to take action to resolve a failed institution when such institution is deemed capable of introducing systemic risk.

A. Title VII—Derivatives Reform through Clearing and Collateralization

Title VII of Dodd-Frank requires that all eligible derivatives be cleared on a central clearinghouse, known colloquially as a "central counterparty" (CCP). Currently, a bilateral over-the-counter (OTC) derivatives contract is executed between two parties. The terms of that transaction and the amount of collateral posted in association with that trade are private. When a transaction is centrally cleared, however, this single transaction between a buyer and a seller is replaced with two transactions, each involving a third party, the central counterparty. In other words, the central counterparty is the buyer to every seller and the seller to every buyer, in essence standing between the buyer and the seller.

Clearinghouses perform a valuable function in their mitigation of counterparty risk. In order to do this, the financial resources of a clearinghouse must understandably be robust. The Commodity Futures Trading Commission (CFTC) proposed on October 1, 2010, that a clearinghouse must maintain financial resources to meet its members' obligations notwithstanding the default of one of its members with the largest exposures or the default two of its members designated as systemically important.[42] The CFTC also proposed that quarterly stress tests should be conducted to determine the amount of resources required. Given that JPMorgan Chase Bank,

42. *See* proposed CFTC Regulations 39.11(a)(1) and 39.29(a), http://www.cftc.gov. *See also* press releases at www.cftc.gov (October 1, 2010).

Citibank, and Bank of America are the three largest derivatives counterparties in the United States, the simultaneous collapse of two of those institutions could mean the termination of a $130.95 trillion notional derivatives portfolio—representing 18 percent of global notional derivatives value as compared to Lehman Brothers' estimated 5 percent.[43] The International Monetary Fund estimated that undercollateralization of derivatives relative to risks in the financial system may be $2 trillion.[44] The TABB Group estimates that near-term collateral requirements of moving interest rate and credit derivative transactions to a clearinghouse model will require an additional $240 billion in collateral.[45] It is uncertain whether the clearinghouses collectively will be able to address the magnitude of those figures through reserve funds and required collateral posting.

Policy makers were right to focus on collateralization as a risk-mitigation technique, as it is critical to the risk management of derivatives, both cleared and uncleared. However, collateralization of derivatives transactions has existed for nearly 20 years, so the posting of collateral to mitigate exposure is not new. Over time, the amount of collateralized derivatives exposure has increased as derivatives trading volume has increased. In 2000, there were estimated to be in place 12,000 International Swaps and Derivatives Association (ISDA) Credit Support Annexes, the principal document for derivatives collateralization.[46] By the end of 2010, the ISDA

43. OCC Quarterly Report on Bank Trading and Derivatives Activities, Third Quarter 2011, http://www.occ.gov/topics/capital-markets/financial-markets/trading/derivatives/dq311.pdf, Table 1.

44. Manmohan Singh and James Aitken, "Counterparty Risk, Impact on Collateral Flows and Roles for Central Counterparties," IMF Working Paper 09/173.

45. E. Paul Rowady Jr., "The Global Risk Transfer Market: Developments in OTC and Exchange Traded Derivatives," TABB Group (November 2010), 6.

46. ISDA Collateral Survey 2000, http://www.isda.org/press/pdf/collsvy2000.pdf, 1.

annual Margin Survey indicated that there were 149,518 collateral agreements in place, with 90 percent of those agreements being the ISDA Credit Support Annex.[47]

Before the economic crisis began, toward the end of 2006, the ISDA reported in its annual Margin Survey that the gross amount of collateral in use was $1.335 trillion, with 59 percent of mark-to-market credit exposure covered by collateral.[48] Note that the largest firms, including the largest U.S. commercial banks, held 80 percent of all collateral.[49] By the end of the third quarter of 2011, the OCC reported that banks held collateral against 86 percent of their exposure to other banks and securities firms, and 179 percent against their exposure to hedge funds.[50] The latter figure is high because it is market practice for banks to require the provision of up-front or initial margin from hedge funds in addition to securing any current credit exposure.

Collateralization by product area varies, but the overall amount of collateralization is very high (and has remained so for the last several years). For example, the 14 largest reporting firms in the ISDA's annual Margin Survey in 2011 reported that an average of 96 percent of credit derivatives trades were collateralized in 2010, whereas among the total of 83 firms responding to the survey, that figure was 93 percent. Interest rate derivatives at the 14 largest reporting firms are collateralized at 87.9 percent, whereas among the

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47. ISDA Margin Survey 2011, http://www2.isda.org/functional-areas/research/surveys/margin-surveys/, 3.

48. ISDA Margin Survey 2007, http://www2.isda.org/functional-areas/research/surveys/margin-surveys/, 4. The ISDA Margin Survey covers U.S. and non-U.S. market participants. In 2007, for example, 25 percent of respondents were based in the United States, while 52 percent were based in Europe or South Africa. The OCC Quarterly Reports, by contrast, cover only U.S. national banking associations.

49. *Id.*

50. OCC Quarterly Report, Third Quarter 2011 (*supra* n. 43), 6.

total of 83 firms reporting to the survey, that figure was 78.6 percent.[51]

The type of collateral is important as well. Cash has long been the preferred form of collateral. At the end of 2006, for example, nearly 80 percent of collateral was cash, with U.S. dollars being 46 percent of the cash pool and the euro representing 28.8 percent.[52] By the first quarter of 2011, the OCC reported that approximately 79 percent of the collateral held by U.S. banks was in the form of cash (51.5 percent in U.S. dollars and 28.1 percent in other liquid currencies like the euro), while the ISDA figures—covering the United States, Europe, and Asia—reported that 81 percent of collateral globally was in the form of cash, with 36 percent of collateral received in U.S. dollars and 40 percent in euros.[53] U.S. Treasuries as collateral represented 2.3 percent and equity securities represented 0.9 percent in the OCC's report, while the ISDA's annual Margin Survey in 2011 reported U.S. government securities as comprising 4 percent of the global pool of collateral received and European Union member-state government securities representing 2 percent.[54] While policy makers focused on the lack of collateralization of AIG Financial Products' derivatives trading, surely these figures

51. ISDA Margin Survey 2011 (*supra* n. 47), 13.

52. ISDA Margin Survey 2007 (*supra* n. 48), 6.

53. OCC Quarterly Report, Third Quarter 2011 (*supra* n. 43), 6. ISDA Margin Survey 2011 (*supra* n. 47), 8. Note that the Federal Deposit Insurance Corporation (FDIC) published an article in April 2011 entitled *The Orderly Liquidation of Lehman Brothers Holdings Inc. under Dodd-Frank* in the FDIC Quarterly (vol. 5, no. 2), wherein the authors state on page 6 that collateral, especially lightly traded collateral, can exacerbate losses when there is a counterparty default. However, as the OCC and ISDA reports show, the vast majority of collateral is in the form of cash, so the conclusion in the FDIC paper does not seem to match actual collateralization techniques.

54. ISDA Margin Survey 2011 (*supra* n. 47), 8.

show that that was an outlier based on its profile then as a subsidiary of a triple-A-rated entity. In addition, there was so little collateral provided that was in the form of something other than cash or Treasury securities that it does not even make an appearance on either the ISDA's or the OCC's survey. In other words, the industry was collateralizing with cash as part of its derivatives risk-management program for close to two decades without needing Congress to tell it to do so.

What has shifted under Dodd-Frank is that the CCP's calculation of required collateral is substituted for the individual counterparty assessing its risks. As is done today, both initial and variation margin will be required. Counterparties to cleared swaps will be required to post initial collateral to the CCP based on the CCP's assessment of the risk profile of that transaction.[55] In addition, each day, the CCP will set the variation margin associated with each transaction by recalculating the value of the transaction and accordingly calling for or releasing collateral, ensuring that counterparties have neutral risk positions in relation to the value of the underlying asset. In other words, the goal is that the CCP receives margin payments every day from counterparties whose contracts moved against them to ensure that the CCP and those that participate through the CCP always have funds to satisfy their obligations under contracts.

55. As it relates to uncleared swaps, Dodd-Frank requires swap dealers and major swap participants to notify their uncleared swap counterparties of their right to segregate their initial margin with an independent third-party custodian. The CFTC's November 2010 and April 2011 proposals would require that the custodian be independent of both the counterparty and the swap dealer or major swap participant and that there be a written custody agreement between the counterparties and the custodian. The ISDA's annual Margin Survey in 2011 reported at page 10 that only 7 percent of collateral received is segregated with a custodian.

The posting of collateral is tied to how the derivatives transactions of a clearinghouse member that has become insolvent are handled. For example, LCH.Clearnet Group's contract and related rules state that upon the default of a clearing member, the clearinghouse may close out and terminate the cleared transactions and will not transfer such positions. CME Clearing and ICE Trust, in contrast, allow cleared transactions and associated collateral to be transferred to another consenting clearinghouse member.[56] Were Lehman Brothers to have been a clearing member of CME, for example, upon its insolvency, its $35 trillion notional derivatives portfolio (and associated collateral) would have been ported to another clearinghouse member. The concern in a marketplace where major participants—such as Bank of America, Citibank, and Morgan Stanley, among others[57]—were under attack means that the portability of Lehman Brothers' derivatives portfolio may not have allayed counterparty risk to the nondefaulting party population because arguably an equally unstable counterparty was receiving those transactions or a stronger clearing member may have rejected the transactions being proposed for transfer without some sort of government backstop for the unknowable counterparty risk being assumed.

In addition to the default rules, the treatment of a counterparty's collateral is important. The CFTC requested and received comments

56. *See* "Cleared OTC Interest Rate Swaps: Protecting OTC Market Participants through the Security of Centralized Clearing," www.cmegroup.com (August 2011), 12.

57. Federal Reserve chairman Ben Bernanke testified to the U.S. Financial Crisis Inquiry Commission: "If you look at the firms that came under pressure in that period . . . out of . . . thirteen of the most important financial institutions in the United States, twelve were at risk of failure within a period of a week or two." *See* Thomas Russo and Aaron J. Katzel, *The 2008 Financial Crisis and Its Aftermath: Addressing the Next Debt Challenge*, Group of Thirty, Occasional Paper 82 (2011), 11.

on three principal collateral protection models. The first is the futures model, in which the customer's margin is held by the futures commission merchant but segregated from the futures commission merchant's creditors. The collateral is commingled in an omnibus account with other fund managers. The collateral can be tapped by the clearinghouse if the futures commission merchant does not have sufficient collateral to satisfy the requirements of the defaulting customer. The second model, physical segregation, takes the opposite approach. Here, each clearing agent and derivatives clearing organization segregates for purposes of its books and records the cleared swaps for each individual customer and the associated collateral. Thus, each clearing agent and each clearinghouse maintains a separate individual account for each customer. A third model, legal segregation, operates the same as the physical segregation model, but would permit the clearing agent and clearinghouse to commingle the relevant collateral.

Further, there are challenges associated with a clearinghouse's approach to collateral calculations. Currently, in the over-the-counter derivatives market, a counterparty's collateral requirements are assessed based on its aggregate exposure across all products. For example, a hedge fund that had exposure to a particular security through its prime brokerage account could have its collateral requirements offset through a derivatives transaction. Central clearing, however, will make this cross-margining more difficult. Positions associated with different products are unlikely to be assessed margin in this more holistic manner, thereby resulting in end users posting more collateral in aggregate than currently. It would be worth understanding whether those entities required to post more collateral than at present are the same entities that present the most systemic risk.

Finally, collateralization is clearly a critical technique for reducing counterparty exposure. One of Dodd-Frank's goals was to reduce counterparty exposure, but practically speaking, the Act changed very little in terms of how collateralization operates both before and after Lehman's bankruptcy, setting aside the fact that a clearinghouse will determine collateral required for cleared trades. The authors of the Federal Deposit Insurance Corporation's (FDIC's) article (cited in footnote 53) also misunderstood how collateral is overwhelmingly provided in U.S. dollars with significant rates of collateralization among counterparty types—all designed to ensure the minimization of counterparty losses. As the OCC Quarterly Reports demonstrate, there have actually been very limited counterparty credit losses incurred from derivatives trading activity by U.S. banks. From January 1, 1998, to September 30, 2011, U.S. bank losses caused by counterparty defaults on derivatives were $4.1 billion—including Lehman Brothers.[58] Collateralization, again primarily posted in U.S. dollars, reduced U.S. banks' credit exposure to capital at the end of the third quarter 2011 to $114 million—a very small fraction of the gross notional outstanding of derivatives held at U.S. banks.[59] These are remarkably low figures, particularly given that more than 350 banks failed during this period, Lehman Brothers collapsed, and effective government takeover of Fannie Mae and Freddie Mac occurred. It is noteworthy that when considering the losses that did occur, most involved derivative products tied to subprime mortgage derivatives or counterparties such as monoline insurers. And Dodd-Frank did not specifically address these products or counterparty types (although, admittedly, few monolines exist today).

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58. OCC Quarterly Report, Third Quarter 2011 (*supra* n. 43), Graph 5C.
59. *Id.* at Table 4.

B. Titles I and II of Dodd-Frank and the Resolution of Systemically Important Financial Companies

A regulatory triumvirate chorused for greater powers to resolve failing or failed financial companies and nonbank financial companies in the wake of Lehman Brothers' bankruptcy. As made clear by Chairman Bernanke's statement cited in the introduction to this chapter, it was his view that the U.S. Bankruptcy Code in 2008 did not protect the public's strong interest in ensuring the orderly resolution of Lehman Brothers, and that that failure resulted in substantial consequences to the financial system and to the economy. Sheila Bair, chairwoman of the FDIC, testified that "failing nonbank financial companies . . . could only be resolved under the Bankruptcy Code, further exacerbating the financial crisis."[60] The U.S. Treasury Department's Web site recently boasted that financial reform will "end 'too big to fail' and taxpayer-funded bailouts, so that average Americans will no longer have to pay the price for greed and irresponsibility on Wall Street."[61] While those statements may carry a certain political appeal, it is my view that Dodd-Frank does not significantly alter how a complex derivatives portfolio like Lehman Brothers' would be handled, even with the enhanced orderly resolution authority granted to regulators, nor does the legislation provide comfort that the U.S. government would not bail out a clearinghouse were it to default.

To put the resolution authority of Dodd-Frank into context, it is helpful to understand the definitional corrals of its Titles I and II. Title I of Dodd-Frank established the Financial Stability Oversight

60. Testimony of Sheila C. Bair, Chairwoman of the Federal Deposit Insurance Corporation, to the U.S. Financial Crisis Inquiry Commission (September 2, 2010), 1.

61. *See* www.treasury.gov/initiatives/wsr/Pages/wall-street-reform.aspx (March 17, 2011).

Council (the "Council"). Comprised of various financial markets regulators and chaired by the Secretary of the Treasury, the Council has a dual mission: first, to identify risks and to respond to emerging threats to the financial stability of the United States and its financial system; and second, to promote market discipline by eliminating the concept of "too big to fail." The Council is thus tasked with designating "significant bank holding companies" and "significant nonbank financial companies" that will be subject to enhanced supervision by the Federal Reserve Board. "Significant bank holding companies" are those entities with at least $50 billion in total consolidated assets and are automatically considered under Dodd-Frank to be systemically important. "Significant nonbank financial companies" are those designated as systemically important by the Council. Thus, it is possible that a "significant nonbank financial company" in fact is not necessarily systemically important.[62]

Title II of Dodd-Frank allows for the "orderly liquidation" of these financial companies. Title II's definition of "financial company" captures four general categories of entities: (1) bank holding companies, as defined in § 2(a) of the Bank Holding Company Act of 1956;[63] (2) nonbank financial companies (which include, as noted previously, nonbank financial companies that the Council has determined must be supervised by the Federal Reserve Board); (3) subsidiaries of entities included within one of the first two categories (excluding insured depository institution subsidiaries and

62. The FDIC stated that some Lehman entities may not have been systemically important and thus would have been subject to the Bankruptcy Code. It would then be possible that one Lehman Brothers entity would be subject to Title II, while another would not. *See The Orderly Liquidation of Lehman Brothers Holdings Inc. under Dodd-Frank*, 5(2) FDIC Quarterly 13 (April 2011).

63. 12 U.S.C. § 1841(a). *See also* Dodd-Frank § 102(a)(1).

insurance companies); and (4) Securities and Exchange Commission (SEC) registered brokers and dealers that are members of the Securities Investor Protection Corporation. The fact that an entity is a financial company is not enough for the federal receivership provisions of Title II to apply, however. To be eligible for the resolution authority to apply, the organization must be a "covered financial company." At the risk of further definitional contortions, a "covered financial company" is a financial company to which a systemic risk determination has been made by the relevant set of regulators.[64] In other words, if Title I of Dodd-Frank results in an entity being deemed systemically important, then if such entity is failing or has failed, the federal receivership provisions of Title II may or may not apply, depending on a second determination made at the moment of possible failure.

Procedurally, Title II requires the Secretary of the Treasury or the FDIC and the Board of Governors of the Federal Reserve System—or the SEC in the case of brokers or dealers, or the Federal Insurance Office for insurance companies[65]—to present a written recommendation stating whether a particular covered financial company presents systemic risk. At least two-thirds of the then serving members of the Board of Governors and the Board of Directors of the FDIC (or parallel agency) must approve the petition of systemic risk designation. The relevant regulators must prepare a written analysis of whether the financial company is in "default or

64. The FDIC and the Board of Governors of the Federal Reserve System recommend whether the federal receivership provisions will apply to a financial company, and the SEC and the Board of Governors of the Federal Reserve System make such a recommendation for brokers or dealers. The Secretary of the United States Treasury makes the final determination (Dodd-Frank § 203(b)).

65. Dodd-Frank § 203(a)(2).

danger of default." This is intentionally broad in its definition, covering circumstances such as a bankruptcy case that has been or likely will be commenced; the financial company incurring losses that will or are likely to deplete all or substantially all of its capital; the assets of the financial company being less than or likely to be less than its obligations to creditors; or the financial company that is or is likely to be unable to pay its obligations in the ordinary course of business.[66] The repetition of the phrase "likely to" gives the relevant regulator the ability to take action before a financial company actually files for bankruptcy. The written analysis must also set forth the effect that the bankruptcy of the financial company would have on the financial stability of the United States; evaluate whether any private-sector alternatives to prevent the insolvency exist; assess whether or not a bankruptcy case is appropriate for the financial company; and evaluate the effect of a federal receivership on creditors, counterparties, and shareholders of the covered financial company, as well as other market participants.[67] Once this analysis is submitted, the Secretary of the Treasury, in consultation with the president of the United States, must appoint the FDIC as the receiver for the financial company if the Secretary determines that in fact the financial company is in default or in danger of default; that its default would have a serious adverse effect on the financial stability of the United States; that no private-sector alternative is available to prevent the insolvency; that the effect of the federal receivership on the claims of creditors, counterparties, and shareholders is beneficial; and finally, that an "orderly liquidation" would avoid or mitigate adverse effects.[68] The Council received

66. Dodd-Frank § 203(c)(4).
67. Dodd-Frank § 203(a)(2).
68. Dodd-Frank § 203(b).

negative public comments on its January 18, 2011, draft and reissued a second notice of proposed rulemaking on October 11, 2011.[69]

In the case of Lehman Brothers, it seems almost obvious in hindsight that the Council would have deemed the investment bank to be systemically important as a nonbank financial company and therefore subject to enhanced supervision by the Federal Reserve Board and, possibly, the resolution authority provided for under Title II. The encyclopedic Examiner's Report, issued in March 2010, provides extensive details regarding the doubtful solvency of Lehman Brothers. Using Dodd-Frank's directive to regulators to consider whether the nonbank financial company was in default or in danger of default, the balance sheet assessment was one obvious avenue of inquiry, but perhaps of greater importance than capital to an investment bank is its access to liquidity. The "unreasonably small capital" test, relied upon by bankruptcy courts to avoid prepetition transfers, is a helpful tool because the test takes a broader view of risks, like liquidity, that are not necessarily reflected through the more traditional balance sheet assessment.[70] As the Examiner's Report notes, the unreasonably small capital test had two components: first, whether it was reasonably foreseeable that Lehman Brothers was at risk of losing access to the financing that it required to operate its business and to satisfy its obligations as they became due; and second, whether Lehman Brothers' liquidity stress tests were reasonably constructed.[71] The SEC's and the Federal Reserve Bank of New York's performance as it related to the evaluation of

69. A range of issues remain to be addressed in the Council's guidance, but the second notice of proposed rulemaking, unlike the original notice, incorporates uniform quantitative thresholds to determine the population of nonbank financial companies that will be subject to further review for systemic importance. *See* www.treasury.gov/initiatives/fsoc.

70. Report of Anton R. Valukas, Examiner (*supra* n. 9), 1643.

71. *Id.* at 1649.

the strength of Lehman Brothers following the failure of Bear Stearns in March 2008 would not be immediately reassuring. Given that Bear Stearns had collapsed in a matter of days when its liquidity sources dried up, Lehman Brothers met almost immediately with the two regulators to discuss the results of its own liquidity stress tests, in essence examining scenarios for declining funding. In its May 28, 2008, stress test report, for example, Lehman Brothers reported to its regulators that it survived the stress tests by a margin of more than $10 billion.[72] It took the Federal Reserve Bank of New York more than two months after Bear Stearns' failure to develop and conduct its own stress test and scenario analysis, which concluded that Lehman Brothers would fail in a "Bear Stearns"–type run on the bank by $84 billion.[73] Moreover, the SEC failed to recognize or enforce Lehman Brothers' requirement to be able to monetize its liquidity pool within 24 hours, as Lehman Brothers relied instead on a five-day test.[74] Finally, the derivatives business conducted by LBSF indicated that at May 31, 2008, and August 31, 2008, it held 0.41 percent and 0.44 percent, respectively, in terms of its ratio of equity to assets, characterized as borderline solvent.[75] Under Dodd-Frank, perhaps these types of strands of analysis would have led the regulators to conclude that Lehman Brothers was in danger of collapsing.

While the enhanced supervision powers designated by Title I should provide regulators with greater information about the largest and most complex entities, if one of those entities actually begins to demonstrate weakness or fails, then the Secretary of the Treasury will hopefully be working diligently to achieve a private-sector solu-

72. *Id.* at 1679.
73. *Id.* at 1680.
74. *Id.* at 1507–1508.
75. *Id.* at 1618, 1621.

tion (which will be challenging, particularly during a volatile market like that experienced in the fall of 2008). Further, the Secretary of the Treasury will be obligated to assess whether the Bankruptcy Code provides an appropriate framework in which to resolve the failed nonbank entity. These requirements in Dodd-Frank should result in virtually no change in the bodies of insolvency laws that would apply to the financial company, either because the failing financial company or key parts of it are absorbed by an acquiring company or the failed company's insolvency is handled, in part, under the U.S. Bankruptcy Code and/or the Federal Deposit Insurance Act. The application of the Bankruptcy Code and the Federal Deposit Insurance Act would mean that no bailout of the failing company occurs, thereby inadvertently solving the "too big to fail" problem at least as it relates to bank holding companies, banks, and certain nonbank financial companies.

As it relates to derivatives specifically, many of today's largest counterparties execute their derivatives transactions through their U.S. commercial bank. Banks have historically been excluded from the U.S. Bankruptcy Code,[76] and instead bank insolvencies were addressed under the Federal Deposit Insurance Act. Despite the underlying policy claim that derivatives were responsible, at least in part, for the economic crisis and the creation of systemic risk, the insolvency of a derivatives counterparty that happens to be a bank was largely unaffected by Dodd-Frank.

Banks dominate as derivatives counterparties. A recent OCC quarterly report on U.S. banks' derivatives activity noted that the five largest U.S. commercial banks represent 96 percent of the total banking industry notional amount of derivatives trading activity.[77]

76. 11 U.S.C. § 109(b)(2).
77. OCC Quarterly Report, Third Quarter 2011 (*supra* n. 43), 1.

The concentration of a small number of financial institutions in the derivatives market has not shifted much in many years, including prior to Lehman Brothers' bankruptcy.[78] The vast majority of this derivatives trading activity is focused on interest rate swaps: in the OCC's First Quarter Report in 2008, that figure was 79 percent, whereas in the OCC's Third Quarter Report in 2011, it was 81.5 percent.[79] Interest rate swaps are perhaps the least complicated derivative instrument, particularly as compared to the challenges historically associated with credit derivatives in terms of credit event triggers and settlement, the complex calculations and dependencies of equity derivatives, and the inherent volatility of commodity derivatives, so presumably there is less risk in trading interest rate swaps than other derivatives.[80] In addition, the OCC reports that 62 percent of the top five commercial banks' net current credit exposure is to other banks and securities firms, with corporates representing 32 percent, and hedge funds—the most overly collat-

78. In the OCC Quarterly Report on Bank Trading and Derivatives Activities, First Quarter 2008, the five largest commercial banks represented 97 percent of the total banking industry notional amount of derivatives trading activity. In order by notional, those institutions were JPMorgan Chase Bank, Bank of America, Citibank, Wachovia Bank, and HSBC Bank USA. In the OCC Quarterly Report on Bank Trading and Derivatives Activities, Third Quarter 2011, the five largest commercial banks in order by notional were JPMorgan Chase Bank, Citibank, Bank of America, Goldman Sachs Bank USA, and HSBC Bank USA. In addition, the number of insured U.S. commercial banks engaged in derivatives trading has remained relatively stable: at the end of the first quarter of 2008 there were 1,003 banks (at 7 of 2008 Report), whereas at the end of the third quarter of 2011, there were 1,088 (at 1 of 2011 Report).

79. OCC Quarterly Report, Third Quarter 2011 (*supra* n. 43), 9.

80. Credit derivatives represent 6.3 percent of the OTC notional amounts for U.S. commercial banks, while equity derivatives are 0.7 percent and commodity derivatives are 0.6 percent. *See Id.* Note that these figures shift slightly when considering the data collected by the Bank for International Settlements, as greater numbers of institutions are covered.

eralized group, as noted earlier—being a mere 2 percent of net credit exposure.[81]

Thus, our financial landscape is dominated by the world's largest banks, which in turn are among the world's largest derivatives counterparties. While these banks will be more closely regulated under Title I of Dodd-Frank, the way in which their insolvency would be handled would not differ meaningfully from the pre-Dodd-Frank environment, as those banks that are insured depository institutions will still be subject to the insolvency regime of the Federal Deposit Insurance Act.

Nonbank financial companies, just as with bank holding companies, are captured by the definition of "financial companies" under Dodd-Frank. Nonbank financial companies are defined as those "predominantly engaged in financial activities."[82] This phrase was already embedded in § 4(k) of the Bank Holding Company Act of 1956 and Regulation Y. The Federal Reserve Board issued a proposal to refine this phrase on February 8, 2011, stating that "predominantly engaged in financial activities" should be measured either by a revenue or an asset test. Specifically, it was proposed that "predominantly engaged in financial activities" means the entity either has consolidated annual gross financial revenues in either of its two most recently completed fiscal years of 85 percent or more of the company's consolidated annual gross revenues, or its consolidated total financial assets as of the end of either of its two most recently completed fiscal years is 85 percent or more of the company's consolidated total assets. Financial revenue or financial assets are those derived from or related to activities that are "financial in nature," or the ownership, control, or activities of an insured

81. OCC Quarterly Report, Third Quarter 2011 (*supra* n. 43), 6.
82. Dodd-Frank § 102(a)(4)(A)(ii).

depository institution or any subsidiary of such institution. "Financial in nature" ties back to § 4(k) of the Bank Holding Company Act and includes activities such as securities underwriting, dealing, and market making and engaging in financial and investment advisory activities. The definition would not include activities that are incidental or complementary to financial activities, such as trading in physical commodities. In other words, companies that are not predominantly engaged in "financial activities" cannot be designated as systemically important.

Under Dodd-Frank, LBSF as a nonbank financial company, would likely be captured as a financial company subject to Title I's heightened regulatory scrutiny. As it relates to Title II being applied to a nonbank financial company such as LBSF, the treatment of derivatives would remain largely unchanged from the application of the Bankruptcy Code pre-Dodd-Frank. Nondefaulting counterparties under § 210(c)(8) of Dodd-Frank remain able to terminate, close out, and liquidate their derivatives contracts upon the insolvency of a nonbank financial company such as LBSF with the application of a one-day stay[83]—with such approach largely mirroring that applicable to banks under the Federal Deposit Insurance Act for the past few decades.

There are a handful of differences, though, such as the Bankruptcy Code's accommodation of a rapid sale of the failing business (such as with the sale of Lehman Brothers' broker-dealer business to Barclays coincident with Lehman Brothers' bankruptcy), as compared to the FDIC's ability under Dodd-Frank to transfer assets to another entity or to establish a "bridge financial company" to succeed to selected assets and liabilities of the covered financial company. The issue of whether an institution could have been persuaded to

83. Dodd-Frank § 210(c)(10)(B)(i)(l).

take on board another institution's $35 trillion derivatives portfolio, as assumed by the FDIC, seems naïve.[84] The time to conduct due diligence on the derivatives portfolio would be virtually nonexistent in an insolvency situation, potentially exacerbated by financial institutions' antiquated technology platforms for storing data on the derivatives transactions.[85] The compressed time frame for making these decisions would make it difficult for an institution to distinguish between assets the assuming institution wanted versus those assets it did not. Moreover, any absorbed derivatives portfolio would represent significant risk to the assuming institution, not just in terms of blindness as to the construction of the portfolio across asset categories, but also potentially hampering the ability of the assuming institution to hedge effectively, or to be caught in conflicting hedges with the portfolio being taken on board. One only has to consider Bank of America's ill-timed acquisition of Merrill Lynch and its shaky mortgage-related securities business to know that thoughtful financial institutions in the future will be slow to take on a failing institution's derivatives portfolio.[86] Even if an institution took on board a failing institution's derivatives portfolio, counterparties to the assuming institution may not feel any more positively toward their new counterparty than their prior failing one, particularly in volatile markets, contrary to the FDIC's optimistic view. Rather, those counterparties would likely terminate their

84. *Orderly Liquidation of Lehman Brothers Holdings Inc.* (*supra* n. 62), 17.

85. Other aspects of Dodd-Frank, however, should help in terms of having accurate data and records on derivatives transactions, as clearing will address these historic failures of record keeping. Not all derivatives transactions will be subject to clearing, however.

86. JPMorgan Chase Bank absorbed Bear Stearns' $13.4 trillion derivatives portfolio in March 2008, but only after an attractive purchase price was struck, along with a Federal Reserve Bank of New York $29 billion backstopped guarantee.

derivatives transactions at the earliest opportunity, creating much the same situation that existed in the fall of 2008.

If a "financial bridge company" were established under Title II of Dodd-Frank to take certain assets and liabilities of the failed institution, that entity could only be in existence for two years, subject to three one-year extensions.[87] That may not be sufficient time to dispose of the assets and liabilities of the derivatives portfolio. While the FDIC has very broad powers as it relates to its decisions as receiver, a key distinction from the Bankruptcy Code's approach, Dodd-Frank does impose upon the FDIC the obligation to use its best efforts to maximize returns, minimize losses, and mitigate the potential for serious adverse effects to the financial system.[88] In order to satisfy those requirements, it may be challenging for the final settlement of derivatives transactions to occur in a more expedited time frame than what has occurred under the Bankruptcy Code process applicable to LBSF. The same painstaking transaction-by-transaction approach will still be required. At present, the Lehman Brothers estate and the administrator commenced distributions to LBSF counterparties on April 17, 2012—three and a half years following the bankruptcy. If the financial bridge company had been utilized for LBSF, that vehicle would only have 18 months left to achieve final resolution—feasible, but not certain, and dependent on the complexity of the derivatives portfolio at issue.

Regardless of whether a financial institution or a financial bridge company received the failed institution's derivatives portfolio, it is unlikely that the FDIC's contention that all of Lehman Brothers' general unsecured creditors would have recovered 97 cents on the

87. Dodd-Frank § 201(h)(2).
88. Dodd-Frank § 201(a)(9)(E).

dollar, excluding any guarantees, would result. As noted previously, under the framework, adhering counterparties to LBSF receive between 10.36 and 32 cents on the dollar. There is nothing in Dodd-Frank that would preserve or freeze the value of the derivatives portfolio at the time of insolvency—prices for the underliers will still move—making the FDIC's rather precise recovery estimate unlikely.

Banks, logically the most likely candidates for application of the type of orderly resolution provisions in Title II, have in fact been the least likely to experience failures due to derivatives portfolio losses. Rather, the largest failures of entities due to mismanagement of derivatives to date have not involved any U.S. banks but instead entities that are nonbanks. Some of the more spectacular derivatives-related failures include the municipality of Orange County in 1994, which lost $1.7 billion of the county's $7.4 billion investment portfolio; the hedge fund Long-Term Capital Management's loss of $4.6 billion in 1998; and AIG Financial Products, a dealer and subsidiary of AIG that operated with a $2 trillion derivatives portfolio, which is continuing to be unwound. Orange County would not have been captured by Title II given the unique legal treatment of municipalities. Perhaps Long-Term Capital Management would not have attracted regulators' attention in a 2011 landscape of thousands of hedge funds, as compared to 1998, and thus not deemed worthy of being liquidated under Title II of Dodd-Frank. AIG Financial Products most obviously would have been deemed systemically important and therefore subject to Title I's enhanced regulatory supervision. If AIG had been allowed to file for bankruptcy, the winding up of its derivatives portfolio in AIG Financial Products would have proceeded under the U.S. Bankruptcy Code much as it currently has. If AIG Financial Products had been subject to federal receivership under Title II of Dodd-Frank, then the derivatives portfolio would have been unwound in much the same fashion.

While it is possible that the resolution authority of Title II will in practice be of little to no effect for unwinding the derivatives portfolios of financial companies, particularly if no bridge company is established to transfer the derivatives portfolios to, the clearinghouses present an entirely different risk profile. The legislative mandate of Dodd-Frank to clear certain yet-to-be-specified derivative transactions has guaranteed that the largest global financial behemoths will concentrate risk at the central clearinghouses they each trade and clear through, and as noted earlier, collateral may be set too low to prevent a systemic effect if one or two clearing members or significant customers default. In fact, the Basel Committee on Banking Supervision proposed in December 2010 that the largest global banks hold additional capital against the risk that a clearinghouse defaults.[89]

Currently, the largest commercial banks are the clearing members of the leading clearinghouses, partly as a result of the significant financial resource requirements specified by each exchange. For example, ICE Trust U.S. LLC ("ICE Trust"), owned by Intercontinental Exchange Inc., is a limited purpose trust company that serves as a central clearing facility for credit default swaps. ICE Trust requires that its 14 clearing members, including four of the five largest U.S. commercial bank derivatives participants, have $5 billion in capital.[90] The CME Group, which clears credit derivatives and

89. Bank for International Settlements, "Capitalisation of Bank Exposures to Central Counterparties," http://www.bis.org/press/p101220.htm (December 20, 2010).
90. Rules of ICE Trust U.S. LLC, § 201(b)(ii).

interest rate swaps, has 10 and 12 clearing members for those respective products—again, with the largest U.S. commercial banks being clearing members.[91]

Section 804 of Dodd-Frank provides the Council with the authority to designate a financial market utility such as a clearinghouse as systemically important. As the Notice of Proposed Rulemaking in February 2011 stated, clearinghouses' interconnectedness concentrates a significant amount of risk in the market, and their payment and settlement processes are highly interdependent.[92] If the Council designated a particular clearinghouse as systemically important, then that clearinghouse would be subject to the provisions of Title VIII. The Notice on Proposed Rulemaking attracted 15 comment letters, but the comments were largely common to one another. In essence, these groups felt that in order to be systemically important, the type of market served by the clearinghouse, the nature and size of its counterparties, and the complexity and liquidity of the products should be considered in making the determination. In addition, consideration of the level of interdependence, whether the clearinghouse had the potential to create significant liquidity disruptions or dislocations in the event of failure, and whether the clearinghouse had the potential to create large credit or liquidity exposures relative to participants' financial capacity were also common themes.

The Council issued a final rule on July 27, 2011. It determined that there are several statutory considerations for the systemically important designation as it relates to financial market utilities

91. The CFTC revised a January 2011 rulemaking proposal on October 18, 2011, requiring $50 million in net capital. The CFTC also stated that a non–systemically important derivatives clearinghouse organization needed only enough funds to cover the default of its largest member.

92. 12 C.F.R. Part 1320.

("utilities") such as clearinghouses.[93] First, a two-stage process was established to evaluate whether a utility is systemically important, prior to a vote for such proposed designation by the Council. The first stage consists of a data-driven process that results in a list of utilities that may be systemically important. The second stage would subject the utilities on the list generated from the first stage to a more detailed review. For example, some of the criteria for consideration would include the number and value of transactions processed, cleared, or settled by the utility. Second, the aggregate credit and liquidity exposures to counterparties would be considered. For example, the mean daily and historical peak aggregate intraday credit provided to participants, as well as the value of the margin held would be assessed. In addition, an evaluation of the estimated peak liquidity required in the case of the default of the largest single participant would be considered. Third, the interdependencies and other interactions with other utilities or payment, clearing, or settlement activities would be examined. Finally, the Council would consider the effect that the failure of or disruption to the utility would have on critical markets, financial institutions, or the broader system. Under these criteria, the CME Group, ICE Trust, and LCH. Clearnet would be included, but it remains to be seen whether there will be other clearinghouses or other utilities that can be added to this list.

As noted previously, the clearinghouses have yet to finalize all their collateral formulations and their documentation for clients of clearing members. However, the rules of the leading clearinghouses have been published. In many respects, the rules resemble those of the well-understood ISDA standards, in fact with ISDA membership

93. *Id.*

being required.[94] The key difference, of course, is that unlike a privately negotiated derivative contract, cleared derivatives will have documentation that is truly standardized and therefore not capable of being modified by clients of clearing members.

There has been much industry thought given to how the default of a clearing member (or even the default of a client of a clearing member) will be handled, and waterfalls or priorities of payments are being finalized for the various clearinghouses. Sections 605 and 611 of ICE Trust's Rules provide that when a clearing member defaults, meaning that it or its guarantor has failed to meet its obligations or transfer requested collateral, the clearinghouse is permitted to terminate, liquidate, accelerate, and close out the client's "open positions." Section 805 of ICE Trust's Rules codify that bankruptcy and the failure to pay or deliver with respect to open positions or the guaranty fund are the only defaults applicable to ICE Trust itself.

Upon the default of a clearing member, ICE Trust's Rules provide that it shall determine the loss incurred and the amount of collateral that can be liquidated. Once the "closing-out process" has commenced, ICE Trust has three business days to decide whether it will replace all or part of the transactions of the defaulting clearing member by porting or transferring those transactions to other clearing members that will agree to accept their transfer. The client of the clearing member can decide (prior to default) to designate certain clearing members as acceptable parties to whom their cleared trades can be transferred in the event of a default.[95]

Thus, if ICE Trust or another clearinghouse were designated as systemically important, the termination of the defaulting party's

94. Rules of ICE Trust U.S. LLC, § 201(b)(viii).
95. *Id.* at § 20A-02.

derivatives transactions would in essence be transferred to another clearing member, with ICE Trust effecting such transfer within three business days. Collateral would be transferred along with the open derivatives position. The bankruptcy of such clearinghouse would depend upon the entity's organizational form and location.

C. The Automatic Stay under Dodd-Frank

Under the U.S. Bankruptcy Code and the Federal Deposit Insurance Act, counterparties to certain derivatives are generally permitted to enforce default and termination provisions in those contracts upon the insolvency of their counterparty. While the Bankruptcy Code does not impose a time frame for exercising those rights, the Federal Deposit Insurance Act allows such rights to be enforced after a one-day stay. In addition to those rights, the debtor's counterparties may also liquidate collateral that has been posted by the debtor. Any shortfall resulting thereafter will constitute unsecured claims against the bankruptcy estate, entitling creditors to share in any distribution.

Within weeks of Lehman Brothers' bankruptcy filing, Harvey Miller, the bankruptcy doyen tasked with the filing, testified that a "massive destruction of value" could have been averted if an automatic stay had been in place for derivatives contracts.[96] (Although interestingly, Mr. Miller remarked on December 6, 2011, that the provisions of the Bankruptcy Code resulted in "order evolv[ing] out of chaos.")[97] Derivatives counterparties' exemption from application

96. Testimony of Harvey R. Miller before the Committee on the Judiciary, Subcommittee on Commercial and Administrative Law, U.S. House of Representatives, http://judiciary.house.gov/hearings/pdf/Miller091022.pdf (October 22, 2009), 3.

97. "Court Confirms Lehman Bankruptcy Plans," press release issued by Lehman estate, http://www.nysb.uscourts.gov (December 9, 2011).

of the automatic stay, which has been embedded in the U.S. Bankruptcy Code since 1978 for an expanding class of products, was actually designed to achieve the opposite of what Mr. Miller asserted—the mitigation of systemic risk arising from cascading bankruptcies of other entities. By providing a safe harbor from the stay for these contracts, the delays assumed to be inherent in the bankruptcy process would be avoided and counterparties could reduce the losses that would otherwise result from the degradation of collateral pledged by the debtor.[98] Dodd-Frank did not alter the Bankruptcy Code's accommodation to derivatives. Rather, it continued with the 32-year statutory approach of allowing derivative contracts to be exempt from the automatic stay of action that applies to all other creditors. In Title II resolutions, Dodd-Frank followed the Federal Deposit Insurance Act in settling on a one-business-day stay.[99]

The arguments for and against the safe harbor for derivatives regarding the application of the stay have been sufficiently covered in academic literature. Once more in the legislative litany, Dodd-Frank essentially preserved the special treatment afforded to derivatives contracts. I believe the most salient factor in the debate has always been whether the safe harbor for derivatives manages to mitigate systemic risk. While in the view of the media and many policy makers, derivatives certainly continued to be characterized as weapons of mass destruction, the fact remains that derivative transactions were terminated quickly and efficiently, although obviously settlement of claims and the ensuing fiduciary requirements of administration certainly slowed the process. No major counterparties slid into bankruptcy, parties were eventually able to rehedge their

98. The President's Working Group on Financial Markets, "Hedge Funds, Leverage, and the Lessons of Long-Term Capital Management" (April 1999), 20.

99. Dodd-Frank § 210(c)(10)(B)(i)(I).

positions, and quality collateral was fairly ubiquitous both before and after the meltdown in 2008. While the period of the stay was debated in the negotiations that led to Dodd-Frank, it is my view that the imposition of a one-business-day stay is likely ineffective in terms of stabilizing the financial system, and barely provides the FDIC with enough time to identify an appropriate entity or entities to which the failed entity's derivatives portfolio could be transferred. What would be effective in mitigating systemic risk, however, is ensuring an expanse of time, ideally predefault, for a failing financial company to novate transactions or to establish a bridge bank for those transactions. In the post-Dodd-Frank world, the regulators on the Council cannot claim that inadequate powers stymied their risk-management efforts. The enhancements achieved in Title I of Dodd-Frank should of course ensure that Title II never comes into operation, and the application of a stay under resolution authority is thus superfluous.

IV. CONCLUSION

For all the hullabaloo about derivatives, their treatment in bankruptcy hardly changed under Dodd-Frank. Moreover, the experience of Lehman Brothers from a derivatives perspective demonstrates how quickly and effectively transactions can be terminated and how well a defaulting party postbankruptcy can manage and significantly increase the size of its estate. Certainly, the way in which these products will trade has been significantly altered under Dodd-Frank and these legislative refinements should lessen some of the risks presented by these products, most notably counterparty risk.

The practical reality, however, is that the inevitably growing interdependence of our financial systems and the participants within those systems make it likely that periods of instability will result. The challenge market participants and regulators will always face is minimizing the systemic effects of bouts of instability and preventing disruption in an "overnetworked" environment.[100] Dodd-Frank, while having little practical effect on how the largest derivatives counterparties will be treated in bankruptcy, hopefully achieves its potential through more effective and well-timed regulatory oversight. As Professor L. C. B. Gower once commented, the regulation and supervision of financial companies should not seek to achieve the impossible task of protecting fools from their own folly, but should be no greater than is necessary to protect reasonable people from being made fools of.[101]

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100. *See* William H. Davidow, *Overconnected: The Promise and Threat of the Internet* (Delphinium 2011). With his background in electrical engineering and his decades of experience as a Silicon Valley executive and successful venture capitalist, Dr. Davidow offers an engaging read on the perils of being overconnected and how to minimize systemic disruptions.

101. L. C. B. Gower, *Review of Investor Protection: Report, Part I*, No. 9215 (Stationery 1984), 7.