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Lessons Learned from the Lehman Bankruptcy

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The carnage is everywhere. Storied corporate histories have been dashed in the wreckage of the worst economic dislocation since the Great Depression. Many of the most globally recognized businesses have disappeared. Chrysler, a company previously resuscitated by the charismatic Lee Iacocca, has failed. General Motors, a 101-year-old company, now has the dubious distinction of being the largest industrial bankruptcy filing to date and is 60 percent owned by U.S. taxpayers. Waterford Wedgwood, a 250-year-old company known for its fine china and crystal, was placed

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in administration in the United Kingdom. Countless other companies around the world, both large and small, suffered from the destructive forces of trillions of dollars in lost home values, stock market losses, and vanishing jobs.

The financial sector, which most blame for this crisis, suffered as well. The first notable casualty was Bear, Stearns & Co. Inc., a firm founded in 1923 that survived the stock market crash of 1929 without firing one employee. Bear Stearns, which once traded as high as $171 per share, was sold in March 2008 to JPMorgan Chase for $10 per share. Merrill Lynch, founded in 1914 as a partnership between Charles Merrill and Edmund Lynch, where Merrill's motto was "I have no fear of failure, provided I use my heart and head, hands and feet—and work like hell," disappeared into Bank of America in September 2008 to escape catastrophe. Lehman Brothers, an investment bank founded in Alabama in 1850 by two brothers from Bavaria, survived the Civil War and two world wars, but faltered in September 2008, taking with it the fragile U.S. and global economy.[1] While many companies hobbled by this recession had been steadily declining for some time, the financial institutions' failures were remarkable for the speed of their demise, adding to the complexity of their insolvencies and their disastrous effect on the global financial landscape.

Even the survivors have been badly wounded. AIG, the global insurance company founded in Shanghai in 1919 and once one of the world's largest companies, suffered devastating losses in its financial products subsidiary and has subsequently received U.S. taxpayer assistance of over $150 billion. The company continues to sell parts of its business in an effort to repay government loans. Bank of America, just three short years ago the world's largest bank, is mired in litigation and government investigations over its acquisition of Merrill Lynch, forcing the bank's CEO to step down in December 2009. Citigroup, once one of the world's largest banks and a top ten company by market capitalization, is now one-third owned by U.S. taxpayers and has a market cap less than that of Bank of Nova Scotia. Goldman Sachs and Morgan Stanley, venerable investment banks, became bank holding companies in an effort to ensure access to government funding in a difficult economic climate.

The stories of these corporations is just part of a gloomy worldwide recession. Millions of jobs have been lost, with the United States experiencing its highest level of unemployment since World War II. The price of a barrel of oil has leaped as high as $126.33 in June 2008, plunging to $32.94 by December 2008, and now it is on the climb again at $80 a barrel. And as with many past economic crises, Ponzi schemes have unraveled. Allen Stanford, the failed former bodybuilding gym owner, was arrested after a lengthy investigation into an $8 billion financial fraud. Bernard Madoff, a former chairman of NASDAQ, is now serving a 150-year sentence for defrauding investors of billions of dollars.

Policy makers have struggled with difficult choices in the wake of this devastation, urged on by a public outraged at the outsized compensation earned by many of Wall Street's leaders and blaming the financiers for "getting us into this mess." Along the way, derivatives, a once esoteric corner of finance, have been targeted by many for causing, or at the least contributing to, the collapse of the U.S. economy and triggering a global crisis. For years, while policy makers endeavored to keep pace with the innovation and creativity of Wall Street, regulation often lagged behind seminal developments in the financial industry.

While some may feel that the worst of the crisis is behind us, this sentiment should not dissuade policy makers from the laborious task of reconsidering our regulatory structure, particularly as it relates to systemically important financial institutions.[2] The precipitous disappearance of several of the largest financial institutions has concentrated risk in a far smaller number of entities, accentuated by the fact that the three largest derivatives portfolios are now held by the United States' three largest bank holding companies. Moreover, policy makers' pressure to utilize centralized counterparties, a concept that certainly offers potential solutions to some of the problems that plagued our financial system, risks assembling the ultimate concentration of risk if derivatives products are migrated in meaningful volumes to exchanges.

Without doubt, an abundance of policy areas deserve review. All agree that we must ensure that future failures of systemically important financial institutions are tolerable not only for our economy, but for the global economy as well. This chapter will focus on one of those areas: the resolution of systemically important financial institutions and, in particular, the treatment in bankruptcy of certain financial instruments known as qualified financial contracts. Qualified financial contracts encompass a variety of instruments, as discussed later.[3] This chapter will focus on two of those instrument categories: over-the-counter or privately negotiated derivatives and repurchase or "repo" transactions.

DIFFERENT BANKRUPTCY REGIMES FOR DIFFERENT ENTITIES

History of U.S. Bankruptcy Laws

The history of bankruptcy in the United States makes for fascinating reading.[4] With the federal government choosing rather late in our country's history to create a central bank in 1914, the American banking system until then relied on state banks to serve in roles, such as the creation of paper money, that today are occupied by the Federal Reserve System. In the 1800s, state bank failures were commonplace, and local regulators developed a variety of approaches to handle bank insolvencies. In 1829, New York state, under the leadership of then governor, and soon-to-be president of the United States, Martin Van Buren, established the first insurance fund designed to protected bank depositors.

By the 1870s, a banking crisis in Europe led to the collapse of U.S. railroads, then the backbone of commerce. The tipping point was the failure in September 1873 of Jay Cooke and Company, a banking enterprise that had invested in the development of a transcontinental railroad to be built by the Northern Pacific Company. The U.S. stock market dropped sharply as a result of Cooke and Company's failure, and the ensuing recession lasted for five years. Three million people lost their jobs in the Panic of 1873, and family farms grappled with declining commodity prices and decades of resulting impoverishment.

The Panic of 1873 resulted in increased efforts by the judiciary to take the ideological lead in the development of reorganization plans for failed companies, and to this day, the United States continues to be a debtor-friendly jurisdiction. In general, U.S. bankruptcy law is designed to rehabilitate or to liquidate an insolvent entity. If rehabilitation is elected, the objective is to restructure the insolvent entity's business operations and/or capital structure to form a sustainable, productive enterprise. If liquidation is elected, the objective is to distribute losses equitably among creditors. Regardless of which approach is taken, preexisting creditor claims cease to accrue upon a company's bankruptcy filing, and the relative value of existing contracts is preserved.

For failed banks, however, the courts play a secondary role to the federal bank regulator who handles the insolvency, the Federal Deposit Insurance Corporation (FDIC). Unlike corporations, banks are a sort of franchise authorized by a state or the federal government, and their central role in the provision of credit, payment and settlement means that federal policies are the driving factor in any bank insolvency. As a consequence, the U.S. Bankruptcy Code does not address the insolvency of banks, savings and loans, and credit unions.

Contemporary financial institutions, particularly the most systemically important ones, often consist of dozens of separate legal entities operating globally, a mix of banks, broker-dealers, commodity brokers, futures commission merchants, Delaware corporations, and insurance companies. Upon insolvency, each of these component entities is potentially subject to its own insolvency regime, depending on its organizational form and sphere of activities. For example, the bankruptcy of Lehman Brothers, involving nearly one hundred entities operating globally, resulted in many of the larger businesses being handled either under Chapter 11 of the U.S. Bankruptcy Code (in the case of Lehman Brothers Holdings Inc., the parent holding company, Lehman Brothers Special Financing, Inc., the Delaware corporation that held much of the derivatives portfolio, and several other entities) or under Chapter 7 (in the case of Lehman Brothers Inc., the broker-dealer). Lehman Brothers also maintained insurance subsidiaries that were subject to unique insolvency laws.[5] There were also bankruptcy proceedings initiated in a variety of jurisdictions outside of the United States, including Australia, Japan, and the United Kingdom. Some Lehman Brothers entities did not file for bankruptcy, however. For example, Lehman Brothers operated a bank, today known as Aurora Bank FSB, which employs 1,700 people servicing over $100 billion in mortgages.[6]

The Current U.S. Insolvency Regime for Entities Engaged in Derivatives and Repurchase Transactions

Banks The Federal Deposit Insurance Act (FDIA) provides that the FDIC may operate as a conservator to preserve the value of a failing bank and return it to financial health or as a receiver in order to liquidate a failed bank. Unlike a proceeding under the U.S. Bankruptcy Code, an FDIC receivership or conservatorship is not subject to direct supervision by the courts. In large part, this policy choice was designed to ensure that bank failures were not subjected to the assumed-to-be lengthy proceedings under Chapter 11 of the U.S. Bankruptcy Code, and it placed more discretion with the FDIC to act expeditiously.

Three key principles relate to the treatment of failed banks, relative to qualified financial contracts. First, in view of the unique role of banks as depository institutions, upon the failure of a bank, depositors will receive priority over the bank's unsecured general creditors.[7] Second, the FDIC has limited repudiation and avoidance powers with respect to qualified financial contracts. For example, regardless of whether the FDIC is acting as a conservator or a receiver, it must either disaffirm or repudiate all or none of the qualified financial contracts between the failed bank and the same counterparty, together with associated credit support.[8] Third, the FDIC has the right to transfer qualified financial contracts, but unlike other contracts, the FDIC must transfer to the same transferee all the qualified financial contracts and related claims between the failed bank and the counterparty and its affiliates.[9] Furthermore, the FDIC may not transfer qualified financial contracts to a non-U.S. institution unless the counterparty's contractual rights are enforceable to the same extent as under U.S. law.[10] The time frame in which the FDIC must elect to transfer and provide notice is dependent on the capacity under which it is acting. If the FDIC is acting as receiver, it must provide notice of the transfer by 5:00 P.M. EST on the business day after its appointment as receiver.[11] At that time, the counterparty to the failed bank may elect to terminate the qualified financial contract (i.e., the nondefaulting counterparty to the failed bank could follow the termination and close-out provisions in the ISDA Master Agreement for derivatives transactions). If the FDIC is acting as conservator, there is no special time limit on its right to transfer qualified financial contracts, and the counterparty may not terminate the qualified financial contracts unless the conservator defaults to a degree that would permit termination under applicable noninsolvency law.

From available reports, it appears that in every recent case where a large U.S. bank has become subject to a receivership proceeding, all qualified financial contracts and associated margin of the failed bank were transferred in their entirety to a single bridge bank or third-party acquirer.[12] When the assets of Washington Mutual Bank, the largest U.S. bank failure to date, were sold in September 2008 to JPMorgan Chase, the FDIC transferred to JPMorgan Chase all qualified financial contracts to which Washington Mutual Bank was a party. However, while the FDIC has achieved a solid record in effectively handling failed banks with qualified financial contracts portfolios, none of those bank failures to date have involved a derivatives portfolio that approaches the size of Lehman Brothers' estimated $35 trillion notional derivatives portfolio.

Broker-Dealers Since 1978, the U.S. Bankruptcy Code has excluded broker-dealers from Chapter 11. The rationale was that a separate scheme was needed to protect the millions of brokerage customers across the United States, and that any reorganization of a brokerage through Chapter 11 would be costly and complex. Instead, customers of failed brokerages are subject to liquidation proceedings under Chapter 7 of the U.S. Bankruptcy Code and would share pro rata in the distribution of the failed brokerage's assets. Alternatively, the Securities Investor Protection Corporation (SIPC), created by the Securities Investor Protection Act of 1970 (SIPA),[13] could petition the bankruptcy court to appoint SIPC and allow it to administer the return of customer property. SIPC has been incredibly successful in the execution of its mission. According to its website, 99 percent of customers covered by

SIPA have been made whole in the over four hundred failed brokerage cases handled during the past thirty-eight years.[14] When Lehman Brothers Inc., the broker-dealer, filed for insolvency, SIPC transferred approximately 630,000 customer accounts representing over $142 billion of assets, mainly to the brokerage arm of Barclays Bank, Barclays Capital Inc., as approved by the bankruptcy court.[15] The protections of SIPA are explicitly focused on offering protection to individual brokerage customers, and as such, statutory protections do not extend to derivatives, repurchase transactions,[16] futures, and securities lending counterparties.

Corporates Under the U.S. Bankruptcy Code, corporations and other entities within its scope can be reorganized under Chapter 11 or liquidated under Chapter 7. Section 362(a) of the U.S. Bankruptcy Code provides that upon the filing of a bankruptcy petition under the U.S. Bankruptcy Code, an automatic stay is applied such that secured and unsecured creditors of the debtor are prevented from making claims or taking other unilateral actions against the bankrupt entity to collect debts. Counterparties to qualified financial contracts, however, are permitted to exercise immediate contractual rights to terminate transactions and to offset or net termination values, without application of the stay.

Many financial institutions have historically engaged in derivatives transactions through an unregulated corporation. Lehman Brothers Special Financing, Inc. (LBSF), for example, was a Delaware corporation that engaged in the investment bank's derivatives business. As a result, when LBSF filed for bankruptcy on October 3, 2008, it was estimated that it was a counterparty to 930,000 derivatives transactions documented under 6,120 ISDA Master Agreements.[17] The ISDA Master Agreement gives the nondefaulting party, upon a counterparty's default (which includes voluntary and involuntary bankruptcy), the right to designate a date on which the portfolio will be valued and terminated, to terminate the transactions, and to liquidate and apply any collateral.

THE RATIONALE FOR PROTECTING QUALIFIED FINANCIAL CONTRACTS FROM THE STAY UNDER THE U.S. BANKRUPTCY CODE

Since 1978, an increasing range of trading contracts have been protected from the application of the automatic stay and other powers under the U.S. Bankruptcy Code.[18] Similarly, the Federal Deposit Insurance Act was amended to protect the rights of parties to qualified financial contracts. As a result, counterparties to qualified financial contracts are generally permitted to enforce default and termination provisions in those contracts without the need for relief from the automatic stay. In addition to the exercise of termination rights under the contractual terms applying to those qualified financial contracts, the debtor's counterparties may also liquidate collateral that has been pledged by the debtor. Any shortfall resulting thereafter will constitute unsecured claims against the bankruptcy estate, entitling creditors to share in any distribution.

The rationale for protecting qualified financial contracts has been to mitigate the systemic risk arising from cascading bankruptcies of other entities. By providing a safe harbor from the application of certain provisions of the U.S. Bankruptcy

Code or the FDIA to 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.[19] Because qualified financial contracts would be terminated and netted quickly, financial market participants would be stabilized through the release of liquidity necessary to settle their obligations. As the FDIC stated in 2005:

> This is particularly important in the financial markets because, unlike loans or other financial contracts, the value of derivatives are [sic] based on fluctuating market values. If a counterparty is placed into bankruptcy or receivership, the stay on the termination of the contract and the liquidation of collateral could create escalating losses due to changes in market prices. As a result, the ability for the non-defaulting party to terminate the contract and net exposures quickly can be crucial to limit the losses to the non-defaulting party because such contracts can change quickly in value due to market fluctuations.[20]

Two well-known scholars offer another rationale for the treatment of qualified financial contracts under the U.S. Bankruptcy Code. These scholars argue that systemic risk concerns are not a sufficient rationale for protecting these contracts. Rather, because derivatives are not asset specific, they should not be subject to an automatic stay, which by its nature is designed to be specific in its safeguarding of assets. Thus, economic efficiency and value preservation are increased for contracts that are not subject to the application of the automatic stay.[21]

Systemic risk concerns were, however, the articulated reason for regulatory action taken in 1998 following the sharp losses experienced by the prominent hedge fund, Long-Term Capital Management. Losses resulting from the Russian ruble crisis earlier that year occurred at a time when the fund had $1.4 trillion of notional value of off–balance sheet derivatives positions with seventy-five counterparties.[22] Then president of the Federal Reserve Bank of New York, William McDonough, stated that the "abrupt and disorderly close-out of LTCM's positions would pose unacceptable risks to the American economy."[23] Rather than terminate the derivatives contracts, as the fund's counterparties would have been permitted to do under the specified protections afforded to swap counterparties, several of the largest counterparties, at the urging of the Federal Reserve, infused the fund with $3.6 billion in capital so that counterparties then had time to unwind their derivatives positions in an orderly fashion. Leading financial institutions felt that if Long-Term Capital Management, a Delaware company, had been allowed to file under Chapter 11, counterparties of the failed fund would have rushed to close out their transactions and to liquidate any collateral on hand.[24] Slower counterparties would have seen the value of their collateral diminish and found the replacement of hedged transactions meaningfully more challenging.

Once Long-Term Capital Management was successfully resolved, the regulators remained more concerned about systemic risk arising from limitations on termination than those arising from a precipitous termination. The President's Working Group on Financial Markets[25] published a series of recommendations in 2000 in an effort to improve the close-out netting regime for qualified financial contracts under the U.S. Bankruptcy Code. The President's Working Group noted that its recommendations were designed to "enhance market stability, limit counterparty exposure and . . . preserve market stability in the event of a failure of a financial institution."[26]

The effort to improve the close-out netting regime continued for the next several years, culminating in the expansion of protected qualified financial contracts in the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005.[27] The act harmonized most provisions relating to the insolvency of banks, broker-dealers, investment banks, and companies while expanding the transaction types covered by the safe harbor and extending such protections to a larger array of nonfinancial companies. Master netting contracts were also included in the safe harbor under the act on the basis that the more counterparties that were able to net down their exposures free of Chapter 11 constraints, the less exposed they and the markets would be to the failure of a major participant.

POLICY CHOICES IN MAKING FAILURE TOLERABLE FOR SYSTEMICALLY IMPORTANT FINANCIAL INSTITUTIONS

The failure to prevent Lehman Brothers from filing for bankruptcy, which many regard as a historic error committed by the secretary of the Treasury and the Federal Reserve chairman, led to the Obama administration's proposal to migrate the treatment in bankruptcy of a systemically important financial institution from the U.S. Bankruptcy Code to a regime largely based on the FDIA. As noted, the United States does not have a single bankruptcy or regulatory regime that would permit the unified resolution of diverse financial groups such as Lehman Brothers. Many point to this fragmented approach as being partly responsible for the chaos that ensued from the Lehman Brothers bankruptcy, where the FDIA, Chapters 7 and 11 of the U.S. Bankruptcy Code, SIPA, state insurance law, and foreign laws applied to various bankrupt Lehman entities.

The Obama administration has issued a series of proposals, largely similar, beginning in March 2009 in an effort to apply resolution authority to "systemically important financial companies." The administration's initial proposal was revised in July 2009 and applied to "large, interconnected financial companies." On November 6, 2009, the administration issued yet another revision of its proposal, this time working in concert with the House Financial Services Committee (the "House Proposal").[28] Under the House Proposal, the proposed resolution authority would authorize the secretary of the Treasury, upon the recommendation of the Federal Reserve and the FDIC, to consult with the president to authorize the FDIC to exercise resolution powers as the receiver of an identified financial holding company in situations of systemic risk. An identified financial holding company is oddly not defined in the subtitle of the House Proposal addressing the proposed resolution authority, but rather is defined in the general definitions provision. There, identified financial holding company is broad in its sweep, capturing a wide array of financial and commercial companies, ranging from automobile manufacturers with financing subsidiaries to asset managers and hedge funds. The FDIC would be authorized to sell immediately any or all assets of the identified financial holding company or alternatively, if a buyer or buyers could not be found for those assets, the assets and liabilities of the company would be transferred temporarily to a bridge financial company and an orderly liquidation would follow.

The Obama administration's proposal would be largely irrelevant to the management of insolvency risks arising from derivatives. Insured depository institutions, broker-dealers subject to SIPC, and insurance companies are omitted from coverage under the House Proposal.[29] While the administration likely had Lehman Brothers–type entities in mind when creating its proposed resolution authority, such entities have largely disappeared. Bear Stearns and Merrill Lynch were folded into commercial banks, and Goldman Sachs and Morgan Stanley converted their charters to become bank holding companies in the fall of 2008. In other words, there are no systemically important entities (such as those identified in note 3 of this chapter) that conduct the significant majority of their derivative business out of an identified financial holding company. Rather, Bank of America, Citibank, and JPMorgan Chase each conduct their derivative trading out of their respective banks. JPMorgan Chase, for example, has a $79.94 trillion notional value derivative portfolio; arguably, with its $900 billion in deposits and its leading custodial business in the $5 trillion daily repo market, it would seem to be the type of systemically important entity that should be captured through a unified insolvency regime. Goldman Sachs and Morgan Stanley are still migrating their derivative business on the basis of their conversion to bank holding companies. For example, Goldman Sachs currently conducts its derivative business through Goldman Sachs International, a U.K. broker-dealer.[30] Morgan Stanley Capital Services Inc., one of Morgan Stanley's primary derivatives subsidiaries, will merge in 2010 into Morgan Stanley Bank N.A., a Utah bank, and the credit derivatives and interest rate swap business will be executed out of this entity. Morgan Stanley & Co. International plc, the U.K. broker-dealer, will engage in equity derivatives, while Morgan Stanley & Co. Incorporated, a U.S. broker-dealer, will transact in foreign exchange.

The challenge is pinning Lehman Brothers' collapse on its qualified financial contracts or, more broadly, its insolvency, as being directly responsible for the exacerbation of global financial instability.

Some may argue that this failure to capture insured depository institutions within the House Proposal does not matter. After all, the FDIC's resolution authority would already apply to commercial banks. However, the Obama administration has missed a unique opportunity to address the economic and procedural inefficiencies produced by our fragmented bankruptcy regime. If Lehman Brothers existed today, the House Proposal would apply to Lehman Brothers Holding Inc. but not to Lehman Brothers Inc., the broker-dealer that arguably was the more systemically important entity. Moreover, systemic risk has been too broadly defined in the House Proposal in the sense that many financial and commercial companies could be covered, and some or most of those companies may not be of truly systemic importance. In addition, the failure to identify explicitly those companies of systemic importance in advance of the application of any resolution authority suffers from a lack of legal clarity and will result in market participants making assumptions about whether any particular entity is or is not covered by the proposed resolution authority. True progress will be made when our bankruptcy regime reflects the diverse nature of contemporary financial groups. In order to ensure that future failures of systemically important entities are tolerable for the financial system, a unified bankruptcy approach must be adopted. In addition, policy choices must acknowledge that systemically important entities may unravel within a matter of days, so that clarity of action and process in a compressed, and likely aggravated market environment, is ensured. In addition to making policy choices that are designed with legal certainty and speed in mind, it is also important that operational challenges are considered. Over-the-counter derivatives and repurchase transactions are two of the more critical qualified financial contracts that systemically important entities engage in, and the operational infrastructure for these aspects of the institution are some of the most overworked and vulnerable. The Obama administration's failure to address the aforementioned concerns will not avert any systemic effects resulting from the future bankruptcy of one of our most critical institutions.

Over-the-Counter Derivatives: Remove the Safe Harbor and Impose a Stay?

Some on Wall Street remark quietly that the only way in the future to avoid the sort of chaos that resulted when Lehman Brothers failed is to remove the safe harbor for qualified financial contracts and apply an automatic stay. Harvey Miller, the architect of Lehman Brothers' bankruptcy filing, testified that "massive destruction of value" could have been averted if an automatic stay had been in place for these contracts.[31] Accordingly, Miller proposes that the termination and close-out netting rights that derivative counterparties rely on should no longer exist—at least not until such time as the automatic stay is lifted. Recent legislative proposals have incorporated this view. The House Proposal provides that qualified financial contract counterparties should be subject to the automatic stay for one business day. The proposal introduced by Senator Christopher Dodd would extend the application of the stay to three business days. Proponents of this view note that the qualified financial contracts safe harbor accelerated Lehman Brothers' demise by increasing demands for collateral and requests to close positions at the firm's most vulnerable moment. In other words, in their view, the safe harbor, which was ostensibly designed to prevent systemic risk, ended up creating systemic risk and hastened the bankruptcy process. Hence, proponents contend that the safe harbor should be removed and an automatic stay imposed for derivative transactions and other qualified financial contracts.

The congressional rationale for protecting qualified financial contracts from the automatic stay was to avoid systemic risk. Congress and regulators were keen to prevent a cascade of bankruptcies of financially interconnected entities by protecting qualified financial contracts and respecting the underlying agreement between counterparties to terminate those transactions. Unfortunately, at present, empirical evidence supporting or opposing the exemption of qualified financial contracts from the automatic stay does not exist. While studies of the Lehman Brothers bankruptcy are likely, what we do know is that none of Lehman Brothers' derivative counterparties filed for bankruptcy in the aftermath of Lehman's failure. It is also known that the derivatives market did not grind to a halt after Lehman Brothers' bankruptcy filing. Rather, the global derivative markets continued to trade quite actively, leading some to criticize the sizable profits earned from this trading by leading banks in the first two quarters of 2009.[32] In addition, while it was widely estimated in the lead-up to the October 10, 2008, credit default swap auction for bonds referencing Lehman Brothers that close to $400 billion in payments could be required in payments to settle outstanding contracts, in fact only $6 billion in net settlement payments were ultimately needed.[33]

It is also known that a mere five weeks after the Chapter 11 filing of several Lehman Brothers entities that were party to "derivative contracts," defined by the debtor to include securities contracts, forward contracts, repurchase agreements, and swap contracts, approximately 740,000 out of 930,000 derivative contracts—80 percent of the debtor's derivative contracts—had been terminated pursuant to the provisions in the underlying contract.[34] At this time, November 13, 2008, Lehman Brothers succeeded in its motion to assign and settle outstanding derivative transactions before the U.S. Bankruptcy Court for the Southern District of New York.[35] Lehman Brothers argued that some of the counterparties who had not elected to terminate their derivative transactions were out-of-the-money to the debtor and, as a result, the estate might best realize the value of those transactions through assignment. The Bankruptcy Court agreed and concluded that derivative transactions that had not been terminated could be assigned to third parties without the consent of the original counterparties.

By January 16, 2009, the Lehman Brothers estate filed a second motion to clarify that unterminated derivative transactions could be assigned without court intervention if the original counterparty so consented. At that hearing, Lehman Brothers noted that out of the 190,000 derivative contracts that had not been terminated at the time of its first motion in November 2008, now only 30,000 derivative contracts remained unterminated.[36] In other words, only 3 percent of all derivative contracts outstanding at the time of the Chapter 11 filing were unresolved roughly 106 days later.

As it relates to derivative transactions specifically, the debtor reported on November 18, 2009, that out of 6,355 ISDA Master Agreements (or other contracts supporting derivative trading) in place at the time of the bankruptcy filing, approximately 50 percent had been reconciled and concluded with respect to the valuation of the derivative portfolio.[37] A smaller percentage, 17 percent, had been settled.[38] At the same time, Alvarez & Marsal, appointed by the U.S. Bankruptcy Court to manage the Lehman Brothers estate, noted in its "State of the Estate" report that a remarkable enhancement to the value of the debtor's derivative book had occurred following the bankruptcy filing. Nearly $2 billion in cumulative cash collections were received to the credit of the derivative book by January 29, 2009; by November 6, 2009, that figure had risen to $8.023 billion.[39]

If the analysis is broadened to consider whether any of the top thirty unsecured claimants to Lehman Brothers were significant derivative counterparties or were entities who subsequently experienced bankruptcy, the answer is no. According to Schedule 1 of Lehman Brothers Holdings Inc.'s petition for bankruptcy, approximately $2.5 billion of bank loans represented the vast majority of unsecured claims, with a number of Japanese banks serving as the primary lenders to Lehman Brothers. None of those entities, at least according to this court record, were significant derivative counterparties to Lehman Brothers, nor did any creditor listed subsequently file for bankruptcy.

Debates over the valuations of terminated derivative transactions continue to vex the bankruptcy estate, however. In addition, a relatively small number of counterparties to LBSF, the primary U.S. derivative trading entity, have not fulfilled their obligations under the ISDA Master Agreement and have not terminated the derivative transactions, perhaps hoping that as out-of-the-money counterparties to Lehman Brothers that exposures will swing back in their favor. Lehman Brothers has successfully pursued one such counterparty, Metavante Corporation, a financial technology company. Metavante had entered into interest rate swap transactions with LBSF, and upon LBSF's Chapter 11 filing, it elected not to terminate those transactions, yet it did not make any further payments. LBSF petitioned the U.S. Bankruptcy Court for the Southern District of New York to compel Metavante to perform under the ISDA Master Agreement and declare that Metavante's termination rights were subject to the automatic stay. LBSF argued that pursuant to Section 365(e)(1) of the U.S. Bankruptcy Code, an executory contract could not be terminated or modified solely because of a provision in the contract that is conditional on the insolvency or financial condition of the debtor or the commencement of a case under Chapter 11.[40] Metavante countered that Section 2(a)(iii) of the ISDA Master Agreement, which provides that payment obligations to one's counterparty are conditional on there being no event of default, justified its decision to cease making payments to the estate since the guarantor's insolvency had not been cured. After eight months, Metavante owed LBSF more than $6.3 million in addition to default interest.

Judge James Peck was not persuaded by Metavante's argument. He determined that Metavante was required to terminate its positions or continue to fulfill its contractual obligations. Metavante could not benefit under its derivative contracts once it had suspended performance. Metavante was held to have had the right to terminate the derivative contracts, but it had waived that right by failing to exercise it within a reasonable period of time. The congressional history behind the safe harbor provisions indicated to Judge Peck that it was the intent that swap market participants would immediately, or at least "fairly contemporaneously," terminate qualified financial contracts in order to take advantage of the protections afforded by the safe harbor provisions.[41] Metavante is planning to appeal the decision, but for now, the implication is that counterparties do not have an unlimited window of time in which to exercise their termination rights with respect to derivative transactions, but the court refrained from imposing a specific time frame for such exercise.

What Does Lehman Brothers' Failure Mean for Qualified Financial Contracts and the Exemption from the Automatic Stay? Lehman Brothers did not fail because of losses experienced in its derivative portfolio. Rather, Lehman Brothers failed because of a sharp lack of liquidity and poor management choices relating to its commercial real estate, mortgage, and leveraged loans business—areas the U.S. Bankruptcy Code cannot affect.

The acute problem for policy makers is that once a bank is in distress, its cash liquidity is threatened, its stock price is plummeting,[42] and no other market participants will extend credit or transact with the failing bank. The application of an automatic stay, while appearing to preserve the value of the "assets" of the failing entity, may be illusory as it relates to derivatives since derivative transactions and the collateral associated with those transactions are not really assets in the traditional sense, and the preservation of value may rapidly change, particularly in a distressed market. Moreover, the legal certainty afforded to the termination of these contracts, from the perspective of both the well-understood provisions of the ISDA Master Agreement and the application of the safe harbor provisions of the U.S. Bankruptcy Code, should not be discounted. Highly liquid derivative transactions, such as interest rate and foreign exchange derivatives (which constitute 80 percent of the $600 trillion notional value over-the-counter derivative market[43]), were terminated by many of Lehman Brothers' counterparties after the investment bank's failure, allowing those counterparties to reduce potential losses by entering into replacement transactions. The loss of an ability to hedge one's trading book because of the application of a stay would result in significant losses for qualified financial contract counterparties, causing a catastrophic decline in the activities of the financial markets.

Some would counter that giving derivative counterparties the right to terminate, while other creditors are frozen, may destabilize the failing entity further. However, this argument overlooks the fact that termination offers immediate liquidity and a transfer of wealth to occur, as payments are made between counterparties. In a situation of systemic risk, the application of a stay to derivative counterparties of a systemically important entity is unlikely to preserve significant value given the volatility of markets at that time. In a severe market dislocation, the value of a derivative portfolio may not be terribly differentiated on day one of the bankruptcy filing versus three business days later. In addition, contrary to the assertion that collateral is being drained from the failed entity, at least for systemically important entities such as banks, those banks rarely, if ever, post collateral to their nonbank counterparties, so there is simply nothing to liquidate, making it even more imperative to terminate the contracts as quickly as possible. Lastly, the imposition of a one-business-day stay as included in the House Proposal, or a three-business-day stay as proposed by Senator Dodd, is ineffective in terms of stabilizing the financial system and would only provide the FDIC with time to identify an appropriate entity to which the qualified financial contracts could be transferred. That said, it is not clear whether the FDIC, despite its ability in handling over one hundred bank failures this year, would be able to familiarize itself with a complex derivatives and qualified financial contracts portfolio within one or three business days.

Liquidity Crises and the Operation of the Repo Market

Beginning in the summer of 2007, significant fault lines were exposed in the funding methodology increasingly relied upon by investment banks. Unlike commercial banks, which may access temporary extensions of cash at a discounted rate through the Federal Reserve, investment banks such as Bear Stearns or Lehman Brothers borrowed cash from money market funds, among others, for a short duration of time, with those obligations typically collateralized by Treasury securities.

Bear Stearns, the first major victim of what was then the "subprime crisis," was heavily dependent on overnight repos to fund its less liquid assets, such as derivatives. At the same time, a deteriorating pool of collateral was being offered by Bear Stearns to its secured lenders. For example, highly rated but hard-to-value tranches of securitized pools of subprime mortgages and corporate securities were offered as collateral. This reflected the drive by investment banks and investors to boost their leverage and garner higher returns. Increasing haircuts on the collateral being posted were also becoming commonplace.

The strain that Bear Stearns faced was enormous and relentless, particularly given that the duration of the borrowing cycle was one day. At the same time, the firm was grappling with short selling and other pressures, all culminating in the ultimate erosion of confidence in Bear Stearns as a counterparty. As fractures grew in the repo market, Federal Reserve chairman Ben Bernanke, alarmed at the rapid unraveling of Bear Stearns, established the Primary Dealer Credit Facility on March 17, 2008. For the first time, investment banks such as Lehman Brothers were able to borrow directly from the Federal Reserve. Daily lending activity through this facility reached its peak in October 2008 at an average of $150 billion. Interestingly, though, is that the Federal Reserve reported on September 12, 2008, that neither Lehman Brothers nor any other dealer had tapped the facility, likely out of concern that it would signal a fundamental weakness.

While the Primary Dealer Credit Facility alleviated some pressure, operational risks in the settlement of repo transactions remained elevated. The market had migrated by 2007 to a triparty model for settlement, whereby a custodian bank physically controlled and managed the collateral. At the epicenter of the triparty model was JPMorgan Chase and the Bank of New York Mellon. On a combined basis, these two banks clear the vast majority of the $5 trillion daily repo market. Federal Reserve Chairman Bernanke recognized this second danger in March 2008, cautioning that there were significant dangers associated with having only two clearing banks support the financial system and stating that a central clearing system was worth considering.

However, once Lehman Brothers failed in September 2008, liquidity demands surged as counterparty concerns trumped everything. Approximately $2.68 trillion of Treasury settlement failures were recorded in October 2008, a consequence of a flight to the safety of Treasury securities. The macroenvironment had shifted so dramatically that as nominal interest rates fell, fewer securities were lent, resulting in a year-over-year decrease in the repo market of 50 percent.[44] Eventually, once the U.S. government increased liquidity in the financial system and banks were recapitalized, the fractures began to close.

Certainly, capital reserves are critical for systemically important financial institutions. Banks such as JPMorgan Chase, for example, rightly highlight on earnings calls their Tier 1 common capital, currently stated in its third quarter 2009 earnings call to be $101 billion. However, when a financial institution is under strain, its capital becomes inextricably linked to its liquidity. More capital could be required at just the moment in time when funding and investment are scarce. For example, Standard & Poor's reported that Lehman Brothers' Tier 1 capital ratio was 10.7 percent at the end of the second quarter 2008, in line with other investment banks such as Goldman Sachs, which was 10.8 percent at that time, and Lehman Brothers also had a liquidity pool of $42 billion in August 2008.[45] But as market participants learned in the aftermath of Bear Stearns and Lehman Brothers, liquidity management is no longer about how much cash is on hand but, rather, singularly focused on how much access to cash you have. Once counterparties, creditors, and customers lose confidence in their financial counterparty, the entity is unable to continue functioning.

Making Failure Tolerable

What should policy makers do to make future failures of systemically important financial institutions tolerable? First, policy makers need to agree on, and periodically reevaluate, what institutions are considered to be systemically important. Developing new regulatory and insolvency regimes without understanding the types of entities to which the label will apply is not prudent. Clarity on what institutions are considered by regulators to be systemically important will ensure that appropriate regulatory resources can be brought to bear as well as focusing heightened regulatory scrutiny of those entities' businesses. Greater risk awaits if our policy makers act as if no entity is too big to fail but then, once failure is close at hand, take actions that indicate they are, in fact, too big to fail.

In the case of Lehman Brothers, the majority of market participants did not act as if they knew the investment bank's failure was imminent. In fact, many market participants continued to believe that either an acquirer would step forward or the government would assist the troubled firm as it had Bear Stearns. Prominent news publications focused on the Korean Development Bank's interest in acquiring a stake in Lehman Brothers; consequently, Lehman Brothers' stock traded sharply up at discrete points in late August 2008. As late as September 2, 2008, the Korean Development Bank was on record confirming that it was in discussions with Lehman Brothers. By September 10, however, just four days before Lehman Brothers' bankruptcy filing, the Korean Development Bank ceased discussions, Lehman reported its second consecutive quarterly loss, and clients finally began to comprehend that maybe the impossible would become the possible. New business ground to a halt.

No one from the federal government was on record during the weekend prior to Lehman Brothers' bankruptcy commenting that bankruptcy was a possibility—that would have been untenable for a regulator to observe in any event. Rather, the regulators were on record stating that they were working around the clock to avoid the collapse of our financial system. Federal Reserve Chairman Bernanke subsequently testified on September 24, 2008, before the Senate Committee on Banking, Housing, and Urban Affairs that Lehman Brothers' distress had been well-known for some time and that credit default spreads were evidence that bankruptcy was likely. In fact, Lehman Brothers' spreads were oddly not indicative of such a state. As a paper published by the International Monetary Fund noted, Lehman

Brothers' default showed an exceptional case in which cash bond prices collapsed to around 20 cents as credit default swap spreads remained relatively low, leading to the unusual scenario where the basis was positive during distress.[46] A research report published by Barclays Capital noted:

> In recent financial institutions bankruptcies, CDS levels were clearly not the leading indicator. Lehman Brothers provides the best example, as its CDS remained in spread running the week of its bankruptcy filing. This actually resulted in some of the best basis trades ever in the credit market as the bonds cratered well before CDS.[47]

In addition, the chairman of the Financial Services Authority, Lord Turner, noted in remarks on October 29, 2009, that CDS spreads of financial institutions were at their lowest in spring 2007, precisely the point in time we now recognize was the most fragile.[48]

Moreover, Chairman Bernanke stated in Senate testimony on September 24, 2008, that "we judged that investors and counterparties had had time to take precautionary measures." This observation seems obvious in retrospect, but it was not so obvious in that delicate, ultimately unrecoverable moment, when a potentially failing institution was on the brink of collapse. Financial institutions, unlike other corporate entities, are unique in that they are more likely to suffer from an immediate "bank run" mentality. While the short-selling of Lehman Brothers was widely reported and even commented on by the firm itself in the summer of 2008, Lehman Brothers' derivative counterparties were not flooding it with hundreds of requests to assign their derivative transactions. The number of Lehman Brothers' counterparties remained steady after Bear Stearns was folded into JPMorgan Chase in March 2008 and continued throughout much of the summer. Derivative trading volumes remained steady until there was a slight decrease in August, a normal occurrence for the industry. Moreover, less than 1 percent of Lehman Brothers' counterparties requested that the initial margin posted in connection with their derivative trades be segregated at a third-party custodian. If the market had been in agreement that Lehman Brothers was essentially failing, presumably CDS spreads would have reacted very differently, many market participants would have terminated their derivative contracts or attempted to assign their positions to another counterparty willing to take that risk, and counterparties would have not waited until the week before the bankruptcy filing to do their documentation due diligence. Certainly, some counterparties did take these actions, but the vast majority of counterparties did not—6,355 counterparties, to be precise.

Second, policy makers need to reconsider the existing bankruptcy reform proposals. Some have argued that the U.S. Bankruptcy Code, with its focus on creditors, is not capable of working effectively for systemically important entities, and that the FDIC is best placed to utilize its resolution authority for systemically important entities. I disagree. The Bankruptcy Code offers well-conceived principles, established jurisprudence, a well-regarded bench, and, at least for recent large bankruptcies, a relatively efficient process. The expansion of the FDIC's resolution authority as contemplated by the House Proposal would result in lower recoveries for counterparties, as well as secured and unsecured creditors, thereby imposing a higher cost of credit on a wide array of businesses. In any event, the U.S. Bankruptcy Code is not likely to operate since the largest derivative participants are banks, already subject to the FDIA. Policy makers should consider whether the existing FDIC resolution regime is adequate to meet the challenges presented by the size, concentration, and complexity of these banks' derivative portfolios, particularly given the interconnected trading relationships among these institutions, as well as the banks' partial ownership of at least one exchange that potentially could benefit from migrating some over-the-counter derivatives to a central counterparty model.

Whatever enhancements are made to the regulatory and bankruptcy regimes, policy makers must ensure that legal certainty is paramount in their deliberations. A critical component of legal certainty is insisting on the continuation of a reliable and robust netting regime. Netting is an effective mechanism in the management of credit risk in that it reduces the credit and liquidity exposures through its elimination of individual transfers. Cross-product netting is critical in that it allows entities to net all their qualified financial contracts, assuming mutuality, under a single master agreement. With greater legal certainty for netting, market participants can more effectively evaluate their risks. To place netting under doubt would be massively counterproductive, generating substantial legal and operational uncertainty. Policy makers miss the point when they propose protections for limited classes of participants and/or products.

Third, in lieu of applying the automatic stay, policy makers should consider other tools that perhaps more effectively make failure more tolerable. For example, despite the impression given by the media, regulators have access to a wide array of trading data for systemically important financial institutions. Developments by the Depository Trust & Clearing Corporation in the provision of weekly derivatives data expands on what was available a year ago. The challenge is how to prioritize and evaluate that data on a real-time basis. Given the speed with which financial institutions can deteriorate, regulators need to develop a more effective mechanism for evaluating the health of systemically important financial institutions.

Fourth, a more stable liquidity environment must be created. A shift to term repo arrangements, particularly in a distressed market, should be considered as it could possibly relieve pressure on broker dealers and clearing banks that make the exchanges of securities and cash between dealers or fund managers. The challenge is that the documentation supporting repo arrangements should be amended as it is fairly easy to exit the arrangement. This is because “mini-close-out” provisions are not included in the industry standard Master Repurchase Agreement, although an optional form is available. A mini-close-out provision permits a nondefaulting party in a failed securities delivery in a repo transaction to elect to close out only the failing transaction. In addition, policy makers should continue to advance exploration of the proposal that a central clearing utility could replace the two clearing banks, and evaluate whether such a utility would serve as a better watchdog on limit risks and stem rapid withdrawals of credit or conversely, whether risk is concentrated in an intolerable way. The institutionalization of penalties for settlement failures should also be examined.

Fifth, regulators need to reexamine their organizational structures and optimize their staffs in such a way as to execute effectively and on a timely basis on their missions. Federal Reserve chairman Bernanke acknowledged this in a recent conference, observing, "Unfortunately, regulators and supervisors did not identify and remedy . . . weaknesses in a timely way."[49] Existing law already provides regulators with the power to restrict banking activity, but that power has not always been used. Congress passed the Financial Reform Recovery and Enforcement Act in 1989, allowing regulators to intervene earlier to prevent the buildup of bad loans in the system, but regulators failed to utilize this power in 2007 and 2008. Congress passed the Sarbanes-Oxley Act in 2002 after the collapse of Enron, but corporate governance and disclosure mandates contained therein have not resulted in the boards of failing institutions to query more effectively the risk management of those institutions.

Other Areas Requiring Policy Makers' Consideration

Too Big to Fail Billions of dollars were lost as a result of Lehman Brothers' bankruptcy filing, impacting the firm's unsecured creditors such as holders of its bonds and commercial paper, as well as shareholders, thirty percent of whom were Lehman employees.[50] Market psychology experienced a seismic shift on September 15, 2008. While Secretary of the Treasury Timothy Geithner commented that the collapse of Lehman Brothers was not a cause of the economic collapse, but rather a symptom,[51] the panic was nevertheless palpable on Wall Street and elsewhere. The prospect that large financial institutions could now be allowed to default had a dramatic impact on the cost of borrowing for surviving financial institutions such as Goldman Sachs and Morgan Stanley, and each changed its charter to a bank holding company in an effort to stabilize its liquidity management within a week of Lehman Brothers' bankruptcy. Runs on the $3.6 trillion money market industry, which provided critical loans (commercial paper) for thousands of businesses for everyday expenses such as payroll, eventually required the Federal Reserve to step in with a $1.6 trillion backstop. All the while, jittery stock markets lost $2.85 trillion in value in three days.[52]

Whether Lehman Brothers' bankruptcy filing was a symptom or a cause of the economic crisis is likely irrelevant, but the undeniable disorder that was unleashed created an opening for policy makers to consider whether any institution was too big to fail. The reality is that there are several multijurisdictional financial institutions that, in my view, are too big to fail. Their significance to the U.S., and perhaps the global, economy is such that these institutions have extraordinary levels of concentration of trading activity, while at the same time constituting some of the largest institutions as measured by deposits. Some, such as George Shultz, former secretary of the Treasury and secretary of state, and Mervyn King, the Bank of England governor, argue that if an institution is too big to fail, it should be broken apart.

Large custodians such as the Bank of New York Mellon, State Street Bank, and PNC Bank are also too big to fail. The custodian's role in protecting the assets of customers, reaching into the trillions, means that disruptions to the safety of those assets would severely undermine confidence in the financial system and disrupt the ability of firms to regain control of their assets.

In addition, if over-the-counter derivatives trading activity is forced onto one or more exchanges, the concentration of risk for any one exchange will significantly dwarf the $35+ trillion notional value derivative book of Lehman Brothers. Policy makers are counting on the reduction in counterparty risk by having a central counterparty stand between the buyer and seller of each derivative trade, as well as the imposition of uniform margin requirements. But as preliminary research by the International Monetary Fund shows, even a very modest 1 percent weighted average initial margin requirement by a central counterparty would entail several billion dollars of collateral. The failure of this type of entity would be catastrophic, and policy makers must carefully evaluate whether sufficient fail-safes are in place before trading is required to migrate there.

Valuation Issues

Complex derivatives such as credit default swaps on asset-backed securities or collateralized debt obligations presented a major challenge for valuation when markets began to fall apart. Policy makers should consider whether complex derivatives remain suitable for a mark-to-market model.

Rating Agencies

It is appalling that nothing has effectively been done to reconfigure the way in which ratings are given. After all, it has been widely reported that the rating agencies' laxness in its models for certain types of real estate–connected transactions led to the presence of less collateral and more risk when those models failed. On October 28, 2009, the House Financial Services Committee passed the Accountability and Transparency in Rating Agencies Act. This bill would require the rating agencies to disclose any conflicts of interest in the provision of its services, to enhance transparency and disclosure and to have at least one-third of a rating agency's board of directors be independent. Policy makers should act to address more effectively the deficiencies of the rating agencies.

Organizational and Operational Issues

Harvey Miller, Lehman Brothers' lead bankruptcy counsel, noted that his firm was forced to organize, "on a moment's notice," the largest and most complex bankruptcy in history.[53] The U.K. administrators at PricewaterhouseCoopers, tasked with handling nineteen Lehman Brothers entities' bankruptcies, echoed that remark, noting that many were stunned by the complexity of the bankruptcy. Miller was right: Lehman Brothers had no insolvency plans prepared.[54] The guidance this author and other senior lawyers received on the eve of Lehman Brothers' bankruptcy filing was to "do your best." The legal department was not the only unit in a state of chaos. Basic corporate repositories of information were not widely available or were not reflective of the many tentacles that the organization had. For example, a comprehensive inventory of assets was not readily available, and once the acquisition by Barclays Bank of Lehman's brokerage business occurred, there was a loss of accounting systems, operational support, and manpower.

Systemically important financial institutions should be required to have detailed crisis management plans that take into account multijurisdictional operations. The House Proposal is helpful in this respect as it includes a proposal to require identified financial holding companies to prepare and to report periodically on plans for resolution. In the United Kingdom, the Financial Services Authority issued a discussion paper on October 22, 2009, that, among other things, proposes that systemically important banks prepare a "living will" that sets forth the bank's operational resolution in the event of its failure.

Moreover, the most sophisticated financial institutions lack the ability to assess risk across counterparties, products, and jurisdictions. Risk management and data systems have grown organically with business lines and while information may be captured for one product area, there is no real-time capability to track that exposure across products. Moreover, the thousands and thousands of financial contracts, including derivatives and repo agreements, are not easily catalogued by financial institutions. Home-grown repositories exist, but there is usually limited functionality associated with those systems.

In addition, given the role that the lack of liquidity played in the failure of Lehman Brothers, it may be worthwhile to consider requiring systemically important financial institutions to have a liquidity management plan. An effective liquidity management plan would at the least offer the failing institution a small window of time in which to make critical decisions. The Basel Committee on Banking Supervision has developed liquidity guidelines that are being incorporated into U.S. interagency regulatory guidance to determine adequate liquidity buffers.[55]

Multijurisdictional Bankruptcy

This chapter does not address the implications of a systemically important financial institution's failure outside the United States. However, with the demise of Lehman Brothers, the challenges associated with the lack of a multijurisdictional bankruptcy regime applicable to a major financial institution became apparent. Several significant jurisdictions, such as the United Kingdom, have materially different approaches to creditor rights in an insolvency than in the United States. In the United Kingdom, for example, no distinction is drawn between domestic and foreign creditors, and this system has not historically had a special insolvency regime applicable to banks. The Banking Act of 2009, however, was recently passed in the United Kingdom such that for the first time, banks now have a specialized statutory regime. UNCITRAL has developed a Model Law on Cross-Border Insolvency, but whether this is taken up by a sufficient number of significant financial jurisdictions remains to be seen. The critical point is that in today's world, a focus on domestic bankruptcy law to the exclusion of international law will continue the disrupted process under which financial institutions are treated.

CONCLUSION

Financial innovation has been an incredible, although largely invisible, engine of economic growth. Any insolvency and regulatory framework should ensure that effective capital allocation and economic growth are balanced in such a way as to avoid catastrophic economic collapse.

George Bernard Shaw once remarked, "We learn from history that we learn nothing from history." The failure of policy makers to develop a more robust and unified insolvency and regulatory regime that reflects the financial landscape would be intolerable. Let us hope that our policy makers choose not to legislate based on the caprice of public sentiment, and instead recall another observation of Shaw's that "we are made wise not by the recollection of our past, but by the responsibility for our future."

NOTES

1. Lehman Brothers entered bankruptcy with consolidated assets of $639 billion of assets and consolidated liabilities of $613 billion, making it the largest bankruptcy filing in U.S. history. (See Affidavit of Ian T. Lowitt Pursuant to Rule 1007-2 of the Local Bankruptcy Rules for the Southern District of New York in Support of First-Day Motions and Applications, September 14, 2008.) Lehman Brothers' consolidated assets exceeded the annual gross domestic product of all but the seventeen wealthiest nations (Ben Hallman, "A Moment's Notice," *American Lawyer*, December 1, 2008).

2. This chapter will not attempt to define a "systemically important financial institution," concluding that it is a task better left to the capable minds of others, but one that is imperative for policy makers to agree on in advance of any new resolution or other regime. Rather, the reader is asked to assume for purposes of this chapter that the term *systemically important financial institution* refers to a small number of the largest financial institutions, such as banks, custodians, asset managers, and insurance companies. If measured by a firm's centrality to the extension of credit, participation in the payment and settlement systems, clearing of transactions, and/or its significance in particularly interconnected financial markets such as the $600+ trillion notional over-the-counter derivatives market or the

$5 trillion daily repo market, such a list might include the following U.S. institutions: Bank of America (primarily a bank); Citigroup (a bank and an insurance company); Goldman, Sachs & Co. (a bank holding company, migrating a portion of its derivatives portfolio to the bank, a broker-dealer [repo], and other corporations); J.P. Morgan Chase Bank (primarily a bank); Morgan Stanley (a bank holding company migrating a portion of its derivatives portfolio to the bank, a broker-dealer [repo], and other corporations); and Wells Fargo (a bank). It should be noted that many of the aforementioned institutions also include some of the world's largest asset managers. Major custodians that operate as banks, including The Bank of New York Mellon, Northern Trust, PNC Financial Services Group, and State Street Corporation, should also be candidates for systemically important financial institutions. Lastly, a collection of critical exchanges, including the Chicago Mercantile Exchange and the Intercontinental Exchange, are also candidates for systemically important financial institutions, particularly given the possible migration and concentration of over-the-counter derivatives.

3. The term *qualified financial contract* captures a variety of transactions, including securities contracts, commodity futures, forward contracts, repurchase agreements, swap agreements, and master netting agreements. See 11 U.S.C. §§ 555, 556, 559, 560 and 561; and 12 U.S.C. § 1821(e)(8)(D).

4. Readers are encouraged to consult David A. Skeel Jr.'s seminal treatise on the subject, *Debt's Dominion: A History of Bankruptcy Law in America* (Princeton, NJ: Princeton University Press, 2001).

5. By historical anomaly, insurance companies are regulated by the states, and there is no federal insolvency regime applicable to insurance companies. Many, including me, believe insurance companies should be subject to federal regulatory and insolvency regimes.

6. Lehman Brothers' acquisition of the bank in 1999 allowed it to make home loans, which in turn were included in mortgage securitizations handled by the investment bank.

7. When the $32 billion IndyMac failed in July 2008, $18 billion of the bank's $19 billion of deposits were insured.

8. 12 U.S.C. § 1821(e)(11).
9. 12 U.S.C. § 1821(e)(9).
10. This restriction is understandable, but it could present systemic challenges if a systemically important U.S. bank fails and the remaining U.S. systemically important banks, likely to be limited in number, are operating in a distressed market, making the assumption of a large derivatives portfolio perhaps challenging. Of course, in such a scenario, there can be no guarantee that foreign institutions would be in any better position.
11. 12 U.S.C. § 1821(e)(10).
12. "Report to the Supervisors of the Major OTC Derivatives Dealers on the Proposals of Centralized CDS Clearing Solutions for the Segregation and Portability of Customer CDS Positions and Related Margin," June 30, 2009, 3, footnote 9.
13. 15 U.S.C. § 78 aaa *et seq*.
14. See www.sipc.org under "Our 38-Year Track Record for Investors."
15. "Testimony of Stephen P. Harbeck, President and Chief Executive Officer of SIPC, before the Committee on Financial Services, the United States House of Representatives," January 5, 2009. Interestingly, a bankruptcy court is authorized pursuant to Section 363(b)(1) of the U.S. Bankruptcy Code to approve sales only of the bankrupt estate's property. At the time of the sale of Lehman's brokerage to Barclays Bank, the Lehman brokerage had not yet filed for bankruptcy. Instead, SIPC engineered its liquidation process at the same time as the sale of assets to Barclays Bank was occurring, thereby preserving value for the business and ensuring that most customers' accounts were transferred seamlessly.
16. SIPC takes the view that repo counterparties are not securities "customers," but some courts have found them to qualify for SIPC protection (and priority in a U.S. Bankruptcy Code liquidation) if the facts suggest a broker-customer fiduciary relationship between the broker and the counterparty.
17. Lehman Brothers Holdings Inc., First Creditors Section 341 Meeting, January 29, 2009, 19–20 (www.lehmanbrothersestate.com).

18. See Bankruptcy Reform Act of 1978, Pub. L. No. 95-598 (adding, 11 U.S.C. §§ 362(b)(6) and 548(d)(2)(B)). In 1989, the qualified financial contract provisions were adopted as part of the Financial Institutions Reform Recovery and Enforcement Act (FIRREA). FIRREA amended the Federal Deposit Insurance Act (FDIA) provisions for U.S. bank insolvency. The U.S. Bankruptcy Code has been amended periodically to conform to the definitional provisions included in the other statutes. Generally, after the 2005 amendments to the U.S. Bankruptcy Code and FDIA, the scope of transactions covered are the same among the statutes, except that the FDIA includes some mortgage-related transaction types that are not included under the U.S. Bankruptcy Code.

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

20. Michael H. Krimminger, "Adjusting the Rules: What Bankruptcy Reform Will Mean for Financial Market Contracts," October 11, 2005, www.fdic.gov.

21. Franklin Edwards and Edward R. Morrison, "Derivatives and the Bankruptcy Code: Why the Special Treatment?" *Yale Journal on Regulation* (January 1, 2005).

22. Ibid., footnote 35.

23. "Testimony of William McDonough, before the Committee on Banking and Financial Services, the United States House of Representatives," October 1, 1998, 5.

24. While Long-Term Capital Management was organized as a Delaware corporation, trades were managed in Long-Term Capital Portfolio, L.P., a partnership organized in the Cayman Islands.

25. The President's Working Group on Financial Markets, formed in 1988, consists of the Board of Governors of the Federal Reserve System, the Securities and Exchange Commission, the Commodity Futures Trading Commission, and the secretary of the Treasury.

26. The President's Working Group on Financial Markets, "Recommendations by the President's Working Group on Financial Markets," April 11, 2000, 29.

27. Congress has expanded the transaction types entitled to special treatment over time. Commodity and forward contracts were initially considered qualified financial contracts in 1978, and as financial instruments developed, Congress expanded the safe harbors in 1982, 1984, 1990, and 2005. The Financial Netting Improvements Act of 2006 further strengthened netting (Pub. L. No. 109-390, 120 Stat.2693).

28. In November 2009, Senator Christopher Dodd, chairman of the Senate Banking Committee, released his competing 1,136-page proposal entitled "Restoring American Financial Stability Act of 2009" in which he labels a systemically important entity as a "specified financial company."

29. The House Proposal allows for financial companies, which are not covered by the definition of "identified financial holding company," to be designated as such if the new Financial Services Oversight Council acts under its emergency powers in systemic risk situations.

30. The Office of the Comptroller of the Currency's Quarterly Report on Bank Trading and Derivatives Activity Second Quarter 2009, table 1, notes that Goldman Sachs Bank USA is the second largest derivative participant with a $40.47 trillion notional value derivative portfolio. That figure is at odds with a wealth of contracts that exist in the market that continue to identify Goldman Sachs International, the U.K. broker-dealer, as the counterparty for derivative transactions. Morgan Stanley Bank is listed as the eighteenth largest commercial bank derivative participant, but table 2 indicates that Morgan Stanley as the bank holding company is the fourth largest derivative participant with a $40.59 trillion notional value derivative portfolio.

31. Testimony of Harvey Miller, before the Committee on the Judiciary, Subcommittee on Commercial and Administrative Law, U.S. House of Representatives, October 22, 2009, 3.

32. Christine Harper, Shannon Harrington, and Matthew Leising, "Wall Street Stealth Lobby Defends $35 Billion Derivatives Haul," Bloomberg, August 31, 2009. The authors note that the

estimated combined revenue from fixed income trading for Bank of America, Citibank, Goldman Sachs, JPMorgan Chase, and Morgan Stanley for the first two quarters of 2009 was $35 billion. The OCC reports that trading revenue as a percentage of gross revenue for Goldman Sachs in the second quarter of 2009 was 63 percent. See OCC's "Quarterly Report on Bank Trading and Derivatives Activities Second Quarter 2009."

33. Details on the Lehman Brothers auction, as well as other credit default swap auctions, can be found at www.creditfixings.com.

34. 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).

35. Ibid.

36. Debtors' Motion for an Order Approving Consensual Assumption and Assignment of Prepetition Derivatives Contracts, Lehman Brothers Holdings Inc., et al., No. 08-13555 (U.S. Bankr. Ct., S.D.N.Y. January 16, 2009).

37. Alvarez & Marsal, "Lehman Brothers Holdings Inc.: The State of the Estate," November 18, 2009, 28.

38. Ibid.

39. Ibid., 27.

40. Several prominent U.S. hedge funds (Elliott Capital Management, King Street Capital, and Paulson & Co.) filed a statement in July 2009 in the Metavante proceeding noting that the U.S. Bankruptcy Code does not extend the safe harbor provisions to contractual provisions that are "in anticipation" of future termination and/or set-off rights under the ISDA Master Agreement. These funds argued that the wait-and-see approach of Metavante represented the forfeiture of its right to terminate the transaction under the protections afforded by the safe harbor provisions in the future.

41. *Re Lehman Brothers Holdings Inc.*, Case 08-13555 (U.S. Bankr. Ct., S.D.N.Y. September 15, 2009).

42. Lehman Brothers' stock price fell by 90 percent on September 12, 2008.

43. Bank for International Settlement, "Semiannual Over-the-Counter (OTC) Derivatives Markets Statistics," www.bis.org/statistics, June 2009.

44. Michael Mackenzie, "Bank Runs Left Repo Sector Exposed," *Financial Times*, September 10, 2009.

45. Tanya Azarchs and Scott Sprinzer, "Why Was Lehman Brothers Rated 'A'?" *Standard & Poor's Ratings Direct*, September 24, 2008, 5.

46. Manmohan Singh and Carolyne Spackman, "The Use (and Abuse) of CDS Spreads during Distress," International Monetary Fund Working Paper, WP/09/62, March 2009.

47. Barclays Capital Global Relative Value Research Note, "The State of the CDS Market," October 20, 2008.

48. Lord Adair Turner, "Examining the Causes of the Financial Crisis," speech given to the Economic Club of America and National Journal Group, October 29, 2009, www.fsa.gov.uk.

49. Ben S. Bernanke, "Financial Regulation and Supervision after the Crisis: The Role of the Federal Reserve," speech given at the Federal Reserve Bank of Boston 54th Economic Conference, October 23, 2009. Chairman Bernanke's footnote 1 points to a wealth of considered studies of regulatory failure.

50. These employee-owned shares included restricted stock awards.

51. Andy Serwer, Nina Easton, and Allan Sloan, "Geithner: 'We Were Looking at the Abyss,'" *Fortune*, September 10, 2009, http://money.cnn.com/2009/09/08/news/economy/geithner_lehman_bankruptcy.fortune/index.htm.

52. Reserve Primary Fund, one of the largest money market funds, had lent Lehman Brothers $785 million, about 1.3 percent of its assets, some of it in short-term loans that Lehman was unable to repay. In a two-day run on the fund, more than 60 percent of its money was withdrawn. The fund's net asset value fell below $1 a

share and "broke the buck" on September 16, 2008, subjecting investors to losses and triggering withdrawals at other funds.

53. Ben Hallman, "A Moment's Notice," *American Lawyer*, December 1, 2008.

54. Practically speaking, a financial institution cannot be seen to prepare for a possible insolvency filing as it will immediately lose its access to financing and other stabilizing actions.

55. Basel Committee on Banking Supervision, *Principles for Sound Liquidity Risk Management and Supervision*, (Basel, Switzerland: Bank for International Settlements). The OCC, FDIC, and the Federal Reserve System, among others, issued proposed *Interagency Guidance on Funding and Liquidity Risk Management* in June 2009.