Lehman Brothers bankruptcy, what lessons can be drawn?

What is in a name? In the case of Lehman Brothers the name has two different and distinct meanings. Prior to the autumn of 2008, Lehman Brothers referred to one of the oldest investment banks in the USA, with roots in the cotton exchange of the mid-19th century. At the time it filed for protection under Chapter 11 of the US Bankruptcy Code, Lehman Brothers Holdings International was the fourth largest US investment bank and the largest bankruptcy on record. Today Lehman Brothers, used synonymously with the Lehman Brothers bankruptcy filing, is commonly used to refer to an important episode during the 2007–2009 financial crisis. To borrow a line from Winston Churchill, the Lehman Brothers bankruptcy filing on 15 September 2008 did not represent the beginning of the end of the financial crisis, but rather marked the end of the beginning.

Just the facts

In the 1960s police drama *Dragnet*, the main character Sergeant Joe Friday would direct witnesses to give him 'just the facts'. So what are the facts concerning the episode of the financial crisis attributed to the Lehman bankruptcy?

The Lehman Brothers bankruptcy filing occurred during a period of market turmoil which intensified in the days that followed. Financial markets continued to exhibit signs of increased stress thereafter and during the autumn of 2008. Yields in short-term markets spiked during the week following the Lehman filing. Risk spreads in short-term credit markets widened –indicating a 'flight to quality' by market participants. For example, the 3-month term LIBOR-OIS spread, an indicator of market stress (Thornton, 2009), increased around 14.75 basis points from the Friday before the Lehman bankruptcy filing to 16 September, the day after. From 16 September to 10 October the LIBOR widened by another through 263 basis points. Increased market stress was also evident in the credit default swaps (CDS) market, where the cost of buying credit protection rose sharply in the days just after the Lehman Brothers bankruptcy filing. The five-year CDX.NA.IG index (which is an index of credit default swaps written against North American investment grade companies from Markit and Bloomberg) rose 55 basis points, a 36% increase from 12 September to 17 September. The CDX.NA.IG index declined from its 17 September peak to the end of the month, but still finished September some 20 basis points higher than where it started.

The financial turbulence in the autumn of 2008 was the product of a series of events. The Lehman bankruptcy was one of nearly two dozen significant disruptive events in September 2008 alone, some unrelated to the Lehman bankruptcy filing and some related to its failure. Notable among the economically significant events is the placement of Fannie Mae and Freddie Mac in conservatorship by the Federal Housing Finance Authority, the Federal Reserve assisted rescue of AIG by the US Treasury, and the death-bed acquisition of Merrill Lynch by Bank of America Corporation. Also, notable is the

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Reserve Primary Money Fund announcement that it had 'broken the buck': due to losses on its holdings of Lehman debt, the net asset value of the Fund's shares had fallen to $0.97 a share. It was only the second time since the SEC adopted rules governing money market mutual funds in 1983 that a money market fund's share value had fallen below one dollar. Runs on money market mutual funds (MMMFs) would follow.

Interpreting the facts

While the facts about what happened and when are clear, the connections between them are not. Drawing inferences from any single event is problematic at best. Just as any single point on a plane is consistent with an infinite number of lines, a single event may not allow one to discriminate between numerous different hypotheses. Not surprisingly, there are two different interpretations of the facts associated with Lehman and they arrive at diametrically opposed positions as to causation, and the implications of it for the use of the Bankruptcy Code to handle failing financial firms.

One of the most contentious issues emanating from the Lehman Brothers episode is whether the bankruptcy process is, or with modifications could be, a suitable method for handling the failure of complex, non-bank financial firms. Opinions are sharply divided on the adequacy of US bankruptcy law to resolve complex non-bank financial firms in an orderly fashion. Bankruptcy scholars argue that the market turmoil in the aftermath of the Lehman bankruptcy had little to do with the use of bankruptcy to resolve it, and that in the face of the complexity inherent in resolving an institution the size and scope of Lehman Brothers, the bankruptcy was orderly. In other words, there was no causation running from the bankruptcy filing to the disorderly markets that followed. Proponents of this view argue that the near collapse of markets following Lehman's bankruptcy filing was the result of policy uncertainty: The US government decided to let Lehman fail when the market expected a government-assisted rescue. In fact, Lehman was not prepared for its bankruptcy filing, ostensibly because its management expected government intervention to prevent this outcome (Miller, 2010).

The other view, which one might call the official view of the Lehman episode, is that Lehman's filing for protection is articulated by the Federal Deposit Insurance Corporation (FDIC), among others, which interpreted the facts as supporting a causal relationship between the financial turmoil following Lehman's bankruptcy filing and the use of bankruptcy to resolve Lehman. Under this view, the near collapse of markets in the days following the bankruptcy filing was a direct result of a disorderly windup of Lehman's affairs. Under this interpretation of events in the autumn of 2008 the answer is clear – an orderly resolution of the insolvency of a large financial firm cannot be done in bankruptcy.

This debate is largely unsettled. Even the Dodd–Frank Wall Street Reform and Consumer Protection Act of 2010 (DFA) appears to codify both positions. Title II of DFA creates the Orderly Liquidation Authority (OLA), an administrative receivership process under the FDIC to resolve systemic financial companies. OLA is, however, an exceptional power for resolving systemic non-bank financial firms; bankruptcy remains the default. In addition, DFA mandates that systemic financial companies create and maintain 'living wills': resolution plans for dismantling them in bankruptcy.

Understanding the lessons of the episode during the financial crisis identified with the Lehman Brothers bankruptcy filing requires a careful accounting of the cluster of events that surrounded it. Moreover, no analysis would be complete without an analysis of the role of incentives and expectations in the setup and propagation of the financial crisis. Studying the entire mosaic of the Lehman Brothers episode is necessary to provide context to the period in question and proper attribution of the effects of the bankruptcy filing on the subsequent market turmoil.

As the Lehman episode represents one point in financial history it is impossible to prove or disprove any reasonable interpretation of it. It is possible to, however, to point to some lessons that can be drawn from it. These lessons concern whether the insolvency of large or complex financial companies can be adequately handled through the judicial process of bankruptcy. Moreover, an understanding the Lehman Brothers episode may point to types of reforms to the Code that may be required if bankruptcy is to be a viable option for handling large complex financial firms and a desirable alternative to *ad hoc* bailouts or to resolution under the DFA's Orderly Liquidation Authority.

International issues

Every country's insolvency regime is inherently complicated by its jurisdictional boundaries. Systemically important financial institutions do not operate in a single country, nor do they have all of their assets located in a single jurisdiction. When Lehman filed for bankruptcy, it operated nearly 3,000 US and foreign chartered separate entities in 20 countries, and its complex legal structure was virtually unrelated to its operational structure (Cumming and Eisenbeis, 2010). This made it incredibly difficult to determine what assets were in each entity in a bankruptcy estate. Further complicating this, substantial sums were transferred between Lehman's cross-border subsidiaries on the eve of bankruptcy.

While Lehman's global presence added substantial complexity to the resolution process, it is difficult to argue that this complexity is a shortcoming of US bankruptcy law. US bankruptcy law has provisions to address cross-border insolvencies (Chapter 15), but these do not guarantee effective or efficient operation. Each country has its own insolvency regimes, and there is substantial variation in their treatment of creditors. This is an issue present whenever a global institution is resolved under any bankruptcy scheme, and to date very little has been done to address it. The United Nations Commission on International Trade Law has developed a model law on cross-border insolvency, but it has not yet been adopted by a sufficient number of jurisdictions to be meaningfully operable. In some sense the international issues raised by the failure of Lehman is immaterial to the insolvency regime debate in the USA. Nonetheless, one lesson that can be learned from the Lehman bankruptcy is that there is plenty of room for improvement in cross-border insolvency regimes.

US bankruptcy law and complex financial institutions

Irrespective of international issues, some analysts maintain that it was Lehman's use of the bankruptcy courts that caused the market turmoil. They often point to the increased financial turmoil during the week following Lehman's bankruptcy filing as evidence of the insufficiency of bankruptcy law to resolve complex financial firms. Others claim that it was not the use of bankruptcy, but rather policy responses inconsistent with market expectations that caused markets to panic. That is, Lehman was allowed to fail when financial markets, and even the Lehman management team, expected a government-assisted rescue. A closer look at events around that time suggests that neither view is entirely correct.

The Lehman bankruptcy occurred during a time when there were good reasons for market participants to question the solvency of a number of large financial firms. As noted above, the bankruptcy was accompanied by nearly two dozen significant disruptive events in September 2008 alone. The clustering of multiple events around the time of the bankruptcy makes it difficult to identify the causal effects of the bankruptcy on markets, let alone the effect of the use of US bankruptcy law.

While Lehman's failure triggered many problems in markets, event clustering makes it impossible to identify empirically the use of bankruptcy courts as the root of those problems. Moreover, it is impossible to separate out the impact of Lehman's bankruptcy filing from the uncertainty created by its filing.

Studies have shown that such uncertainty can have significant effects on markets. For example, in 1982 Penn Square Bank was liquidated by the FDIC, which experimented with modified payouts to resolve large bank failures (Furlong, 1984). These modified payouts created uncertainty in the minds of the large, explicitly uninsured creditors of Continental Illinois as to whether they were exposed to losses in the event Continental was closed. This uncertainty drove the run on Continental Illinois' deposits before its collapse in 1984 (Sprague, 1986).

The source of market turmoil following Lehman's failure, then, cannot conclusively be attributed either to the use of bankruptcy law to resolve the firm's insolvency or to the uncertainty created by policy actions inconsistent with market expectations.

Bankruptcy and contagion

When a large, complex financial firm fails, the method of resolution should not be conducive to contagion. That is, the resolution process should not endanger the solvency of other firms. This is especially true in systemic crises, when the financial system is already stressed. Bankruptcy critics often argue that bankruptcy law may trigger contagion because it is designed to pay creditors strictly according to the priority of their claims. There is no consideration of their financial condition or potential market instability. Thus, contagion may spread through the use of bankruptcy if the recovery of creditors in need of liquidity is insufficient, or indirectly through CDS written on the resolved firm's debt. But the Lehman bankruptcy does not support the view that bankruptcy leads to contagion.

As mentioned above, the day after Lehman Brothers filed for bankruptcy, the Reserve Primary Money Fund announced that it had 'broken the buck': this reflected how large an impact Lehman's collapse was having.

Most analysts would concede that the Fund's 'breaking the buck' was a direct consequence of the Fund's losses on its holdings of Lehman debt, that the losses led to contagion, and that the contagion effects impacted the money market mutual fund industry and the commercial paper market thereafter. It is harder to argue that the structure of US bankruptcy law, and not the insolvency of Lehman itself, was responsible for the losses on Lehman debt and the subsequent contagion. It may also be the case that the contagion effects were more a consequence of the money market funds' overexposure to Lehman and to a specific feature of the money funds themselves – the pegging of the share price to $1. The share-price peg creates incentives for retail customers to run on a fund when its ability to maintain the peg becomes uncertain. Customers believe it is in their best interest to run to ensure par redemption of their money-fund shares.

Lehman's bankruptcy also tested the CDS market, as there was a reported $400 billion of credit protection written against Lehman's debt. At the time of its bankruptcy, Lehman was the largest failure to be handled in the CDS market. For the purpose of settling the CDS contracts, Lehman's debt was determined to be worth 9.75 cents on the dollar at an International Swaps and Derivatives Association auction, lower than the pre-auction estimates of 12 to 15 cents. However, the settlement of credit protection written on Lehman did not have material effects on financial markets (Summe, 2009; Senior Supervisors Group, 2009).

Bankruptcy and qualified financial contracts

Derivatives and repos are special types of contract called qualified financial contracts (QFCs), which are exempt from the trust avoidance powers of the Bankruptcy Code and the automatic stay. The trust avoidance provisions and automatic stay are designed to coordinate creditor payouts and ensure that they occur according to the priority of the claims that existed when the original agreements were made. These provisions are designed to prevent a race to grab a firm's assets on the eve of failure or after the firm fails. Instead of being stayed and handled through the bankruptcy estate, each counterparty may close out, net, and settle its QFCs before other debts are paid in bankruptcy. In a sense, QFCs are super priority claims, as they are settled before all others. The special treatment of QFCs may complicate the process of reorganising financial companies in bankruptcy by allowing counterparties to grab assets before the claim priority provisions take hold, but bankruptcy experts disagree about the effect of the QFC exemption in bankruptcy. There is even disagreement on how well Lehman's QFC book, the largest in history to be handled in bankruptcy, was dealt with.

While Lehman's reorganisation has provided additional guidance on which financial contracts are exempted from the automatic stay and how QFCs will be handled in bankruptcy, there is still disagreement on how well bankruptcy handles QFCs. Generally opinions fall into one of two schools of thought. First, there are those who argue that the QFC exemption was an obstacle to an orderly resolution in the Lehman case. In testimony before a House subcommittee in 2009, Harvey Miller, the lead bankruptcy attorney for Lehman, argued that the exemption of some 930,000 derivative counterparties from the automatic stay led to a massive destruction of value through counterparties canceling their contracts. Ayotte and Skeel (2010) and Roe (2011) argue that the safe harbour provisions of bankruptcy for QFCs create perverse incentives for counterparties. Those incentives contribute to the systemic implications of a firm's failure, including creating a stampede for the exits, which inhibit orderly resolution under bankruptcy.

Second, there are those who argue that Lehman's derivatives portfolio was handled effectively *because of* the exemption from the automatic stay. Kimberly Anne Summe, a former managing director at Lehman, provided this interpretation of the impact of Lehman's counterparties cancelling their contracts on the value of Lehman's estate. Summe noted that only around 3% of Lehman's derivative contracts remained in the bankruptcy estate 106 days after the filing, potentially preventing the spread of distress to Lehman's counterparties by allowing them to close out quickly and re-establish their hedges before market conditions changed too dramatically (Summe, 2009). However, the benefit of allowing quick re-hedging is unclear, as is the cost of losing going-concern value (the value of the company as an ongoing entity rather than a liquidated one) due to the stay exemption.

To the extent that the Bankruptcy Code's safe harbour provisions for QFCs are a stumbling block to an orderly resolution of a systemic financial firm, a simple amendment to the Code is the logical fix. In fact, bankruptcy supporters argue for such a change in the law subjecting QFCs to a limited automatic stay, and there appears to be a case for their position. The FDIC enjoys a one-day stay on QFCs in bank receivership cases, and there is little evidence that this limited stay for FDIC receiverships has been a problem. Moreover, when a non-bank financial firm is resolved under the orderly liquidation authority established in the Dodd–Frank Act, QFCs are subject to a one-day stay. Both provisions allow for the transfer of QFCs during the stay. If this stay is priced into QFCs with depository or systemically important financial institutions and US bankruptcy law were changed to parallel the Dodd–Frank provision, markets would not likely be disrupted, and the pricing of QFCs would be identical across counterparties. It would also have the added benefit of giving the bankruptcy estate up to three days to determine what to do with a derivatives book before counterparties could close out and net, provided that the insolvent firm filed on a Friday.

The scope of US bankruptcy law

The final material stumbling block to an orderly resolution under bankruptcy of a complex financial firm such as Lehman is the exclusion of certain types of businesses from Chapter 11 (which provides for corporate reorganisation). In the case of Lehman, the exclusion of its broker-dealer subsidiary (Lehman Brothers, Inc.) from filing for Chapter 11 complicated the resolution of Lehman Brothers Holdings International. Lehman Brothers, Inc., became the subject of a liquidation proceeding under the US Securities Investor Protection Act four days after Lehman Brothers Holdings International filed for bankruptcy, during which time the brokerage was borrowing from the Federal Reserve Bank of New York under the Primary Dealer Credit Facility.

The absence of government support likely would have complicated the sale. Because it did not have access to the special financing provisions that firms filing under Chapter 11 are entitled to, the brokerage would have lost going-concern value but for its access to the Primary Dealer Credit Facility. While the sale of Lehman's broker--dealer to Barclay's was quickly approved, without government support the sale might not have been possible under bankruptcy law. Whether this merits a change in US bankruptcy law would have to be addressed separately for each exemption, though some argue that the prohibition of broker-dealers reorganising in bankruptcy no longer makes sense (Skeel, 2010).

Policy implications

Lehman Brothers Holdings International is not the first, nor likely the last, systemic financial company to run aground. The case is interesting, however, because the failure occurred during the most severe financial crisis in the USA since the Great Depression. The economic and financial market climate in which Lehman failed greatly complicated any resolution method that did not involve taxpayer assistance in the form of capital infusions or blanket guarantees of creditors. Yet Lehman became the poster child for the orderly liquidation authority provisions of Title II of the 2010 Dodd–Frank Act.

Drawing inferences from Lehman about the effectiveness of bankruptcy in dealing with failing financial firms is problematic. It is difficult to use a single data point – the Lehman bankruptcy – to separate out the impact of Lehman's failure, the use of bankruptcy to resolve it, and the policy uncertainty.

Still, Lehman's bankruptcy offers guidance on how to approach future failures of large, complex financial firms. It appears that there are provisions of bankruptcy law that merit review and possible revision. In the absence of those changes, it may be the case that systemically important pieces of an insolvent firm may be more effectively resolved in an administrative proceeding such as the Orderly Liquidation Authority established under Dodd–Frank. But based on the experience with Lehman, there is no clear evidence that bankruptcy law is insufficient to handle the resolution of large, complex financial firms.

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See Also **bankruptcy, economics of; credit crunch chronology: April 2007–September 2009; deposit insurance; bankruptcy law, economics of corporate and personal; fall of AIG, the; Fannie Mae, Freddie Mac and the crisis in US mortgage finance; Federal Reserve System; finance (new developments); financial market contagion; Minsky crisis; regulatory responses to the financial crisis: an interim response.**

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