When Businesses Go Bust: Liquidate or Reorganize?

By Shai Bernstein

During the recent financial crisis, we saw a surge in the number of corporate bankruptcy filings. In 2008, more than 60,000 cases were filed. The number might be staggering, but corporate bankruptcy filings are by no means confined to recessions. Over the last four decades, an average of 50,000 bankruptcy cases were filed by businesses in a given year. Ultimately, insolvency and distress of firms are unavoidable consequences of an evolving economy.

The institutions that handle distressed businesses play a significant role in the economy. The bankruptcy system attempts to balance a delicate trade-off. It strives to protect firms and entrepreneurs and encourage risk taking, while making sure creditors will get their money back and will have the confidence to make loans in the first place.

But the system plays yet another important role — it allocates the assets of the distressed firms. And that can have an impact on local economies as well as individual businesses.

If a firm is not the most productive user of its assets, shutting it down could even be desirable, as the real estate, employees, machinery, and other resources could be reallocated and put to better use. If an auto parts company shuts down and its factory is better used for producing sewing machines, then reallocating the factory to a sewing machine company could boost the productivity and growth attributed to these assets.

This logic holds also at the macro level. Recent papers argue that economies that reallocate assets more efficiently between firms are more productive and recover more quickly following adverse economic shocks (Eisfeldt and Rampini, 2006; Hsieh and Klenow, 2009; Bartelsman et al., 2013).

There are two main approaches through which bankruptcy courts operate in the U.S.: liquidation (Chapter 7 of the U.S. Bankruptcy Code) and reorganization (Chapter 11). The liquidation procedure winds down the firm and puts all assets back on the market through an auction. In contrast, the reorganization procedure allows the firm to continue operations and attempts to rehabilitate the distressed firm’s capital structure and financial condition.

How do the different approaches affect the allocation of assets of bankrupt firms? At a first glance, the effects are quite ambiguous.

Critics of reorganization argue that conflicts of interests among claimholders and complicated bargaining processes allow businesses that file for Chapter 11 to continue operating inefficiently and stall the better use of their assets.

Liquidation, those critics say, prevents that complication. The reasoning is that liquidation leads to an auction of all assets. And that auction should assure that all assets will be reallocated to the best user, right? Well, Chapter 7 raises a new set of complications and questions: What if there are only few potential users for the defunct company’s assets?

About the Author

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What if the users that could make the most out of these assets are not aware of these auctions? What if the assets can be only used locally, as is the case with real estate? In these cases, the market for these assets may be limited and assets may not necessarily reallocate to better users in liquidation.

In a paper I wrote with Emanuele Colonnelli from Stanford and Ben Iverson from Northwestern, we found that liquidation leads to a significantly lower utilization of assets, when compared with reorganization. But these differences fluctuate based on local market conditions. Only in thin markets, with few potential users for the assets, we find such a gap between liquidation and reorganization.

In such markets, local markets play an important role, affecting the manner in which the two bankruptcy approaches reallocate the distressed firms’ assets.

Tracking the Use of Assets Over Time

In our paper, “Asset Allocation in Bankruptcy,” we first had to deal with a measurement issue. How can we systematically track the allocation of assets for a large sample of bankruptcies? This may be particularly hard when firms dissolve and plants shut down.

So we focused on the real estate assets used by bankrupt firms at the time of the bankruptcy filing. We rely on a novel approach that utilizes the U.S. Census Bureau Longitudinal Business Database (LBD) to track these real estate assets over time.

We do not track corporations, but rather the real estate locations used by debtors. Thus, even if a debtor liquidates in Chapter 7, we can examine whether the business locations — these real estate assets — are eventually occupied and put to use by other firms. This allows a direct comparison of the two procedures, while other datasets that examine corporate entities do not.

We examined 28,000 bankrupt firms that filed for Chapter 11 and their 129,000 real estate locations, traced over a period of five years from the bankruptcy filing. In roughly 40 percent of the cases, a judge converted the firm to Chapter 7, while the other 60 percent remained in Chapter 11.

Plant Shutdowns and Empty Buildings

We start by simply exploring the dynamics of plant shutdowns and asset reallocation in both bankruptcy approaches. In Figure 1, we show the percentage of business establishments that continue to be operated by the original debtor over time. Unsurprisingly, establishments belonging to debtors converted to Chapter 7 are quickly shut down as the firm is liquidated, so that by the third year after bankruptcy less than 10 percent continue to be operated by the debtor.

In contrast, we were surprised to find that despite the fact that Chapter 11 does not force companies to liquidate, a large fraction of establishments shut down in reorganization. By the fifth year after the bankruptcy filing, only 25 percent of the establishments continue to be operated by the debtor. This highlights that both procedures spur a significant amount of restructuring and asset sales play a significant role in most Chapter 11 filings.

Because a substantial number of bankrupt plants are shut down, there is significant opportunity for these locations to be reallocated to new businesses. Figure 2 shows the rate at which this occurs. The red bars display the percentage of establishments that continue to be operated by the original debtor (across both chapters), while the gray bars show the total percentage of locations that are operated by any business, after accounting for the reallocation of locations to new users. Thus the difference between the two bars is the amount of locations that have been shifted to new users post-bankruptcy.

As can be seen, about 50 percent of locations are reallocated to new users by the fifth year after bankruptcy. When a location did transition to another company, the new owner...
was often in the same industry — for instance, a failed restaurant location was taken over by another restaurant. But this was less likely if the company had been converted to Chapter 7.

**Asset Allocation in Liquidation and Reorganization**

The comparison above between liquidation and reorganization, while informative, is quite naïve. The firms that were converted to liquidation are likely to be different from those firms that remained in reorganization. For example, reorganized firms are likely to have better prospects than liquidated firms. This complicates things. How would we know if differences in the allocation of assets stem from the quality of the firm or from the particular approach to bankruptcy? Ideally, we would like to randomly allocate firms to *either* bankruptcy approach, such that we could easily compare the two approaches.

We attempt to solve this problem by taking advantage of a quirk of the legal process. Bankruptcy cases are randomly assigned to judges within court divisions. Moreover, when a firm files for Chapter 11, the judge has some discretion over leaving it in Chapter 11 or converting it to Chapter 7.

It turns out that different judges have different interpretations of the law and tend toward either Chapter 7 or Chapter 11. This means that similar companies could be assigned to Chapter 7 or Chapter 11 depending on which judge oversaw their case, creating something close to a randomized experiment.

Using this methodology, we found substantial differences between liquidation and reorganization. If a company was converted to Chapter 7, its real estate assets were 17 percent more likely to remain vacant than if the company had stayed in Chapter 11. In other words, in liquidation, these assets were less likely to find an alternative user. There were also significantly fewer workers employed in these locations that went through liquidation.

But, in fact, liquidation does not always lead to a lower asset utilization. The type of bankruptcy significantly mattered only in “thin markets” — markets in which there are fewer potential users for the asset in the same industry than in “thick markets.” For example, an urban area might be a thick market for restaurant real estate locations but a thin market for auto part manufacturing real estate. If a Chapter 7 company was in an area with many potential users, the location was just as likely to be absorbed and used by the market, and the employment rate in these locations was just as high, as if the company had stayed in Chapter 11.

![Figure 1](image_url)
Bankruptcy and Geographical Spillovers

The results discussed so far illustrate the importance of the characteristics of local asset markets and how they interact with the allocation of assets in bankruptcy. In a follow-up paper, we explore more broadly the spillover implications that these two types of bankruptcy impose on the neighborhoods in which bankrupt firms reside.

Liquidation could hurt the local economy if winding down the firm leads to a disruption of existing economic connections with nearby firms. There is indeed significant evidence that highlights the importance of complementarities that arise between geographically proximate firms (for a recent surveys, see Duranton and Puga, 2004; Glaeser and Gottlieb, 2009; and Moretti, 2010). For example, the shutdown of a large retail store may decrease consumer traffic to the area and therefore hurt nearby stores. Or the liquidation of an advertisement agency may lower information sharing among nearby advertisement agencies. In this case, reorganization may lead to a more desirable outcome, as the firm is allowed to continue operations and maintain local economic connections.

But on the other hand, liquidation can also be beneficial for the local economy. The removal of distressed firms may attract new entrants, enhance synergies between local firms, and contribute to the revitalization of the area. For example, the shutdown of the retail store may free up its real estate and may attract a more successful store that could generate greater benefits to nearby stores.

In the paper, “Bankruptcy Spillovers,” which is joint with the same team and also with Xavier Giroud from MIT, we find that within a five-year period, employment declines substantially in the immediate neighborhood of the liquidated establishments, relative to reorganized establishments. These spillover effects are highly localized and concentrate in the non-tradable (such as restaurants and retail) and service sectors (such as law firms, health services). In contrast, we don’t find such negative spillovers in the manufacturing sector.

These effects of liquidation seem to be particularly negative when it results with a vacancy or when the liquidated establishment is replaced with a firm from a different industry.

Our evidence suggests that liquidation leads to a reduction in consumer traffic to the local area and to a decline in knowledge spillovers between firms. In fact, this evidence is inconsistent with the notion that liquidation may lead to a creative destruction, as the removal of bankrupt businesses does not seem to lead to increased entry nor the revitalization of the area.

Figure 2

[Graph showing the percentage of no reallocation and with reallocation over years since bankruptcy filing]
Implications

While the focus in bankruptcy research is usually on the implications for the claimholders in the firm, our line of work illustrates that the design and choice of the bankruptcy approach have important implications on both asset allocation and geographically proximate firms that are not represented at court.

Our research also highlights the importance of the local economy, which may affect how assets of bankrupt firms are allocated and how bankruptcy may spill over and affect other firms.

Our results do not suggest that it is never optimal to liquidate firms. These studies ignore the benefits to creditors, the implications to employees, and abstract from the ex-ante implications that the design of the bankruptcy system may impose.

But, nevertheless, these results highlight the importance of broader consequences that the design of the bankruptcy system may generate, either on the efficiency through which the assets of distressed firms are being allocated or the spillovers that bankruptcy generates.
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