Spillovers from Financial Distress and Bankruptcy: Evidence and Implications for the Real Economy

Benjamin Iverson[1] and Maxwell Dunbar[2]

[1]Marriott School of Business, Brigham Young University, Provo, UT 84602.
Email: biverson@byu.edu
[2]Brigham Young University, Provo, UT 84602.

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Abstract

Bankruptcy reallocates assets, labor, and risk across firms and households, yet its consequences extend far beyond those directly involved. This article reviews recent empirical and theoretical advances on spillovers from financial distress and bankruptcy—the transmission of financial distress through labor markets, product markets, supply chains, financial networks, and social interactions. We bring together evidence on how corporate bankruptcy affects workers, competitors, suppliers, and local economies, and how these effects aggregate to influence economic outcomes more broadly. We also highlight emerging evidence on consumer bankruptcy spillovers within peer and family networks. The literature consistently shows that these spillovers are substantial and operate through multiple channels. Throughout, we identify open questions about their welfare implications, the design of optimal bankruptcy policy, and opportunities to better characterize spillovers that have not yet been explored.

Contents

1. Introduction

Bankruptcy is a central institution in market economies. By providing an organized process for resolving financial distress, bankruptcy law underpins the functioning of credit markets and shapes firms' willingness to invest, take risk, and innovate. Traditionally, both theoretical and empirical research have focused on the impact of distress and bankruptcy on the parties directly involved—debtors, creditors, and shareholders—and have assessed its efficiency in terms of the outcomes for those actors. In recent decades, a growing body of work has begun demonstrating that the consequences of bankruptcy extend far beyond the boundaries of the distressed firm. In this paper, we review the literature on financial distress and bankruptcy spillovers across both corporate and consumer bankruptcy and through a variety of channels.

The idea that the failure of one economic agent can influence others is not new. Economists have long emphasized externalities, network effects, and informational contagion in settings ranging from labor markets (Becker 1962) to social interactions (Manski 1993). However, the application of these ideas to distress is relatively recent. For decades, empirical work on bankruptcy focused on questions of direct efficiency—how well bankruptcy maximizes asset value, preserves contracts, and allocates control rights among claimants (Hart 2000). Only in the past twenty years have new data sources and identification strategies enabled researchers to show that financial distress and bankruptcy create ripples that propagate through the economy.

Understanding bankruptcy spillovers is important for at least three reasons. First, spillovers challenge the traditional welfare assessment of bankruptcy regimes. A bankruptcy system designed to maximize value for creditors and debtors may fail to account for large externalities imposed on workers, competitors, or nearby firms. Second, the presence of spillovers complicates empirical identification. Violations of the stable unit treatment value assumption (SUTVA) mean that even well-designed studies of "direct" effects may yield biased estimates if distress spills over to untreated firms or individuals (Berg et al. 2021).

The wealth of spillovers documented in this paper show that these violations are likely to be common in many empirical settings. Third, from a policy perspective, spillovers determine how financial distress aggregates into macroeconomic outcomes. The ability—or inability—of bankruptcy systems to prevent financial contagion helps explain differences across countries in recovery from crises, the persistence of "zombie" firms, and the allocation of risk in financial markets.

This review synthesizes the emerging literature on financial distress and bankruptcy spillovers, with an emphasis on empirical evidence. We begin in Section 2 by outlining a conceptual framework for defining spillovers and the econometric challenges inherent in estimating them. Section 3 reviews the evidence on corporate bankruptcy, organizing spillovers into three broad categories: within-firm effects on workers and managers, between-firm effects through competition and networks, and broader general-equilibrium effects on markets and institutions. Section 4 extends the discussion to consumer bankruptcy by highlighting peer, household, and credit-market spillovers that arise when individual debtors seek protection. Throughout, we emphasize common mechanisms, empirical strategies, and open questions that connect these strands of research.

2. Spillovers Framework and Econometric Challenges

2.1. Spillovers Framework

Economists have long recognized that bankruptcy procedures influence risk-taking, firm formation, and the reallocation of assets and workers across an economy (Hart & Moore 1988, Baird 1986, Gertner & Scharfstein 1991). Most of this work focuses on the parties directly involved in bankruptcy: debtors and creditors. Most theoretical work begins with the assumption that contracts are incomplete and thus some type of bankruptcy procedure is necessary to resolve cases where debtors cannot repay (Hart 2000). Corporate bankruptcy law is often set up with a goal of being *ex post* efficient, seeking to maximize the value of the assets conditional on entering bankruptcy. For example, under U.S. bankruptcy law, a firm is only to be reorganized if its going concern value exceeds its liquidation value (11 U.S.C. § 1129(a)(7)). Bankruptcy procedures also seek to uphold contracts as much as possible by preserving the absolute priority of claims, which promotes *ex ante* efficiency by strongly penalizing owners (shareholders and managers) for entering financial distress in the first place, reinforcing debt's disciplining role.

While these are central goals of bankruptcy institutions, a growing literature shows that bankruptcy creates spillovers that are not typically considered in theoretical work–nor, indeed, are these spillovers typically considered in bankruptcy law.

It is unsurprising that most bankruptcy research does not consider spillover effects. Berg et al. (2021) survey corporate finance research and find that among corporate finance papers published in main economics and finance journals only 21% contain some discussion of spillovers, and only 17% attempt to estimate spillover effects. Although network and peer effects have long been modeled (Manski 1993), rigorous analysis has been limited by data and econometric challenges. Section 2.3 briefly reviews new methods that have expanded researchers' ability to identify spillovers.

Before discussing methodology, we first propose a definition of a spillover in the corporate bankruptcy context. Given that the boundaries of a firm are not always clearly defined, it is not obvious where to draw a line between direct effects and spillovers. We adopt a contract-centric definition: the key contracts in bankruptcy allocate seniority and property

rights and specify how cash flows are divided among investors. We define *direct effects* of bankruptcy as those that directly affect debtholders and equityholders of the firm, as well as the assets that are governed by these financial contracts. Managers also directly shape firm policy during bankruptcy, so we treat effects on them as direct. [1]

Spillovers are therefore defined as impacts outside of this contractual space. Our definition includes effects on workers at the bankrupt firm, who are crucial to firm value but generally not considered in debt and equity contracts, leaving scope for externalities to arise. This is not to say that workers are fully ignored during the bankruptcy process. At times workers have a direct say in proceedings, and even when they do not negotiating parties may consider impacts on employees. In addition, employee contracts can compensate for bankruptcy risk. Similarly, operational creditors (suppliers and distributors) may have a voice in the bankruptcy process if they are owed money by the bankrupt firm. Thus, there is no stark boundary where direct effects end and spillovers begin. Instead, there are degrees of spillover effects. We consider effects on debtholders and equityholders as direct effects. Meanwhile, while recognizing that effects on employees and operational creditors may be a mixture of direct effects and spillovers, we review this literature since there is ample scope for externalities to arise. Finally, effects on those who have no direct say in bankruptcy proceedings are pure spillovers. Our goal is to provide a broad review of the literature that measures and explores this range of spillover effects. Figure 5 outlines our definition of spillovers graphically, highlighting the parties affected by bankruptcy and the degree to which those effects are direct versus indirect.

This review focuses primarily on corporate bankruptcy spillovers (Section 3) but we also briefly review consumer bankruptcy spillovers (Section 4). As with firms, it is not always straightforward to separate direct effects from spillovers in households. For example, when one spouse files for bankruptcy but the other does not, the spouse's outcomes may or may not be viewed as spillovers. We focus on externalities affecting those outside the head(s) of household.

Finally, it is important to note that there is a distinction between spillovers from financial distress broadly and bankruptcy specifically. Financial distress is experienced by far more firms (and households) than those that actually enter bankruptcy, and distress creates externalities that should not necessarily be attributed to bankruptcy. It is important to conceptually separate distress from bankruptcy; confusing the two is akin to confusing an illness with its intended cure. However, empirically it is often not possible to cleanly separate the two. All credit contracts are negotiated "in the shadow" of bankruptcy laws regardless of whether the firm defaults, and bankruptcy institutions often dictate the extent to which financial distress spills over to other parties even when the distressed firms never enter bankruptcy. For example, suppose that a firm enters financial distress and local bankruptcy courts are so inefficient that the firms opts to simply liquidate outside of court even though it could have been rehabilitated. If its demise then causes a supplier to close its doors, is this a spillover from financial distress or from bankruptcy? Clearly, it is both in this case. To the extent possible, when the literature allows us to differentiate between these two types of spillovers we will explicitly note that in this review. Otherwise, one should think of these effects as a mixture of both distress and bankruptcy spillovers combined, and we caution readers who are interested in separating the two effects to carefully read the

[1] Some papers that explore the effect of bankruptcy on managers include Ang & Chua (1981), Hotchkiss (1995), Mullens et al. (2014) and Eckbo et al. (2016)

cited papers to better understand if the spillover comes from bankruptcy itself or distress more broadly.

In a similar vein, we also note that separating spillovers from bankruptcy *filings* from those of bankruptcy *institutions* is often impossible. Much of the literature identifies a bankruptcy filing as a key event that creates a spillover. However, a given bankruptcy filing can have a different spillover depending on the bankruptcy institution. For example, a bankruptcy filing in a busy bankruptcy court might create negative spillovers on other distressed firms by clogging the system (Iverson 2018) while a filing in a less-busy court might not create the same spillover. While we focus on bankruptcy institutions when we discuss general equilibrium effects in Section 3.3, it is important to keep in mind that in most papers cited elsewhere the bankruptcy filing cannot be fully separated from the institutional context. Throughout this review we attempt to highlight institutional differences in an effort to make these effects more salient.

2.2. Sources of Spillovers

Why might distress and bankruptcy create spillovers? They do so through the economic linkages connecting firms. These channels include:

- Competitive effects: outcomes of one firm influence its rivals.
- Supply chain linkages: upstream and downstream firms are mutually dependent.
- Knowledge and innovation spillovers: firms explore and create new knowledge that is useful for firms in related industries.
- Demand spillovers: firms may mutually depend on each other to generate demand for their products. For example, a firm that makes phone cases relies on phone manufacturers to create demand.
- Labor spillovers: shocks propagate through shared labor markets.
- Financing spillovers: investor losses pass through financial intermediaries to affect access to capital at other firms.
- Behavioral spillovers: the experience of one firm or individual affects peers' attitudes toward bankruptcy.
- *Ex ante* effects: anticipating bankruptcy risk influences equilibrium credit supply and demand, as well as risk-taking by firms.

One of the main benefits to studying bankruptcy spillovers is that establishing the existence of spillovers proves the existence and importance of these linkages, which are otherwise hard to detect. Financial distress offers a natural setting where relationships are disrupted, making propagation observable.

2.3. Econometric Challenges in Estimating Spillovers

Separating spillovers from direct effects is a long-standing econometric challenge. In a seminal paper, Manski (1993) distinguishes three reasons individuals in a group may behave similarly: endogenous social effects (behavior influenced by peers), exogenous social effects (behavior shaped by group characteristics), and correlated effects (common environments). He shows that identifying true endogenous effects—the spillovers of primary interest—requires conditions rarely met in practice, suggesting that progress depends on richer theory or data.

Significant progress has been made in developing econometric theory and tools that allow

researchers to better isolate spillovers. Much of this work has come from more complete modeling of network structures. A complete review of this literature is beyond the scope of this article, but a recent discussion of advances in causal estimation in this area can be found in Athey & Imbens (2017) (pp. 11-14). These approaches rely on detailed microdata to map firm or household linkages, making data collection central to future progress. Much of the recent empirical work reviewed below reflects such advances, and we believe that technology advances allowing more data collection will create many new research opportunities in the near future.

While our focus is on the measurement of spillover effects, it is also important to mention that the presence of spillovers can bias estimation of direct effects. As discussed in Berg et al. (2021), the majority of corporate finance papers ignore the possibility that spillovers could bias the estimation of treatment effects. Instead, identification concerns often dominate discussions of empirical validity in most corporate finance papers. However, the presence of spillovers can bias empirical estimates even when treatment is random due to violations of the stable unit treatment value assumption (SUTVA). Even when bankruptcy researchers are focused on direct effects, they should be aware of the potential for spillovers to affect their estimates.

3. Corporate Bankruptcy

In this section, we discuss the empirical literature that documents spillovers from corporate financial distress and bankruptcy. As discussed in Section 2, we categorize any effects of bankruptcy outside of the debtholders and equityholders (and the assets that they directly own) as spillover effects. We divide our discussion into three broad categories of spillovers: within firms (employees), between firms (competitor firms, co-dependent firms, and other networks), and general equilibrium effects that operate at a larger scale (financial markets, macroeconomic stability, and the environment).

3.1. Within Firms: Employees and Managers

Workers differ from capital in that they are not owned by the firm, and therefore are not directly part of debt or equity contracts (Matsa 2018). This creates scope for distress and bankruptcy spillovers on workers. Corporate finance researchers studying the trade-off theory of capital structure began to focus on the employee costs of distress as one possible reason that many firms maintain low leverage. Berk et al. (2010) develop a theory of optimal labor contracts in the presence of tax shields and costs of financial distress. In their theory, they show that firms optimally "entrench" their employees by gradually increasing wages in response to good news about employee ability but never decreasing wages in the face of bad news. In return, employees bear the risk of temporary wage losses if firms are unable to meet required interest payments and permanent losses if the firm enters bankruptcy, where it can terminate unprofitable workers who are then re-hired at new firms with lower starting wages. In this and similar models, employees are *ex ante* compensated for distress costs, in which case the externality has been internalized. However, this relies on employees having the bargaining power necessary to force higher *ex ante* wage contracts. If this is not the case, financial distress and bankruptcy can still impose an externality on employees, whose outcomes are not explicitly considered in financial contracts or in bankruptcy law, which seeks to maximize creditor recoveries.

Aside from the entrenched workers theory, an alternative mechanism whereby bankruptcy could create a spillover on workers is via firm-specific human capital (Becker 1962). Workers who accumulate firm-specific human capital stand to lose the value of this investment should they lose their jobs during a period of distress. As in Berk et al. (2010), workers could demand higher wages in return for this risk, but the balance of bargaining power will determine the extent to which financial distress creates an externality on workers with high firm-specific capital.

There is a large body of empirical research on the relationship between capital structure decisions and employees' outcomes (see Matsa (2018) for a full review). This literature strongly supports the theoretical prediction that job separation has stark negative effects on workers. Specific to financial distress and bankruptcy, Graham et al. (2023) use matched employer-employee data from the U.S. Census Bureau to show that employee wages deteriorate 13% relative to workers at matched non-bankrupt firms in the same industry with similar financial performance. The drop in wages appears to be permanent; wages do not rebound in the six years following the bankruptcy, producing cumulative losses equal to 87% of pre-bankruptcy earnings. To the extent that the matching procedure in Graham et al. (2023) identifies control firms that have similar levels of financial distress, one can interpret their findings as being mostly attributable to bankruptcy as opposed to distress more broadly. Importantly, a firm does not need to actually enter bankruptcy for workers to be harmed by financial distress. Chodorow-Reich (2014) shows that between one-third and one-half of the employment declines at small and medium firms during the 2008–2009 financial crisis were due to credit supply disruptions to those firms. Similarly, Benmelech et al. (2019b) show that financial constraints accounted for up to one-third of aggregate employment declines during the Great Depression.

The extent to which these job losses reflect non-compensated externalities on workers depends on whether employees earn higher wages *ex ante* in anticipation of potential job loss due to financial distress. Graham et al. (2023) document compensating wage differentials among firms with higher bankruptcy risk, and Agrawal & Matsa (2013) show that firms adjust financing decisions depending on employee unemployment risk. But the fact that firms adjust wage contracts and financing decisions to accommodate worker demands does not necessarily mean that the externalities of distress have been fully internalized. To our knowledge, the extent to which workers are fully compensated for expected wage losses due to distress or bankruptcy remains an open question. We do note, however, that Graham et al. (2023) document wage differentials only for *new* employees, reasoning that firms likely do not adjust wage contracts for existing employees. Similarly, Brown & Matsa (2016) document that job seekers account for firm financial distress when applying for jobs, with distressed firms attracting fewer and lower quality applicants. Accordingly, Brown & Matsa (2016) find that more distressed firms offer higher wages to attract workers. Baghai et al. (2024) find selective departures of highly skilled and centrally positioned employees at distressed firms, especially when outside labor market conditions are favorable and firms are expected to continue operations post-bankruptcy.

The studies mentioned above document the overall effect of distress and bankruptcy on workers, regardless of whether the firm was liquidated or reorganized. Graham et al. (2023) find significant wage losses among workers at both reorganized and liquidated firms, with wage losses slightly larger when firms are liquidated. On the other hand, Araujo et al. (2023) use random assignment of bankruptcy judges in Brazil to document causal effects of liquidation on worker outcomes, relative to similar firms that are reorganized.

Contrary to Graham et al. (2023), they find that workers at reorganized firms earn lower wages than those at liquidated firms over the next three to five years. They suggest that imperfect information about outside labor market options and job change adjustment costs can rationalize this finding. Using the same judicial assignment identification but in Norway, Kostøl et al. (2025) find that randomly liquidating a firm in bankruptcy causes worker earnings to fall by 24 percent over five years. A similar finding bears out in Portugal, where random assignment to liquidation reduces worker earnings by 20pp (Bonfim & Nogueira Forthcoming). Differences between Araujo et al. (2023) on the one hand, and Graham et al. (2023), Kostøl et al. (2025), and Bonfim & Nogueira (Forthcoming) on the other, could be due to setting and sample differences. As pointed out by Bonfim & Nogueira (Forthcoming), the labor market context plays a central role in the spillover effects, as workers in thin labor markets suffer the most when they lose their jobs. Better understanding of the "creative destruction" element of liquidation and what might allow workers to explore new job options following a bankruptcy remains an open question.

Along these lines, Babina (2020) document that financial distress induces workers to leave their firms and start their own ventures. These distress-driven entrepreneurs tend to establish high-growth firms, suggesting that distress at their original firm may push workers to seek opportunities they would not have found otherwise.

3.2. Between Firms: competitors, supply chains, strategic alliances, and other networks

Research on distress spillovers between firms began with early efforts to understand how the failure of one firm affects its industry peers, particularly through the lens of equity market reactions. One foundational study is Lang & Stulz (1992), which analyzes how bankruptcy announcements influence the stock prices of competitors. They find that, on average, a bankruptcy announcement reduces the value of a value-weighted portfolio of industry rivals by about 1%. These effects are more pronounced in highly leveraged industries and sectors where stock returns are highly correlated, indicating shared exposure to systemic risk or investor sentiment. In contrast, they find positive abnormal returns for competitors in concentrated industries with low leverage, suggesting that surviving firms may benefit when a rival exits or weakens.

3.2.0.1. Positive spillovers on peers. Pinning down the systematic forces that determine whether financial distress benefits or harms competitor firms has proven challenging. Theoretical work by Baranchuk & Rebello (2018) provides a framework for understanding when bankruptcy generates positive or negative spillovers in terms of financial value by focusing on two key forces: competition effects (where weaker rivals boost competitor performance) and information effects (where bankruptcy reveals private industry information). Their model shows that when bankruptcy costs are high, the competition effect creates positive spillovers for competitors. Meanwhile, bankruptcy can reveal good news if distress is easily resolved, creating additional positive spillovers. Conversely, if bankruptcy costs are low or reveal poor information about an industry as a whole, the effect is negative.

Empirically, researchers have long recognized that many of the costs incurred by a distressed firm can create opportunities for its competitors (Branch 2002). One possibility is that forced asset sales allow competitors or adjacent firms to acquire assets below market value (Shleifer & Vishny 1992, Pulvino 1998, 1999, Campbell et al. 2011). However, it

is difficult to determine whether such "fire-sale" discounts reflect illiquidity or lower asset quality. Franks et al. (2021) estimate that in distressed airlines, about half of observed discounts reflect lower aircraft quality. Bernstein et al. (2019b) use random assignment of bankruptcy judges—who vary in their tendency to liquidate—to obtain exogenous variation in forced asset sales. They find that establishments forced into Chapter 7 liquidation are 17pp more likely to be vacant and have 34pp lower employment five years later than similar establishments that remain in Chapter 11. These effects occur mainly in "thin" asset markets where reallocation is difficult due to limited local buyers or financing. Although Bernstein et al. (2019b) lack pricing data, their results are consistent with assets of bankrupt firms being sold at discounts due to frictions in finding new buyers. Whether this creates positive spillovers for competitors depends on whether the acquiring firms are able to productively use the discounted assets. Frictions to reallocation could limit these positive spillovers.

Beyond asset acquisitions, financial distress can also allow competitors to capture market share. Chevalier (1995) provides foundational evidence from the supermarket industry, finding that competitors experience positive abnormal returns following leveraged buyouts, as increased leverage softens competition. Following this, many studies show that financially healthy firms gain market share when competitors face high leverage or distress (Phillips 1995, Campello 2003, Fresard 2010, Garcia-Appendini 2018). However, if a peer's bankruptcy reflects overall excess supply, competitors may not expand. Consistent with this, Ciliberto & Schenone (2012) find null effects in the airline industry: bankrupt airlines cut capacity, but rivals do not expand, suggesting these bankruptcies reflect necessary market contraction.

Finally, corporate bankruptcy may generate positive spillovers by fostering Schumpeterian creative destruction (Schumpeter 1942). Evidence in this direction includes Carnahan (2017), who show that rival firm dissolution in the legal services industry—triggered by the unexpected death of a partner—raises the likelihood that surviving attorneys start new firms by 30%.

3.2.0.2. Negative spillovers on peers. Despite some positive channels, there is ample evidence that financial distress and bankruptcy can also create negative externalities. Bernstein et al. (2019a) use random judicial assignment to estimate the impact of a Chapter 7 liquidation on neighboring business establishments, finding a 20pp decline in overall block-level employment following the random liquidation of a business establishment. Contrary to the "creative destruction" hypothesis, they do not find evidence that the liquidation of a firm creates new entrants in the immediate area. These spillovers are highly localized, with no detectable spillovers outside of the same block where the firm is located. Similarly, Benmelech et al. (2019a) find that retail chain liquidations in bankruptcy cause negative externalities on co-located competitors in the same retail centers.

Combined, these studies demonstrate that geographically proximate firms are often harmed by liquidation. However, the effects of *bankruptcy* on economically-linked firms is more of an open question, as finding random or quasi-random variation in entering bankruptcy is a much more difficult challenge. Bernstein et al. (2019a) provide evidence of the effect of liquidation conditional on bankruptcy, with the reference group being other bankrupt firms that are allowed to reorganize in Chapter 11. Meanwhile, Benmelech et al. (2019a) exploit quasi-random retail chain closures. In both cases, the identified event is liquidation, which is only a subset of the overall bankruptcy experience. Further research

is still needed to establish the overall effects of bankruptcy on peer firms.

Bankruptcy also affects firms up and down supply chains. Hertzel et al. (2008) show that bankruptcy filings have significant negative effects on suppliers, demonstrating that spillovers extend beyond horizontal competitors.[2] Interestingly, Hertzel et al. (2008) do not find strong evidence of spillovers on customers. Kolay et al. (2016) provide similar evidence by estimating that negative spillovers on suppliers are about five times larger than those on customers of the distressed firm, although spillovers in their study are statistically significant for both groups. Another key finding from Kolay et al. (2016) is that supply chain spillovers appear to be limited to *economically* distressed bankruptcy filings. When a firm enters Chapter 11 but is only *financially* distressed, negative spillovers appear to be limited.[3] Finally, supply chain spillovers depend on the overall level of industry distress (Hertzel et al. 2008) and the difficulty in replacing trade partners (Kolay et al. 2016).

Although not bankruptcy-specific, Carvalho et al. (2021) provide clear evidence on network propagation using the Great East Japan Earthquake as an exogenous shock. They esitmate that roughly half of Japan's output decline was due to propagation through supply chains rather than direct exposure, implying that bankruptcy costs could double once such networks are accounted for.

Closely related to supply chain disruptions, Boone & Ivanov (2012) examine how bankruptcy announcements affect firms connected through strategic alliances, where two firms cooperate to pursue a shared objective without formally merging. Strategic alliance partners suffer significant negative stock market reactions, with cumulative abnormal returns of -0.6% over a three-day window around the bankruptcy announcement, translating to an average loss of $217 million in market value. Strategic partners also show lower profit margins and investment in the two years following their partner's bankruptcy.

Overall, the literature on supply chain and strategic alliance disruptions consistently show negative spillovers on co-dependent firms. One natural hypothesis that arises from these studies is that bankruptcy risk is likely to prevent firms from creating such relationships, mirroring labor market evidence that financial risk deters workers from applying at high-leverage firms (Brown & Matsa 2016). This potential *ex ante* spillover remains largely untested empirically.

3.2.0.3. Spillovers in financial markets. As referenced above, early studies used financial markets to identify spillover effects from bankruptcy (Lang & Stulz 1992). More recent studies have consistently shown negative financial market impacts from the bankruptcies of peer firms. One difficulty in interpreting these studies is disentangling whether the financial market reaction reflects a causal negative spillover of bankruptcy or a simple revelation of negative information about an industry. For example, CDS and loan spreads widen among peer firms in the same industry following a bankruptcy announcement (Jorion & Zhang

[2]We note that in this and other studies that use bankruptcy filing as the event of interest without random variation in who enters bankruptcy, the estimated effects are not necessarily due to bankruptcy only. Instead, they should be interpreted as the effects of distress and bankruptcy combined.

[3]Interpretation of this finding depends crucially on the measure of financial (versus economic) distress. Kolay et al. (2016) proxy for this difference by ranking firms along two dimensions: its EBITDA-to-assets ratio, and its leverage ratio. They assume that firms with high EBITDA-to-assets are not economically distressed and likely only need financial restructuring, while firms with low cash flows are likely economically distressed.

2007, Hertzel & Officer 2012). These reactions may reflect either contagion of financial distress or updated expectations about industry health.

One potential contagion mechanism runs through collateral values. Benmelech & Bergman (2011) show that bankrupt firms impose negative externalities on competitors by flooding the market with cheap used capital, depressing asset values (as in Shleifer & Vishny (1992)). This drives down the value of similar collateral held by other firms in the same industry, thereby tightening financing conditions and raising the cost of capital for healthy firms that rely on similar collateral. This collateral channel of contagion is one causal mechanism whereby bankruptcy harms other firms through financial markets.

Bankruptcy can also harm financial intermediaries themselves. Jorion & Zhang (2009) show that creditors of bankrupt firms experience negative abnormal returns and increases in their own CDS spreads, especially among trade creditors who are naturally less diversified than financial intermediaries. Distress then propagates to other firms sharing the same creditors or supply networks (Costello 2020). In this way, the financial network (including trade creditors) provides a key channel through which distress can spill over to a variety of other firms. The magnitude and scope of these spillovers depend crucially on the network structure and the correlation of shocks (Elliott et al. 2014, Acemoglu et al. 2015).

Another strand of the literature shows that financial intermediaries can be the channel that propagate spillovers via "zombie lending," the practice of continuing to lend to insolvent firms so that the intermediary does not need to recognize the loss on their books (Peek & Rosengren 2005, Caballero et al. 2008). In this way, distressed firms divert capital away from high productivity firms, resulting in lower investment and economic growth (Acharya et al. 2019, Jordà et al. 2022). This negative spillover can be mitigated by ensuring that banks are better capitalized (Giannetti & Simonov 2013, Acharya et al. 2019), but improving the bankruptcy process can also alleviate this channel (Becker & Ivashina 2021).

3.2.0.4. Spillovers in innovation. The innovation performed at one firm creates new knowledge that can be useful for many other firms (Jaffe 1986, Jaffe et al. 1993). This means that when bankruptcy affects innovation, it naturally creates spillovers by affecting the knowledge available for other firms.

Financial distress and bankruptcy influence innovation both *ex ante* and *ex post*. Acharya & Subramanian (2009) show that creditor-friendly bankruptcy regimes, by raising the risk of liquidation, steer firms away from risky, high-upside projects toward safer investments, whereas debtor-friendly regimes encourage innovative effort. Thus, bankruptcy affects the innovation landscape even before firms enter bankruptcy. However, there is also a credit supply response to debtor-friendly regimes: if bankruptcy is too debtor-friendly, credit supply contracts and innovation cannot be funded (Cerqueiro et al. 2017). Bankruptcy law must balance these two forces to generate innovation that can then spill over to other firms.

A significant amount of innovation occurs in newer, smaller firms. Often, lenders for small ventures require an entrepreneur to pledge their personal collateral, making personal bankruptcy law of important to innovation. Cumming et al. (2024) show that pro-debtor reforms to personal bankruptcy law expand patenting and raise citation impact, especially among risky startups-—consistent with lower personal downside risk catalyzing innovative activity.[4] Together, these studies highlight that the *ex ante* design of both corporate and

[4]Fan & White (2003) show that personal bankruptcy law plays a key role in business formation in general.

consumer bankruptcy law affects knowledge creation and diffusion.

Bankruptcy also disrupts innovation *ex post*. Azoulay et al. (2010) demonstrate that the unexpected death of a "superstar" scientist creates a lasting decline in the innovation output of their collaborators of 5% to 8%. By implication, bankruptcy could disrupt innovation by breaking up teams of innovators. This is borne out in the data: after a corporate bankruptcy, inventors at the bankrupt firm produce fewer, less impactful patents, largely because of the dissolution of teams of productive inventors (Baghai et al. 2024). While some teams are rehired elsewhere, frictions in reallocation still reduce aggregate innovation.

In addition, financial distress affects the ownership of intellectual assets such as patents. Similar to the discussion of asset sales above, this disruption could theoretically increase or decrease innovation more broadly. If the distressed firm was no longer the first-best user of the patent, then a forced asset sale (in or out of bankruptcy) might shift the patent to a more innovative firm. On the other hand, if patents face reallocation frictions, fire-sales of patents could result in reduced innovation. Using patent-level data, Ma et al. (2022) show that Chapter 11 filers disproportionately sell *core* patents, rather than peripheral patents, especially when pressured by secured creditors. Sold patents subsequently garner fewer citations and are more likely to be purchased by patent trolls who do not actually use the patent. These findings are consistent with bankruptcy slowing the diffusion of knowledge as patents are allocated to non-innovative firms.

Ultimately, a key component of the spillover effect of bankruptcy on innovation is the ability to reallocate inventors and inventions to other firms. The legal treatment of IP licenses (Mills 2000), the thickness of the market for innovative inputs, and the availability of financing (Bernstein et al. 2019b) are critical determinants of innovation spillovers. If frictions are minimal, distress and bankruptcy could spur innovation. However, to date, most evidence suggests that bankruptcy reduces innovative activity.

3.3. General Equilibrium Effects: financial markets, macroeconomic fluctuations, credit resolution efficiency, and environmental effects

Here we step from firm-to-firm transmission to spillovers that operate at broader scales: the bankruptcy system itself, financial markets, macroeconomic fluctuations, and the natural environment. At this level, corporate distress and bankruptcy do more than shift outcomes among rivals or along a supply chain; they alter risk premia and capital allocation across countries and industries, thereby reshaping overall economic realizations.

3.3.0.1. Equilibrium impacts of bankruptcy law. All firms that obtain (or even consider obtaining) debt financing are potentially impacted by bankruptcy law, since bankruptcy dictates resolution if a firm encounters distress. Because of this, the laws and institutions of bankruptcy play a critical role in determining access to debt and equity financing, the risks firms take, and hence economic output. A stream of articles starting with Porta et al. (1998), explores how legal origins influence investor protection laws, which then affect access to finance, firm ownership structures, and corporate governance (La Porta et al. 1997, 2000, 2002). The thrust of each of these articles is that investor protection laws–within which bankruptcy plays a key role–have far-reaching consequences for the entire structure of an economy. More directly related to bankruptcy, Djankov et al. (2008) construct a case study of an insolvent hotel and ask bankruptcy practitioners from 88 countries how the insolvency will proceed in their country. Using this, they construct a debt-enforcement measure for

each country and show that this is strongly correlated with per capita income and debt market development. Similarly, Davydenko & Franks (2008) show that bankruptcy codes in France, Germany, and the U.K. are highly correlated with access to bank financing and recovery rates in default.

Recent research suggests that corporate credit booms could be at the heart of boom-bust cycles and macroeconomic recoveries (Ivashina et al. 2024). This means that default resolution likely shapes the magnitude of business cycles and financial crises. Indeed, as mentioned above, countries with more efficient debt resolution have been shown to have fewer "zombie" firms, less debt overhang, and quicker recoveries from macroeconomic downturns (Becker & Ivashina 2021, Jordà et al. 2022). Similarly, Kornejew et al. (2025) show that countries with more efficient bankruptcy institutions tend to have shallower business cycles. These findings suggest that efficient bankruptcy procedures can serve as economic stabilizers, allowing quicker recoveries and, potentially, more innovative risk-taking.

While these associations are all suggestive that bankruptcy law plays an important role in the development of credit markets and, eventually, overall economic output, cross-country studies are necessarily limited in pinning down causal relationships as there are many other omitted variables that could create differences across countries. One identification strategy is to use changes in laws within a country, such as in Becker & Strömberg (2012). Using a legal ruling that affected only Delaware firms, Becker & Strömberg (2012) show that increases in debtholder protections lead to higher leverage, reduced reliance on covenants, and higher overall firm valuations. Hackbarth et al. (2015) use the introduction of the 1978 bankruptcy code in the U.S., which shifted bargaining power away from creditors and toward shareholders, to show that the introduction of the law increased equity valuations while also widening spreads on risky debt. We note here the apparent contraction between Becker & Strömberg (2012), who find that strengthening debtor protection leads to higher valuations, and Hackbarth et al. (2015), who find that weakening of debtor protection leads to higher valuations. It is likely that that there is an interior optimal level of creditor protection. If so, an increase in creditor protection can increase or decrease firm values depending on which side of the optimum an economy is. Along these lines, Favara et al. (2017) argue that imperfect enforcement of debt contracts creates incentives for leveraged firms to invest more and take on less risk as they approach financial distress. They show that these predictions hold in an empirical cross-country study that uses changes in bankruptcy laws within countries to get cleaner identification. Whether this increased investment is welfare-enhancing depends heavily on whether the investment reflects risk-shifting distortions by equityholders or positive NPV investment that equityholders would not undertake if debt were enforced completely. Regardless, the combined empirical evidence shows that creditor protection in bankruptcy plays a significant role in determining firm-level access to credit, investment, and hence output. However, determining the optimal level of creditor protection remains an open question.

3.3.0.2. Equilibrium impacts of bankruptcy institutions. The impact of bankruptcy on overall economic outcomes depends jointly on the laws surrounding financial distress and also the implementation of those laws by the court system. If courts are inefficient then bankruptcy can create negative externalities even if the written laws are efficient. One measure of court efficiency that has received attention in the literature is court congestion. Iverson (2018) documents that congestion in bankruptcy courts leads to worse outcomes for many bankrupt firms. Using the passage of a bankruptcy reform as an exogenous shock

to bankruptcy caseloads, Iverson (2018) finds increases in caseloads leads to higher C&I loan charge-offs and higher liquidation rates of small bankrupt firms. Firms that file for bankruptcy in busy courts spend more time in court and have higher refiling rates.

Court congestion then has knock-on effects via financial markets. Ponticelli & Alencar (2016) finds that court congestion reduced the ability of Brazilian courts to implement a reform aimed at increasing secured creditor rights. As a result, usage of secured credit increased in areas with less-congested courts but was limited in congested courts. In addition, Müller (2022) finds that court congestion leads to higher credit spreads and lower loan maturities. In Italy, Schiantarelli et al. (2020) find that banks located in areas with inefficient courts face higher repayment delays from their debtors, as the debtors can strategically squeeze banks knowing that enforcement of creditor rights will be costly. While some firms respond to poor bank health by delaying repayment, other firms experience credit constraints when their relationship banks are weakened. These credit constraints at small businesses can lead to significant aggregate job loss (Chodorow-Reich 2014).

Together, these studies highlight that the efficiency of the bankruptcy system matters, and that correlated shocks—recessions or local downturns that tax courts—can create sizable negative spillovers. Filers impose externalities by contributing to congestion, resulting in worse restructurings, higher credit costs, financial instability, and lower investment and employment.

3.3.0.3. Environmental spillovers. Finally, recent work highlights spillovers from financial distress to the environment. Exploiting a Supreme Court decision that strengthened parent-company limited-liability protections for certain subsidiaries, Akey & Appel (2021) document deteriorating subsidiary credit scores, higher bankruptcy risk, and a 5.9% increase in toxic emissions. These findings are consistent with moral hazard when parents are insulated from liability, leading to environmental externalities. Ohlrogge (2023) reach similar conclusions using the Seventh Circuit's 2009 Apex Oil ruling, which made certain cleanup injunctions non-dischargeable, effectively raising the priority of environmental claims. Affected firms reduced on-site releases of toxic chemicals by 12–30%. These papers show that bankruptcy can create or mitigate environmental spillovers. They also suggest substantial room to study spillovers beyond traditional economic outcomes, such as public health, crime, and education. These areas remain largely unexplored.

4. Consumer Bankruptcy

Recent research has begun to highlight spillovers from consumer distress and bankruptcy as well. Here, we briefly review this literature and highlight promising areas for future research.

4.1. Peer Effects

The most natural place to expect consumer bankruptcy spillovers is via peer networks. A large body of research examines how a peer bankruptcy filing affects an individual's propensity to enter bankruptcy. Early work documented an uptick in U.S. household filings in the late 1980s and early 1990s and interpreted this trend as contagion due to a change in norms or a diffusion of information about the bankruptcy system (Buckley & Brinig 1998, Fay et al. 2002).

After these initial observations, later research sought to pin down causal peer effects. The principal challenge is identifying exogenous shocks to the prevalence of bankruptcy among one's peers. Researchers have used a variety of identification methods including changes to asset exemptions (Dick et al. 2008), variation in geographic distance (Cohen-Cole & Duygan-Bump 2009, Scholnick 2014), racial group composition (Miller 2015), health shocks (Kalda 2020), and move-ins by peers from other states (Fisher 2020). Across the board, researchers tend to find that when a peer files for bankruptcy it increases the likelihood that an individual files as well. The only exception of which we are aware is Kalda (2020), who finds that unexpected health shocks leading to financial distress result in a decline in individual leverage and default rate in that person's peer network. One interpretation is that the nature of the shock matters: exogenous shocks (e.g., health events), reinforce the unexpected nature of distress and lead to caution, whereas policy or social shifts that expose individuals to more bankrupt peers reduce stigma and increase risk-taking.

In this area, it is important to distinguish peer effects on *bankruptcy usage* and peer effects on *financial distress*. Keys et al. (2023) use a movers analysis to separate person-based and place-based determinants of financial distress. They find small peer effects on financial distress itself, but large place-based effects on bankruptcy usage. In other words, whether one enters financial distress is largely dependent on the person themselves, but how they deal with financial distress is strongly influenced by their local environment. However, other research does document peer effects on the level of financial distress. Agarwal et al. (2020) find that when a neighbor wins the lottery it leads to a "keeping up with the Joneses" effect in which peers increase consumption as well. This leads to increased bankruptcy rates among peers of lottery winners. In a similar finding, Agarwal et al. (2021) use data from Singapore to show that a peer's bankruptcy filing leads to reduced consumption among their neighbors. Thus, it appears that shocks to very local peers can lead an individual to increase or decrease consumption, influencing their bankruptcy risk.

While peer effects in personal bankruptcy are well documented, the mechanism behind these spillovers is less clear. Many papers point to an information channel in which an individual learns about bankruptcy when their peer goes through the process. Alternatively, peer bankruptcies could reduce the negative stigma surrounding bankruptcy, creating contagion in a network. In our view, the precise channel is still largely an open question. Kleiner et al. (2021) make progress on this dimension by exploiting the random assignment of bankruptcy judges to generate exogenous variation in whether a bankrupt peer is granted or denied debt discharge. Individuals whose peers are denied protection are less likely to file for bankruptcy or enter foreclosure. If one views the denial of protection as variation in the information provided to peers, this pins down an information channel while holding stigma fixed since all individuals in their sample have a bankrupt peer.[5] However, this does not rule out stigma as an important transmission channel.

We also note that consumer bankruptcy could create spillovers in other outcomes. For example, as mentioned above, Agarwal et al. (2021) show that an individual's bankruptcy reduces consumption among their peers. It seems likely other peer spillovers exist that remain to be explored.

Financial distress can also create spillovers that do not operate through bankruptcy, as many individuals do not use bankruptcy when facing distress. In particular, when a

[5]If, however, stigma is also affected by a positive or negative outcome of a peer, even this experiment fails to pin down the channel.

homeowner faces financial distress, one of the main alternatives to bankruptcy is foreclosure and a growing literature documents that foreclosures create significant spillover effects via housing market disruptions and other peer effects. Campbell et al. (2011) show that foreclosures cause house price declines at nearby properties, decreasing wealth for neighbors. Further, Gupta (2019) finds that each foreclosure leads to an additional 0.3 to 0.6 foreclosures within a 0.10-mile radius, showing direct contagion of distress through a peer network. These foreclosures can aggregate into large macroeconomic effects, causing declines in residential investment, consumer demand, price-default spirals that amplify housing downturns (Mian et al. 2015, Berger et al. 2018, Guren & McQuade 2020).[6]

4.2. Family Spillovers

Consumer bankruptcy is both a family safety net and a legal process that resolves default. Thus, its effects are likely to extend to other members of the household. Using quasi-random judge assignment in Chapter 13, Dobbie & Song (2015) show that receiving Chapter 13 protection raises annual earnings by about $5,600, lowers five-year foreclosure risk by roughly 19 percentage points, and reduces five-year mortality by 1.2 percentage points. These are direct effects on filers, but the head of household's wages and mortality likely affect others in the household. Hamdi et al. (2024) study this question, again using judge leniency in Chapter 13 for identification. They find that children of parents who receive Chapter 13 protection earn about 5.6 percent more when reaching adulthood, with effects that grow as children age. Hamdi et al. (2024) suggest that their results are consistent with bankruptcy protection allowing parents to invest in education and skill-development for their children.

For identification purposes, these studies measure the effects of Chapter 13 bankruptcy, relative to individuals who file but are denied protection due to judicial decisions. It is likely that Chapter 7 also has household-level spillovers, but to our knowledge researchers have not found credible random variation in Chapter 7 usage, so these are still open questions.

Beyond labor market outcomes, personal bankruptcy also acts as implicit health insurance for some families. Mahoney (2015) documents that uninsured households with less access to bankruptcy (proxied using variation in personal bankruptcy exemptions) have higher out-of-pocket medical expenses and are more likely to purchase medical insurance. To the extent that this changes medical decisions by parents, this is likely to affect children's health outcomes.[7]

[6]Outside of the housing market, wealth shocks can have significant spillover effects. For example, Chodorow-Reich et al. (2021) show that changes in wealth due to aggregate stock market fluctuations can drive demand that translates into higher local employment. This suggests that declines in wealth that lead to distress could have the reverse effect, although this is still an area of open research to our knowledge.

[7]In a related and important finding, Kluender et al. (2025) use two randomized experiments that pay off defaulted medical debt and find no effects on mental or physical health among treated individuals. Thus, direct debt relief appears to have limited impact on health outcomes. However, consumer bankruptcy laws could still have important impacts on household wealth if they affect *ex ante* usage of medical care at the household.

4.3. Spillovers in the Labor Market

Personal financial distress can affect their productivity at work. Maturana & Nickerson (2020) study Texas public schools and find that when a teacher files for personal bankruptcy, student performance falls, with pass rates dropping by about 1.2 percentage points and larger effects on more complex tasks. Importantly, Maturana & Nickerson (2020) use bankruptcy as a proxy for financial distress, and their findings should be interpreted as documenting how distress affects worker productivity. Similarly, when household balance sheets deteriorate due to negative housing wealth shocks, innovative workers produce fewer patents and generate less economic value for their firms (Bernstein et al. 2021).

Alleviating financial distress can improve worker productivity. In a randomized trial among workers in India, Kaur et al. (2025) document that cash infusions that allow workers to pay off their debts lead to productivity improvements: worker's output increases by 7% and they make fewer mistakes. Together, it is clear that personal financial distress reduces worker productivity. Thus, better bankruptcy institutions could improve overall labor productivity. In addition, improving access to bankruptcy–through lower bankruptcy fees (Gross et al. 2014, Antill et al. 2025), better information, or lower stigma–could play a role in determining productivity. However, the generosity of the bankruptcy system has to be weighed against moral hazard costs of providing this safety net.

4.4. Credit Markets

Section 3.3 discusses how corporate bankruptcy shapes credit markets for firms. Similarly, consumer bankruptcy affects the cost and availability of credit for individuals. Modern research on how bankruptcy law shapes credit markets begins with Gropp et al. (1997), who exploit cross-state variation in bankruptcy exemptions. They show that higher exemptions shift credit supply: low-asset households face tighter credit supply and higher interest rates as lenders anticipate larger losses in bankruptcy, while high-asset households with stronger protection borrow more. Thus, Gropp et al. (1997) establish that personal bankruptcy does appear to have an effect on credit markets more generally.

The equilibrium effect of bankruptcy on the cost of credit depends heavily on the household's decision rule regarding when to file for bankruptcy and their desire and ability to smooth consumption. If bankruptcy is highly prevalent and households have few alternatives to smooth consumption following negative shocks, the presence of household bankruptcy raises equilibrium costs of debt. This creates deadweight losses which, under some parameterizations, are large enough that eliminating bankruptcy altogether would be welfare improving (Athreya 2002, Mitman 2016). On the other hand, if there is little moral hazard such that individuals only use bankruptcy when they have extreme (and persistent) bad luck, the higher costs of credit could reflect optimal risk-sharing that enhances welfare (Livshits et al. 2007).

Understanding strategic default and moral hazard, then, is key to knowing how bankruptcy affects credit markets and the welfare implications of those effects. Recent evidence suggests that strategic default is rare. Ganong & Noel (2023) estimate that only 6% of mortgage defaults are strategic, while 70% are driven solely by unexpected drops in cash flows. More directly related to bankruptcy, Indarte (2023) estimates that bankruptcy filings are five times more sensitive to changes in cash-on-hand than strategic considerations. These estimates suggest that the vast majority of bankruptcy filings are not strategic, but rather reflect that consumer bankruptcy principally acts as a risk-sharing institution.

When this is the case, bankruptcy can be relatively generous without dramatic effects on the costs of personal credit.

Even if strategic filing is limited, there is still a theoretically optimal amount of bankruptcy protection that balances providing insurance for defaulters against the costs borne by non-defaulters. Finding this balance remains an important area of future research, but recent work provides inputs to this discussion. Consistent with bankruptcy protection reducing credit supply, Dick & Lehnert (2010) show that stronger state-level debtor protections increase mortgage interest rates and reduce credit availability, especially for riskier borrowers. More recently, Gross et al. (2021) quantify pricing pass-through after the passage of the Bankruptcy Abuse Prevention and Consumer Protection Act (BAPCPA). BAPCPA dramatically increased the costs of bankruptcy, reducing its usage. Gross et al. (2021) estimate that for each one-percentage-point reduction in bankruptcy filings the costs of unsecured credit decline by 70-90 basis points. However, the reductions in bankruptcy due to BAPCPA were not limited to strategic, moral hazard cases. They proxy for "bad luck" bankruptcies using hospitalizations, and show that BAPCPA reduced the usage of bankruptcy by 70% among uninsured individuals who are hospitalized.

In sum, consumer bankruptcy plays an important role in determining credit supply, but the welfare implications are nuanced. Policymakers must trade off higher costs of credit against providing insurance against bad luck. Current evidence suggests that most bankruptcies are due to liquidity shocks and that recent reforms reduce usage of bankruptcy even in "bad luck" situations, but more work needs to assess the welfare implications of these findings.

5. Conclusion and Future Directions

Bankruptcy plays a central role in reallocating assets, labor, and risk in modern economies. Clearly, the very notion of reallocation suggests that the effects of financial distress and bankruptcy rarely stop with the firm or household that files for bankruptcy. Spillovers—through labor markets, product markets, supply chains, credit networks, and social interactions—magnify the effects of financial distress and shape the welfare consequences of bankruptcy institutions. Recognizing and quantifying these spillovers is essential for understanding the broader economic impact of financial distress and for designing efficient bankruptcy regimes.

Despite recent progress, much remains to be learned. On the empirical front, continued advances in data collection and network measurement will enable researchers to map inter-firm linkages and household connections more precisely, allowing for richer identification of spillover channels. Methodologically, the usage of randomized control trials (RCTs) is a promising avenue for cleaner identification of spillovers.[8]

Other promising directions for empirical work include cleaner measurement of the channel through which spillovers spread. For example, peer effects have been well documented in personal bankruptcy, but separating information from stigma in these studies has proven challenging. In addition, empirically pinning down *ex ante* effects of bankruptcy-how the possibility of bankruptcy changes outcomes-remains largely an open frontier. Finally, future work should explore how spillovers interact across scales: for example, how local labor

[8]To our knowledge, only Antill & Hunter (Forthcoming) and Bernstein et al. (2025) use RCTs in the bankruptcy context at all, and neither paper examines spillovers.

market disruptions aggregate into national fluctuations, or how consumer and corporate bankruptcies feed back into each other through financial intermediaries.

On the theoretical side, a unifying framework that integrates direct effects and spillovers is still missing. Standard models of bankruptcy emphasize *ex post* efficiency within the distressed firm, while most macroeconomic or network models abstract from legal institutions. Bridging these approaches could clarify forces that balance the positive and negative externalities of bankruptcy and the extent to which private contracting internalizes some of these effects (e.g. via *ex ante* anticipation effects). This integration will be particularly valuable for studying how bankruptcy regimes affect creative destruction, long-run growth, and resilience to systemic shocks.

Finally, we note that in most cases firms and households have other options to manage financial distress besides bankruptcy. Firms can negotiate outside of court, sell assets to repay creditors, or simply liquidate instead of filing for bankruptcy. Individuals may work an extra job, pawn assets, enter foreclosure, apply for unemployment insurance, or forego paying medical or utility bills rather than enter bankruptcy. While this study has focused on bankruptcy spillovers, it is likely that alternative actions taken by households have spillover effects as well, and these are important to understand in order to set holistic policy to handle financial distress. In addition, each of these options for managing distress have spillover effects on the others. For example, when personal bankruptcies becomes more expensive, mortgage foreclosures tend to increase (Morgan et al. 2012, Mitman 2016). In our view, these interactions are understudied in the extant literature.

In short, research on bankruptcy spillovers reveals that bankruptcy is a key propagation mechanism in the economy. Future work that integrates microdata, institutional detail, and general-equilibrium reasoning promises to deepen our understanding of how financial distress reshapes economic networks. This work can inform how bankruptcy policy can harness these forces for broader welfare gains.

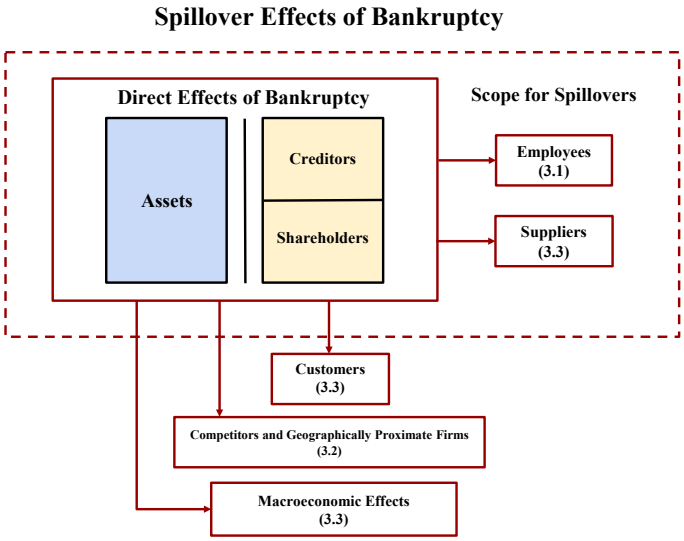

Figure 1

Notes: This figure outlines our proposed definition of corporate bankruptcy spillovers, and references the relevant sections where we review the literature on each externality. The "Scope for Spillovers" category includes employees and suppliers, who may have some voice in the bankruptcy process but are not primary parties to the firm's debt and equity contracts, leaving scope for externalities to arise. Those outside the dashed lines represent pure spillovers — parties with no direct role in bankruptcy proceedings whose effects are entirely indirect.

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