

Chapter 2

General Issues in Bankruptcy Law

The primary aim of this book is to understand bank bankruptcy law and to make suggestions on how to improve its design. In order to be able to do this, one first needs to understand the principles behind the general bankruptcy law.¹

We first synthesize various rationales for the existence of general bankruptcy law given in the economic literature. Bankruptcy law needs to satisfy divergent objectives. It needs to prevent coordination problems among creditors. It also needs to promote efficiency in the relationship between a debtor and creditor in the *ex-ante* sense, when the debtor is solvent, and in the *ex-post* sense, when the debtor is already insolvent.²

2.1 Coordination Problems

The need for bankruptcy law is most evident in the case of a corporation borrowing from several creditors. Without bankruptcy law in place, *coordination problems* between creditors may trigger bankruptcy prematurely (Jackson 1986). Even upon a slight perceived problem with a corporation, each creditor may try to be on the safe side and sue the corporation first in order to be repaid before other creditors. Creditors would then race to collect their debt in a behavior similar to a run on a bank. Secured creditors could cash in the collateral. Short-term creditors could decide not to roll over their loans. This would force the premature liquidation of a corporation that may be worth more as a going concern.

¹ *Encyclopedia Britannica* defines bankruptcy as “Status of a debtor who has been declared by judicial process to be unable to pay his or her debts.” However, the question is why such a status of bankruptcy is needed in the first place.

² We focus here on corporate bankruptcy law. See White (2005) for a comparison of corporate and personal bankruptcy law.

Bankruptcy law aims to mitigate this coordination problem. A common mechanism in most bankruptcy laws is to impose a legal stay (also called an automatic stay) in which debt repayment in bankruptcy is frozen. Creditors with equal debt contracts are given equal standing in bankruptcy. Early collection of debt no longer puts them in front of other creditors. This mitigates the race to collect debts. It gives the corporation close to insolvency more breathing space and can prevent its premature liquidation (Hotchkiss et al. 2008; von Thadden et al. 2010).

Although bankruptcy aims to mitigate coordination problems due to multiple creditors, the question is why corporations borrow from multiple creditors in the first place. Financing from multiple creditors and the threat of early collection is beneficial because it exerts additional pressure on the debtor. A debtor in a good financial state, knowing that renegotiation in an adverse situation is difficult, restrains from excessive risk-taking, exerts sufficient effort, and has no incentives to strategically default on his debt repayment (Bolton and Scharfstein 1996). A multitude of creditors also have lower incentives to engage in rent-seeking activities (Bris and Welch 2005).

However, having multiple creditors may create inefficiencies. In particular, financing from multiple creditors can lead to duplicated monitoring of creditors (Winton 1995). Creditors will free ride on monitoring the debtor (Bris and Welch 2005). Difficult renegotiation between multiple creditors may induce excessive liquidation even when continuation is optimal and when default is beyond the debtor's control (Bolton and Scharfstein 1996). It is the aim of bankruptcy law to allow for the benefits and at the same time mitigate the drawbacks of having multiple creditors.

However, this is not an easy task. Bankruptcy law only partially mitigates coordination problems between creditors. Creditors have means to put themselves before other creditors despite bankruptcy law. One possibility is to engage in leapfrogging. That is, a creditor may improve seniority and quality of the collateral in renegotiation of his loan with a debtor. For example, the creditor can condition rolling over his loan on improvement of his seniority and collateral, thereby increasing his payout in bankruptcy.³

The argument against bankruptcy law may also be that a debtor and his creditors can renegotiate debt contracts on their own through voluntary debt restructuring, for example.⁴ Debt restructuring can be beneficial for debtors *and* creditors if a corporation with a viable business has only temporary financial problems but profitable long-term prospects. However, coordination problems may hinder negotiation between a debtor and multiple creditors. A hold-out problem can occur, in

³ The existing creditors may also try to renew their loan after the bankruptcy has already started because in most bankruptcy laws this could automatically give them a super-senior status against all remaining creditors.

⁴ Institutional lenders can also coordinate on their own in order to prevent coordination problems. See Brunner and Krahen (2008) for the case of bank pool formation in distressed lending in Germany.

which a small creditor could oppose restructuring of debt and demand overcompensation (Gertner and Scharfstein 1991). Because voluntary debt restructuring needs the unanimous consent of creditors, even a small creditor may have excessive power in the negotiation process. Bankruptcy law commonly mitigates the hold-out problem because the corporation in bankruptcy needs less than unanimous support of the creditors for restructuring. Bankruptcy proceedings are usually designed to facilitate negotiations between shareholders and creditors. An important question of optimal design of bankruptcy law is how to set a trigger for bankruptcy.

Optimal bankruptcy trigger: Bankruptcy law aims at setting the optimal timing of *when* the corporation would enter bankruptcy and, by doing so, mitigates coordination problems between creditors. Coordination problems act as countervailing forces in pushing for bankruptcy. On the one hand, running to collect debt triggers bankruptcy prematurely. On the other hand, the hold-out problem hinders voluntary negotiation between the corporation and multiple creditors, and may postpone the start of bankruptcy proceedings. In this respect, an important ingredient of bankruptcy law is who can trigger bankruptcy and under what conditions.

To mitigate the race to collect debt, creditors should have the power to trigger bankruptcy. Each creditor can then prevent early collection by other creditors (e.g., seizure of collateral by secured creditors) that could lead to premature liquidation. If the hold-out problem is an issue, a debtor should also have the power to trigger bankruptcy. In this case, a debtor could, by entering bankruptcy on his own, override a small creditor that would oppose restructuring. However, the conditions to exercise a trigger need to be precisely stated, otherwise the debtor would strategically enter bankruptcy to rid himself of his debt. Usually the firm needs to be illiquid (i.e., unable to repay debts as they fall due), but in several bankruptcy laws in addition to illiquidity the corporation needs to be insolvent as well (i.e., the value of liabilities needs to surpass the value of assets).⁵

Von Thadden et al. (2010) explicitly model the differences between debt collection and bankruptcy. Each creditor's right to liquidate assets will protect him against opportunistic behavior by the debtor. In contrast, bankruptcy law through an automatic stay limits the individual rights to liquidate assets. In this setting, giving the right to trigger bankruptcy to creditors is not always optimal because creditors would want to foreclose individually if this offers them higher value than in bankruptcy. In such a case, the debtor should have the power to trigger bankruptcy to defend against an excessive foreclosure (see also Baird 1991).

Going back to the need for bankruptcy law, cannot creditors and debtors mitigate potential problems on their own by writing detailed contracts that would appropriately contain coordination problems? The incomplete contract theory recognizes that writing complete contracts (i.e., contracts that are contingent on all future states of nature) is simply too difficult a task.⁶ In this view, the design of bankruptcy law

⁵ An example is the UK corporate bankruptcy law.

⁶ In Bolton and Scharfstein (1990) and Hart and Moore (1994) a court cannot precisely verify which state of nature has occurred; hence, a contract contingent on the states of nature has no legal value because the court cannot determine the contingent obligations of creditors and debtors.

should mitigate inefficiencies that may arise in individual contracting between a debtor and his creditors.

Importantly, bankruptcy law should not create new inefficiencies. Debtor and creditors could adjust debt contracts and circumvent unwanted features of bankruptcy law only to a certain extent. Davydenko and Franks (2008) empirically compare different bankruptcy laws and confirm that creditors adjust debt contracts to the special features of bankruptcy law, but can only partially mitigate the suboptimal features of bankruptcy law.⁷

Now we analyze how bankruptcy law affects incentives and the behavior of a debtor and his creditors.

2.2 Ex-Ante Efficiency: Incentives in Bankruptcy Law

The main objective of bankruptcy law in the ex-ante sense is to elicit optimal incentives and behavior from debtors and their creditors before bankruptcy occurs. Bankruptcy law should refine the features of debt contracts in bankruptcy to (1) evoke optimal control of debtors by creditors, (2) give debtors incentives to undertake optimal risk and supply sufficient effort, and (3) affect optimal timing of bankruptcy.

Several theoretical contributions specify the benefits of a debt contract for efficient contracting between a debtor and his creditor. In a standard debt contract, the creditor is entitled to a fixed payment and the debtor to the residual. However, if the creditor cannot be repaid, the bankruptcy occurs with the debtor receiving zero and all the proceeds going to the creditor.

In a costly state verification framework, in which creditors can only audit debtors' returns at a cost, Gale and Hellwig (1985) and Townsend (1979) show that an efficient contract that minimizes auditing costs contains the main features of a standard debt contract. If a debtor repays the borrowed funds and the interest, the audit is not necessary and auditing costs are not incurred. However, if a debtor defaults on loan repayment, the creditor needs to audit the debtor and seize the debtor's remaining funds.

In the free cash-flow theory of Jensen (1986), debt serves to pump cash out of the firm and out of the reach of a manager that would spend it for his own perks, instead of using it to the best interest of shareholders. In the asymmetric information framework of Myers (1984), debt is less informationally sensitive than equity and therefore easier and cheaper to raise. In the incomplete contract approach, Hart and Moore (1998) show that debt contracts are optimal because they allow debtors to reinvest the most in good states of the world when this is valuable (e.g., when the

⁷ Davydenko and Franks (2008) show that French banks require more collateral to respond to a creditor-unfriendly bankruptcy code. However, they show that bank recovery rates remain remarkably different across countries with different bankruptcy laws.

economy is booming) and allow creditors to liquidate the projects in bad states of the world (e.g., in a recession). In addition to the theoretical studies, a brief look at practice also shows that only a few corporations do not use debt financing at all.

Theoretical literature on optimal debt contracts has implications for the optimal design of bankruptcy law in the *ex-ante* sense; that is, at the moment when a debtor is still solvent. An efficient debt contract entitles the creditor to the debtor's remaining funds upon default on a loan repayment. Hence, in the *ex-ante* sense optimal bankruptcy law should be creditor-friendly: it should guarantee high payoffs to creditors in the case of bankruptcy. Only if bankruptcy is considered a sufficient threat would managers take debt repayment seriously enough and not expropriate free cash flow from the firm (Jensen 1986) or conceal the true returns of the firm (Gale and Hellwig 1985; Townsend 1979).

Creditor-friendly bankruptcy law creates appropriate incentives for debtors in the *ex-ante* sense. Povel (1999) argues that creditor-friendly bankruptcy law presents a sufficient threat that underperforming managers would be fired in the case of bankruptcy, thereby giving incentives to managers to provide sufficient effort. Bebchuk (2002) shows that debtors take less risk *ex-ante* if bankruptcy law is creditor-friendly. His intuition is twofold. First, creditor-friendly bankruptcy law provides a sufficient penalty in the case of failure, and therefore debtors are more careful not to take excessive risk. In addition, if bankruptcy law is creditor-friendly, creditors anticipate high returns in the case of bankruptcy and demand lower interest rates. Lower interest rates increase the attractiveness of safe projects and limit risk-taking. Empirical research shows that corporations take less risk under creditor-friendly bankruptcy codes.⁸

Ex-ante optimal bankruptcy law defines the division of the value of the bankrupted corporation between the debtor and its creditors that maximizes the value of the corporation before bankruptcy. In the *ex-ante* sense, bankruptcy rules do not serve to protect creditors because creditors can protect themselves even if bankruptcy law is debtor-friendly: they can charge higher interest rates or have a stricter lending policy. However, the design of bankruptcy law affects firm value in an indirect sense through its impact on incentives and behavior of creditors and debtors. Proper incentives lower the cost of and access to debt financing (see also Longhofer and Carlstrom 1995).⁹

⁸ However, Acharya et al. (2009) provide evidence that firms more often engage in value-destroying diversifying acquisitions under creditor-friendly bankruptcy codes. Excessive conservatism spurred by creditor-friendly bankruptcy codes also hinders innovation; see also Acharya and Subramanian (2009). Berkovitch et al. (1997) show that creditor-friendly bankruptcy law may allow creditors to appropriate a debtor's rents and therefore diminish investment into firm-specific human capital.

⁹ Longhofer (1997) theoretically shows that creditor-friendly bankruptcy law enhances access to credit. Empirical evidence is provided by Berkowitz and White (2004). In order to lower the cost of debt, Cornelli and Felli (1997) show that bankruptcy law needs to move valuable control rights from the insolvent debtor to creditors before the start of the bankruptcy process. La Porta et al.

The design of bankruptcy law should set the right incentives to trigger bankruptcy. Bankruptcy law that is creditor-friendly acts as a threat for a debtor not to strategically default (i.e., to declare bankruptcy to obtain debt relief).¹⁰ However, when the firm approaches bankruptcy, the need for creditor-friendly bankruptcy law is diminished. Under creditor-friendly bankruptcy law, the manager of a failing corporation will try to postpone bankruptcy to the detriment of creditors (Berkovitch and Israel 1999). The manager can hide losses through the use of creative accounting, or simply free cash flows by spending less on R&D and on product quality. A debtor-friendly bankruptcy law will improve the timing of bankruptcy. Keeping the manager on board in case of bankruptcy will induce the manager to declare bankruptcy in a timely manner (Povel 1999).¹¹

2.3 Bankruptcy Procedures and Their Ex-Post Efficiency

The objectives of bankruptcy law change substantially in the ex-post sense when the debtor has already entered bankruptcy. Bankruptcy law in the ex-post sense should maximize the value of assets of the bankrupted firm. Three objectives are important. Bankruptcy should lead to welfare-increasing asset reallocations. The costs of bankruptcy due to administrative procedures and lost reputation should be as low as possible and the incentives for the debtor and his creditors should induce optimal behavior.

Efficient bankruptcy procedures are central for the smooth operation of a market economy. Corporations usually use bankruptcy to exit the industry and to cease their operations. Bankruptcy allows competition to drive inefficient corporations out of business and incapable managers out of their jobs, which raises the average efficiency of the industry (Melitz 2003; Syverson 2004). Exit from the industry should be as cheap as possible in order to have high entry and high competition in the industry. Such reallocations lead to Schumpeterian-like “creative destruction” that may offer welfare gains and benefit consumers.

(1997) show that countries with greater creditor protection have larger and more developed credit markets; see also Djankov et al. (2007).

¹⁰ Even though creditors may protect themselves against strategic defaults, such actions may increase the cost of debt and lower its availability. Long-term creditors may demand durable collateral and force the firm to match liabilities with assets (Hart and Moore 1994). In this sense, creditor-friendly bankruptcy law that mitigates strategic defaults allows for longer maturity of debt and less collateral.

¹¹ Bisin and Rampini (2006) show that bankruptcy is especially important in an environment where the main creditor cannot monitor whether the debtor takes on additional debt from other creditors. They show that debtor-friendly bankruptcy law induces the debtor to declare bankruptcy in a timely manner. Bankruptcy adds value for the creditor because the court verifies the assets and liabilities of the debtor, liquidates the assets, and repays the senior creditor (the bank) first.

Bankruptcy procedures around the world are time-consuming, costly, and inefficient. Djankov et al. (2008) analyze the efficiency of insolvency laws in 88 different countries on the basis of the hypothetical case of an insolvent hotel: on average, 48% of the hotel's value is lost. Inefficiency is exacerbated by the possibility of an extensive appeal of judicial decisions during insolvency proceedings and by the failure to continue insolvency procedures during the appeal (see also Gamboa-Cavazos and Schneider 2007).

The cost of bankruptcy and the efficiency of asset reallocation are affected by the basic procedures employed in bankruptcy. There exist three basic procedures around the world to address insolvency: foreclosure by the senior creditor, liquidation, and reorganization (Djankov et al. 2008). Under foreclosure, the ownership of the entire firm or specific assets of a bankrupted firm are transferred to the (most senior) creditor either directly or through a fast-track court procedure. Under liquidation, the corporation terminates its operations and sells off its assets, or is sold for cash as a going concern (an example is Chapter 7 in U.S. bankruptcy law). Under reorganization, the corporation restructures its operations with the aim of continuing its business (an example is Chapter 11 in U.S. bankruptcy law).

The costs of bankruptcy differ among countries and among bankruptcy procedures. The direct costs of bankruptcy consist of legal costs such as expenses for lawyers, restructuring advisers, and accountants. The indirect costs are more difficult to specify. They include opportunity costs such as lost sales, loss of employees, and loss of key suppliers due to bankruptcy. Bris et al. (2006) show that the costs of liquidations under Chapter 7 in U.S. bankruptcy law are comparable to the cost of reorganization under Chapter 11. The direct costs of liquidation amount to 8.1% of total assets, whereas the costs of reorganization amount to 9.5% of total assets.¹² Indirect costs are substantially larger. Andrade and Kaplan (1998) estimate them to be 10–20% of the total assets of the firm.

Liquidation: Liquidation is a court-supervised procedure in which the firm is closed and sold for cash either as a whole or, more frequently, piecemeal. This allows the claimants of the bankrupted firm to be compensated according to their priority. According to the absolute priority rule, the claim with the highest priority is repaid first in full, followed by repayment of the claim with the next highest priority, and so on, as long as there is enough worth to be distributed. If the absolute priority rule is strictly followed, claimants with the lowest priority, such as shareholders (and sometimes also junior creditors), are usually completely wiped out.

One aim of liquidation is to remove an incapable manager and owners, and to give somebody else a chance to more efficiently utilize the failed firm's assets. However, liquidation could lead to inefficient use of assets, especially if the entire industry is depressed. In this case, firms in the same industry will be willing to buy

¹² The estimates deviate substantially across empirical studies and range from 1.4% to 9.5% in Chapter 11 proceedings and from 6.1% to 8.1% in Chapter 7 proceedings; see Altman and Hotchkiss (2006).

assets only for low prices. Consequently, assets can be acquired by firms from a different industry, potentially leading to suboptimal utilization. This “fire-sale effect” will be strongest if the firm’s assets and collateral are industry-specific (see Shleifer and Vishny 1992 for theoretical argumentation and Acharya et al. 2007; Pulvino 1998; Ramey and Shapiro 2001, for empirical evidence on the fire-sale effect).

Foreclosure: Foreclosure aims to recover debt mainly for secured creditors (in contrast to liquidation, which aims to recover claims according to the absolute-priority rule). Foreclosure proceeds in some countries entirely out of court and in others with limited court supervision. It allows for rapid transfer of collateral to secured creditors. Secured creditors are usually well specialized for the use of collateral.¹³ Foreclosure may lead to premature liquidation. Foreclosure of debt secured by asset-specific collateral will trigger the seizure of collateral and subsequent piecemeal liquidation of a firm that may be worth more as a going concern.

Foreclosure when coupled with “floating charge” debt securities leads to a more efficient liquidation versus continuation decision (Djankov et al. 2008). In a “floating charge” debt security, the entire business of the firm is pledged as collateral.¹⁴ Hence, the floating charge creditor obtains control rights over the insolvent firm. The floating charge creditor then makes a decision whether to liquidate the firm or to continue its business on his own. Coordination problems between different creditors are therefore solved.

Floating charge creditors may also try to mitigate the fire-sale effect. Armour et al. (2002) and Franks and Sussman (2005) argue that banks in the UK, where a floating charge is frequently used, have moved their operations of reorganizing distressed firms from branches into centralized units. In this way banks can better coordinate their liquidation efforts and may partially contain the fire-sale effect (Davydenko and Franks 2008).

Reorganization: Reorganization is a court-supervised bankruptcy procedure aimed at restructuring a firm and making it viable in the long run. In reorganization, the firm and its assets are not sold; hence, there is no loss of value due to the fire-sale effect.¹⁵

In reorganizations, existing management and shareholders are frequently given another chance to save the firm. An important reason for this is that the existing

¹³ Secured creditors are also specialized for monitoring the value of the collateral before the bankruptcy commences, which decreases the cost of debt financing.

¹⁴ A typical example of the use of the floating charge is UK bankruptcy law. A floating charge holder could, upon reneging on a loan contract, conduct a private liquidation and have full control over the appointment of a receiver. In 2003 the power of the floating charge holder was somewhat decreased (Armour et al. 2007). In fixed charge debt security, only specific assets are pledged as collateral.

¹⁵ Acharya et al. (2007) show that practically only reorganizations and virtually no liquidations occur during industry distress. Reorganizations also last substantially longer during industry distress.

manager (and sometimes main shareholders) may be the only ones that have enough knowledge about the core business and can successfully restructure the corporation in bankruptcy (von Thadden et al. 2010). Hence, replacing the manager may not be optimal in the ex-post sense. The manager may not be the only one responsible for firm bankruptcy (e.g., in the case when a crisis in the entire industry triggers bankruptcy). The current manager will then be able to restructure the firm better than a new manager without any knowledge about the firm. Reorganizations with the current management in charge should therefore prevail when assets are firm-specific (Ayotte 2007).

Even if the manager is not replaced, his role in bankruptcy becomes more difficult than in normal times. The conflict of interest between the debtor and his creditors intensifies during bankruptcy. The key objective for the manager needs to be to maximize the value of the entire corporation. His remuneration must follow this objective and must be closely connected to the value of the entire corporation instead of to the value of shareholders. One option is to reward the manager in the case of successful restructuring.¹⁶ This may present a major shift in the desired behavior of management: the manager may need to undertake less risk and also liquidate (part of) the firm rather than continue with the (entire) business.¹⁷

Incentives: Bankruptcy law should be designed in such a way as to give optimal incentives to the already insolvent debtor and his creditors. Ex-ante efficiency does not imply ex-post efficiency of bankruptcy law. Whereas creditor-friendly bankruptcy law may be considered ex-ante more efficient than debtor-friendly bankruptcy law, this is no longer necessary in the ex-post sense. When a corporation is already in bankruptcy, debtor-friendly bankruptcy law will lead to more efficient restructuring than creditor-friendly bankruptcy law.

Debtor-friendly bankruptcy law may improve optimal risk-taking by financially distressed corporations. Bebchuk (2002) argues that creditor-friendly bankruptcy law increases risk-taking once a corporation becomes financially distressed. A financially distressed firm can no longer survive if it realizes modest returns on safe projects. The only way to prevent bankruptcy is to aim for high returns stemming from risky projects.¹⁸ Debtor-friendly bankruptcy law will then mitigate the moral hazard distortion of insolvent debtors for risky projects, or “gambling for resurrection” (see also Eberhart and Senbet 1993; and Gertner and Scharfstein 1991). In the ex-post sense it may not be optimal to strictly follow the absolute

¹⁶ See Altman and Hotchkiss (2006, p. 224) for more details on management compensation in U.S. bankruptcy proceedings and Gilson et al. (2000) for evidence on how a manager may respond to various compensation packages.

¹⁷ Existing managers may have a hard time adjusting to the new role. Filtering failure may occur, in which the manager may file for reorganization even though the first optimal decision would be to liquidate. In the framework of asymmetric information, White (1994) shows that filtering failure may become more pronounced if the majority of corporations in bankruptcy are ripe for liquidation.

¹⁸ To prevent bankruptcy and repay debt, the manager can also sell off profitable parts of a business even though fire sales at depressed prices may result in huge losses.

priority rule, in which first creditors are fully repaid and shareholders receive the rest only at the end.

Acharya et al. (2008) point to the consequence of the tradeoff between debtor-friendly versus creditor-friendly bankruptcy law. Debtor-friendly bankruptcy law leads to excessive continuation, whereas creditor-friendly bankruptcy law leads to excessive liquidation. Firms anticipate the type of inefficiencies (of liquidation/continuation) associated with creditor-friendly or debtor-friendly bankruptcy law and respond by changing their leverage. In particular, if the liquidation value of a firm is high, the costs stemming from excessive liquidation are rather small.¹⁹ Consequently, firms operating under creditor-friendly bankruptcy law have similar leverage to the ones under debtor-friendly bankruptcy law. However, if the liquidation value of a firm is small, the costs stemming from excessive liquidation are high. Firms respond by decreasing their leverage, especially in economies with creditor-friendly bankruptcy laws. Acharya et al. (2004) show that the difference in leverage of firms under creditor-friendly and debtor-friendly bankruptcy law increases with the liquidation value of the firm.

An additional question is whether the absolute priority rule between creditors with different seniority should be respected. Winton (1995) argues that giving seniority to one creditor lowers the duplication cost of monitoring by several creditors. However, Cornelli and Felli (1997) show that sometimes a carefully designed deviation from the absolute priority rule induces creditors to increase monitoring of the firm in bankruptcy. Hackbarth et al. (2007) argue that renegotiation of bank debt lowers bank debt capacity. They show that bank debt is higher under strict bankruptcy laws that abide by the absolute priority rule than under weak bankruptcy laws. Baird and Bernstein (2006) stress that deviation from the absolute priority rule mainly occurs due to the uncertainty of the asset value of the failed corporation.

Berkovitch and Israel (1999) argue that bankruptcy law should constrain the debtor's strategic use of private information and at the same time allow creditors to use their private information obtained in the lending process. In their view, a developed bank-oriented economy like the German economy demands a creditor-friendly bankruptcy law, whereas a market-based economy such as the U.S. economy requires simultaneous creditor- and debtor-friendly chapters.²⁰

Ayotte and Yun (2009) show that debtor-friendly bankruptcy law requires strong judicial expertise. High expertise and sufficient training allows judges to identify viable firms and liquidate others. Debtor-friendly bankruptcy law then minimizes excessive liquidation of creditor-friendly bankruptcy law. However, in the absence of judicial expertise and in an environment with weak enforcement rights, creditor-friendly bankruptcy law works better. Their prediction is that countries with

¹⁹ Two proxies for liquidation value are used: (i) firm's assets specificity, and (ii) the ratio of intangible assets on the balance sheet.

²⁰ In an underdeveloped system, creditor- and debtor-friendly chapters of bankruptcy law should coexist as well, but debtors should be given even more power in bankruptcy.

Table 2.1 Objectives of corporate bankruptcy law

Mitigate coordination problems
1. Race to collect debt
1.1 Pressure corporations to exert effort
1.2 Pressure corporations to take moderate risks
1.3 Pressure corporations not to default strategically
2. Holdout problem
3. Facilitate renegotiation of debt (automatic stay, structured renegotiation)
4. Optimal trigger for bankruptcy
4.1 Creditors could trigger bankruptcy to protect themselves
4.2 Debtor could also trigger bankruptcy for his own protection in the case of insolvency and/or illiquidity of the firm
Ex-ante optimal: Maximize the value of a healthy firm
1 Creditor-friendly bankruptcy law (honoring absolute priority rule)
1.1 Prevents strategic defaults
1.2 Optimal debtor effort
1.3 Optimal debtor risk-taking
1.4 Optimal control of creditors
1.5 Incapable manager is fired
Ex-post optimal: Minimize the costs of bankruptcy and allow optimal asset utilization
1 Debtor-friendly bankruptcy law (deviation from absolute priority rule)
1.1 Improves optimal timing of bankruptcy
1.2 Prevents gambling for resurrection
1.3 Prevents concealing bad information
1.4 Prevents fire sales
1.5 Current manager has firm-specific knowledge
1.6 However, incapable manager/owners continue to be in charge

well-developed judicial systems and strong investor protection should employ debtor-friendly bankruptcy laws, whereas countries with weak judicial systems and weak investor protection should design creditor-friendly bankruptcy laws.²¹ Djankov et al. (2008) show that complicated bankruptcy procedures such as reorganization perform best in high-income countries, whereas liquidation and foreclosure work best in higher middle-income and lower middle-income countries.

Table 2.1 summarizes the main objectives of corporate bankruptcy law. The prime objective of bankruptcy law is to limit coordination problems between multiple creditors. Bankruptcy law prescribes a structured manner of debt repayment and its renegotiation, with the aim of mitigating the race by creditors to collect their debt and holdout problems. The main objective of bankruptcy law from the ex-ante point of view is to maximize the value of a solvent firm. A creditor-friendly bankruptcy law improves the incentives of debtors: it prevents strategic default, excessive risk-taking, and insufficient effort of the debtor. In addition, creditors

²¹ Claessens and Klapper (2005) provide evidence that creditor rights and judicial efficiencies act as substitutes. Higher creditor rights (except for an automatic stay) increase the number of bankruptcy procedures.

monitor the debtor more intensely. This lowers the cost and increases the availability of debt financing. However, from the ex-post point of view, the debtor-friendly bankruptcy law may be more efficient. Bankruptcy law in the ex-post sense should minimize the cost of bankruptcy and at the same time lead to optimal asset utilization. Debtor-friendly bankruptcy law induces prompt initiation of bankruptcy procedures because debtors have fewer incentives to conceal bad information or to engage in gamble-for-resurrection type of behavior. Debtors also exert higher effort in restructuring and take appropriate levels of risk in bankruptcy. The existing manager may also be the only one capable of successfully restructuring the firm due to his firm-specific knowledge. Successful restructuring can also prevent the loss of value due to the fire-sale effect. However, debtor-friendly bankruptcy law may allow an inefficient manager and owners to keep control over the firm.

2.4 Corporate Bankruptcy Law: Key Features and Implementation

In short, bankruptcy law aims to address coordination problems of creditors that would trigger liquidation of a corporation worth more as a going concern. Bankruptcy law also has several other, sometimes conflicting, objectives. In the ex-ante sense (i.e., before bankruptcy), bankruptcy law aims to give proper incentives to creditors, firms, and managers. Creditor-friendly bankruptcy law seems to satisfy this objective. In the ex-post sense (i.e., after bankruptcy or at the point of bankruptcy), however, debtor-friendly bankruptcy law can lead to more efficient restructuring and utilization of assets of failing firms.

U.S. corporate bankruptcy law contains two chapters: Chapter 7 allows for liquidation and Chapter 11 for reorganization. Although still characterized as debtor-friendly, in recent decades U.S. corporate bankruptcy law has moved towards becoming more creditor-friendly. Creditors use debtor-in-possession (DIP) financing to gain control in reorganizations under Chapter 11. Asset sales are also becoming a more common method even under reorganization under Chapter 11 (see Appendix for further details). Bankruptcy law aims to contain systemic risk through netting in the case of bank contracts and closeout netting in the case of derivative contracts (see Sections 5.3 and 5.4).

In the Appendix we also propose some changes to U.S. corporate bankruptcy law. First, in times of economic crisis, the terms of DIP financing may be made more generous to spur reorganizations and prevent fire sales. Second, the shift of control to creditors should be enhanced, especially for large corporations. Third, systemic consequences of netting and closeout netting need to be reevaluated and appropriately mediated either by removing it completely or through imposing additional regulatory scrutiny. A firm may be given an option between (1) closeout without netting and (2) closeout and netting but tougher regulatory standards.

We have built a framework for why bankruptcy law is needed in general. The still unanswered question is why banks are special and whether this creates the need for special bank bankruptcy legislation.

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2012, XIII, 158 p., Hardcover

ISBN: 978-3-642-21806-4