

# **The Institutional Economics of U.S. Bankruptcy Law**

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## **Abstract**

In market economies, firms may fail when they incur financial liabilities that exceed their assets or where debt service exceeds the available cash flow. In such situations, firms may be faced with the decision to declare bankruptcy in a legal setting. Bankruptcy laws generally provide two pathways including a liquidation or firm shut down path and a reorganization pathway which results in a firm that is restructured with less debt. Some firms are simply financially distressed and a reorganization path allows them to restructure debt and continue operations. Other firms are economically distressed and their assets are put to better alternative uses and liquidation is more appropriate. Bankruptcy law can be conceived of as a filtering process that ensures that financially distressed firms enter into reorganization while economically distressed firms some firms enter into the reorganization process. The problem is that neither policy makers nor creditors can exactly determine which firms are economically distressed and which firms are financially distressed as they often have similar characteristics. Therefore, policymakers face a tradeoff in deciding to error on the side of high or low entry barriers to reorganization. In this paper, the U.S. Bankruptcy laws were examined and the focus was on the reorganization law known as chapter 11. A model was developed to demonstrate that policy makers face a tradeoff in policy development between creating a system that allows easy entry into the bankruptcy reorganization process and one that creates high entry barriers into the process. This process was conceptualized relative to the statistical tradeoff involved in type 1 versus type 2 errors. This tradeoff implies that in the case of high entry barriers too few firms will be unable to file for reorganization and be liquidated prematurely (type 1 error) and that low entry barriers will allow too many firms to enter reorganization process instead of being liquidated initially via the Chapter 7 process. Empirical results were derived from over 800 Chapter 11 U.S bankruptcy in the early 2000's. The findings indicate that in fact too many firms may be entering the bankruptcy reorganization process given the high level of unsuccessful reorganization cases. This high rate of unsuccessful cases can be conceived of as indicator policymakers leaning towards making allowances for Type II errors.

## **I. Introduction**

Individuals and Firms (entities), as debtors, and their creditors engage in financial transactions so that the firm may operate and run a business. This transaction occurs within an institutional framework that helps determine the type and nature of those financial transactions. In some cases, entities are unable to repay the amount owed to their creditors. Part of the institutional structure when the initial transaction occurs is the potential consequences of a repayment failure. When firms and individuals fail financially, a process must occur to sort out the payout to those owed money. The process through which this occurs has varied over time and across countries. The rule of the game, the institutional structure that underlies insolvency, is an important economic variable that determines broader concepts of wealth creation and distribution across a country.

Part of the institutional makeup of commercial financial transactions is the bankruptcy route. Not all firms or individuals who are insolvent or unable to make a payment to a creditor go through the official bankruptcy process. In fact, far more common is the use of so-called private workouts where the debtors and creditors meet and make arrangements for an alteration of the existing contracts. In these private workouts, the problem of insolvency is solved by the parties themselves. However, it should be recognized that even in these private workouts, there is an underlying institutional structure that is shaping the nature and dynamics of these arrangements. Nevertheless, bankruptcy remains an important part of the commercial law makeup of a country.

Traditionally, scholars of law and economics have taken an approach that general bankruptcy policy must be in response to a market failure. This market failure is described as a common pool problem (Baird and Jackson, 1985)<sup>1</sup>. Law professors and Economists have traditionally defined the role of bankruptcy law in relationship to this common pool

problem. The general notion is that a group of creditors of a firm or individual will all seek to be the first paid when they realize that there are not enough resources available to pay everyone what they are owed. In essence, there will be a race to be paid first. This race is likely to destroy the debtor and whatever assets it does have. The firm would have been worth more in this model had it been left together and a more orderly process of liquidation or reorganization allowed to occur. This market failure is the result of transactions costs due to the fact that creditors do not communicate with each other or work together. The basic premise is that a legal or government-led policy is needed to avoid this market failure in the form of a common pool problem. However, this common pool problem only helps explain the existence of bankruptcy law; it does not necessarily provide insights into the actions or behavior of the agents in the bankruptcy process.

Bankruptcy policy is clearly an important example of an institutional structure existing within a broader framework of commerce and contract law within a nation. The structure and operation of bankruptcy policy can have a major impact on the production and distribution of wealth within a country and the types of financial decisions made by individuals and firms. The understanding of the mechanics and performance of bankruptcy law is crucial as policy makers assess the tradeoffs they face in shaping the market dynamics of a country. This paper seeks to understand that institutional structure in the United States and its performance relative to entities in the process. First, a general overview of US bankruptcy law will be provided. Second, the economic analysis of bankruptcy law, particularly from the neoclassical “law and economics” perspective, will be examined. Third, an economic analysis from an “institutional law and economics” perspective will be proposed. Finally, some preliminary empirical results examining US bankruptcy law from an institutional law and economics perspective will be examined and interpreted.

## II. A General Overview of United States Bankruptcy Law

The United States Bankruptcy Code, enacted in 1978, has two chapters applicable to domestic business entities: chapter 7 and chapter 11. Chapter 7 is known as the liquidation chapter. In a chapter 7 case, a chapter 7 trustee is appointed. The chapter 7 trustee liquidates the firm's assets, distributing the proceeds of unencumbered assets first to priority unsecured creditors in the order provided for by the Bankruptcy Code<sup>2</sup> and then if assets remain *pro rata* amongst the general unsecured creditors.

Chapter 11 is known as the business reorganization chapter of the Bankruptcy Code. This common shorthand is somewhat misleading, however. First, a firm may liquidate in chapter 11.<sup>3</sup> Second, individuals, not only business entities, may reorganize under chapter 11.<sup>4</sup> In fact, approximately 1 in 5 debtors (22%) in the 2004 random sample described below in Section \_3\_ were individual filers.

A chapter 11 case normally starts with the filing of a voluntary petition by the debtor. Upon filing, a bankruptcy estate is created and the automatic stay applies, stopping most collection activities against the debtor. As a general rule, a trustee is not appointed in chapter 11. Instead, the debtor in possession ("DIP") performs the trustee's functions.<sup>5</sup> In addition, the United States Trustee monitors the progress of chapter 11 cases, provides comments on proposed plans and disclosure statements, files motions to dismiss or convert cases that are not doing well in chapter 11, and performs a number of duties in small business cases.<sup>6</sup> The United States Trustee Program<sup>7</sup> operates in 88 of the 94 U.S.

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<sup>2</sup> Section 507 of the Bankruptcy Code provides for ten classes of priority unsecured creditors, including domestic support obligations, employee wages, taxes, and personal injury claims resulting from operating a car while under the influence of alcohol or drugs. The priority claimants are paid in a strict hierarchy, as opposed to *pro rata* across all classes of priority claims. Thus, domestic support obligations are paid in full before employee claims and employee claims are paid in full before tax claims.

<sup>3</sup> See 11 U.S.C. §1123(b)(4) (stating that a plan may "provide for the sale of all or substantially all of the property of the estate").

<sup>4</sup> See *Toibb v. Radloff*, 501 U.S. 157, 166 (1991) (holding that the Code's "plain language . . . permits individual debtors not engaged in business to file for relief under Chapter 11").

<sup>5</sup> See 11 U.S.C. §1107(a) (stating that, with certain exceptions, the debtor in possession has the rights and duties of a trustee).

<sup>6</sup> See 28 U.S.C. §586(a)(3)(B), (E), (G) & (H) (enumerating various duties); 28 U.S.C. §586(a)(7) (listing various duties in small business cases).

judicial districts; it does not operate in the six judicial districts in Alabama and North Carolina. Instead, a Bankruptcy Administrator oversees chapter 11 cases in those six districts.<sup>8</sup>

Another entity with oversight responsibility in chapter 11 cases is the official unsecured creditors' committee. The Bankruptcy Code provides that the committee should consist of those unsecured creditors with the seven largest claims in the case.<sup>9</sup> The committee may hire attorneys, accountants, or other persons to assist it with its work.<sup>10</sup> In reality, however, official creditors' committees form in very few chapter 11 cases. In an 801-case random sample drawn from the 2004 population of chapter 11 cases, official creditors' committees formed in only 146, or 18%, of the cases.<sup>11</sup>

After filing, the DIP's goal is to propose and obtain confirmation of a plan. While any party in interest may file a plan, the DIP has the exclusive right to do so for 120 days (or 180 days in a small business case) from the start of the case.<sup>12</sup> Bankruptcy courts, however, routinely extend the exclusivity period for DIPs, although the Code now requires that a plan be filed within 300 days of the order for relief in a small business case.<sup>13</sup>

Plans divide creditors into classes for purposes of voting and distribution. Typically, each secured creditor is placed in its own class. The general unsecured creditors often are grouped into a single class and, thus, vote as a group to accept or reject the plan.<sup>14</sup> Plan

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<sup>7</sup> The United States Trustee Program operates within the U.S. Department of Justice. *See* [http://www.justice.gov/ust/eo/ust\\_org/index.htm](http://www.justice.gov/ust/eo/ust_org/index.htm)

<sup>8</sup> *See* <http://www.uscourts.gov/FederalCourts/Bankruptcy/BankruptcyAdministrators.aspx>

<sup>9</sup> *See* 11 U.S.C. §1102(b)(1).

<sup>10</sup> *See* 11 U.S.C. §1103.

<sup>11</sup> *See* Anne Lawton, *Chapter 11 Triage: Diagnosing A Debtor's Prospects for Success*, 54 ARIZ. L. REV. 985, 1006-08 (2012). [hereinafter *Chapter 11 Triage*]. Since publication of *Chapter 11 Triage*, three more cases from the 2004 sample reached disposition. As a result, the random sample size is now 801, not 798, cases, as reported in the Article. In addition, one of those three cases had a committee.

<sup>12</sup> *See* 11 U.S.C §1121(b) (120 days) and 11 U.S.C. §1121(e) (180 days for small businesses).

<sup>13</sup> *See* 11 U.S.C. §1121(e)(2).

<sup>14</sup> It is not uncommon for plans to divide unsecured creditors into one class of administrative convenience claims and another class of the remaining unsecured creditors. Administrative convenience claims normally are those with smaller dollar values and may be paid in cash on the plan's effective date or shortly thereafter. Plans often give all unsecured creditors the option of reducing their claims to the claim ceiling for administrative convenience creditors. For example, suppose DIP's plan creates an administrative convenience class consisting of claims of \$1,000 or less. DIP's plan states that the class of administrative convenience creditors will receive 100% of the face amount of their claims in cash on the

proponents hope to confirm a “consent” plan, meaning that all creditor classes entitled to vote on the plan vote to accept it. Each creditor in the class does not have to vote “yes” in order to be bound by the terms of the plan. The Code provides that a class votes to accept the plan if two-thirds in amount and more than half in number of the voting claimants in the class cast votes in favor of the plan.<sup>15</sup> For example, if the class of general unsecured creditors contains 12 creditors, each with claims of \$1,000, then the class votes to accept the plan if 10 creditors cast votes and 7 of those 10 vote “yes.” If only 6 of the 10 vote “yes,” then the class has not voted to accept the plan; while the “more-than-half in- number” requirement is satisfied, only 60%, not two-thirds, of the amount of voting claims voted to accept.

A DIP or plan proponent may seek to cramdown the plan if it is unable to obtain confirmation of a consent plan. It is in the Code’s cramdown provisions that the absolute priority rule comes into play. The Code’s absolute priority rule provides that with regard to a class of unsecured creditors that votes to reject the plan confirmation is possible only if the plan gives nothing to junior claimants, e.g., equity security holders, if unsecured creditors receive less than payment in full under the plan’s terms.<sup>16</sup> A judicially created “new value” exception exists to the absolute priority rule, but the Supreme Court has made clear that “new value” must be money or money’s worth, not sweat equity.<sup>17</sup>

In 2005, Congress enacted the Bankruptcy Abuse Prevention and Consumer Protection Act (“BAPCPA”), which made fundamental changes to certain portions of the 1978 Code. While the media focused on the changes to the consumer portions of the Code, specifically chapter 7, BAPCPA also created important new small business provisions in chapter 11. The impetus behind the small business amendments was concern about how poorly small

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plan’s effective date, while the class of other general unsecured creditors will receive 60% of their claims, without interest, over a five-year time frame. DIP’s plan then provides that creditors with claims in excess of \$1,000 may elect to reduce their claims to \$1000 and be treated as administrative convenience class creditors. A creditor with a \$2000 claim, then, would receive \$1000 in cash on the plan’s effective date, if the creditor made such an election, and would not be entitled to any further recovery.

<sup>15</sup> See 11 U.S.C. §1126(c).

<sup>16</sup> See 11 U.S.C. §1129(b)(2)(B).

<sup>17</sup> See *Norwest Bank Worthington v. Ahlers*, 485 U.S. 197, 204-07 (1988).

businesses performed in chapter 11.<sup>18</sup> Relying on the 1997 report of the National Bankruptcy Review Commission (“Commission”), Congress mandated plan proposal and plan confirmation deadlines for entities that qualified as small business debtors. One goal underlying reform was to reduce the time spent in chapter 11 for small business debtors with no realistic possibility of reorganizing.<sup>19</sup>

The Code’s definition of what constitutes a small business debtor is needlessly complex. In addition, it is plagued by both drafting errors and nonsensical exclusions.<sup>20</sup> But, two elements of the definition – liability size and official creditor committee formation – strongly predict plan confirmation rates.<sup>21</sup> Therefore, in this Article, we use only these two elements of the Code’s small business definition to categorize small vs. non-small debtors.

This paper focuses on using a data set to understand the economic outcomes of bankruptcy policy in the United States in the period of the early 2000’s. In particular, we focus on a set of cases from across the United States of entities that entered the Chapter 11 or reorganization path of bankruptcy. In order to interpret these results, we first provide a review of the existing literature and propose a conceptual framework for understanding the relationship between the institutional structure and economic performance of entities that enter the Chapter 11 bankruptcy process. This understanding will allow us to propose further model refinements and propose future research that is needed to understand the institutional dynamics of bankruptcy policy in the United States and other countries.

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<sup>18</sup> See Anne Lawton, *An Argument for Simplifying the Code’s ‘Small Business Debtor Definition,’* 21 AM. BANKR. L. REV. 55, 60-61 (2013) [hereinafter *Simple Definition*].

<sup>19</sup> See NATIONAL BANKRUPTCY REVIEW COMMISSION, BANKRUPTCY: THE NEXT TWENTY YEARS 609 (1997) [hereinafter Commission Report].

<sup>20</sup> See *Simple Definition*, *supra* note 18, at 72-83, 89-90 (discussing the real property exclusion, and Congress’s failure to exclude from the definition of small business any case in which an official committee formed regardless of whether the U.S. Trustee appointed the committee).

<sup>21</sup> See generally *Chapter 11 Triage*, *supra* note 11.

### **III. The Law and Economics of US Bankruptcy Law: A Literature Review**

Scholars in law and economics have examined US bankruptcy law using the tools of neoclassical economics. This review will examine a number of theoretical articles and studies of the empirical costs of the bankruptcy process. In general, this literature focuses on the reorganization process governed by Ch. 11 in the United States Bankruptcy Code. This review is intended to summarize the findings of the previous literature and points towards a model that allows us to understand the potential hypotheses that we will propose in this paper and analysis.

#### **a. The Existence of Bankruptcy Law**

Early scholars of law and economics took the approach that bankruptcy law should be understood as a response to a market failure in credit markets. In particular, the market failure in question was described as a “common pool” problem (Baird and Jackson, 1985)<sup>22</sup> and the role of bankruptcy law was defined in relationship to this common pool problem. The general notion was that a group of creditors of a firm (or individual) will all seek to be the first paid when they realize that there are not enough resources available to pay all creditors the full amount that they are owed. In essence, when doubt about the firm’s liquidity arises among creditors, there will be a race to be paid first, with each creditor demanding to be paid in full. This race to enforce creditors’ claims is likely to destroy the debtor by reducing whatever assets the firm does have in a destructive process that will increase the likelihood that the firm will enter bankruptcy as creditor claims exhaust the firm’s liquid assets. In essence, the firm would have been viable in this model had it been left whole, with a greater chance of survival, if a more orderly process of liquidation or reorganization had been permitted to occur. This market failure is the result of transaction costs faced by creditors and due to the fact that creditors do not communicate to each other or work together (or are unlikely to do so due to the high cost of negotiating and

monitoring agreements among themselves). The basic premise is that a legal or government-led policy is needed to avoid this market failure created by the combination of this common pool and high transaction cost problems. However, though this combined common pool/transaction cost problem explains the existence of bankruptcy law, it does not necessarily provide insights into the actions or behavior of the agents in the bankruptcy process.

#### b. The Law and Economics of Bankruptcy: A Neoclassical View

White (1992, 1994a, 1994b)<sup>23</sup> provided one of the first expositions of the role of bankruptcy as a filtering device. The general notion is that there are different types of firms that fail. There are economically inefficient firms, which are drawing resources from the economy, and should be shut down to improve overall economic welfare by improving the allocation of resources in the economy (i.e., reallocating resources from the bankrupt firm to a higher valued use in another firm). An economically efficient, but financially failing firm on the other hand, should be restructured so as to retain that portion of the firm that contributes to overall economic welfare. This type of firm means that the firm has temporarily been put under-water or financial pressure because of a temporary debt overload (i.e., excess of debt over assets). This situation can be resolved via restructuring, as the firm continues to produce a product where its economic value (price) exceeds the cost to produce the good. This perspective is drawn from a neoclassical, essentially institutional-free, type analysis.

White (1983)<sup>24</sup> was also the first scholar to draw economic distinctions regarding the costs of the bankruptcy process. She defines bankruptcy costs as “the deadweight economic costs of firms going bankrupt” (White 1983, pg. 477) and that these costs include “ex post bankruptcy costs incurred after a firm’s bankruptcy filing, such as transaction costs

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<sup>23</sup> White, Michelle. “Corporate Bankruptcy as a Filtering Device”. Center for Research on Economic and Social Theory, University of Michigan, March 29, 1992 Number 92-09. White, Michelle. Corporate Bankruptcy as a Filtering Device: Chapter 11 Reorganization and Out-of-Court Debt Restructurings”, *Journal of Law, Economics and Organization*, Vol. 10, No. 2 (Oct, 1994). White, Michelle. “Does Chapter 11 Save Economically Inefficient”, *Washington University Law Review* Vol 72, No. 3.

<sup>24</sup> White, Michelle. “Bankruptcy Costs and the new Bankruptcy Code”. *The Journal of Finance*, Vol. 38, No. 2 (1983).

[involved in the bankruptcy process], and ex ante bankruptcy costs incurred before the filing, such as those resulting from a creditor's attempts to reduce their losses" (White, 1983, pg. 477). Ultimately, she argues that the 1978 bankruptcy reforms, in particular that aspect which made it harder for firms to enter into the reorganization process, decreased bankruptcy costs and improved economic efficiency. In her model, management is assumed to represent equity owners, in a perfect manner, and management's objective function is defined to be maximization of the value of equity. Management has three options of liquidation, continuation and reorganization. A problem arises, according to White's analysis, when management chooses a decision that maximizes equity value while not maximizing overall economic efficiency (i.e., when management attempts to keep an economically inefficient firm in operation). White simulation modeling suggests that indeed the 1978 reforms did reduce the economic inefficiency of the bankruptcy process.

White (1992 and 1994) also examined bankruptcy law as a filtering device. She framed her initial analysis with the notion of Type I and Type II errors. In her analysis, a Type I error would occur in the bankruptcy process if an economically inefficient firm was allowed to continue (i.e., a firm that was drawing more resources away from the economy than it was adding to the economy). A Type II error would occur when an economically efficient firm was liquidated. Moreover, in her 1992 analysis, asymmetric information exists since corporate managers are assumed to know if firms are economically efficient or not, while creditors do not know or can only imperfectly assess such a proposition. The information problem arises because creditors cannot tell whether the firm is a truly declining earnings (economically inefficient) firm or if in fact it is in a temporary downturn period and will recover. White uses a game theoretic model to assess the filtering potential of Ch. 7 and Ch. 11 bankruptcy. In her analysis, policy makers were attempting to reduce Type II errors by introducing a Ch. 11 form of corporate reorganization. This allows firms that are economically efficient to avoid being liquidated. In doing so, however, policy makers increased the risk that Type II errors (i.e., the number of economically inefficient firms surviving the bankruptcy process through reorganization was increased). Her simulation results indicate that bankruptcy policy, especially introducing a Ch. 11 form of

reorganization is likely to result in economically inefficient outcomes as declining earnings firms are allowed to survive too long and tie up economic resources.

Finally, White (2011)<sup>25</sup> summarized the state of knowledge regarding the law and economics of bankruptcy. Her initial analysis reveals that certain conditions, such as uncertainty surrounding a firm's earning potential, means that more firms are likely to enter reorganization rather than liquidation and result in an inefficient outcome. She also notes that introducing a Ch. 11 reorganization has a mixed effect with regards to economic efficiency. This result arises because managers may have less incentive to invest in risky ventures in the face of a reorganization option and reduce some of the economic inefficiency in that case. She also addresses the fact that the reality of bankruptcy and bankruptcy options may induce strategic default in some cases that are unnecessary. Finally, she concludes that some research suggests that the existence of bankruptcy laws, particularly the reorganization option, implies that creditors will be less likely to lend if they believe that they will have less protection in the bankruptcy process of Chapter 11. In this case, fewer investment projects will be funded and there will be loss of economic efficiency.

### c. Empirical Studies of the Cost and Impact of Bankruptcy Law

Franks and Torous (1989, 1994)<sup>29</sup> provided two empirical studies comparing the cost of the formal reorganization for companies with the financial restructuring that can occur outside of the bankruptcy process. Their first paper looked at thirty firms following the 1978 reforms from the late 1980's. They base their analysis on the notion that ch.11 favors

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<sup>25</sup> White, Michelle. "Corporate and Personal Bankruptcy". No w17237 National Bureau of Economic Research.

<sup>29</sup> Franks, Julian R., and Walter N. Torous. "A comparison of financial restructuring in distressed exchanges and Chapter 11 reorganizations." *Journal of financial economics* 35.3 (1994): 349-370. Franks, Julian R., and Walter N. Torous. "An empirical investigation of US firms in reorganization." *The Journal of Finance* 44.3 (1989): 747-769.

management and debtors by allowing management to retain control of the firm and pay for the costs of bankruptcy out of the firm's revenues. They find in their sample substantial deviations from the idea of absolute priority. Their explanations for the deviations from absolute priority are (1) the recontracting process between firm creditors alters the priority of creditors, (2) the bargaining power of the debtor in Ch. 11, and (3) the bankruptcy proceeding uses market value rather (a higher) book value for in calculating the firm's liabilities. Ultimately, they do not provide a definitive answer as to why violations of APR are occurring.

Franks and Tourous also conducted an empirical analysis of 82 firms that entered the Ch.11 bankruptcy process between 1982 and 1988 and 76 firms that went through a financial recontracting process due to distress but outside of the formal bankruptcy process during that same time period. The research focused on the recovery rates for creditors and the violation of the absolute priority rule. Their findings indicate that the distressed firms paid out less to equity holders, while bankrupt firms paid out more and that recovery rates for the creditors of bankrupt firms is much lower than firms that proceeded without bankruptcy.

LoPucki and Whitford (1993)<sup>30</sup> were among the first authors to empirically measure the costs of the bankruptcy process. Their analysis was based on large firm bankruptcy and involved 43 companies with over \$100 million in assets in the late 1980's. They examined the measurement of "success" in the bankruptcy process. The success measures include: (1) confirmation of a reorganization plan, (2) entity survival, (3) business survival, (4) avoidance of repeat bankruptcy and (5) financial success including reduced debt and improved profitability. Their findings included (1) that confirmation rates are much higher than expected (96) (2) that of the 12 companies that survived the process (business

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<sup>30</sup> LoPucki, Lynn M., and William C. Whitford. "Corporate governance in the bankruptcy reorganization of large, publicly held companies." *University of Pennsylvania Law Review* (1993): 669-800.

survival), slightly less than had refiled for bankruptcy between 1989 and 1992. Some critics observed that bankruptcy laws result in firms leaving the process with too much debt. This could be considered a measure of financial success. The authors measured this using a benchmark ratio of debt to equity in the industry in which the firms operated. They find mixed evidence regarding the ability of the firms to address and improve profitability after bankruptcy and conclude that there is no definitive pattern in the empirical findings with empirical hypotheses being confirmed in some cases and not confirmed in others cases.

Ravid and Sundgren (1998)<sup>31</sup> undertook a comparative analysis of bankruptcy reorganization systems in the US and Finland. The Finnish system was seen as being very favorable to creditors while the US system was more generous to debtors. The study examined 72 Finnish firms from 1982 through 1992 and compared their liquidation rate as against similar firms during that time period in the US. They measured assets as the sum of payments to creditors plus all administrative costs of the process. Their analysis considered only economic variables in the decision to liquidate or restructure. The findings indicate the importance of firm characteristics in determining the rate of liquidation. Small firms and service firms were more likely to liquidate. In general, they also find that US creditors were more highly repaid as compared to Finnish creditors, possibly due to the nature of asset markets between the two countries. The authors conclude that the harsher treatment of management in the Finnish law leads managers to avoid bankruptcy for as long as possible leading to more highly distressed firms in the process.

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<sup>31</sup> Ravid, S. Abraham, and Stefan Sundgren. "The comparative efficiency of small-firm bankruptcies: A study of the US and Finnish bankruptcy codes." (1998).

Lawless et al. (1994)<sup>32</sup> investigated the direct cost of bankruptcy for small firms. They examine 57 small firm bankruptcies in 1991 and 1992 in the Memphis district. Their findings indicate that small firms' direct costs, as a percent of total firm assets, were much higher than for large firms. Small firm direct costs were 20% of firm assets in ch.11 cases and 60% of firm assets in Ch. 7 cases, compared to between 2-6% of those large firm Ch. 7 and Ch. 11 cases, respectively. The suggestion was that there is a scale effect involved in the bankruptcy process when comparing small and large firms and that economic analysis of bankruptcy law using only samples of only large firms may be biased in measuring bankruptcy law's effects.

Warren and Westbrook (1999)<sup>33</sup> attempted the first major empirical analysis of the bankruptcy involving hundreds of cases from across the country. Previous studies had often focused on a small geographic region or a specific type of firm due to the data collection constraints. They found a number of important propositions which were submitted to analytics and testing. The majority of firms in their sample were small firms and the authors question whether Ch. 11 is too expensive and cumbersome for these types of firms to use. The authors recommend that Congressional reforms should consider that small firm bankruptcy is the standard and big businesses would be the exception to the rule rather than the other way around. The results also suggest that firms do not underestimate their balance sheet and in fact more than 1 in three firms estimate that they are balance sheet solvent at the time of bankruptcy. Finally, they note that given the high number of small firms entering bankruptcy, business bankruptcy could often be used to resolve the personal financial problems of small business owners rather than for pure "business" reasons.

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<sup>32</sup> Lawless, Robert M., et al. "Glimpse at Professional Fees and Other Direct Costs in Small Firm Bankruptcies, A." *U. Ill. L. Rev.* (1994): 847.

<sup>33</sup> Warren, Elizabeth, and Jay Lawrence Westbrook. "Financial characteristics of businesses in bankruptcy." *Am. Bankr. LJ* 73 (1999): 499.

Lubben (2000)<sup>34</sup> also investigated the direct costs of the bankruptcy process for 22 large firms filing bankruptcy in 1994. With a focus on direct costs, Lubben (2000) is primarily focused on what White would term “ex-post costs” such as the judicially approved fees and expenses of the debtor. The average cost of these bankruptcies was about \$1.2 million as compared the average asset of \$140 million for the sample. Thus a simple calculation finds that direct bankruptcy costs are less than 1 percent of the average total assets of these firms. The main conclusion is that restructuring is not an expensive process, at least in terms of measureable direct costs, as often claimed by critics of bankruptcy law and that it is less expensive compared to other corporate transactions.

Bris et al. (2006)<sup>35</sup> provide a more recent framework for examining the costs of using Ch. 7 versus Ch. 11 for firms in the United States. They examine 300 corporate bankruptcies from 1995 through 2001 in the Arizona and New York federal districts. The authors examine the costs of bankruptcy, change in the estate’s value during the process, time spent in bankruptcy and expenses submitted to and approved by the court. These measures are intended to measure the direct and indirect costs of the two processes. The findings indicate that after applying statistical controls, the Ch. 11 process is not more expensive than the Ch. 7 process and in fact most of the firms post process estate value in Ch. 7 accrues to bankruptcy professionals. Specifically, they find that unsecured creditors receive almost zero value in Ch. 7 and receive approximately 52 percent of their claims in Ch. 11. They also find that absolute priority rule is followed in about 89 percent of the cases. These findings point to more evidence being accumulated that challenges the traditional law and economics literature as developed in theoretical articles in the 1980’s

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<sup>34</sup> Lubben, Stephen J. "Direct Costs of Corporate Reorganization: An Empirical Examination of Professional Fees in Large Chapter 11 Cases, The." *Am. Bankr. LJ* 74 (2000): 509.

<sup>35</sup> Bris, Arturo, Ivo Welch, and Ning Zhu. "The costs of bankruptcy: Chapter 7 liquidation versus Chapter 11 reorganization." *The Journal of Finance* 61.3 (2006): 1253-1303.

and 1990's that bankruptcy reorganization or Ch. 11 was an inferior and economically inefficient process as compared to Ch. 7.

#### **IV. Proposed Conceptual Framework**

This section describes the conceptual framework that we are developing to analyze the institutional economics of US bankruptcy law. As explained earlier, this framework focuses on that part of bankruptcy law that is associated with reorganization although the liquidation process will serve as a backdrop in the model. While this analysis will follow closely the White model of filtering failure as described in the literature review, this analysis will alter the White analysis in some fundamental ways. In the future we intend to derive several new aspects of the model from White's derivation and those will be described in the final section of the paper.

##### **a. An Institutional Economics Analysis of US Bankruptcy Law: The SSP Framework**

The definition of institution has varied greatly across time and authors. Institutional economics recognizes the legal foundations of economy as “the rules of [economic] game” (North). For North, institutions were variously defined as “a set of rules, compliance, procedures and moral and ethical norms designed to constrain the behavior of individuals”. Commons (1934) earlier defined institutions as “collective action in control of individual behavior.” Such collective action defines what actors in the economy may do, must do, and must not do when engaging in economic transactions. More specifically, according to Schmid, these rules define the “sets of ordered relationships among people that define their rights, exposure to the rights of others, their privileges and [duties]’ that govern actors as they engage in economic transactions (Schmid, p. 6) As such institutions can be either formal (including legal) or informal institutions “more than the rules of the game providing constraints. They also affect beliefs and preferences and provide cues to uncalculated action.” (Schmid, 2003, pg. 7)<sup>43</sup>

While there is a debate in the literature, as noted by Rutherford in “Institutions in Economics” as to the role of the rational economic person versus the sociological or rule following person, Schmid's definition of institution hints at the dual role of institutions as external constraints and institutions as shapers of preference and endogenous to the

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<sup>43</sup> Supra, note 32

situation. The rational economic agent takes into account rules simply as a cost of operating and decides whether in fact to follow rules in some cases. This type of literature can be seen in the case of the rational economic agent as criminal who decides where and to what degree to break the law in pursuit of economic gains. Others have declared, using the pure theory of neoclassical microeconomics, that an institution is but a “self-sustaining system of shared beliefs about how the game is played.” This model presumes that institutions are endogenous and that there are no institutions external to agents themselves. This type of analysis is clearly in opposition to the original and even much of the new institutional economics literature where institutions are external to agents and act as constraints on behavior or act to shift preferences of agents.

For our purposes, institutions are considered to be external to agents and derived as a part of the constitutional and legislative process of the United States. While there is no doubt that bankruptcy lawyers and even corporate lobbying plays an important role in shaping the rules as they are written and amended, for any given case, these rules are a given. What is not a given is their implementation. Rules act to constrain behavior, but the question is how are the rules enforced in a given case. As noted by Commons, in any economic transaction a representative (judicial or otherwise) ”<sup>44</sup>. In this book, he states that besides the interdependence of the two parties in an economic transaction, there are at least two other parties to that transaction. In this case, the two parties may be interdependent in the sense that one party, for example a judicial official, may need to enact an order to have another government official, perhaps law enforcement, carry out an order. This is the recognition that a law may exist on the books “law in theory” but has no real constraining power because it is not enforced by officials or as the “law in action”.

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<sup>44</sup> Commons, John Rogers. *Legal foundations of capitalism*. Vol. 31. Transaction Publishers, 1924.

- y To analyze the impact of institutions on economic performance, Schmid developed the Situation\_Structure-Performance paradigm in which economic performance (P) is the dependent variable that depends upon the variables defining the type of good (Situation) and the institutional structure (S) governing transactions for that good.<sup>45</sup> More precisely, the Situation is defined as the physical characteristics of goods or services (situations, conditions, or things of value) that create unavoidable human interdependence. Because the Situation describes the physical nature of the goods or services at hand, the physical characteristics of the good cannot be changed by a legal (judicial or legislative) decision. This human interrelationship can take many forms (e.g, nonexcludable good, incompatible use good, a good with high information costs, or goods with economics of scale or zero marginal cost).
  
- y In the SSP paradigm described earlier, the second “S” represents the institutional Structure (formal or informal, legal or otherwise) that defines the Institutions that determine relative rights and duties of the parties that are engaged in economics transactions involving the good in question. Thus, Structure can be conceived of as the institutional setup or the rules of the game through which agents operate. These agents may be organizations such as corporations or non-profit agencies and they would be individuals acting as employees, consumers and voters.

Economic performance (P) is the dependent variable in the SSP framework. Thus, the economic performance consequences for any given transaction are dependent upon (a) the good or service involved in the transaction (the Situation) and the institutions that govern the transactions involving the good in question (the Structure). This economic performance in a distributional measure or set of measures – prices, costs, incomes, quantities,

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<sup>45</sup> Schmid, A. Allan. *Conflict and cooperation: institutional and behavioral economics*. John Wiley & Sons, 2008.

etc. – of those parties who are affected by interdependence. As such, the performance focuses upon the measurement of “who gets what” given the type of good at hand and the institutional alternative at hand.

#### b. Applying the SSP Framework to U.S. Bankruptcy Law

In using the SSP framework to analyze the institutions of US bankruptcy law, The analysis begins with the identification of the Situation (S), or the type of good (situation, condition or thing) at hand. In the case of bankruptcy law, Financial transactions occur between debtors (firms or entities) and creditors (banks, etc.) to facilitate the ongoing business operations of the debtor. This transaction is based on the collective assets of the firm or entity. On the one hand, the the debtor is seeking to use the assets for the continuation of business operations (use 1), while on the other hand the creditor is seeking to use the assets (via liquidation or their own business operations) to provide security against financial losses (use 2). Whenever a good has “two or more ... uses or users that are incompatible,” the good has the physical characteristic of an incompatible use good (Schmid, 1978, p. 43). Because of the incompatibility between users, Thus, in bankruptcy law the the assets of the debtor are an incompatible use good in that if law permits their continued use by the debtor (to provide continued operation of the firm), then it impossible for the assets to be used to provide financial security for the creditor (and vice versa). This interdependence between the debtor and creditors, creates a conflict when the underlying assets and the use tow which they are being put fails to generate sufficient value to ensure full repayment as promised in the original transaction.

Given the Situation of the assets being an incompatible use good, the institutional Structure (S) will define the rights, privileges, exposure to the rights of others, and duties of the debtor and the creditors (Schmid, 6). A whole set of institutional rules are relevant to the analysis of bankruptcy law. First, debtors and creditors may engage in private negotiations to

determine the outcome of the situational conflict (i.e., division of assets, modification of the terms of the original transactions, etc.). Second, if private negotiations either fail to produce a fruitful result or do not occur at all, then the agents can seek to use the bankruptcy system as an alternative set of institutional rules to settle their dispute of the incompatible use of the assets. In a full model, the analyst would need to consider all of the decisions facing the debtor and creditor prior to the bankruptcy process. For our purposes, we are only examining the bankruptcy process itself and excluding other factors such as private resolution at this time.

Finally, the economic performance consequences (P) of bankruptcy law— such as the ability of the debtor to continue business operations or the ability of creditors to claim a share of the debtor's assets – is determined by the combination of type of good (an incompatible use good in which only one of the two uses can be fulfilled (Situation) and the institutions (Structure) that governs the bankruptcy resolution process.

The SSP model used in this analysis will modify and clarify the work of Michelle White (1992, 1994, 1997)<sup>48</sup>. As discussed in the literature review section, White envisions that bankruptcy policy as a tool for filtering between firms that should be liquidated and those that should not be liquidated. In her results, financially inefficient that are economically efficient should not be liquidated because these firms contribute to the overall welfare of society and are simply in temporary distress. These firms are appropriate targets for a reorganization process. On the other hand, firms that are both economically inefficient and financially inefficient and should be shut down entirely via a liquidation process

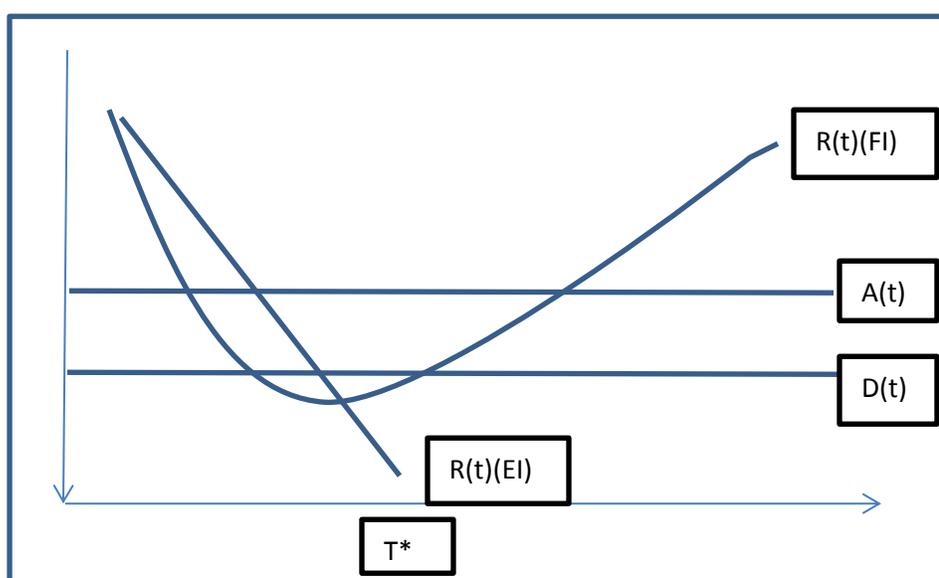
In general terms, the financial stress of faced by the debtor becomes the common denominator White's the model. At some point in time the debtor firm faces an insolvency or cash liquidity crisis and it the cause of the crisis is uncertain. In particular, it is unknown (particularly to creditors) whether the crisis is a temporary issue that will be resolved or whether the debtor is facing a permanent decline in financial conditions. In essence, in the uncertain future, some entities will be viable, implying that earnings will exceed liquidation value ( $e > l$ ). For these entities, in the present time, earnings do not exceed expenses

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<sup>48</sup> Supra, note 22.

because of debt expenses. With reduced debt expenses, the entity would be profitable (financially efficient). For other entities, this equation will be reversed and earnings will be less than liquidation value ( $e < l$ ) into the future. Even if debt levels are reduced, these entities will still not produce a profit or earnings over operating expenses. From a productive efficiency standpoint, the firms in this latter category should be liquidated and their assets reallocated to more productive uses in the economy. Even after going through the reorganization process, these firms will not become profitable or viable in the future and will incur further costs by delaying the liquidation process. The firms that are viable will benefit from going through the reorganization process and would be harmed if they liquidated prematurely.

**Figure 1: Depiction of a Financially Inefficient and Economically Inefficient Entity**



\*Modeled after White's exposition (1992)

Figure 1 provides a graphical depiction of the model.  $A(t)$  represents the alternative revenue that could be earned from the next best use of the assets of the entity.  $D(t)$  is the fixed total expenses, including operating and debt expenses of the entity. The differential between the  $A(t)$  line and the  $D(t)$  line indicates that the entity could earn a profit in its next best use.  $R(t)(FI)$  is the revenue stream over time of the financially inefficient firm that is experiencing temporary distress. The  $R(t)(EI)$  is the revenue stream of the economically inefficient firm which is on a permanent downward trend. We assume that at time  $t^*$ , there

is uncertainty about among the agents regarding this information. For our purposes, we assume that asymmetric information exists, with debtor knowing this information with greater certainty than the creditors. Therefore, at time  $t^*$ , the creditors do know with certainty which type of debtor they are dealing with prior to the bankruptcy filing<sup>49</sup>. At points below  $A(t)$ , both types of debtors would appear to have their assets deployed in a setting that is worth less the alternative use (including liquidation or Chapter 7). However, the long term or present value of revenues and revenues less expenses shows that one firm is viable while the other is not. At any point below  $D(t)$ , either type of entity could be at threat for bankruptcy. In one case, the economically inefficient firm, that would be appropriate. This decision would be best made when the firm's revenues fell below  $A(t)$  from a productive efficiency standpoint. At all points after that, there is a delay in the reallocation of resources to creditors that imposes costs elsewhere in the economy. The delay potentially benefits the entity's owners and employees. The financially inefficient firm should continue to operate from a productive efficient standpoint and incur temporary losses.

Table 1 provides a summary of the issue described above with a firm being classified are classified by its economic efficiency and financial efficiency. An entity in the upper left quadrant is a viable one since it is both financially efficient (it is worth more as a going concern than being liquidated and the assets put to other uses. An entity in the upper right quadrant is temporarily distressed (its earnings less than operating expenses) - but with a reorganization or restructuring, can be made viable or moved to the upper left quadrant. An entity in the lower right quadrant is nonviable in the sense that it cannot operate at a profit even with reduced debt and is imposing costs on society through the use of the assets in that venture. A firm in this quadrant would be a candidate for liquidation.

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<sup>49</sup> Even in bankruptcy, where there are additional filing requirements with the court, it is still unclear how clear a picture a creditor will have of the future financial success of the entity. At the same time, one can imagine the difficulty that the entity or debtor itself will have in knowing which direction its revenue stream is likely to take. There is also the potential bias built into the entity's owners in regards to the future of the debtor entity. For now, we assume that debtor has a good idea of the future path and the creditor has limited information. Future models could explore changes in these assumptions.

**Table 1: Financial Efficiency vs. Economic Efficiency and Bankruptcy Policy**

	<b>Financial Efficiency</b>	<b>Financial Inefficiency</b>
<b>Economic Efficiency</b>	Viable Entity	Distressed Entity
<b>Economic Inefficiency</b>	Null	Non-Viable Entity

In White's view, a tradeoff exists between economic inefficiency and financial inefficiency. In particular, this tradeoff occurs if bankruptcy law liquidates some firms that should not be liquidated while allowing some firms to continue operation that should be liquidated. White's conclusion that certain policy options are optimal in this situation, in particular, she concludes that Chapter 11 is generally inefficient and should be eliminated from US bankruptcy law. Unlike White, we contend that if bankruptcy law is a filtering device, then tradeoffs exist between the incompatible uses of the parties (business continuity for the debtor and financial security for the creditors). As a result, each institutional alternative in bankruptcy law has a unique distribution of benefits and costs that are non-Pareto comparable. Therefore, there is no unique "optimal" policy solution.

The table above is predicated on the observer knowing the characteristics of any firm going into the bankruptcy process. In fact, due to asymmetric information and general uncertainty over any number of the variables involved in the process, the problem is more complicated and bankruptcy policy must be a filtering process that attempts to sort out which firm is which. In the process, the agents would not know with any degree of certainty future industry conditions and their impact on profitability, ability to control or alter expenses and liquidation values. The only variable that would be known with a degree of certainty is the value of debt being carried by the entity.

As a result of the uncertainty related to the debtor's true condition, policymakers face a tradeoff in establishing the rules of the bankruptcy process, particular the rules related to the reorganization provision in bankruptcy law. An a world of costless information, thebankruptcy system would be able to exactly differentiate between financial inefficiency (reorganization) and economic inefficiency (liquidation) and assign each distressed firm to the appropriate bankruptcy Chapter Given the degree of costly and asymmetric information between agents., policy makers face a tradeoff in the types of decision errors that inevitably arise. This tradeoff is similar to the tradeoff that exists in probability theorybetween Type I and Type II errors. As noted by White, a Type I error occurs when a economically efficient firm is liquidated even though in reality the firm would recover from financial distress and become viable. In this case, the economic benefits of the entity are lost. On the other hand, a Type II error occurs when an economically inefficient firm is permitted to reorganize and continue operation rather than being liquidated Thus, White concludes, the US bankruptcy reorganization process, such as the U.S. chapter 11 process, is predicated on the notion that a firm, with a different debt structure, can financially survive in the marketplace. The mere existence of Chapter 11, according to White, is likely to increase the number of Type II errors that occur, thereby increasing the economic costs associated with the bankruptcy system Thus, White claims that the elimination of Chapter 11, and the possibility of Type II errors it creates, would be the "optimal" (cost minimizing) policy.

Such a proposal, however, ignores two critical aspects of bankruptcy policy. First, it ignores the incompatible use nature of the issue at hand. While society has an interest in providing financial security to creditors (as might be accomplished by the elimination of Chapter 11), society also has an interest in providing business continuity for debtors with economic efficient firms that might be viable if reorganized under a Chapter 11-like mechanism. Second, White's proposal to eliminate Chapter 11 reorganization as a cost-minimizing measure ignores the 2-sided cost dimensions of the issue.

In probabilistic decision making, both the probability and the cost of Type I and Type II errors must be considered when minimizing costs. Stated simply, both the probability and the cost of each type of error must be considered in determining total cost. More

importantly, it must be recognized that an decrease in the probability of one error type is only accomplished as the cost of an increase in the probability of the other type of error.

As noted by Spurr, et.al., decisionmaking in a probabilistic framework requires a balancing of the costs of Type I and Type II errors:

The danger of committing a Type I error can be made as low as we please by reducing the value chosen for the critical probability; but this can only done only at the expense of increasing the danger of committing a Type II error. In practice, the final choice of the value of for the critical probability represents some compromise between these two risks. It must be arrived at by balancing the consequences of a Type I error against the possible consequences of a Type II error (Spurr, et. al., 253).<sup>50</sup>

As noted by McCloskey, decision making without recognition of the two-sided relationship of Type I and Type II errors leads to the “loss function being mislaid” – and to decisions that do not accurately reflect the potential cost of errors in the decision at hand.<sup>51</sup>

Manderscheid formulated the loss function in probabilistic decision making as:

$L = P_1C_1 + P_2C_2$ , where:

L = Total loss (cost) of decision

$P_1$  = The probability of a Type I error

$C_1$  = The cost of a Type I error

$P_2$  = The probability of a Type II error

$C_2$  = The cost of a Type II error<sup>52</sup>

In such a model, it must be reiterated that a decrease in the probability (and therefore the total cost  $P_2C_2$ ) of Type II errors, as White’s proposal to eliminate the availability of Chapter 11 reorganization seeks to achieve, can only be obtained by increasing the probability of

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<sup>50</sup> Spurr, William A., Lester S. Kellogg, and John H. Smith. *Business and Economic Statistics*. Revised edition. Homewood, IL; Richard D. Irwin, Inc., 1961.

<sup>51</sup> McCloskey, Donald N. “The Loss Function Has Been Mislaid: The Rhetoric of Significance Tests.” *American Economic Review*. 75 (1985): 201-205.

<sup>52</sup> Manderscheid, Lester V. “Significance Levels – 0.05, 0.01 or ?” *American Journal of Agricultural Economics*. 47 (1965): 1381-1385.

Type I errors (resulting in an increase of the costs of economically efficient firms that are liquidated).

The SSP analysis of bankruptcy law provides insight into the policy choices facing policymakers. First, the incompatible use nature of the good in question (the debtor's assets) creates a filtering tradeoff facing the designers of bankruptcy policy. Future earnings of the firm are uncertain, whereas future liabilities are known with greater certainty. In addition, each party in the transaction may have different access to information regarding the potential future earnings of the entity. Consequently, the institutional rules of bankruptcy law must be structured to address the tradeoff between the two types of errors that must inevitably arise.

Given this inherent uncertainty, society must choose a combination of competing values (business continuity of debtors and financial security of creditors) by determining the rules that determine (a) the criteria and cost of debtors' entry into the bankruptcy process and (b) the rules of resolving liquidation or reorganization plans in the bankruptcy process. Such policies will inevitably result in distributional consequences such as business formation or credit availability. In addition, the institutional structure of business law will determine, in part, whether the entities that fall into the nonviable category enter into bankruptcy reorganization and impose costs on other parties and society while ultimately failing to survive.

In summary, the institutional economics analysis of bankruptcy law leads to several conclusions that differ from White's neoclassical analysis. First, institutional analysis specifically recognizes the incompatible use nature of the good at stake in bankruptcy law (i.e., the business continuity use of the firm's assets by the debtor versus the financial security use of the firm's assets by the creditors). Second, this incompatible use is governed by the institutional rules that govern transactions between debtors and creditors. Third, the incompatible use nature of the good gives rise to a probabilistic decision scenario in which Type I or Type II errors can occur. Such errors have distributional consequences for debtors (and their potential business continuity) and creditors (and their financial security). Fourth, any attempt to reduce the probability (and cost) of one type of error will

increase the probability (and cost) of the alternative type of error. Fifth, because each possible institutional alternative defines the rights and duties of debtors and creditors each alternative will result in a unique set non-Pareto comparable set of distributional consequences. Thus, any claim that a particular institutional structure is an “optimal” or “cost minimizing” alternative can justify such a claim only with reference to the normative assumptions regarding which party’s preferences – business continuity or financial security – has greater social importance.

## V. Methodology and Data

This section provides the details and approach used in collecting data for this paper. The primary focus was on U.S. bankruptcy cases that had entered the Chapter 11 reorganization process in the year 2004. The results presented here and in the next section will be compared to the final section of the paper with results from other empirically based studies of the U.S. chapter 11 process.

### **Data Collection Process**

The 801-case random sample used in this Article is drawn from the entire population of chapter 11 cases from 2004. Case searches were performed in each of the 94 judicial districts in the United States on Public Access to Court Electronic Records (“PACER”), using PACER fee waivers obtained from the chief judges for the majority of those 94 judicial districts.

The PACER searches produced a total of 10,384 chapter 11 cases. Before drawing the random sample, however, certain adjustments were made. First, duplicate and serial chapter 11 filings were eliminated. Second, cases transferred intra-district and assigned a new case number were deleted from the population. The reason for doing so was to ensure that two or three cases by the same debtor were not included in the random sample. Finally, in 2004, *Footstar, Inc.*<sup>53</sup> and 2528 affiliated entities filed for relief under chapter 11 in the Southern District of New York. The *Footstar* debtors were substantively consolidated, and the confirmed joint plan covered all 2529 debtors. In substantively consolidated cases, the “assets and liabilities of different legal entities [are] consolidated and dealt with as if the assets were held by and the liabilities were owed by a single legal entity.”<sup>54</sup> Because the *Footstar* debtors operated in bankruptcy like a single entity, all but the lead debtor’s case was deleted from the initial case population, thereby reducing the

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<sup>53</sup> 04-22350 (Bankr. S.D. N.Y. March 2, 2004).

<sup>54</sup> 2 COLLIER ON BANKRUPTCY ¶105.09 (Alan N. Resnick & Henry J. Somme reds., 16<sup>th</sup> ed. 2011).

population from which the random sample was drawn to 7635 chapter 11 cases. As it turned out, the lead *Footstar* case was one of the debtors in the random sample.

Once the random sample was drawn, additional deletions were made in order to avoid distorting the study's results. The goal of the initial study was to examine the impact, if any, of creditors' committee formation and liability size on plan confirmation rates. If 4 of 10 debtors from a substantively consolidated case with a creditors' committee and a joint plan of reorganization were included in the sample, then it would increase the number of cases with committees and confirmed plans, thereby skewing the results.

These adjustments to the population and sample resulted in a final random sample of 801 chapter 11 cases.<sup>55</sup> It is this sample that forms the basis of the analysis in this Article.

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<sup>55</sup> There actually are 802 cases, but one case is still open with no disposition – confirmation, conversion or dismissal – as of the end of May of 2014. *See In re LaVigne*, 04-64078 (Bankr. N.D. N.Y. June 4, 2004). On January 12, 2007, the *LaVigne* case was transferred intra-district and now bears a 2006 docket number. *See In re LaVigne*, 06-30090 (Bankr. N.D. N.Y. June 4, 2004). While the debtor proposed a plan of liquidation on October 1, 2013, and filed an amendment to that plan on May 8, 2014, as of the end of May 2014, confirmation had not yet occurred. *See* Chapter 11 Plan of Reorganization/Liquidation, *id.* (Docket No. 454); Amended Chapter 11 Plan, *id.* (Docket No. 486).

<sup>55</sup> 04-33876 (Bankr. W.D. Pa. Oct. 19, 2004).

## VI. Analytical Results and Interpretation

As discussed earlier, we are relying on a sample of over 800 bankruptcy cases from across the United States to understand the empirical dynamics of the Chapter 11 bankruptcy reorganization process.

### a. What do we know about chapter 11 debtors?

While much has been written about chapter 11, there is scant empirical evidence about what factors predict chapter 11 success. Of course, success may be defined in different ways, but the Bankruptcy Code puts plan confirmation at the center of the chapter 11 process. Therefore, in this Article, we count cases with confirmed plans as successful and those without as unsuccessful.

#### Most cases are not successful

If plan confirmation is used as the determinant of chapter 11 success, then approximately two-thirds of chapter 11 cases are unsuccessful. Of the 801 cases in the random sample, the bankruptcy court confirmed a plan in only 270 cases, for a plan confirmation rate of about 34%. *See* Row (1) of Table 2. But, in 21 cases the plan failed: the bankruptcy court either converted or dismissed the case, or the debtor filed for bankruptcy again within one year of the date of plan confirmation. Taking account of these plan failures reduces the success rate to 31%. *See* Row (2) of Table 2. If all cases in which the debtor re-filed for bankruptcy are counted as failures, even if the re-filing occurred six or seven years after plan confirmation, then the success rate drops to approximately 29.5%. *See* Row (3) of Table 2. Thus, the vast majority of debtors are unsuccessful in chapter 11.

**TABLE 2: PLAN CONFIRMATION AND PLAN SUCCESS RATES**

	NUMBER OF CASES	PERCENTAGE OF SAMPLE
(1) Confirmed Plans	270	33.7%
(2) Confirmed Plans taking account of plan failures	249	31.1%
(3) Confirmed Plans taking account of all subsequent bankruptcy filings	236	29.5%

### What predicts chapter 11 successes?

While there is scant empirical evidence about the predictors of chapter 11 success, we do know that two factors in the Code's current small business debtor definition are statistically significant predictors of plan confirmation rates. First, cases in which an official creditors' committee forms are significantly more likely to confirm a plan than those cases in which no such committee is created. An earlier study found that while 62% of cases with committees initially confirmed plans, only 27% of no-committee cases did so.<sup>56</sup> Using committee formation as an entry-level screening device, however, is not feasible. The United States Trustee appoints the committee (or, in Alabama and North Carolina, the Bankruptcy Administrator recommends appointment to the bankruptcy court) only after the debtor has filed its voluntary petition.

Second, cases with liabilities in excess of the statutory limit for small business debtors (\$2 million in 2004) also are significantly more likely to confirm plans than cases with liabilities below that statutory ceiling. While approximately 49% of the random-sample debtors with liabilities in excess of \$2 million initially confirmed a plan, only 27% of those with liabilities of \$2 million or less did so.<sup>57</sup> Apart from these two factors, little is known about what causes one debtor to succeed in chapter 11 and another to fail.

### Small vs. Non-Small Debtors

While little is known about the predictors of chapter 11 success, one thing is clear: small debtors perform substantially worse in chapter 11 than non-small debtors.<sup>58</sup> For example, of the 785 debtors in the random sample with available liability information,<sup>59</sup>

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<sup>56</sup> See *Chapter 11 Triage*, *supra* note 11\_, at 1006-1009.

<sup>57</sup> See *id.* at 1014.

<sup>58</sup> We use the term "small debtor" as opposed to "small business debtor" because not all chapter 11 debtors are engaged in business. Some individual consumer debtors file for chapter 11.

<sup>59</sup> In 2004, PACER provided only limited access to documents in 9 of the 94 U.S. judicial districts. See *Chapter 11 Triage*, *supra* note 11, at 1001 n.91 for a description of those districts for access to documents on PACER was limited in 2004. Therefore, reliable liability information was not available for all 801 cases in the random sample.

approximately 62% qualify as small debtors – liabilities at or below \$2 million<sup>60</sup> and no official creditors’ committee.

As Table 3 demonstrates, the small debtors in the random sample performed poorly in chapter 11. While they comprised approximately 62% of the random-sample cases, only 26% actually confirmed a plan. *See* Table 3, Row (1). By comparison, non-small debtors comprised a much smaller portion of the random sample – about 38% - yet confirmed plans at a much higher rate (about 48%) than small debtors. *See* Table 3, Row (2). Moreover, while small debtors were about 62% of the entire random sample, they comprised only 47% of confirmed-plan cases. Non-small debtors comprised more than half of the confirmed-plan cases, even though they were only 38% of the random sample.

**TABLE 3: CONFIRMATION RATES FOR SMALL VS. NON-SMALL DEBTORS**

<i>Type of Debtor</i>	RANDOM SAMPLE		CONFIRMED-PLAN CASES		
	Number	Percentage	Number	Percentage of its Random Sample Cohort	Percentage of Confirmed-Plan Cases
<b>(1) Small</b>	489	62.29%	125	125/489 = 25.56%	46.82%
<b>(2) Non-Small</b>	296	37.71%	142	142/296 = 47.97%	53.18%
<b>Total</b>	<b>785</b>	<b>100%</b>	<b>267<sup>61</sup></b>		<b>100%</b>

The small debtors in the random sample also took longer to confirm a plan. Table 4 provides time to confirmation for the entire group of confirmed-plan cases. Negotiating a plan takes time, yet half the debtors confirmed a plan in approximately 13 months from the start of the chapter 11 case. The median time from the start of the chapter 11 case to plan confirmation was 400 days. The average was higher – 490 days – due to significant outliers. As Table 4 shows, approximately 86% of cases had confirmed plans within two

<sup>60</sup> In 2004, small business status was elective. BAPCPA made it mandatory if the debtor, at the time of filing the petition, satisfied the statutory requirements of a small business debtor. The liability limit now sits at \$2,490,925. It is adjusted every three years. *See* 11 U.S.C. §104(b). The liability totals used are for each individual debtor, not for groups of affiliated debtors, and do not include amendments filed subsequent to the debtor’s initial filing of schedules in the case.

<sup>61</sup> For three of the confirmed-plan cases, reliable liability information was not available. *See supra* notes \_\_\_\_.

years and almost 70% had confirmed plans within 18 months of the start of the chapter 11 case.

**TABLE 4: TIME TO CONFIRMATION**

<b>TIME TO CONFIRMATION</b>	<b>NUMBER OF CASES</b>	<b>PERCENTAGE</b>	<b>CUMULATIVE PERCENTAGE</b>
0-90 Days	3	1.1%	1.1%
91-180 Days	24	8.9%	10%
181-270 Days	39	14.4%	24.4%
271 Days to 1 Year	53	19.6%	44%
1 Year to 15 mos.	37	13.7%	57.8%
15 to 18 months	31	11.5%	69.3%
18 mos. to 2 Years	46	17%	86.3%
>2 Years	37	13.7%	100%
<b>Total</b>	<b>270</b>	<b>100%</b>	

If the group of confirmed-plan debtors is divided into small versus non-small debtors, however, an interesting difference manifests itself. While the average time from the start of the chapter 11 case to confirmation is the same – 489 days – the median time differs by about a month. Half of non-small debtors confirmed a plan within 385 days, while the median time for confirmation for small debtors was 414 days – 29 days longer.

Table 5 provides more detail. The percentages in Table 5 are for each subgroup: 125 of the 267, or approximately 47%, of the debtors with confirmed plans were small, while 142, or approximately 53%, of the confirmed-plan cases involved non-small debtors.

**TABLE 5: TIME TO CONFIRMATION FOR SMALL VS. NON-SMALL DEBTORS**

TIME TO CONFIRMATION	SMALL DEBTORS			NON-SMALL DEBTORS		
	NUMBER OF CASES	PERCENTAGE	CUMULATIVE PERCENTAGE	NUMBER OF CASES	PERCENTAGE	CUMULATIVE PERCENTAGE
0-90 Days	0	0%	0%	2	1.4%	1.4%
91-180 Days	8	6.4%	6.4%	15	10.6%	12%
181-270 Days	20	16%	22.4%	19	13.4%	25.4%
271 Days – 1 Yr.	25	20%	42.4%	28	19.7%	45%
1 Year - 15 mos.	17	13.6%	56%	20	14.1%	59.2%
15 to 18 months	13	10.4%	66.4%	18	12.7%	71.8%
18 mos. – 2 Yrs.	26	20.1%	87.2%	19	13.4%	85.2%
>2 Years	16	12.8%	100%	21	14.8%	100%
<b>Total</b>	<b>125</b>	<b>100%</b>		<b>142</b>	<b>100%</b>	

b. The way forward

Confirmation rates in chapter 11 are low. Approximately two-thirds of debtors that enter bankruptcy never confirm a plan. Thus, the current system favors the Type 2 error: firms with no prospect of reorganization may file for chapter 11, thereby delaying liquidation. The question is how to minimize these Type 2 errors and that is not a simple question to answer for several reasons.

First, any entry-level bar to chapter 11 necessarily raises the cost of the chapter 11 process. Debtors wishing to reorganize will litigate at the outset their right to file under chapter 11. In fact, litigation over chapter choice was one of the primary reasons that Congress, with the enactment of the Bankruptcy Code, consolidated the various Bankruptcy Act reorganization chapters into the single chapter 11.<sup>62</sup>

Second, we currently do not know what predicts chapter 11 success, other than official creditor committee formation and liability size. Official creditors' committees do not form

<sup>62</sup> See *Chapter 11 Triage*, *supra* note 11, at 990 (noting that the Code “succeeded in ‘eliminat[ing] unprofitable litigation’ over chapter choice”).

until after the start of the chapter 11 case and, therefore, cannot serve as a bar to filing a chapter 11 case. It is possible to craft a rule requiring automatic dismissal or conversion to chapter 11 for cases in which no committee forms after filing of the petition. The problem is that committee formation is not a perfect predictor of chapter 11 success: 27% of cases without a committee confirmed a plan, and approximately 38% of those with committees did *not* confirm a plan.<sup>63</sup> Thus, requiring conversion to chapter 7, the liquidation chapter, for any case with no official committee would doom the successful reorganization each year of thousands of business firms.

Unlike committee formation, liability size is known at the outset of the case. Congress could reform the current bankruptcy system so as to automatically funnel into chapter 7 any bankruptcy case with liabilities below a certain statutory ceiling. The rationale for doing so would be to capture firm value lost in an unsuccessful chapter 11 process. Yet, approximately 26% of small debtors ultimately do confirm a plan. *See* Table 3, Row (1). Creating an entry-level bar to chapter 11 for small debtors means that thousands of small firms each year with the ability to reorganize would end up liquidating instead. In other words, we would move from the current system that preferences type 2 errors to one that favors type 1 errors, at least for small debtors.

The bankruptcy world has known for some time that small debtors fare poorly in chapter 11. In fact, in its 1997 report, the Bankruptcy Review Commission called for the creation of special rules for small business cases in chapter 11.<sup>64</sup> In 2005, Congress largely adopted the Commission's recommendations with the passage of BAPCPA. Two goals underlay the reform effort: (1) streamlining the chapter 11 process for small debtors capable of reorganizing and (2) expediting the exit from chapter 11 of those debtors without reasonable prospects for rehabilitation.<sup>65</sup> At the moment, there is no data about the impact of BAPCPA's changes on small-debtor performance in chapter 11.

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<sup>63</sup> *See Chapter 11 Triage*, *supra* note 11, at 1008.

<sup>64</sup> *See* Commission Report, *supra* note 19.

<sup>65</sup> *See Chapter 11 Triage*, *supra* note 11, at 992 for a discussion of the goals of chapter 11 reform; *see also Simple Definition*, *supra* note 18, at 62-3.

Finally, neither BAPCPA's changes nor more radical proposals to funnel small debtors into liquidation rather than reorganization solve the problem of non-small debtors that cannot confirm a plan. While success rates are significantly higher for this cohort of debtors, more than half of the non-small debtors (154 of 296) in the random sample failed to confirm a plan. *See* Table 3, Row (2). Thus, solving the small debtor problem, as Congress attempted to do with the passage of BAPCPA, does not address the large cohort of non-small debtors that never make it to plan confirmation.

## **VII. Summary and Conclusion**

Economists and other scholars have been studying the U.S. and other countries' bankruptcy systems for many years. Only since the late 1970's and early 1980's have scholars begun to approach the question in a more analytical fashion. The bankruptcy process clearly takes the form of a set of institutional rules that stand within the whole context of commercial within a nation. These specific set of rules help determine the nature of the process when debtors and creditors are locked in an interrelationship where not enough resources are available for everyone to be repaid.

Earlier studies have examined several different issues related to the U.S. bankruptcy system, including its overall economic efficiency, the incentives facing various agents in the system and the total costs, both direct and indirect, from the operation of the liquidation and reorganization paths of the bankruptcy system. This paper examined the U.S. chapter 11 bankruptcy system from the standpoint of the Schmid SSP paradigm.

The SSP framework was motivated by an understanding of the dynamics of creditors and debtors making decisions inside the chapter 11 or reorganization bankruptcy process in the United States. As they enter the process, there is asymmetric information between the agents. Debtors have a better sense than do creditors of the financial sustainability of the entity. In some cases, the entity may be experiencing temporary distress and be able to reorganize, reduce debt and return to profitability. Other firms may be facing permanent distress and should liquidate but system incentives delay their demise. From this model and given limited information about the types of entities in the process, policy makers face a tradeoff in developing a system that balances longer survival for economically inefficient firms against mistaken early termination of financially inefficient firms.

The empirical results here are based on 801 bankruptcy cases filed in 2004 across the United States. The empirical evidence suggests that the majority of small business debtors are not successful in the chapter 11 process. Arguably, the structure or institutional rules of the current U.S. system favor type 2 errors. A shift to make bankruptcy much harder would increase the likelihood that many small firms would be forced to liquidate rather than reorganize. In fact, changes since 2005 have made small business reorganization more difficult. Future research will allow us to assess this institutional change and determine the specific tradeoffs between type 1 and 2 errors for policy makers in the United States.

