Judicial Discretion in Corporate Bankruptcy

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Abstract

We study a model of judicial discretion in corporate bankruptcy. The key ingredients of the model are the presence of judicial bias and the debtor’s first mover advantage in financial distress. The model explains why the resolution of financial distress varies across bankruptcy courts; why, despite such variation, the U.S. bankruptcy code is systematically pro-debtor; and why bankruptcy codes matter in the resolution of financial distress across countries. The model is consistent with available empirical evidence about debt financing and the resolution of financial distress, and yields several novel predictions as well.

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1 Introduction

The recent surge in bankruptcy reforms around the world has motivated empirical researchers to study how financial distress is resolved under different bankruptcy codes. A key metric used to classify different bankruptcy codes is the extent of their pro-debtor stance. For example, it is commonly argued that Chapter 11 is systematically biased pro-debtor (e.g. Skeel 2001) in that it "appears to have strong incentives to keep the firm as a going concern even when it is worth more in liquidation" (Franks and Torous 1993). More broadly, bankruptcy codes around the world appear to systematically vary in the extent to which they tend to reorganize failed firms (e.g. Djankov et al. 2006) and in creditors’ recovery rates (e.g. Davydenko and Franks 2006).

Political economy theories (e.g. Skeel 2001, Bolton and Rosenthal 2002) explain the pro-debtor bias of a bankruptcy code with the political preferences of legislators, and use shifts in the power of pro-debtor constituencies to explain the evolution of U.S. bankruptcy law, as well as some international comparisons. These theories, however, are at best indirect: they overlook the fact that – rather than directly mandating outcomes – bankruptcy codes leave courts extensive judicial discretion. Courts are often required to interpret the law and decide on issues such as the approval of new financing, the appointment of trustees, or the approval of a reorganization plan, to mention just a few. By deciding one way or another, courts can shape the bargaining between creditors and debtors on whether to liquidate or reorganize an insolvent firm and on how to share the resulting proceeds, thereby affecting the way financial distress is ultimately resolved.

Despite such reliance on judicial discretion, little is known about its positive consequences for the resolution of financial distress, as bankruptcy scholars have typically asked, from a normative standpoint, whether judicial discretion is desirable or not. In particular, it is far from clear why should judicial discretion explain the systematic pro-debtor bias of a bankruptcy regime, especially in light of the large documented variation in behavior across bankruptcy judges (Chang and Schoar 2006, Bris, Welch and Zhu 2007). Can judicial discretion help explain the pro-debtor stance of alternative bankruptcy codes in the absence of a systematic pro-debtor bias in judicial preferences?

While some (e.g. White 1983) praise the ex post flexibility that results under judicial discretion, others (e.g. Jensen 1991) blame bankruptcy courts for taking unsound and inefficient decisions. Existing models incorporate these views and conclude that judicial discretion is desirable as long as bankruptcy courts are competent enough (e.g. Ayotte and Yun 2006, Giammarino and Nosal 1994).
Can judicial discretion help understand the workings of different bankruptcy codes?

We examine theoretically these questions by explicitly modeling bankruptcy courts’ decision-making. Our model is based on two assumptions. First, in line with Gennaioli (2005) and Gennaioli and Shleifer (2006), we assume that bankruptcy judges can be biased in favor of the debtor. Judicial preferences over litigants have been shown to strongly affect trial outcomes in several areas of law (e.g. Partridge and Eldridge 1974, Abrams, Bertrand, and Mullainathan 2006) including bankruptcy (e.g. Chang and Schoar 2006). Second, we assume that debtors have a "first mover advantage" in financial distress. Indeed, debtors know before creditors if their firm is in financial distress. As a result, debtors can often effectively choose where to file for bankruptcy ("forum shopping").

While both assumptions are crucial to understand the workings of judicial discretion, it is striking to find that most of our results can be analytically derived under the assumption of a debtor’s first mover advantage alone.

Section 2 introduces our first assumption by presenting a model where a potentially biased and incompetent court should decide whether to liquidate a financially distressed firm or reorganize it under existing management. After observing a signal of the firm’s reorganization value (the liquidation value is assumed to be fixed), the court decides what to do by maximizing a weighted sum of the debtor’s and creditor’s welfare. The precision of the signal measures the court’s expertise, the (relative) weight put on the debtor’s welfare measures the court’s pro-debtor bias. We find that a pro-debtor court reorganizes too often to allow the debtor to extract private benefits of control. Excessive reorganizations disproportionately include firms with poor prospects. As a result, pro-debtor courts increase the probability of re-filing, too, because firms with poor prospects will be unable to service the restructured debt and will have to file again, consistent with the findings of LoPucki and Kalin (2001). Finally, by reorganizing too often pro-debtor courts reduce the creditor’s expected recovery rates, consistent with findings of Bris, Welch and Zhu (2006). From a welfare standpoint, we find that pro-debtor bias and incompetence reduce both ex post and ex ante efficiency by inducing unprofitable reorganizations and by reducing debt capacity.

Although this model of biased adjudication is consistent with the empirical evidence on the impact of individual judges in bankruptcy cases (e.g. Chang and Schoar 2006), it cannot by itself explain the systematic bias prevailing under a given bankruptcy code, as it could still be the case that the biases of individual judges average out with each other.

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2 Forum shopping is widespread both in the U.S. and around the world - see LoPucki and Whitford (1991) and Ayotte and Skeel (2004) for evidence on the U.S. and Enriques and Gelter (2006) for multinationals.
Section 3 shows that when one accounts for the debtor’s first mover advantage, judicial discretion can also explain a pervasive, systematic pro-debtor bias. We model the debtor’s choice of the bankruptcy venue from a population of heterogeneous courts and obtain the following results. First, for a given level of competence, the most pro-debtor courts are chosen. Intuitively, debtors seek relief from creditors in bankruptcy courts that are more likely to reorganize the firm under the debtor’s control. Second, not only have debtors an incentive to file in biased courts, they may also have an incentive to file in incompetent ones. This is another form of "gambling" with the creditors’ assets; not with a risky investment (Jensen and Meckling 1976), but with an incompetent bankruptcy court. These properties hold true especially if the firm’s reorganization value is low. If instead the firm’s reorganization value is high, debtors might file even in unbiased courts as long as these courts are sufficiently competent to see the upside potential of reorganization. By fostering filing in pro-debtor courts, it is thus the debtor’s first mover advantage that prevents the biases of individual judges to average out with each other.

These results already indicate that the interaction between judicial bias and debtors’ first mover advantage can create a systematic pro-debtor bias in a bankruptcy code and thus induce welfare losses. Section 4 shows the full potential of this interaction in a dynamic career concerns model where judges care about attracting future, large bankruptcy cases. In this context, we show that under judicial discretion, debtors’ first mover advantage alone endogenously creates a systematic pro-debtor adjudication even in the absence of exogenous pro-debtor preferences. The intuition is that competition among bankruptcy courts induces even unbiased judges to rule in favour of failed debtors to establish a reputation for being pro-debtor and thus attract future cases. Notice that once courts’ reputational concerns are taken into account a systematic pro-debtor bias can arise also in the absence of pervasive forum shopping.

One insight of this analysis is that under the debtor’s first mover advantage competition among bankruptcy courts does not reduce but actually enhances the costs of judicial discretion of individual courts. Does it follow that judicial discretion and court competition will necessarily bias bankruptcy in favor of the debtor, thereby undermining efficiency? The answer is no. Section 5 studies the case where the court still shapes the decision to reorganize or liquidate, but the bankruptcy code limits judicial discretion in highly redistributive issues, for example by mandating the automatic appointment of a trustee or by forbidding violations of absolute priority in favor of the debtor. We find that, by reducing the debtors’ payoff under reorganization, this design of the bankruptcy code has two implications. First, it reduces the willingness of pro-debtor courts to reorganize too often.
Second, it reduces debtors’ demand for biased adjudication. The latter effect is key, as it restores the benign effects of competitive forces and unleashes the benefits of judicial discretion, inducing courts to compete on the basis of unbiased expertise instead of pro-debtor adjudication.

As a result, our analysis shows that the extent of judicial discretion is a key determinant of the way state-mandated procedures work in practice. In particular, our model predicts that, ceteris paribus, bankruptcy codes granting courts more discretion should be associated with more pro-debtor adjudication, and thus with more (inefficient) reorganizations, more bankruptcy re-filings and lower repayment. These results may help explain the resolution of financial distress across bankruptcy codes (Davydenko and Franks 2007) and shed light on the design of an optimal state-mandated bankruptcy procedure.

Section 6 discusses empirical evidence on the U.S. Bankruptcy Code in light of our model. Not only have U.S. courts strong discretion in such crucial matters as the extension of the debtors’ exclusivity period, the issuance of first-day orders, or the appointment of trustees in cases of corporate fraud, but — despite legal restrictions — debtors have also enjoyed substantial flexibility in deciding where to file for bankruptcy. Consistent with our model, this situation has given rise to extensive forum shopping, especially in favor of pro-debtor courts such as New York and Delaware (e.g. Lo Pucki 2005). As a result, the systematic pro-debtor bias of the U.S. code (Franks and Torous 1993, Skeel 2001) may well be the product of judicial discretion. Hence, judicial discretion might help shed light on the strong efforts of U.S. corporations to avoid filing for Chapter 11 (Gilson, John and Lang 1990) despite the costs of private workouts (Asquith, Gertner and Scharfstein 1994) and on the well-documented, puzzling reluctance of U.S. corporations to resort to debt financing (e.g. Graham 2000, Warner 1977, Parrino and Weisbach 1999).

2 The Basic Model

Consider an existing firm in financial distress. The firm has current cash flow of zero, has defaulted on its debt, and has entered a formal bankruptcy procedure under court supervision. To resolve financial distress, it must be decided whether existing management keeps control and the business is reorganized\(^3\) or the firm is liquidated piecemeal. We study how bankruptcy courts shape the decision of whether to reorganize or liquidate a bankrupt firm. We mainly focus on ex post outcomes but later evaluate also the ex ante consequences of court behavior.

\(^3\)In Section 5 we also consider the possibility that the firm is reorganized under an alternative manager.
The value of the firm under piecemeal liquidation is $\lambda > 0$. The liquidation value $\lambda$ is entirely pledged to the investors. The reorganization value of the firm equals $\rho$, a random variable taking values $\overline{\rho}$ and $\underline{\rho}$ with probability 1/2, where $\overline{\rho} > \lambda > \underline{\rho}$. As a result, liquidation is ex post efficient if and only if the reorganization value is $\underline{\rho}$. Because when the debtor is in control he can tunnel the firm’s assets, we assume that only a fraction $\alpha$ of the reorganization proceeds can be pledged to the investors. The remaining share $(1 - \alpha)$ of the reorganization proceeds goes to the debtor in the form of private benefits of control. Thus, the debtor prefers reorganization to liquidation even if the latter is socially efficient because under liquidation he obtains zero while under reorganization he obtains $(1 - \alpha)\rho$.

### 2.1 Bankruptcy Courts’ Decision-Making

As discussed in the introduction, bankruptcy codes give courts extensive discretion to affect whether a financially distressed firm is reorganized or liquidated. Section 6 illustrates such discretion and its consequences with reference to the U.S. bankruptcy code. For now, we simply take the shortcut that bankruptcy courts directly decide whether to reorganize or liquidate the firm. The court decides based on a noisy signal $r$ of the firm’s reorganization value, where $r$ is normally distributed with mean $\rho$ and variance $\theta^2$. Parameter $\theta$ captures the court’s "lack of competence". A court with higher $\theta$ is less competent in that it perceives noisier assessments of the firm’s reorganization value. After observing $r$, the court chooses the probability $x(r)$ with which the firm is reorganized to maximize a weighted sum of the debtor and the creditor’s utilities. The non-negative parameters $\beta_c$ and $\beta_d$ indicate the weights the court attaches to the creditor’s and the debtor’s welfare, respectively. The court’s pro-debtor bias is thus pinned down by $\beta = \beta_d/\beta_c$. As a result, in our model a bankruptcy court $j$ is fully identified by a vector $(\beta_j, \theta_j)$ summarizing the court’s pro-debtor bias and its "lack of competence". Court $(\beta_j, \theta_j)$ chooses $x(r)$ to solve:

$$\max_{x(r)} E\rho \left\{ E_r \left\{ \lambda [1 - x(r)] + \rho \left[ \alpha + \beta_j (1 - \alpha) \right] x(r) \right\} \right\}$$

Consistent with intuition, expression (1) indicates that if at a given signal $r$ the firm is liquidated (i.e. $x(r) = 0$), then the creditor obtains $\lambda$ while the debtor obtains zero. If instead at $r$ the firm is reorganized (i.e. $x(r) = 1$) then the creditor obtains $\alpha \rho$ and the debtor obtains $(1 - \alpha) \rho$. The court then evaluates the desirability of such liquidation policies by averaging the weighted (according to bias $\beta_j$) sum of the parties’ utilities across all the underlying states $\rho$ that might have
given rise to the observed realization of the signal \( r \).

As an illustration, suppose that the firm is reorganized successfully if and only if new financing is promptly provided. Also, assume that the bankruptcy code specifies that courts should approve new financing if and only if it is value enhancing, which coincides with the case of the firm’s reorganization value being high. Then, the court can directly affect the resolution of financial distress by influencing the estimate of the firm’s reorganization value, particularly when debtors and creditors disagree.\(^4\) Conditional on observing signal \( r \) that summarizes both parties’ estimates, a pro-debtor judge will then emphasize the pro-debtor estimation warranting reorganization when \( x(r) = 1 \) and the pro-creditor one warranting liquidation when \( x(r) = 0 \). By engaging in such fact discretion (Gennaioli 2005; Gennaioli and Shleifer 2006) bankruptcy courts can thus affect the reorganization decision.

By solving (1) one finds that court \( j \) reorganizes the firm (i.e. \( x(r) = 1 \)) if and only if \( r \geq r(j, \theta_j) \equiv r_j \), where:

\[
    r_j = E(\rho) - \frac{\theta_j^2}{\overline{\rho} - \rho} \ln \frac{\beta_j (1 - \alpha) \overline{\rho} + (\alpha \overline{\rho} - \lambda)}{(\lambda - \alpha \rho) - \beta_j (1 - \alpha) \rho} \tag{2}
\]

The key aspect in the above expression is the term \( \ln \frac{\beta_j (1 - \alpha) \overline{\rho} + (\alpha \overline{\rho} - \lambda)}{(\lambda - \alpha \rho) - \beta_j (1 - \alpha) \rho} \), which indicates the extent to which judicial bias induces bankruptcy courts to distort the use of signal \( r \) in favor of their preferred party. For expression (2) to be well defined it must be that \( \frac{\beta_j (1 - \alpha) \overline{\rho} + (\alpha \overline{\rho} - \lambda)}{(\lambda - \alpha \rho) - \beta_j (1 - \alpha) \rho} > 0 \). It is easy to find that the condition is met if an only if \( \beta_j \in (\beta_{\min}, \beta_{\max}) \), where \( \beta_{\min} \) and \( \beta_{\max} \) are two thresholds such that \( \beta_{\min} < 1 < \beta_{\max} \).\(^5\) A court with \( \beta_j \leq \beta_{\min} \) is so much pro-creditor that it sees over-liquidation as a benefit rather than a cost and thus liquidates at every \( r \). Conversely, a court with \( \beta_j \geq \beta_{\max} \) is so much pro-debtor that it sees over-reorganization as a benefit rather than a cost and thus reorganizes at every \( r \). For such extreme biases, courts’ optimal decisions are thus independent of the signal. To highlight also the role of judicial competence and not only of bias, in what follows we focus on the case \( \beta_j \in (\beta_{\min}, \beta_{\max}) \). Consider first the threshold set by an unbiased court having \( \beta_j = 1 \):

\[
    r^u = E(\rho) - \frac{\theta_j^2}{\overline{\rho} - \rho} \ln \frac{\overline{\rho} - \lambda}{\lambda - \rho} \tag{3}
\]

\(^4\)For example, Butler (2003) documents that in Chapter 11 the valuation estimates presented by experts on behalf of the debtors are systematically higher than those presented on behalf of the creditors. As a result, courts have considerable discretion to affect the estimated reorganization value by emphasizing one estimate over another.

\(^5\)It is easy to see that \( \beta_{\max} = \frac{\lambda - \alpha \overline{\rho}}{1 - \alpha \overline{\rho}} \). On the other hand, because by definition \( \beta_j \geq 0 \), \( \beta_{\min} = \max \left(0, \frac{\lambda - \alpha \overline{\rho}}{1 - \alpha \overline{\rho}}\right) \).
For a given average reorganization value $E(\rho)$, an unbiased court reorganizes more often when the social cost of over-liquidation $(\rho - \lambda)$ is larger than the social cost of under-liquidation $(\lambda - \rho)$. The larger is the over-liquidation loss, the more an unbiased bankruptcy acts "conservatively", reorganizing more often than implied by the realization of $r$ alone (it is easy to check that this also holds for biased courts). Less competent courts (i.e. courts with larger $\theta^2$) act even more conservatively to reduce the social cost of the frequent mistakes they are aware of making.

Although the role of judicial bias will be analyzed in the next subsection, by comparing (2) with (3) it is easy to see that bias little affects adjudication if creditor protection against tunneling is strong. Indeed, if $\alpha$ is very large, the debtor obtains very little from reorganization. As a result, even a very pro-debtor court does not find it worthwhile to distort adjudication very much. For example, if $\alpha = 1$ then, irrespective of $\beta$, all courts behave like unbiased ones. This interaction between the bankruptcy court’s bias and the extent of creditor protection will become central to our analysis in Section 5, where we allow bankruptcy courts to affect the level of $\alpha$. For now, however, we keep $\alpha$ fixed and only focus on the court’s reorganization decision.

From now on we assume:

A.1.: $\rho - \lambda = \lambda - \rho$.

Without affecting our results, this assumption simplifies our analysis by setting the social cost of over-liquidation equal to the social cost of under-liquidation. As a result, unbiased judges set a threshold $r^u = E(\rho)$. We now study the implications of bankruptcy courts’ decision-making for the resolution of financial distress.

### 2.2 The Resolution of Financial Distress

Threshold (2) implies that court $j$ reorganizes a firm worth $\rho$ with probability $\Pr(r > r_j | \rho)$. Since $r \sim N(\rho, \theta^2)$, such probability is equal to:

$$1 - \Phi \left( \frac{r(\beta_j, \theta_j) - \rho}{\theta_j} \right),$$

(4)

where $\Phi(.)$ is the standard normal c.d.f. From now on, define $\Phi_j = \Phi \left( \frac{r(\beta_j, \theta_j) - \rho}{\theta_j} \right)$. The firm is thus liquidated with probability $\Phi_j$. Notice that the probability of reorganization increases in the firm’s reorganization value $\rho$ but also depends on the court’s bias and competence. We study how courts’ characteristics affect three outcomes of bankruptcy: the probability that the firm is
reorganized, the probability of a bankruptcy re-filing (i.e. the probability that a reorganized firm files again for bankruptcy) and repayment to creditors. We find:

**Proposition 1** A higher $\beta_j$ increases the probability of reorganization, increases the probability of bankruptcy re-filing and reduces repayment. A higher $\theta_j$ increases the probability of reorganization if and only if $\beta_j > 1$, and the probability of bankruptcy re-filing if and only $\beta_j > \tilde{\beta}$, where $\tilde{\beta}$ is a threshold smaller than 1. A higher $\theta_j$ reduces repayment if $\beta_j > 1$.

The proof is in Appendix 1. First consider the impact of bias. More pro-debtor courts (i.e. with larger $\beta_j$) are more likely to reorganize all firms, including those with poor prospects. As a result, $\beta_j$ also increases re-filing: when a pro-debtor court rescues an unprofitable firm, corporate debt is restructured to a face value of $\alpha \rho$. Thus, the debtor is doomed to default and file for bankruptcy again, because he cannot repay more than $\alpha \rho$. Finally, $\beta_j$ also reduces expected repayment to creditors because more pro-debtor courts reorganize more often and (at the court’s optimal threshold) the creditor on average loses from reorganization.

The impact of the court’s "lack of competence" $\theta_j$ on bankruptcy outcomes depends instead on the court’s bias $\beta_j$. In particular, the proposition illustrates an interesting interaction between incompetence and bias whereby the former magnifies the impact of the latter. Because less competent courts are aware of making many mistakes, they prefer to cater to their own bias than to err against their preferred party. As a result, an increase in incompetence induces more liquidations if the court is pro-creditor ($\beta_j < 1$) and more reorganizations if the court is pro-debtor ($\beta_j > 1$). Accordingly, higher incompetence implies more re-filing and lower repayment especially when the court is pro-debtor. In line with recent evidence by Chang and Schoar (2006), Proposition 1 suggests that under judicial discretion the identity of the bankruptcy judge matters for bankruptcy outcomes.

What is the welfare impact of judicial bias and incompetence? By deriving explicitly the ex post expected social welfare $E_{\rho} \{ \lambda \Phi_j + \rho (1 - \Phi_j) \}$ one obtains:

**Corollary 1** At $\beta_j = 1$ and $\theta_j = 0$ full ex post efficiency is attained. Ex post efficiency falls in $|\beta_j - 1|$ and in $\theta_j$.

If the bankruptcy court is both unbiased and perfectly competent, it efficiently reorganizes the firm in state $\mathbf{7}$ and liquidates it in state $\mathbf{2}$. If instead the court is not fully competent, then ex post efficiency falls because some profitable firms are liquidated and some unprofitable ones are
reorganized. At the same time, the court’s pro-debtor bias reduces social welfare because it induces too many unprofitable reorganizations, while a court systematically favoring the creditor induces instead too many liquidations.

This result indicates that under judicial discretion, judicial bias and incompetence undermine the ex post efficiency of bankruptcy outcomes. The question then arises, what is the impact of bias and incompetence on ex ante welfare? In Appendix 2 we formally study this case by integrating into the current model an ex ante financing decision. Consistent with the rest of our analysis, we focus on the case $\beta_j > 1$. We find that judicial discretion can be very costly: if courts are pro-debtor, they undermine not only ex post but also ex ante efficiency by reducing debt capacity and investment.\(^6\)

Can the creditor and the debtor avoid the costs of judicial bias by negotiating a private workout before ending up in court? We study this possibility in Appendix 2. We find that when facing the threat of a pro-debtor bankruptcy court, creditors are eager to engage in a private workout. In this case, even if the debtor and the creditor can costlessly bargain – which is not always the case in practice (e.g. Asquith et al. 1994) – we find that a workout may still fail due to the debtor’s financial constraint: at small $\alpha$, the debtor can pledge too few reorganization proceeds to convince the creditor not to go to court. As a result, the parties may be stuck with inefficient liquidations. More importantly, even if a workout succeeds, a biased court forces the creditor to make concessions to the debtors, again reducing debt capacity and investment. As a result, although workouts improve ex post efficiency, they do not eliminate the ex ante cost of judicial bias.

To summarize, this section shows that when the bankruptcy code yields judicial discretion in the resolution of financial distress, courts’ biases can affect bankruptcy outcome and efficiency. Pro-debtor courts tend to reorganize too often, induce more re-filings and reduce contractual repayment to creditors. While the opposite is true with respect to pro-creditor courts, both judicial biases undermine social welfare.

So far, our theory can explain differences in the way financial distress is resolved across bankruptcy courts, but it cannot explain the systematic bias of a bankruptcy code. Typically, some courts will be unbiased, some will be pro-debtor and some pro-creditor. Thus, if cases are randomly

\(^6\)A larger pro-creditor bias (i.e. a smaller $\beta_j < 1$), increases debt capacity and thus relaxes financial constraints if $\lambda > \sigma\gamma$. However, as stressed by Corollary 1, such bias undermines ex post efficiency by inducing too many unprofitable liquidations.
allocated across courts, judicial discretion would only cause idiosyncratic variation of bankruptcy outcomes across courts. In this setting, judicial discretion would therefore be unable to generate the kind of systematic biases in the resolution of financial distress documented by bankruptcy scholars (Skeel 2001, Franks and Torous 1989, 1993). The next section augments our basic model to show how judicial discretion may well be responsible for the systematic bias characterizing different bankruptcy regimes.

3 Judicial Discretion and Debtors’ First Mover Advantage

The connection between judicial discretion and a systematic pro-debtor bias relies on the first mover advantage that debtors naturally have in financial distress. Debtors are informed before and more accurately than their creditors about their firms’ financial problems, especially so at the onset of financial distress. An often stressed implication of such first mover advantage is that debtors on the verge of bankruptcy may engender creditors’ ability to recover their loans by engaging, for example, in asset substitution (e.g. Jensen and Meckling 1976). Here we want to stress another important consequence of the debtor’s first mover advantage, namely the possibility that the debtor may seek relief from creditors by strategically filing in a favorable bankruptcy court, a practice known as "forum shopping" (LoPucki and Whitford 1991). As section 6 will discuss in the context of U.S. bankruptcy, although most bankruptcy codes contain provisions aimed at restricting debtors’ ability to engage in "forum shopping", substantial flexibility still exists, especially for large companies. It is then the combination of judicial discretion with the debtor’s first mover advantage that might account for the systematic pro-debtor bias of a bankruptcy code.

To check for this possibility, we now study the problem faced by a failed debtor in choosing where to file for bankruptcy among a measure 1 of courts distributed in \( \left[ \beta, \beta^* \right] \times \left[ \theta, \theta^* \right] \), where \( \beta < 1 < \beta^* \). We study the allocation of cases to bankruptcy courts by leaving aside the issues potentially arising from court congestion. As a result, the distribution of courts is unimportant and we leave it unspecified. What is important here is that although some courts may be very biased, it is always possible to find some unbiased courts \( (\beta = 1) \) and some very competent ones \( (\theta = \theta^*) \), and possibly even some "perfect" ones with \( (\beta, \theta) = (1, 0) \) if \( \theta^* = 0 \). For now we assume the debtor freely chooses where to file without bearing any cost of forum shopping. We will consider

\[ \text{footnote} \]

On the one hand, this assumption allows efficient forum shopping, that is to try all cases in the best bankruptcy courts. On the other hand, this assumption simplifies the analysis without affecting the qualitative impact of court selection on the aggregate bias and competence of the bankruptcy code.
such cost in Section 5.

Suppose therefore that the debtor chooses his favorite court \((\beta, \theta)\) in \([\bar{\beta}, \beta] \times [\underline{\theta}, \bar{\theta}]\). If the firm’s reorganization value is \(\rho\) the debtor’s expected payoff is equal to \((1 - \alpha) \rho [1 - \Phi \left(\frac{r(\beta, \theta) - \rho}{\theta}\right)]\), namely the debtor’s private benefits under reorganization times the probability that reorganization takes place. The debtor chooses the court \((\beta, \theta)\) to solve:

\[
\min_{(\beta, \theta)} \frac{r(\beta, \theta) - \rho}{\theta} \quad \text{(5)}
\]
\[
s.t. \ (\beta, \theta) \in [\bar{\beta}, \beta] \times [\underline{\theta}, \bar{\theta}] \quad \text{(6)}
\]

At every \(\rho\), the debtor chooses the court maximizing the probability of reorganization. To understand the determinants of the debtor’s choice, notice that bias and incompetence affect the debtor’s payoff as follows:

\[
\frac{\partial}{\partial \beta} \frac{r(\beta, \theta) - \rho}{\theta} = \frac{1}{\theta} \frac{dr}{d\beta} \quad \text{(7)}
\]

\[
\frac{\partial}{\partial \theta} \frac{r(\beta, \theta) - \rho}{\theta} = \frac{(dr/d\theta) \theta - r + \rho}{\theta^2} = \frac{r + \rho - 2E(\rho)}{\theta^2} \quad \text{(8)}
\]

Expression (7) shows that for any given level of \(\theta\), the debtor’s utility increases with the pro-debtor bias of the bankruptcy court. Irrespective of the firm’s reorganization value, a more pro-debtor court increases the probability of reorganization, thereby increasing the probability that the debtor extracts private benefits. This property implies that the debtor will always choose the most pro-debtor court available, i.e. a court with \(\beta = \bar{\beta}\), effectively simplifying the debtor’s choice to selecting an optimal level of competence given bias \(\beta = \bar{\beta}\). Once the debtor’s first mover advantage is considered, judicial discretion naturally implies that the most pro-debtor courts tend to be chosen.

By contrast, the debtor’s payoff may either increase or decrease with the court’s competence. Expression (8) shows that competence increases the debtor’s payoff if and only if \(r(\beta, \theta) + \rho - 2E(\rho) > 0\). This condition is more likely to hold if the firm’s reorganization value \(\rho\) is high. The intuition is that a debtor is more likely to benefit from greater competence when the firm’s reorganization value is high: if \(\rho = \bar{\rho}\) then, irrespective of bias, a more competent court is more likely to reorganize the firm, thus allowing the debtor to extract private benefits of control. By contrast, if \(\rho = \underline{\rho}\), a more competent court is more likely to liquidate the firm, thereby reducing the extraction of private benefits of control. In the latter case the debtor is better off "gambling"
on the firm’s reorganization by choosing an incompetent court.

Let us consider how these observations affect the debtor’s choice of the optimal bankruptcy court, starting from the case where the reorganization value is low, i.e. $\rho = \underline{\rho}$. Because in this case the debtor seeks a court reorganizing his firm even if it is unprofitable to do so, he will file in the most pro-debtor court available. In addition, the debtor has also an incentive to file in the pro-debtor court with the noisiest assessment of the firm’s reorganization value, because such court turns any uncertainty on $\rho$ into pro-debtor adjudication. In this case, court competition does not improve ex post efficiency upon the single court case.\(^8\)

Matters are very different if the firm’s reorganization value is high. Now, if a fully competent court with $\theta = 0$ is available, then the debtor would always file in those courts. Interestingly, this would be the case even if the perfectly competent court is not biased in favor of the debtor. When the firm’s reorganization value is large, competence alone makes sure that the firm is reorganized, as the debtor wishes. Thus, even if debtors have a first-mover advantage, they will not necessarily file in biased courts in equilibrium: if their firm’s reorganization value is large, they may file in unbiased and highly competent courts. More generally, expression (8) implies that there exists a threshold $\theta$ such that the debtor’s payoff increases with competence for $\theta \leq \theta$ and decreases with competence otherwise. Thus, when the firm’s reorganization level is high, the debtor chooses between a highly biased but highly competent court $(\bar{\beta}, \theta)$ and a highly biased and highly incompetent court $(\bar{\beta}, \underline{\theta})$. Greater competence might be costly because it also reduces the impact of bias on adjudication thereby reducing the extent to which the court favors the debtor. It turns out that the debtor of a firm with reorganization value $\bar{\rho}$ prefers a highly incompetent court if and only if:

\[
\ln \frac{\overline{\beta}(1-\alpha)\overline{\rho} + \alpha\overline{\rho} - \lambda}{\lambda - \alpha\underline{\rho} - \overline{\beta}(1-\alpha)\underline{\rho}} \geq \frac{(\overline{\rho} - \underline{\rho})^2}{2\theta}\]

The debtor is more likely to choose the competent court the lower is the court’s pro-debtor bias $\overline{\beta}$. As a result, even if the firm’s reorganization value is large, from the standpoint of the debtor a strong pro-debtor bias $\overline{\beta}$ is a good substitute for greater competence. We summarize these findings below:

\(^8\)The result that the debtors of unprofitable firms choose the least competent court should not be interpreted too literally. Several dimensions of competence (other than the court’s estimates of $\rho$) will benefit the debtor as well (e.g. the court’s speed). As a result, one should not expect debtors to choose the least competent court available. Our model simply points out that debtors: a) prefer courts biased in their favor and b) may sometimes benefit also from lower competence because it allows them to gamble over the firm’s reorganization, as in models of asset substitution.
Proposition 2 If $\rho = \rho_2$, the debtor chooses court $(\overline{\theta}, \overline{\beta})$. If instead $\rho = \overline{\rho}$, there exists a $\beta^*$ such that, if $\beta < \beta^*$ the debtor chooses $(\overline{\beta}, \overline{\theta})$, otherwise the debtor chooses $(\overline{\beta}, \overline{\theta})$.

When the debtor can choose the bankruptcy court, then judicial discretion implies that the most pro-debtor judges are chosen. The debtor may also prefer less competent courts. On the one hand, lower competence reinforces the effect of bias. On the other hand, by choosing a court with noisier assessments of $\rho$, amounts for debtors of unprofitable firms to gamble over their firms’ reorganization. As a result, given the debtor’s first mover advantage, judicial discretion may result in the worst, not the best courts being chosen. This implies:

Corollary 2 Under judicial discretion, forum shopping introduces a systematic pro-debtor bias in the resolution of financial distress which increases the aggregate probability of reorganizations, of re-filing and reduces repayment.

This result suggests that introducing judicial discretion in bankruptcy should, ceteris paribus, be associated with an increase in the aggregate pro-debtor bias in the resolution of financial distress. Thus, reorganization re-filings should increase and creditors’ repayment should fall. In Section 6 we use this result to argue that judicial discretion may be a determinant of the pro-debtor bias of the U.S. bankruptcy code.

What is the welfare impact of judicial discretion when forum shopping is taken into account? It is beyond the scope of this paper to evaluate whether allowing debtors to file in their preferred bankruptcy court increases welfare relative to a situation where firms are randomly allocated across bankruptcy courts.\(^9\) However, Corollary 2 suggests that forum shopping by debtors reduces welfare relative to the first best. This is best illustrated by the figure below, which shows the welfare loss that results when the debtor chooses the bankruptcy court and the firm’s reorganization value is low:

\(^{9}\)Allowing debtors to choose induces too many reorganizations and reduce creditors’ repayment, but may potentially enhance welfare by reducing over-liquidations.
Figure 1 - Indifference Curves and Choice Set

The distance between the social indifference curves (i.e. the blue lines) passing through the debtor’s preferred court \((\beta, \theta)\) and the socially optimal court \((1, \theta)\) measures the ex post welfare loss introduced by judicial discretion relative to the first best. Forum shopping by the debtor undermines welfare by triggering the selection of biased courts inducing too many reorganizations (and also reducing repayment to creditors). This result allows us to revisit the debate on judicial discretion in corporate bankruptcy. It has been argued (e.g. Giammarino and Nosal 1994, Bernhardt and Nosal 2004) that judicial discretion in bankruptcy is beneficial because it allows to sometimes bail out failed managers, preventing them from going for "broke" before entering formal bankruptcy. Once one accounts for the potential bias of the court, however, the argument appears to reverse: it is precisely judicial discretion that allows failed managers to exploit their first mover advantage and go for "broke" by filing in pro-debtor courts.

So far we have only considered the case where courts were exogenously biased and showed
that forum shopping leads to the selection of the most pro-debtor courts. In the next section we examine in more detail the interaction between judicial discretion and forum shopping and show that competition among courts to attract failed debtors may endogenously induce all courts, even the unbiased ones, to adjudicate in a biased manner.

4 Court Competition and Judicial Bias

Suppose that bankruptcy courts benefit not only from trying cases according to their own preferences as in (1), but also from attracting future filings. A court attracting many filings may be viewed as more prestigious, it may allow the judge to choose the "best" case and obtain for example more coverage in the press, but it may also affect more mundane incentives such as increase the revenue of local bankruptcy lawyers as well as the judge’s probability of re-election (Lo Pucki 2005).

In a survey of bankruptcy judges, Cole (2002) finds that "almost all of the judges suggested that there is a level of prestige and satisfaction that attaches to hearing and deciding important cases. Big Chapter 11 cases are interesting as well as prestigious."

In such a world, even unbiased courts may decide to adjudicate in a pro-debtor manner to establish a reputation for being pro-debtor and thus attract future cases. If this were the case, the debtor’s first mover advantage could generate a systematic pro-debtor bias over and beyond courts’ idiosyncratic preferences. To examine this argument formally, consider a variant of Holmström’s (1999) career concern model where debtors are imperfectly informed about the courts’ intrinsic pro-debtor bias but they observe a court’s adjudication threshold (2). To simplify matters, we assume that all courts have the same lack of competence $\theta$. It is useful to rewrite the threshold in the following way:

$$r_j = E(\rho) - \frac{\theta^2}{\bar{\theta} - \rho} B,$$

where $B$ is a compact measure of the court’s pro-debtor bias. The higher is $B$, the more the court is biased for the debtor. If $B = 0$, the court is unbiased. The value of $B$ is determined by two components according to the formula below:

$$B = b + \tilde{\beta}$$

where $b$ is the (positive or negative) bias voluntarily chosen by the bankruptcy court, while $\tilde{\beta} = \ln \left( \frac{\beta_j(1-\alpha)\bar{\theta} + (\alpha\bar{\theta} - \lambda)}{(\lambda-\alpha\rho) - \beta_j(1-\alpha)} \right)$ (compare with (2)) is a measure of the bankruptcy court’s intrinsic pro-debtor
preferences. The key difference with the previous model is that now the bankruptcy court can voluntarily affect the extent to which its adjudication is pro-debtor by choosing \( b > 0 \). In contrast, if the court sets \( b = 0 \), then the court sets its optimal threshold of Section 2. The random variable \( \tilde{\beta} \) is normally distributed with mean 0 and variance \( \tau^2 \). Thus, adjudication is on average unbiased.

There are two periods. In the first period, in line with Holmström (1999) the debtor and the judge are uninformed about \( \tilde{\beta} \). In this period, the bankruptcy court chooses the pro-debtor bias \( b \), and settles its current case. In practice, the court sets its first period threshold \( r^1 \). Notice that because at \( t = 1 \) there is no information about judicial bias, the demand for any given court is given irrespective of its adjudication. After observing \( r^1 \), debtors update their priors and form a posterior expectation of the court’s second-period adjudication \( E(r^2 | r^1) \). Based on these inferences, in the second period debtors decide where to file, judges choose \( r^2 \) and the game ends. Courts discount the future at rate \( \gamma \leq 1 \).

For ease of exposition we assume that there are only two courts in the population, although our results can also be generalized to a number \( N > 2 \) of courts. There is a population of measure one of failed debtors. A share \( 1/2 \) of them is naturally allocated to one court, the other \( 1/2 \) is naturally allocated to the other court. However, at cost \( c \), \( c \in \{0, \infty\} \), debtors can switch court, thereby engaging in forum shopping. Parameter \( c \) captures the restrictions placed by the bankruptcy code on forum shopping. If \( c = 0 \) the code allows full flexibility in the choice of the bankruptcy venue, a code with \( c = \infty \) prohibits forum shopping.

Consider now the incentive structure of bankruptcy courts. Because bankruptcy courts care about deciding a case according to their own preferences, choosing a positive \( b \) is costly for them. Choosing \( b > 0 \) amounts for them to setting a threshold \( r(b) \), smaller than their optimal threshold \( r(0) \) of the one-period case. It is then easy to see that the objective (1) implies that setting \( r(b) \) imposes on the judge an increasing and convex cost \( \psi(\frac{\beta^2}{\beta-\rho}b) \). This is the cost incurred by a court when it deviates from its own preferences to cater to debtors.

Let us now solve the model. In the second and final period, bankruptcy courts set \( b =
0: they have no incentive to deviate from their optimal static threshold because second period adjudication does not influence future filings. In addition, it is easy to see that in a rational expectation equilibrium, after observing the thresholds $r_{11}^1, r_{12}^1$ used by court 1 and 2 in the first period, respectively, debtors can perfectly infer the second period thresholds $r_{1j}^2, r_{2j}^2$ (i.e. the biases) of the two courts by computing $E(r_{2j}^2 | r_{1j}^1, \hat{b}_j) = r_{1j}^2 + \frac{\theta^2}{p - \rho} \hat{b}_j$, for $j = 1, 2$, where $\hat{b}_j$ is the pro-debtor bias chosen by court $j$ in equilibrium.

To determine the courts’ optimal choice of $b$, compute the second period filings for each court. If forum shopping is prohibited (i.e. $c = \infty$), filings equal to 1/2 in each court, irrespective of first period adjudication. As a result, courts 1 and 2 set $\hat{b}_1 = \hat{b}_2 = 0$. Absent forum shopping, no systematic bias emerges on average, neither in the first not in the second period.

Suppose now that forum shopping is allowed (i.e. $c = 0$). Then, in the second period all debtors will try to file in the court with the lowest $r_{2j}^2$, for it is this court that maximizes -- for any $\rho$ -- the probability of reorganization. Consider the situation faced by court 1. This court forecasts that its future demand will be equal to 1 if $E(r_{1}^2 | r_1^1, \hat{b}_1) \leq E(r_{2}^2 | r_2^1, \hat{b}_2)$ and zero otherwise. By forecasting $E(r_{2}^2 | r_{1}^2, \hat{b}_2) = r_2 = E(\rho) - \frac{\theta^2}{p - \rho} \hat{b}_2$, court 1 expects to attract all debtors whenever $\hat{b}_2 - \hat{\beta}_1 \leq b_1 - \hat{\beta}_1$. Because $\hat{\beta}_2 - \hat{\beta}_1 \approx N(0, 2\tau^2)$, the expected future demand of court 1 is equal to $\Phi \left( \frac{b_1 - \hat{b}_1}{\tau \sqrt{2}} \right)$, where $\Phi(.)$ is the standard normal c.d.f.. By normalizing to 1 the benefit the court obtains by trying future cases, in the first period court 1 solves:

$$\max_{b_1} \gamma \Phi \left( \frac{b_1 - \hat{b}_1}{\tau \sqrt{2}} \right) - \psi \left( \frac{\theta^2}{p - \rho} b_1 \right)$$

In a rational expectation equilibrium where $b_1 = \hat{b}_1$, the court sets:

$$\gamma \Phi' \left( \frac{p - \rho}{\theta^2 \tau \sqrt{2}} \right) = \psi' \left( \frac{\theta^2}{p - \rho} \hat{\beta}_1 \right)$$

Because the problem is symmetric, it is easy to find that the above expression also describes the optimal strategy of court 2. As a result, we obtain:

**Proposition 3** Under judicial discretion, if $c = 0$ all courts adjudicate with a pro-debtor bias, even in the absence of an average pro-debtor preference. If $c = \infty$ an average pro debtor bias cannot arise.

This result formalizes the intuition that under judicial discretion, the debtor’s first mover advantage may prove to be a sufficient condition to trigger a pro-debtor adjudication, even if courts do
not have strong or stable preferences for one litigant over the other. As a result, not only may the debtors’ first mover advantage induce the selection of biased courts, it may also further increase the judicial bias of all courts, thereby increasing the bankruptcy code’s pro-debtor bias even more. In this respect, if the restrictions for debtors to choose their preferred bankruptcy venue, as reflected in different costs \( c \), vary across bankruptcy codes, then our model can help explain the differences in systematic adjudication bias across bankruptcy codes even in the face of similar reorganization regimes.

Another implication of this model of career concerns is that, in contrast to the model of Section 3, it can generate a large systematic pro-debtor bias even in the absence of large observed forum shopping. In fact, unbiased judges choose to adjudicate in favor of debtors today hoping to induce future forum shopping.

5 The Extent of Discretion and Forum Shopping

Given the debtor’s first mover advantage, does judicial discretion necessarily trigger pro-debtor adjudication and thus undermine social welfare? This is an important question. From a positive standpoint, it may help explain observed differences in the pro-debtor bias of bankruptcy codes across countries or over time. From a normative standpoint, it may help design an optimal intervention scheme by a bankruptcy court. In this section we argue that the extent of judicial discretion can importantly shape debtors’s willingness to file in the most biased or competent courts, thus being a key determinant of the way judicial discretion and forum shopping work in practice.

Consider for example courts’ discretion to keep existing management in control or to violate absolute priority in favor of debtors in case of reorganization. Should the bankruptcy code avoid such discretionary powers by mandating that existing managers must always be replaced by a trustee upon default, or by forbidding violation of creditors’ priority, then bankruptcy courts would not be able to allow these managers to enjoy private benefits of control by reorganizing the firm too often. In turn, this might reduce debtors’ incentive to file in biased courts in the first place, thereby restoring more benign competitive forces.

We study this possibility by assuming that – in addition to deciding whether to reorganize or liquidate a financially distressed firm – bankruptcy courts also decide whether reorganization occurs under existing or new manager (e.g. a trustee). As a result, with respect to our previous analysis, the dimensions of judicial discretion have now increased from one to two. Suppose that
the reorganization value under a trustee, $\rho_{\text{trustee}}$, is equal to the reorganization value under the debtor, namely $\rho_{\text{trustee}} = \rho_{\text{debtor}} = \rho$.\(^{12}\) Furthermore, suppose that under the trustee (who acts in the creditors’ interest), no private benefit of control accrue to the debtor, i.e. $\alpha_{\text{trustee}} = 1 > \alpha_{\text{debtor}}$. This latter assumption endogenizes the debtor’s ability to extract private benefits as a function of the bankruptcy courts’ adjudication policy. For simplicity, we also assume that when the debtor is replaced by new managers, not only does he lose all the private benefits of control, but also that such private benefits accrue entirely to the creditors. This latter assumption is not crucial, however; all we need is that by deciding whether to keep existing managers in control of the reorganized business, bankruptcy courts affect the level of private benefits that failed debtors are able to obtain.\(^{13}\) Now, under full judicial discretion, bankruptcy courts solve:

$$\max_{\kappa = \{\text{trustee, debtor}\}, x(r)} E_{\rho} \{ E_r \{ \beta_c \lambda [1 - x(r)] + \rho [\beta_c \alpha_{\kappa} + \beta_d (1 - \alpha_{\kappa})] x(r) | \rho \} \}$$

(11)

Notice that, given the choice of $\kappa$, there is still a threshold rule:

$$r_j = E(\rho) - \frac{\theta_j^2}{\bar{\rho} - \rho} \ln \frac{\beta_j (1 - \alpha_{\kappa}) \bar{\rho} + (\alpha_{\kappa} \bar{\rho} - \lambda)}{(\lambda - \alpha_{\kappa} \rho) - \beta_j (1 - \alpha_{\kappa}) \rho}$$

(12)

If the court decides to keep existing management in control, then the threshold is the same as before. If instead the court replaces the debtor with a trustee, then the threshold becomes:

$$r_j = E(\rho)$$

(13)

Irrespective of the court’s pro-debtor bias, when reorganization occurs under the trustee the court’s adjudication is de-facto unbiased. The intuition is that when a trustee is in charge, the court has no specific preferences for reorganization or liquidation, because it cannot cater to the preferences of failed debtors anyway. Given this property, it is not surprising that when courts have full discretion the decision of whether to appoint a trustee or to keep existing management in place will be taken as follows:

\(^{12}\)This assumption is only made for analytical simplicity but it does not affect our positive results. As will soon become clear, the normative conclusion of our analysis might instead change if $\rho_{\text{trustee}} < \rho_{\text{debtor}}$. In this case, a rule mandating the automatic appointment of a trustee would reduce judicial bias but also yield lower profits under reorganization.

\(^{13}\)For example, our main results also hold under the following, alternative assumptions: 1) when new managers are appointed, they enjoy the same private benefits that would otherwise accrue to the debtor, and 2) the bankruptcy court attaches the same weight to the utility of the creditor and to that of the new manager. The last assumption is reasonable, given that new managers do not choose the bankruptcy court.
**Proposition 4** Under full discretion, courts with $\beta > 1$ leave existing managers in control while courts with $\beta \leq 1$ replace existing management with a trustee. In turn, debtors file in courts with bias $\beta = \overline{\beta}$ and the outcome is identical to the one of Proposition 2.

When the bankruptcy court can discretionally decide whether to leave existing management in control, then pro-debtor courts will obviously do so, allowing debtors to extract private benefits. In turn, failed debtors will file for bankruptcy in the most biased court and the outcome will be identical to the one discussed in Section 3.

If instead the bankruptcy code curtails judicial discretion in the decision whether to keep existing management in control but allows some discretion in the decision whether to reorganize or liquidate the firm we obtain:

**Corollary 3** If the bankruptcy code mandates the automatic replacement of failed debtors, then in equilibrium all courts adjudicate in an unbiased manner and debtors file in courts with $\theta = \overline{\theta}$.

Consistent with intuition, the model shows that preventing courts from keeping failed managers in place turns debtors’ incentives upside down. Because now any court disallows debtors from extracting private benefits of control, debtors no longer have an incentive to file in pro-debtor courts as such courts would have no way to express their bias in adjudication. As a result, expression (13) shows that even pro-debtor courts will decide whether to reorganize or liquidate in an unbiased manner. In addition, the impossibility of courts to use their discretion to please the debtor implies that debtors have an incentive to file in the most competent, and even least biased, courts. In short, the above result shows that judicial discretion in the decision of whether to keep existing management in control may well be responsible for judicial bias in the decision of whether to reorganize or liquidate the firm: a code mandating the replacement of failed debtors restores efficient competition, leading to the selection of the best courts, thereby unleashing the benefits of judicial discretion.

As a result, the extent of judicial discretion is a key determinant of the performance of a state-mandated bankruptcy procedure because, depending on the former, competition among bankruptcy procedures

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14 If there are intrinsically pro-liquidation courts, then creditors may try to approach the debtor in the vicinity of bankruptcy so as to persuade him to file in such pro-liquidation court. A fuller analysis might take this possibility into account. However, from the standpoint of ex ante financing (and perhaps also of ex post efficiency) the selection of a pro-creditor court would already be an improvement over the selection of a highly pro-debtor court because the former court would increase repayment to the creditor.

15 Note that in our model the debtor is indifferent between different courts because he gets nothing. However, it is realistic to assume that the debtor’s payoff increases with competence via some unmodeled factors such as speed or cost. We feel that explicitly modeling those factors would complicate the analysis without adding much insight.
courts needs not work for the worse. In particular, a bankruptcy code limiting judicial discretion in highly distributive issues (e.g. whether to keep debtors in control or to violate creditors’ priorities), while still allowing for some judicial discretion in the decision of whether to reorganize or liquidate the firm (such as in gathering information from the parties or in supervising their bargaining), could reduce courts’ ability to cater to failed debtors. In turn, these changes would induce even pro-debtor courts to use their residual discretion in an efficient manner and induce debtors to file in more competent courts. These results may help explain the variation in the resolution of financial distress across bankruptcy codes (e.g. Davydenko and Franks 2007) as a function of the extent of judicial discretion granted by different codes.

6 Judicial Discretion and Pro-Debtor Bias in the U.S. Bankruptcy Code

It has been widely argued that the U.S. bankruptcy code is pro-debtor (e.g. Skeel 2001) in that it “appears to have strong incentives to keep the firm as a going concern even when it is worth more in liquidation” (Franks and Torous 1993). In this section we use our model of judicial discretion to shed light on the empirical evidence on the resolution of financial distress, with a particular focus on the U.S. bankruptcy code. We stress that the discretion enjoyed by U.S. bankruptcy courts may be an important determinant of the pro-debtor bias of U.S. bankruptcy proceedings, giving rise to substantial forum shopping. We then discuss empirical evidence on the predictions of our model. We describe judicial discretion in corporate bankruptcy in section 6.1 and forum shopping in section 6.2.

6.1 Judicial Discretion in the U.S. Bankruptcy Code

U.S. Chapter 11 leaves bankruptcy courts discretion on many important decisions that can affect the resolution of financial distress. Here we discuss three of them, namely extensions of exclusivity, first day orders and appointments of trustees.

First, upon entering Chapter 11 the debtor has the exclusive right to file a plan for reorganization during the first 120 days of the case. Courts can discretionally allow extensions to such exclusivity period. Such discretion is significant because during such period either the creditors agree with the debtor’s proposed plan, or no agreement is reached and creditors cannot move the case forward. As a result, the longer the exclusivity period, the higher the threat point for the debtor and the
higher the incentives of creditors to make strong concessions to the debtor.

Second, U.S. courts have also discretion regarding first-day orders. First day orders allow bankruptcy courts to yield to the practicalities of operating a business in bankruptcy reorganization. For example, after bankruptcy filings, debtors cannot repay pre-petition debts to selected creditors at the expense of others. However, to continue operations, bankrupt firms typically need to be able to continue dealing with (a subset of) pre-petition creditors and suppliers. Such repayments are known as "preferences" and can be avoided on the application of the remaining creditors. The only exception to this rule is the possibility that courts allow critical vendors payments. By allowing them, bankruptcy courts can crucially affect the probability of reorganization and the extent to which the rights of existing creditors’ are violated.

Third, a key dimension on which U.S. bankruptcy courts have discretion is the appointment of a trustee. Although § 1104 of the U.S. code states that "the court shall order the appointment of a trustee for cause, including fraud, dishonesty, incompetence, or gross mismanagement of the affairs of the debtor by current management, either before or after the commencement of the case," substantial flexibility is left to judges to determine whether those conditions apply. In cases of corporate fraud. As a result, by deciding whether to appoint a trustee or not, bankruptcy courts can harm or favor the debtor, in turn affecting the way financial distress is resolved.

In practice, U.S. bankruptcy courts seem to have used their discretion along these (and other) dimensions and to have done so in different extents. For example, Chang and Schoar (2007) find that there are specific differences in individual judges in their propensity to grant or deny specific motions such as extension of exclusivity or use of cash collateral, consistence with the presence of substantial judicial discretion. Moreover, it appears that the New York and Delaware courts have used more extensively than others their powers in favor of debtors by allowing extensions of exclusivity and by frequently issuing first-day orders (e.g. Weiss and Wruck 1998, Lo Pucki 2005). Strikingly, and consistent with our results of Section 5, these courts have almost never appointed trustees, not even in such famous bankruptcy cases of corporate fraud as Enron, Worldcom, Global Crossing and Adelphia (see LoPucki 2005 p. 145-151 for a detailed account).

In light of this evidence, it is interesting to see whether the exercise of judicial discretion affects the way financial distress is resolved in the U.S. In this respect, Chang and Schoar (2007) document that the use of cash collateral and extentions of exclusivity increase a firm’s likelihood of re-filing for bankruptcy and that more generally pro-management bias leads not only to increased re-filing but also to lower post-bankruptcy credit ratings. Bris, Welch, and Zhu (2006) study Chapter 7
and Chapter 11 cases filed in the courts of Arizona and New York, and find that the frequency of violations of absolute priority across judges varies from 60% for the more pro-debtor ones to 0% for the more pro-creditor ones, and the fraction of pre-bankruptcy claims ultimately paid to creditors varies from 70% to 100%. It is also interesting to see the evidence on the allegedly pro-debtor courts of New York and Delaware courts. LoPucki and Kalin (2001) find that companies that were reorganized in Delaware between 1990 and 1996 were failing at a disproportionately high rate, eventually ending up filing again for Chapter 11. Of the 188 large reorganization cases between 1983 and 1996, LoPucki and Kalin (2001) find that 60 percent of re-filings were cases that were previously reorganized in either Delaware or New York. The percentage rises to about 80% for the period 1991-1996, and is also striking for the case of pre-packaged Chapter 11 cases (pre-packs), where courts have particularly strong discretion to quickly approve the plan as is rather than scrutinise its parts. LoPucki and Kalin conclude that firms emerging from either Delaware or New York were significantly more likely to re-enter bankruptcy than firms emerging from other courts, and also, more re-filings resulted in more reorganization failures (i.e. liquidations, and acquisitions at fire prices), and that high overall re-filing rates were the product of inter-court competition. These findings are also consistent with Gilson’s (1997) findings that firms emerge from Chapter 11 with as high debt levels as the ones they entered it with.

6.2 Filing Flexibility and Forum Shopping in the U.S.

The evidence described above suggests that debtors have significant potential advantages if they can file in a pro-debtor court. However, this evidence is not enough to generate a systematic bias. To have that, we need filing flexibility. In this respect, although the U.S. bankruptcy code tends to restrict the possibilities for forum shopping, substantial flexibility still exists, especially for large companies. The bankruptcy venue statute recognizes four connections between a debtor

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16 In the case of personal bankruptcies, variations across courts are even more startling. For example, debtors filing for Chapter 13 bankruptcy in San Antonio, Texas, in the early 1990s had to repay close to 100% of their claims, while debtors filing the same kind of case in Dayton, Ohio, generally had to pay only 10% of the face value of their claims (Braucher 1993).

17 Such a systematic process has then been commonly referred to as Chapter 22. In particular, the probability that any given public company will file bankruptcy in a given year is 0.77 percent. But for a company that has already been through bankruptcy, the re-filing risk is much higher, beginning at 1.6 percent in the first year, peaking at 4.4 percent in the third year, declining slowly to 3.4 percent in the sixth and seventh years, and falling to 2.1 percent thereafter (see LoPucki 2005 for a detailed overview).

18 Ayotte and Skeel argue that the frequent filings in Delaware reflect the court’s expertise and not its pro-debtor stance. This view and alternative explanations such as that Delaware filings were either more complicated (i.e. involved more classes of debt), or much faster have been empirically questioned by Butler (2003).
and a court, any of which makes the court a proper venue for the debtor’s bankruptcy. The four connections are that the court is: (1) at the “domicile or residence” of the debtor, (2) at the debtor’s “principal place of business”, (3) at the location of the debtor’s principal assets, or (4) where the bankruptcy case of an affiliate is already pending.

In practice, companies have been able to get around these restrictions in different ways so that the extent of forum shopping in U.S. bankruptcy is large. LoPucki and Whitford (1991) find that in the 1980s large pre-bankrupt firms from all over the U.S. began transferring their headquarters in small offices in Manhattan to be able to file at the New York court, where judge Burton R. Lifland was known to be strongly pro-debtor (see for example the account of the Eastern Airlines case in Weiss and Wruck 1989). Similarly, corporations have been lying off workers in some places and hiring executives in others, nearer their desired bankruptcy court, to later claim at the time of the filing that their “principal place of business” was close to their desired court (LoPucki 2005). Crucially, even if creditors challenge the venue choice, it is the debtor-chosen court to have the final say, often resulting in the pro-debtor court retaining the case.

Consistent with our predictions, forum shopping is thus widespread: 57% of all U.S. Chapter 11 cases from 1980 to 2005 (411 out of 722) can be classified as “forum shopping” (authors’ own calculations, based on data from LoPucki 2005). Interestingly, and again consistent with our model, forum shopping has mainly rewarded two courts widely regarded as pro-debtor such as New York and Delaware. New York alone attracted 32% of the cases in the 1980s, and Delaware 43% (31 out of 72) between 1993 and 1996 (13 out of 15 in 1996 alone), according to the evidence in LoPucki and Whitford (1991), and LoPucki and Doherty (2002) – see also Weiss and Wruck (1998) and Ayotte and Skeel (2004). The basic mechanism is consistent with the one set out by our model of career concerns as there is also evidence that other courts have begun yielding to competition by signaling a more pro-debtor stance. For example, Chicago chief bankruptcy judge Susan Pierson Sonderby recently told the Wall Street Journal that “she began spreading the word to attorneys that if they showed they deserved their pay . . . the [Chicago] judges would accept their fees.”

It is important to notice that the surge in forum shopping is a relatively recent phenomenon as there are no accounts of it before the early 1980s, so a challenge for our theory is to explain why this is the case. Skeel (2001) discusses some historical evidence suggesting, in line with our model in Section 5, that judicial discretion can also help explain the recent surge in forum shopping in U.S. Chapter 11. Skeel (2001) identifies three key eras in U.S. bankruptcy law, the first one following

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the widespread railroads failures in the 19th century, culminating in the first Bankruptcy Act of 1898 and continuing until the New Deal legislation, the second one marked by the Chandler Act of 1938, and continuing until the late 1970s, and the third one marked by the Bankruptcy Code of 1978, and continuing to the present day. Interestingly, judicial discretion and court intervention were large following the large railroad bankruptcies in the second half of the 19th century, then smaller after the Chandler Act of 1938, and large again after the enactment of the 1978 Code.

Before the railroads, financial distress was usually resolved by an automatic appointment of trustees in place of the failed management, following the usual practice under Common Law called ‘equity receivership’. With the railroads came the first large scale business failures, which prompted bankruptcy courts to intervene more actively.20 By contrast, the bankruptcy code of 1938 greatly reduced the extent of judicial discretion, for example mandating the automatic appointment of a trustee upon default. Finally, the bankruptcy code of 1978 re-introduced a large extent of judicial discretion and enlarged the scope of court intervention by re-enforcing and expanding the scope of such provisions as the automatic stay and the debtor-in-possession. While systematic data is missing for the early part of the 19th century, in line with our model it is not surprising to observe that court competition only emerged after the 1978 code. In other words, the increased discretion of bankruptcy courts after 1978 may help explain the increase in forum shopping and thus in pro-debtor bias that took place after 1980.

Given judicial discretion and debtors’ filing flexibility, the evidence on U.S. bankruptcy is consistent with our theory that judicial discretion is responsible for the pro-debtor bias of the U.S. bankruptcy code. In what follows we argue that the evidence reviewed above may also help explain the attempts to resolve financial distress via private workouts instead of filing for Chapter 11, and the evidence on debt financing in U.S. corporations.

U.S. creditors typically try to avoid Chapter 11 proceedings via private negotiations and workouts, despite the fact the such workouts are found to be very costly in practice, because they appear to be conducive to asset sales at below market prices (Asquith, Gertner and Scharfstein 1994). This finding is consistent with our model: the threat of pro-debtor adjudication can be so large that

20 The paramount example involved the Wabash Railway Company, which on the verge of default petitioned a Federal Court to allow the appointment of two of its own ex-directors as receivers. The company’s lawyers admitted that the only purpose of the request was to preempt the lenders from exercising their contractual right to appoint a receiver, thus allowing the directors to retain their job. The Federal court went along, and the Wabash case did set a precedent and started an era of significant judicial discretion and strong court intervention (Skeel 2001, Franks and Sussman 2005).
creditors may be willing to make large concessions to creditors and bear large costs of private workouts to prevent filing for Chapter 11 in a pro-debtor court.

One puzzling fact in corporate finance is the puzzling observation that debt levels in U.S. corporations are usually thought to be much lower than would be expected given the large tax benefits of issuing debt as opposed to equity. In an influential study, Graham (2000) estimates corporate tax benefits of debt equal to 9.7% of the typical firm value when correcting for diminishing marginal benefits of debt, and concludes that "The typical firm could double tax benefits by issuing debt until the marginal tax benefit begins to decline." To explain the very low observed debt levels, traditional trade-off theories of capital structure suggest that there may be costs of financial distress (e.g. Kraus and Litzenberger 1973). However, subsequent research demonstrates that both such direct costs as lawyers' fees (Warner 1977) and such indirect costs as under- and over-investment (Parrino and Weisbach 1999) are too small to reconcile the observed low levels of debt. Our paper suggests that judicial discretion may represent an indirect cost of financial distress, in principle able to explain the reluctance of U.S. corporations to resort to debt issuance in their capital structure.

7 Conclusions

We have presented a model of judicial discretion in corporate bankruptcy, and we have argued that our theory can parsimoniously explain a wealth of empirical evidence regarding the resolution of financial distress in the U.S. and around the world.

Clearly, drawing normative implications is beyond the scope of our paper. We just note that here we have taken for granted the existence of restrictions to private contracting, and studied the positive consequences of judicial discretion for the resolution of financial distress. In a recent paper, Gennaioli and Rossi (2007) show theoretically that, absent such legal restrictions, private contracts such as floating charge and convertible debt can resolve financial distress efficiently. Thus, one way to interpret the results of our paper is that, by stressing the costs of judicial discretion in corporate bankruptcy we provide additional, albeit indirect, arguments in favor of increasing contractual freedom to resolve financial distress.
Appendix 1. Proofs

**Proof of Proposition 1.** It is useful to start by recalling that \( r_j \) maximizes the court’s utility \( E_\rho \{ \lambda \Phi_j + v_j \rho (1 - \Phi_j) \} \), where we have labeled \( v_j = \alpha + \beta_j (1 - \alpha) \). The first order condition implies that, \( E_\rho \left\{ (\lambda - v_j \rho) \Phi_j' \right\} = 0 \). Consider now the effect of \( \beta_j \) on the outcome of bankruptcy. By deriving expression (2) it is easy to find that the probability of reorganization increases in \( \beta_j \), as \( dr_j/d\beta_j < 0 \). The probability of re-filing is \( 1 - \Phi \left( \frac{r(\beta, \theta_j) - \rho}{\theta_j} \right) \), which also goes up with \( \beta_j \). Finally, the derivative of expected repayment \( (E_\rho \{ \lambda \Phi_j + \alpha \rho (1 - \Phi_j) \}) \) with respect to \( \beta_j \) is equal to:

\[
E_\rho \{ (\lambda - \alpha \rho) \Phi_j' \} \frac{dr_j/d\beta_j}{\theta_j} = E_\rho \{ \beta_j (1 - \alpha) \Phi_j' \} \frac{dr_j/d\beta_j}{\theta_j} \leq 0
\]

Where the equality exploits the court’s first order condition in setting \( r_j \). Thus repayment falls in \( \beta_j \). Consider now an increase in the court’s "lack of competence" \( \theta_j \). Since the overall probability of reorganization is \( E_\rho \{ 1 - \Phi_j \} \), its derivative with respect to \( \theta_j \) is \( -E_\rho \{ \Phi_j' \rho_j + \rho - 2E(\rho) \} / \theta_j^2 \).

By exploiting the first order condition for \( r_j \) and the expression of \( r_j \) it is easy to find that the probability of reorganization increases in \( \theta_j \) if and only if:

\[
\lambda \leq [\alpha + \beta_j (1 - \alpha)] \left[ E(\rho) + \frac{\theta_j^2}{\rho - \rho} \ln \frac{\beta_j (1 - \alpha) \rho + (\alpha \rho - \lambda)}{(\lambda - \alpha \rho) - \beta_j (1 - \alpha) \rho} \right] \quad (14)
\]

under assumption A.1. (i.e. \( E(\rho) = \lambda \)), condition (14) holds if and only if \( \beta_j \geq 1 \). As a result, less competent courts reorganize more often if and only if they are pro-debtor. Accordingly, the probability of re-filing increases in \( \theta_j \) provided

\[
-\frac{\theta_j^2}{\rho - \rho} \ln \frac{\beta_j (1 - \alpha) \rho + (\alpha \rho - \lambda)}{(\lambda - \alpha \rho) - \beta_j (1 - \alpha) \rho} + \rho - E(\rho) \leq 0
\]

This condition is always met for \( \beta_j \geq 1 \). In general, there exists a threshold \( \beta(\theta_j) < 1 \) increasing in \( \theta_j \) such that the probability of re-filing increases in \( \theta_j \) if and only if \( \beta_j < \beta(\theta_j) \). Finally, the derivative of repayment with respect to \( \theta_j \) is equal to \( E_\rho \left\{ (\lambda - \alpha \rho) \Phi_j' \rho_j + \rho - 2E(\rho) \right\} / \theta_j^2 \). Given that:

\[
(\lambda - \alpha \rho)E_\rho \{ \Phi_j' \rho_j + \rho - 2E(\rho) \} \leq E_\rho \{ (\lambda - \alpha \rho) \Phi_j' \rho_j + \rho - 2E(\rho) \} \leq (\lambda - \alpha \rho)E_\rho \{ \Phi_j' \rho_j + \rho - 2E(\rho) \}
\]

condition (14) implies that repayment falls with \( \theta_j \) if \( \beta_j \geq 1 \). If \( \lambda \geq \alpha \rho \), this is also true for \( \beta_j < 1 \).
The threshold rule found above implies that the probability that court \( j \) reorganizes a firm whose reorganization value is \( \rho \) equals \( \Pr(r > r_j) \). Given that \( r \sim N(\theta_j, \theta^2) \), such probability is equal to:

\[
1 - \Phi \left( \frac{r(\beta_j, \theta_j) - \rho}{\theta_j} \right),
\]

where \( \Phi(\cdot) \) is the standard normal c.d.f. From now on, define \( \Phi_j = \Phi \left( \frac{r(\beta_j, \theta_j) - \rho}{\theta_j} \right) \). The firm is thus liquidated with probability \( \Phi_j \). Notice that the probability of reorganization increases in the firm’s reorganization value \( \rho \) but also depends on the court’s bias and competence. We are mainly interested in studying how courts’ characteristics affect three outcomes of bankruptcy: the probability that the firm is reorganized, the probability of a bankruptcy re-filing (i.e. the probability that a rescued firm files again for bankruptcy later on) and repayment to creditors.

Consider first the impact of a court’s bias \( \beta_j \). Explicit derivation of (4) shows that courts more favorable to the debtor (i.e. having larger \( \beta_j \)) are more likely to reorganize all firms, including those with poor prospects. Interestingly, this implies that \( \beta_j \) also increases the probability of re-filing: when a pro-debtor court rescues an unprofitable firm, corporate debt is rescheduled to a face value of \( \alpha \rho \). Thus, the debtor is doomed to default and file for bankruptcy again, because he cannot repay more than \( \alpha \rho \). Finally, \( \beta_j \) also reduces expected repayment to creditors. Averaging across reorganization values, expected repayment is equal to \( E_\rho \{ \lambda \Phi_j + \alpha \rho (1 - \Phi_j) \} \), and its derivative with respect to \( \beta_j \) is:

\[
E_\rho \{ (\lambda - \alpha \rho) \Phi_j' \} \frac{dr_j/d\beta_j}{\theta_j} = E_\rho \{ \beta_j (1 - \alpha) \Phi_j' \} \frac{dr_j/d\beta_j}{\theta_j} \leq 0
\]

where the equality exploits the court’s first order condition in setting \( r_j \). Given that more pro-debtor courts reorganize more often (i.e. \( dr_j/d\beta_j < 0 \)), the expression above is negative because at the court’s optimal threshold the creditor on average loses from reorganization (as implied by the fact that \( E_\rho \{ \beta_j (1 - \alpha) \Phi_j' \} \geq 0 \).

In contrast to bias, the impact of the court’s "lack of competence" \( \theta_j \) on bankruptcy outcomes is ambiguous.
Appendix 2. Ex Ante Efficiency and Private Workouts

7.1 Private Workouts and Ex Ante Efficiency

The above result evaluated the welfare cost of judicial bias and incompetence under the assumption that the creditor and the debtor could not resolve financial distress by bargaining among themselves in a private workout. In reality, many firms will not do workouts, especially those with dispersed debt structure (Asquith et al. 1994). However, little changes even if allow for workouts. When $\alpha\rho < \lambda$, cannot renegotiate over-liquidation, but only over reorganization. This implies that workouts cannot solve. But even if they attain ex post efficiency, they undermine ex ante break even. This is because in front of a biased court the creditor settles at bad terms. This undermine ex ante repayment and thus debt capacity.

[TO BE COMPLETED]
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