

UDC: 65.016.8(437.3); 347.736(437.3)

JEL classification: G33, K12, K29

Keywords: bankruptcy – capital and ownership structure – ex-ante and ex-post efficiency – moral hazard
– judicial corruption

What Drives the Optimal Bankruptcy Law Design?

Ondřej KNOT – Ondřej VYCHODIL*

1. Introduction

The last decade has witnessed a surge in the economic research of bankruptcy. Thanks to this research, many things have become much clearer but there is still a large area of disagreement about how an optimal bankruptcy law should look. At the same time, the actual bankruptcy laws in various countries differ substantially in many respects. These differences reflect the underlying differences of the economic and institutional conditions, the path-dependency of economic and institutional development, and, last but not least, the political-economy factors. Although we may hope that future research will help us design better bankruptcy laws, there will never be something such as a generally applicable best solution.

In the present paper we want to set the stage for the debate about bankruptcy in the Czech Republic. Our major goal in the paper is to highlight considerations that are often overlooked – not only in the policy debate about the design of a bankruptcy law but also in the academic research concerning this issue. We start with a brief explanation in Section 2 of why a bankruptcy law is needed at all.

In section 3, we deal with the dichotomy of ex-ante vs. ex-post effects of bankruptcy laws. The debate often deals only with the effects of different concepts on firms already in bankruptcy. While these firms represent only a small fraction of the economy, the bankruptcy law affects the behavior of *all* the debtors and creditors. In other words, the bankruptcy law not only has ex-post effects (effects on firms in bankruptcy) but also *ex-ante* effects (effects on the actions of sound firms and creditors).

In section 4, we analyze the influence of institutional factors on the optimal design of a bankruptcy law. As Hart (2000) notes with respect to bankruptcy laws: “[...] it is unlikely that ‘one size fits all’. That is, although some bankruptcy procedures can probably be rejected as being manifestly bad, there is a class of procedures that satisfy the main criteria of efficiency. Which procedure a country chooses or should choose may then depend on other factors, e.g., the country’s institutional structure and legal tradition.” (Hart, 2000, p. 1)

Of particular importance for the optimal bankruptcy law design is the quality of the judiciary. Judges make crucial decisions in the course of

* CERGE-EI, Prague, Czech Republic and IES FSV UK, Prague, Czech Republic
(ondrej.knot@cerge-ei.cz), (ondrej.vychodil@cerge-ei.cz)

bankruptcy proceedings, starting from the declaration of bankruptcy, over many decisions during the proceedings, to approving the final distribution or the reorganization plan. Their capacity and moral standards affect the optimal level of discretion given to them.

Before we start with the agenda outlined above, a disclaimer needs to be made: we do not claim the right to determine what should be the goal of the bankruptcy law, in particular, whether it should be to achieve maximum efficiency without distributional concerns or whether pure efficiency should cede to some distributional goals. This question should be answered by the politicians. Our ambition, instead, is to discuss the consistency of various designs with different possible goals of bankruptcy laws. It should also be stressed that although the issues discussed here are relevant for the current debate about the Czech bankruptcy reform, we do not explicitly deal with the analysis and solution of particular problems.

2. The Need for Bankruptcy Law

The first question is: Do we really need a bankruptcy law? And if yes, why do we need it? Bankruptcy laws represent a state intervention in the contracting freedom as they restrict the set of ex-ante feasible contracts. Once bankruptcy is declared, debt contracts are, in fact, invalidated and replaced by the rules contained in the bankruptcy code. In a standard Arrow-Debreu economy without externalities and other market failures, such restrictions would be harmful to overall social welfare. Therefore, the economic justification for bankruptcy law, if any, must consist in the presence of *market failures*.

Standard justification says that bankruptcy law is needed to resolve a situation where the creditors' claims are mutually inconsistent, i.e., there are *more creditors* and there are not enough assets to compensate all of them according to their contracts. Without the automatic stay on individual debt collection in bankruptcy, creditors would be motivated to "*run on assets*" in order to be the first to collect. The Nash equilibrium resulting from their optimal individual strategies would not be socially optimal. This particular market failure represents the usual explanation of the need for a bankruptcy law.

Given that agents are rational, we should ask why firms have more creditors at all? The inefficiency would not arise if each firm had a single creditor. The answer to the question of creditor multiplicity can be found in several papers on financial contracting. Bolton and Scharfstein (1996) and Berglof *et al.* (2003), for example, develop models in which the creditor multiplicity is not a result of chance but is determined endogenously. In the model of Bolton and Scharfstein (1996), the increased costs incurred exposed in the presence of multiple creditors reduce the incentives of the debtor to default *strategically*. Berglof *et al.* (2003) find the major effects of multiple creditors to be higher debt capacity because the debtor can credibly commit to higher repayments. Unlike in Bolton and Scharfstein (1996), the incentives to default strategically in their model increase with the presence of multiple creditors, which is due to higher debt. In both models, however,

the inefficiency ex-post increases the efficiency ex-ante and the problem is to find an optimal trade-off between the two.¹

The hypotheses of these models should be verified empirically before adopting them as valid. Although the multiplicity of creditors arises endogenously from the assumptions of the models and not as a matter of chance, the validity of the assumptions might possibly be questioned. In particular, the ex-post inefficiency in the models arises mainly due to friction in ex-post bargaining after default which prevents the debtor and the creditors from achieving the socially efficient solution. In reality, this need not be the case – e.g., when the number of parties bargaining is as small as three. Another questionable assumption is that the continuation under the *original management* is always optimal. In fact, it may often be optimal to fire the original management and hire a new one. Changing these assumptions would change the outcome of the models considerably.

Given that the assumptions of the above-mentioned models are valid, the multiplicity of creditors is a natural result of the agents' rational behavior. The question that follows is why the mechanism for the resolution of the debtor's default, under the presence of multiple creditors, cannot be stipulated in a contract. Here, the usual answer is that all contracts are necessarily *incomplete* – they do not specify optimal actions for all the states of the world, simply because it is not possible to foresee ex-ante all the states that can occur, to describe them in a contract, and to specify optimal actions for all these states. Even if the individual contingencies that may arise (cash flows, effort level, investment levels) may be observable for the parties of the contract, they may not be verifiable by an outside party, e.g., the court, and the contract cannot be made contingent upon them. Therefore, the actual contracts are either not state-dependent at all or they only specify actions for a small subset of possible states.²

The above argument shows that some mechanism to resolve the inconsistency of individual creditors' claims in case of bankruptcy is needed. Our final note, to be taken as a topic for discussion rather than as a recommendation, concerns the question whether this has to be a state-provided bankruptcy law. Hart (2000), for example, proposes that companies be allowed to opt out from the state bankruptcy procedure. If they can agree with their creditors, there seems to be no reason why they should be prevented from selecting their preferred procedure. The only problem one can think of in connection with this possibility is the protection of certain creditors, in particular those who have not become creditors from their own will, such as tort claimants or tax authority, and those who are in a weaker position with respect to the company, such as the workers. These classes of creditors could be protected by requiring that they could not receive worse treatment than under the default bankruptcy regime, represented by state bankruptcy law.

¹ For the discussion on the concepts of ex-ante efficiency vs. ex-post efficiency, see Section 3.

² Some authors, however, cast doubt on the argument with contract incompleteness. Maskin and Tirole (1999) show that contract incompleteness would not have to be a problem for rational agents because mechanisms exist that enable them to achieve the same payoffs as those that would be specified in a complete contract.

With some imagination, one can assume that organizations such as business chambers which operate dispute resolution panels would start to provide their own insolvency proceedings and the competition among them would keep down the costs and push up the speed and quality of services provided. The bottom-line is that although the incomplete contracts argument may justify the existence of a bankruptcy procedure, it need not justify the exclusivity of state-provided bankruptcy regimes.

It is clear from the argument above that bankruptcy laws necessarily interfere with the individual rights of creditors. However, we can observe different degrees of this interference with creditors' rights in different bankruptcy law designs around the world. In general, we can distinguish between bankruptcy systems that are *tough* on debtors (i.e., assigning strong control rights to creditors) and those that are *soft* (i.e., limiting creditors' rights substantially). Existing bankruptcy laws range from extremely tough to extremely soft. In this paper, we discuss what factors determine whether the optimal bankruptcy law should be rather soft or rather tough.

Before turning to this, however, we provide an explanation of what we understand under a soft and a tough bankruptcy law. A law is soft if it includes a regime under which the debtor can remain in control following bankruptcy even if the creditors would not agree with this. The aim of keeping the debtor in control is to give him a chance to reorganize the company and to keep it as a going concern. Whether the debtor gets this chance is decided by the court. The debtor then prepares a reorganization plan, specifying changes both in the cash-flow rights, control rights and in the operations of the firm. In principle, this plan has to be approved by the creditors but, under certain conditions, the consent of both individual creditors and the whole classes of creditors is not necessary.

On the other hand, the law is tough if the creditors have major influence over the bankruptcy proceedings. Even a tough bankruptcy law may contain a reorganization chapter but the creditors are entitled to decide whether the debtor shall be allowed to enter into reorganization. Here, the principle that the creditors are in fact the economic owners of the bankrupt firm and should thus be allowed to make the most important decisions is applied consistently.

Usually, the U.S. bankruptcy code is considered to be soft on creditors because its Chapter 11 endorses the principles associated above with the soft bankruptcy law. The German or British bankruptcy codes can be considered tough, according to the above criteria. An interesting experience of the Czech Republic shows that even a "nominally" tough bankruptcy law can turn out to be soft in its effects if the debtors can maintain control by taking advantage of various flaws in the law or, sometimes, via outright corruption of the bankruptcy judges.

3. Ex-ante and Ex-post Efficiency

An important consideration in connection with the assessment of a bankruptcy law quality is one distinguishing between its ex-ante and ex-

-post effects. Quite often, analyses of bankruptcy laws deal only with the latter, looking at what happens after bankruptcy is declared.³ The institution of bankruptcy, however, does not purely affect a certain segment of firms in the economy that go bankrupt (ex-post effect). The indirect effects on the rest of the economy take place through the possibility of bankruptcy in the future (ex-ante effect).

The ex-post efficiency criterion requires that a socially optimal solution be implemented after bankruptcy occurs. For several reasons, giving control to creditors may not guarantee that such a solution will be achieved. For example, social optimality may require leaving the debtor (debtor's management) in control because they most likely have better information than anybody else, including the creditors, about what to do with the firm.⁴ This may also require canceling most of the debt in order to provide the debtor with the right incentives. Another reason for ex-post inefficiency of giving full control to creditors is that the socially optimal solution may be different from the solution that would maximize the market value of the firm, i.e., value available for creditors. This situation arises in the presence of externalities created by the firm, which the creditors would not internalize. Thus, they could liquidate the firm, although it would be socially optimal to reorganize it and continue operation.⁵ These two examples, however, represent just one side of the coin – ex-post efficiency.

To also account for ex-ante efficiency, one has to consider how debtors and creditors adjust their behavior in the pre-bankruptcy stage conditional to what happens in bankruptcy. How the set-up designed to achieve an optimal solution ex-post will affect the ex-ante effort of the debtor to avoid bankruptcy and the willingness of creditors to borrow? If there are substantial distortions, then the exclusive focus on ex-post optimality may cause significant harm to overall optimality. For example, even if a soft bankruptcy law is ex-post optimal, some projects with positive net present value may not be financed because the creditors may not be able to extract sufficient value from the debtor to at least compensate their initial outlay.

A soft bankruptcy law will also affect creditors' actions once they financed the project. The risk of bankruptcy, in which they may suffer substantial losses, induces them to negotiate such contractual terms with the debtor that allows them to liquidate endangered projects as soon as the first signs of potential problems appear, even though this may also be connected with losses. Therefore, some viable projects may be liquidated prematurely. Soft bankruptcy laws also affect the actions of the debtor or its management. Knowing that they can keep control in bankruptcy, the debtor will be less motivated to avoid it. This further aggravates the moral hazard problem connected with debt financing because the debtor will be motivated to choose more risky strategies.

On the other hand, an ex-post efficient soft bankruptcy law has some positive ex-ante effects, too. It provides creditors with stronger incentives to

³ Examples of this approach are (Bebchuk, 1988) or (Aghion – Hart – Moore, 1992).

⁴ See, for example, (Berkovitch – Israel, 1999) for a model along these lines.

⁵ See, for example, (Biais – Recasens, 2002).

monitor the debtor. Given the free-rider problem connected with monitoring, stronger monitoring creates positive externalities for other stakeholders who benefit from the due management of the firm (e.g., shareholders, workers or the tax-authority). If bankruptcy becomes very likely or even inevitable and the law is tough on the debtor, the same factors that served to discipline the management in a sound firm may now play a different, undesirable role. Because tough laws give control and cash flow rights in bankruptcy to creditors, the distressed firms have little to lose and their management is motivated to choose “all or nothing” strategies that have very high probability of failure but in case of success can keep the firm alive. The debtor may even try to divert assets and cash flow from the distressed firm to other projects.

We, however, believe that the negative ex-ante effects of a soft bankruptcy law prevail over the positive effects. First, the net effect of stronger monitoring by the creditors may be reduced because shareholders may decrease their monitoring efforts and rely more on monitoring by the creditors. Second, the aggravated moral hazard problem under a tough bankruptcy law can partly be mitigated by including sanctions to the management for actions reducing or endangering the value of the firm. In addition, this aggravated moral hazard problem concerns only a small amount of businesses which become distressed, while the positive effect of a tough bankruptcy law on effort in sound firms concerns all the firms in the economy.

The bottom-line of the above discussion is that there is a *trade-off between ex-ante and ex-post efficiency*. Although a soft bankruptcy law may lead to better results ex-post, it has negative effects ex-ante. Where on the scale between absolutely soft and absolutely tough should the law optimally be, depends on various factors, which we discuss below.

3.1 Macroeconomic Conditions

In calm economic periods, bankruptcy is rather a rare event and, more importantly, firms that go bankrupt are usually those that are economically, not only financially distressed. The distinction between economic and financial distress is crucial. It relies on the causes of the firm’s inability to repay its debt. *Economic distress* means that the firm does not use its inputs optimally and it would be socially efficient if these resources were freed from this inefficient use and put into another use. In this case, both the socially optimal solution and the solution maximizing the value for creditors may consist in auctioning off the firm’s assets. This does not mean, however, that the going concern value, if any, would have to be lost because the firm may be sold as a going concern. Of course, all sorts of the well-known problems arise in the auction, including asymmetric information, liquidity constraints or incomplete contracts, preventing the first best result to be achieved in all situations. However, the question is whether we have a better alternative than to reconcile with the second best.

Financial but not economic *distress*, on the other hand, is not caused by shortcomings in the firm’s operations but usually by some shock to its ca-

pital structure. For example, in periods of macroeconomic turbulences, like those in Asia at the end of the 1990s, economically sound firms become insolvent if their debt is denominated in foreign currency and the local currency depreciates substantially. Liquidating the firm in this situation would not be socially optimal. In this case, a hard law can cause social losses in the form of excessive liquidations. On the other hand, soft law, which provides a protection to the debtor before the creditors, can help the affected firms survive the turbulent times and, in the end, can even lead to higher payoffs to the creditors.

For such situations of systemic distress, Stiglitz (2000) suggests a *Super Chapter 11*, a special chapter in a country's bankruptcy code, which would stay dormant in calm times and would only be activated in the periods of macroeconomic turbulences. Like the valid U.S. Chapter 11, the main characteristic of the proposed law would be that the debtor would stay in control during reorganization and the capital structure would be adjusted, usually by means of a debt-equity swap. According to Stiglitz (2000), the *Super Chapter 11* would have to meet the following requirements to effectively address the systemic distress:

1. to set strict time-limits for courts to rule and sanctions for those attempting to delay,
2. to be soft on incumbent management and old shareholders, giving them sufficient equity stake in the reorganized firm in order to provide them with adequate incentives, and
3. to determine a wide set of default provisions or guideline provisions in order to facilitate the resolution.

Although this is an interesting proposal, its potential consequences would have to be carefully investigated before its introduction. There are a number of issues connected with this proposal. Who should decide the activation of the *Super Chapter 11*? What would be the criteria for the activation? Would there be some maximal term after which it would automatically be de-activated? These are only a few of the many issues that would have to be considered.

3.2 Credit-Rationing vs. Excessive Liquidations

Biais and Mariotti (2003) consider different factors that affect whether rather soft or tough bankruptcy laws will be optimal. They build a general equilibrium model and study interactions between the credit and labor markets. The agents in their model are heterogeneous and differ by their initial level of wealth. The desirability of a tough law may follow from the negative effect of a soft law on the access to credit. A soft law may lead to credit rationing because the creditors, due to concerns of what happens in the case of bankruptcy, will not be willing to lend enough to finance all the projects with positive net present value. Some of the projects of relatively poor agents will not be realized even if their NPV is higher than that of the projects of wealthy agents who can co-finance a higher fraction of the project costs.

Due to credit-rationing, the aggregate level of investments is lower, which

reduces the demand for labor. In addition, the labor supply is increased because some agents who would prefer to become entrepreneurs have to become workers (they do not have access to credit). The lower demand for and higher supply of labor lead to lower wages, which hurts also the poorest agents who could not become entrepreneurs even under tough law. Therefore, in this way, the soft law is harmful especially for middle-class and poor agents. Rich agents need relatively little debt financing, which they can raise even under soft law. They benefit from the possibility, provided by the soft law, to avoid liquidation in the case of default.

An overly tough law, however, need not be optimal either because it gives rise to a negative externality generated by the interactions of the credit and labor markets in the presence of moral hazard. To understand this, note that an important role of debt is the one of a disciplining device. Giving a creditor the right to liquidate assets following default induces the debtor not to default strategically in the good states of the world when he has sufficient funds to repay the debt. In the bad states of the world, the threat of liquidation is realized because the firm is cash-constrained and cannot repay its creditors. The fact that a firm is cash-constrained, however, need not mean that the liquidation is optimal and further operation of the firm by the original owner may be socially efficient. Creditors are assumed to ignore this negative externality of liquidation.

Now, assume that a tough law enables all agents who wish to start a firm to do so – there is no credit-rationing and all agents who wanted to become entrepreneurs actually became entrepreneurs. This, however, comes at a price. In order to obtain financing they have to issue risky debt and commit to liquidations in case of default. Due to the absence of credit-rationing, the marginal entrepreneur is indifferent between becoming an entrepreneur or a worker. The marginal entrepreneur, by deciding to become an entrepreneur, increases the overall demand for labor and thus wages. There is a negative externality for the other entrepreneurs generated by this decision. Their pledgeable income decreases and they have to commit to higher asset liquidations in case of default. This increases the frequency of inefficient liquidations and thus reduces social welfare. The soft law, by introducing some credit rationing, would improve social welfare because this negative externality would be partly eliminated.

The point that Biais and Mariotti (2003) make is that some credit rationing may be desirable because it reduces the amount of inefficient liquidations. On the other hand, because credit rationing also leads to lower investments and lower wages, too much is harmful. The optimal law, therefore, should optimally trade-off these two effects. A crucial assumption of the whole analysis in Biais and Mariotti (2003) is that continuation is efficient while liquidation is not. The results would change if we, instead, assumed that liquidation can sometimes be efficient or that the loss resulting from separating the assets from the original owner is not very high.⁶ In other words, the question is what percentage of firms ends up in bankruptcy due to financial distress, when continuation under the original owner may

⁶ Baird and Rasmussen (2002, 2003) argue that this is the case in most of the bankruptcies.

be optimal, and what percentage due to economic distress. The case for a tough law is stronger, the higher the percentage of bankruptcies due to economic distress.

4. Institutions Matter – Also in Bankruptcy

The distinction in the previous section of bankruptcy laws on tough and soft is quite crude and a decision into which category the law should fall does not entirely solve the problem of optimal bankruptcy law design. In fact, the problem is much more complex and consists in deciding how all the different issues arising in bankruptcy should optimally be resolved. Usually, the problem is who (which body) should have the power to make a particular decision, what is the level of discretion when making this decision, and, in some cases, what procedural rules have to be observed in the process leading to the decision. From these complex set of issues we focus on the division of decision-making powers between the court and the creditors. In some situations, for example in the declaration of bankruptcy, the involvement of the courts is inevitable. But in most of the remaining situations, it is not so clear – take, for example, the appointment of a bankruptcy trustee. Giving the power to creditors, although, as a whole, they are usually the residual owners, need not always be optimal, as they form a heterogeneous group and the interests of the winning coalition may not be the same as those of a benevolent social planner. The judge is often viewed as such a benevolent agent but he not always fulfils this role. One reason is that he may lack the professional capacity needed to make a qualified decision in often very complex commercial issues. The other reason is that in some cases, judges may be corrupt and act in the interest of some particular individual or group involved in the bankruptcy.

4.1 Capacity to Make Commercial Decisions

Under some bankruptcy regimes, judges make crucial decisions regarding the operation of the bankrupt firm. The question is whether they are fit to make such decisions. The other alternative usually is to give the decision powers to the creditors, i.e., to the *de-facto* owners of the bankrupt firm's assets, who generally have the right incentives to adopt the best solution. Nor the creditors, however, are always able to achieve the best, e.g., because of conflicts between secured and unsecured creditors. Under soft laws, like the U.S. bankruptcy code, the discretion entrusted to judges is usually wider. Because of the supreme quality of the American judiciary, compared, e.g., to the Czech one, the problems arising in the U.S. would most likely be even greater in the Czech Republic.

American judges decide whether the debtor shall be reorganized or liquidated (shut down). This question is virtually decided when the judge allows or disallows the debtor to use the firm's available funds to finance further operation. Uninterrupted operation may be necessary to save the going concern value, if any, because if the firm is closed down temporarily, it can lose most of its customers and, thus, not allowing for further operation usually means shut-down. On the other hand, if it is better to shut the firm down

anyway, further operation leads to further losses and reduces the value available to creditors. The available evidence about the performance of American judges in making the reorganization vs. shut-down decision is mixed. Here, we mention two papers with opposite conclusions about this issue.

Morrison (2003) focuses on small and medium firms where the decision is likely to be easier than in the case of large corporations. He finds that the majority of firms in his sample that enter reorganization are eventually not reorganized in the economic sense but are either sold to an outside buyer or liquidated. Even if the firm enters reorganization, judges often decide to shut it down. This presents counter-evidence to the view held by some scholars that the Chapter 11 practices harm the creditors because even virtually dead firms can use Chapter 11 to postpone their shut-down until there are no funds left to finance further operation. In addition, Morrison (2003) finds that most of the shut-down decisions occur early in the process, immediately after the judge learns about the chances of the reorganization to succeed, and, therefore, the loss to the creditors from inefficient continuation is not extremely high.

These conclusions, however, need not be fully representative for two reasons. First, the sample includes only small and medium firms. These firms form the majority of bankruptcy cases but in terms of value, the bankruptcies of large corporations are more important. The typical bankruptcy decision making in large corporations, as shown further, may differ from that in small and medium firms. Second, Morrison focuses on the bankruptcy practices of a single court which, as he himself notes, has a very well developed procedural rules for the bankruptcy agenda, forcing the judges to make decisions promptly.

Weiss and Wruck (1997) present an opposite view on the judicial performance in bankruptcy decision making. They study the bankruptcy of Eastern Airlines, which remained in Chapter 11 for 22 months and lost half of its value during this period – the value declined from 4 to 2 billion dollars. They show that the major cause of the loss of value was not the deterioration in the industry conditions but the “information problems and conflicts of interest associated with the Chapter 11 process” (p. 56). They describe what happened in the Eastern Airlines as court-approved asset stripping because the court allowed the managers to use the proceeds from asset sales to keep flying, even after it became clear that the firm was not economically viable. Were the creditors given the chance to make the decision, they would close the firm down at a much earlier stage. Here, the over-protective law was used to shield the firm from economic reality and resulted in substantial inefficiency.

4.2 Judicial Corruption

Until recently, virtually all researchers in the field of economics of bankruptcy considered the debtor and the creditors (of different types and classes) as the only players of the bankruptcy game, implicitly assuming that the judge is either just an enforcing mechanism or a benevolent agent

who maximizes social welfare. When the degree of judges' discretion was discussed, the arguments stemmed from the ability of judges to find optimal solutions for several issues they decide on, leaving aside their motivation.

It is an important characteristic of the soft law that it provides the judge with high discretionary powers. If the soft law is to have positive effects, it is important that the judge is benevolent – acts to maximize social welfare. If the judge is corrupt, the discretion given to them may be abused to satisfy particular interests. This reduces both ex-ante and ex-post efficiency. The ex-ante efficiency is reduced because of uncertainty how the judge would decide if the bankruptcy were declared, which prevents the parties to adjust ex-ante their relationship to the possibility of bankruptcy. Ex-post efficiency is reduced because the solution adopted does not necessarily aim to maximize social welfare. Two different treatments of the effects of corruption in the bankruptcy procedure are Biais and Recasens (2002) and Lambert-Mogiliansky *et al.* (2003).

Biais and Recasens (2002) study the trade-off between soft law (debtor oriented) and tough law (creditor oriented) bankruptcy regimes. The authors develop a model based on a simple corporate finance model by Holmstrom and Tirole (1997). Within the model, under a tough law any insolvent firm is liquidated, while under a soft law a judge decides whether an insolvent firm be liquidated (with the liquidation value going to creditors) or reorganized (with the reorganization payoff going to managers in the form of a nontransferable cash flow). The authors emphasize that excessive liquidation is socially costly in the sense of non-utilization of firm-specific capital and breaking functioning networks. This social cost argument would favor a soft law. However, giving the decision power to a judge that should take into account observed social costs, reduces creditors' expected payoff and, thus, implies credit rationing.

However, the main contribution of the authors is their inclusion of the possibility of corruption among judges in this model. A clear result of the model is that once judges are corrupt, tough law is socially preferred to soft law because the soft law's advantage of the efficient scope of liquidation is gone. In other words, in the presence of high judicial corruption, the soft law generates more credit rationing.

Lambert-Mogiliansky *et al.* (2003) discuss the effect of the capture of judiciary on the behavior of agents under U.S.-like bankruptcy law design. They were inspired by the observation of the Russian bankruptcy procedures after a new law of 1998 implemented Chapter-11-like reorganization. The authors show in their model that when the judiciary is captured, the manager has no incentives to restructure and the debt to the outside investor is not repaid. Instead the threat of bankruptcy perpetuates a collusive deal between the manager and the regional governor who can influence the judge. The theoretical analysis is accompanied with an empirical verification on the data of Russian firms, which confirms the results. Thus, while using a different setup than Biais and Recasens (2000), Lambert-Mogiliansky (2003) reach the same recommendation for countries with a high degree of judicial corruption – to adopt a tough bankruptcy law that assigns minimum discretion to the judge. This result is very simple and

strongly intuitive but the emerging literature on the role of corruption connected with bankruptcy promises to improve our understanding of the trade-offs between soft and tough laws under different country-specific circumstances.

5. Conclusion

In the beginning we emphasized that when designing a bankruptcy law, it is important to decide what goals the law shall achieve. Shall the goal be to maximize the economic performance by shutting down inefficient firms and freeing their resources for a more efficient uses? Or is maintaining employment in the short run also important? Or are other goals relevant? A benevolent social planner would choose a law whose only goal is to maximize overall, long-term benefits. Such a law would promote stable and high economic growth and high level of employment in the long run. In the short run, however, it could cause some painful situations connected with the failure of large firms employing many people. Because political economy factors are important in reality, the bankruptcy laws usually differ from those that would be chosen by a benevolent social planner. The politicians operate in a short time horizon and goals of long-term efficiency are often out of their sight.

The Czech Republic is no exception in this sense. All the competing versions of the prepared bankruptcy reform are rather soft laws, with the emphasis on maintaining employment. Although we do not want to make a general judgement that tough law is better for the long-run efficiency (such a judgement would not be justified given the current state of research in this topic), the conditions prevailing in the Czech Republic speak rather in favor of a tough law. The heavy dependence of the Czech economy on debt rather than equity financing makes the problem of credit rationing stemming from ex-ante inefficiency more severe. Maybe even more strikingly, the state of the Czech judiciary gives rise to doubts of how the judges will use the discretion awarded to them by the proposed law.

Definitely, more research – both theoretical and empirical – is needed, so that we are able to make clear conclusions. While in international literature the research in this field has grown rapidly during the last decade, the Czech Republic is still waiting for serious research in bankruptcy to come.

REFERENCES

- AGHION, P. – HART, O. – MOORE, J. (1992): The Economics of Bankruptcy Reform. *Journal of Law, Economics, and Organization*, vol. 8, 1992, pp. 523–546.
- BAIRD, D. G. – RASMUSSEN, R. K. (2002): The End of Bankruptcy. University of Chicago. *John M. Olin Law and Economics Working Paper*, no. 173 (2nd Series).
- BAIRD, D. G. – RASMUSSEN, R. K. (2003): Chapter 11 at Twilight. University of Chicago. *John M. Olin Law and Economics Working Paper*, no. 201 (2nd Series).
- BEBCHUK, L. (1988): A New Approach to Corporate Reorganizations. *Harvard Law Review*, vol. 101, pp. 775–804.
- BERGLÖF, E. – ROLAND, G. – THADDEN, E. L. von (2003): Optimal Debt Design and the Role of Bankruptcy. *Université de Lausanne, Ecole des HEC, Département d'Econométrie et d'Economie Politique, Working Paper*.
- BERKOVITCH, E. – ISRAEL, R. (1999): Optimal Bankruptcy Laws Across Different Economic Systems. *Review of Financial Studies*, vol. 12, 1999, no. 2, pp. 347–377.
- BIAIS, B. – RECASENS, G. (2002): Corrupt Judges, Credit Rationing and the Political Economy of Bankruptcy Laws. Presented at the Bank of England Conference *The Economics of Insolvency Law: Effect on Debtors, Creditors and Enterprise*.
- BIAIS, B. – MARIOTTI, T. (2003): Credit, Wages, and Bankruptcy Laws. *CEPR Discussion Paper*, no. 3996.
- BOLTON, P. – SCHARFSTEIN, D. S. (1996): Optimal Debt Structure and the Number of Creditors. *The Journal of Political Economy*, vol. 104, no. 1, (Feb. 1996), pp. 1–25.
- HART, O. (2000): Different Approaches to Bankruptcy. *NBER Working Paper*, no. 7921.
- HOLSTROM, B. – TIROLE, J. (1997): Financial Intermediation, Loanable Funds and the Real Sector. *Quarterly Journal of Economics*, no. 112, 1997, pp. 663–691.
- LAMBERT-MOGILANSKY, A. – SONIN, C. – ZHURAVSKAYA, E. (2003): Capture of Bankruptcy: A Theory and Evidence from Russia. *Center for Economic and Financial Research, Moscow, Working Paper*.
- MASKIN, E. – TIROLE, J. (1999): Unforeseen Contingencies and Incomplete Contracts. *The Review of Economic Studies*, vol. 66, 1999, no. 1 – Special Issue: Contracts. (January 1999), pp. 83–114.
- MORRISON, E. R. (2003): Bankruptcy Decision-Making: An Empirical Study of Small-Business Bankruptcies. *The Center for Law and Economic Studies, Columbia Law School, New York, Working Paper*, no. 239.
- STIGLITZ, J. (2000): Some Elementary Principles of Bankruptcy. In: *Governance, Equity and Global Markets: Proceedings from the Annual Bank Conference on Development Economics in Europe, June 1999*, Conseil d'Analyse économique, Paris, pp. 605–620.
- WEISS, L. A. – WRUCK, K. H. (1997): *Information Problems, Conflicts of Interest, and Asset Stripping: Chapter 11's Failure in the Case of Eastern Airlines*. November 1997, Fontainebleau Cedex, France, and Harvard Business School, Boston – mimeo.

SUMMARY

JEL classification: G33, K12, K29

Keywords: bankruptcy – capital and ownership structure – ex-ante and ex-post efficiency – moral hazard
– judicial corruption

What Drives the Optimal Bankruptcy Law Design?

Ondřej KNOT – Ondřej VYCHODIL: CERGE-EI, Prague, and Institute of Economic Studies, Faculty of Social Sciences, Charles University, Prague (ondrej.knot@cerge-ei.cz), (ondrej.vychodil@cerge-ei.cz)

In this paper we discuss the factors that interact in the design of an optimal bankruptcy law. We focus on issues that are often overlooked in both the policy debate and in the academic research on bankruptcy. We first deal with the question why a bankruptcy law is needed at all. The answer that we provide concerns the multiplicity of creditors in connection with contract incompleteness. We then introduce a concept of ex ante vs. ex post efficiency. What this concept demonstrates is that, when designing a bankruptcy regime, one cannot limit attention to the firms that actually find themselves in bankruptcy proceedings; instead, one needs to consider the effects of the bankruptcy law on the behavior of all the debtors and creditors in the economy and on the resulting price and availability of credit. The second factor we deal with is institutional quality, namely the quality of the judiciary. Proponents of a strong judicial role in bankruptcy often cite the judiciary's role in rendering complicated commercial decisions. We claim instead that, considering factors such as imprudence and corruption, it may be optimal to resign on the first-best solution that could be theoretically achievable with a benevolent and omniscient judiciary. The optimal bankruptcy law would then contain more simple and automatic rules and less space for judicial (i.e., individual) discretion. Our concluding comment concerns the lack of empirical research in the bankruptcy area in the Czech Republic and the essential need for such research.