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Bankruptcy Experience in Hungary and the Czech Republic

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This paper compares bankruptcy codes in Hungary, the Czech Republic, Germany, and the U.S. and analyzes bankruptcy experience in Hungary and the Czech Republic. It employs aggregate data for the two countries, as well as a unique, firm-level data set for Hungary. High bankruptcy costs imposed on creditors in the Czech Republic are consistent with fewer bankruptcy filings than in Hungary. Imposition of an automatic bankruptcy trigger in Hungary, followed by its removal 18 months later, significantly influenced bankruptcy experience. Reorganization is now only rarely used in Hungary and is dominated by firms with high proportions of liabilities to the state.

1. Introduction

The effects of differing bankruptcy provisions on creditor and debtor behavior has been a question of interest among financial economists for a number of years. Interest in comparative bankruptcy experience has grown over time, paralleled by a growing interest in the general topic of comparative financial institutions. An important related area of research, although still little developed, concerns the effects of bankruptcy provisions on creditor and debtor behavior in economies with weak supporting institutions or where there is little prior experience with bankruptcy. How well do different bankruptcy laws work in environments where auxiliary legal and financial institutions are weak? Is bankruptcy used in different ways or are there differences in behavior within the context of bankruptcy proceedings that arise from either the absence of supporting institutions or the absence of experience? If so. what are the implications for the design of bankruptcy laws?

This paper studies bankruptcy experience in two economies in transition, where both of the above conditions exist. Court systems are not experienced in adjudicating commercial disputes: judges had no experience with issues of financial contracting before the transitions began. In the first years of transition bankruptcy courts have also been understaffed. In addition to the weakness of legal and financial institutions, creditors and debtors have had no experience with bankruptcy procedures.

An additional consideration in the economies in transition is their history of soft budget constraints. One of the key microeconomic policy objectives during the transition has been to create hard budget constraints for firms. Well functioning bankruptcy procedures are essential for achieving this objective. Whereas the elimination of direct government subsidies to firms at the

beginning of transition clearly hardened firms' budget constraints, the question of the degree to which they have hardened remains open. For example, it is now well accepted that several features of these economies create incentives for creditors to be passive with respect to claims in default.[1] The history of soft budget constraints, large quantities of inherited bad debt on banks' balance sheets, state ownership of banks, weak banking regulation, and coordination problems arising when many banks or firms in an economy are financially distressed all potentially contribute to passivity.

Bankruptcy rules can be important determinants of creditors' and the debtor's reactions to a debtor's financial distress. Bankruptcy rules effectively determine the threat points for creditors and debtors when they negotiate out of court. Bankruptcy laws therefore influence not only the bankruptcy outcomes but also the non-bankruptcy bargaining strategies of the firm's claimants. Differences in bankruptcy codes across countries, then, can lead to differing responses by the firm's claimants to financial distress. Indeed, bankruptcy codes can have an impact on the ability of firm managers to negotiate a reorganization agreement with the firm's creditors versus being forced into liquidation. For example, if provisions for bankruptcy reorganization are either absent or overly restrictive, the only avenue for reorganizing the firm will be through out-of-court negotiations. Yet, because out-of-court agreements require unanimity among creditors, they become difficult to achieve when the number of creditors is large.

The ease with which bankruptcy-either reorganization or liquidation-procedures may be initiated will also determine creditors' and debtors' reactions to financial distress. If filing a bankruptcy petition against a defaulting debtor is too costly for creditors, then they may be

[1] See Mitchell (1993) for an analysis of differing explanations for creditor passivity in economies in transition.

required to resort to other, less efficient means of pursuing their claims. If other effective means are unavailable, creditors may be motivated to roll over claims in default. Thus, bankruptcy rules can reinforce the incentives of creditors in an economy to be passive or active in response to default. Appropriate crafting of bankruptcy codes through, for example, allowing for lenient reorganization procedures and minimizing costs to creditors of using bankruptcy, can increase the incentives of creditors to become active.

A much debated policy question along these lines has concerned the desirability of including an automatic trigger in bankruptcy laws in economies in transition. On one hand, the tendency for creditors to be passive argues for inclusion of an automatic trigger, in order to make credible the threat of bankruptcy. On the other hand, the large stock of bad debts existing on firms' and banks' balance sheets at the beginning of transition has made policy makers reluctant to impose an automatic trigger out of fear of a massive chain of bankruptcies which would severely disrupt the economy upon implementation of the law.

Relatively little is known about experience with bankruptcy procedures in economies in transition. In this paper I compare the bankruptcy codes of the Czech Republic, Hungary, Germany, and the U.S., and I examine aggregate data on experience with bankruptcy in Hungary and in the Czech Republic during the periods 1992-1996 and 1993-1996, respectively. I also present initial findings from a firm-level Hungarian bankruptcy data set collected from the Budapest bankruptcy court. Hungary has had a bankruptcy code on the books since 1986; however, in 1992 it implemented a new law that included a draconian automatic trigger. In the middle of 1993 major amendments to the law were implemented in which the automatic trigger was rescinded. I discuss both versions of the law in this paper. The Czech Republic effectively

implemented its bankruptcy law in 1993.

I evaluate to the extent possible the bankruptcy experience of each country in light of differences in their bankruptcy codes, taking into account other relevant institutional features. Since data for Hungary are more detailed than for the Czech Republic, I analyze Hungary's experience in considerably more depth. For Hungary sufficient data exist to allow formulation of some stylized facts about bankruptcy experience. These stylized facts lead to a number of conjectures regarding the behavior of debtors and creditors in response to financial distress of Hungarian firms. Aggregate data from the Czech Republic allow only for speculation regarding behavior of debtors and creditors.

Aside from data limitations, two other factors complicate analysis of bankruptcy in the Czech Republic and Hungary during the time periods under consideration. First, the beginning of the period in each country effectively marks the beginning of bankruptcy experience.[2] It is natural to expect that debtor, creditor, and court behavior evolved over time as participants learned more about the process. Indeed, the analysis of Hungarian data suggests that evolving behavior may have played an important role in Hungary during the time period under consideration. A second complicating factor is that the time period under consideration was one of significant change in each country, both in terms of market institutions and the creation of new firms. These changing institutions may have influenced the characteristics of firms entering bankruptcy over time.

General conclusions drawn from the analysis include the following. The Czech bankruptcy code imposes significant costs on creditors, most of which are not present in the

[2] Although in Hungary a bankruptcy law had existed since1986, its rare use by creditors was a continual source of frustration for policy makers, who viewed bankruptcy as an essential ingredient of market reforms. Mitchell (1993) details the history of amendments of the 1986 law. leading to the passage of the new law that took effect in 1992.

Hungarian code. This difference likely explains at least in part why bankruptcy initiations are much less common in the Czech Republic than in Hungary. With respect to Hungarian experience, implementation of the automatic trigger in the bankruptcy code had a significant impact on bankruptcy initiations in 1992, whereas removal of the trigger in 1993 resulted in a significant and immediate decrease in bankruptcy filings. Yet, the characteristics of firms entering reorganization have continued to evolve in the period following removal of the trigger. Reorganization procedures are now only rarely used, and reorganization appears increasingly dominated by firms with a high proportion of total liabilities to the state.

The paper is organized as follows. In Section 2 I compare bankruptcy codes in the Czech Republic, Hungary, the U.S., and Germany. In Section 3 I analyze aggregate bankruptcy for the Czech Republic and Hungary. I make use of firm-level data in Section 4 to study in more detail Hungarian bankruptcy experience. I summarize the results in Section 5.

2. Bankruptcy laws in the Czech Republic and Hungary

Bankruptcy codes vary significantly across countries in the extent to which they favor debtors versus creditors. Requirements for entry into bankruptcy, provision for a reorganization phase in addition to a liquidation phase, the terms governing reorganization procedures, and the terms governing liquidation can all influence creditors' willingness to use bankruptcy and the ease with which defaulting firms can continue operating according to the status quo or successfully reorganize versus being liquidated. The table in the appendix compares bankruptcy codes in the U.S., Germany, Hungary (during and after the automatic trigger), and the Czech Republic. The U.S. and German laws are included for the purpose of providing benchmarks for evaluation of the Hungarian and Czech laws. The U.S. law represents one that is heavily debtor-oriented, whereas

the German law is currently very creditor-oriented.[3] Debtors in the U.S. enjoy many more concessions in bankruptcy reorganization than do debtors in other countries. In contrast, German law imposes significant restrictions on the ability of debtors to reorganize.

The Czech bankruptcy law has many features that resemble the German law (Hashi et al (1997)), including restrictions on reorganization procedures. On the other hand, the Czech law, like the U.S. law, makes initiation of bankruptcy by creditors difficult. The current Hungarian law also has some features resembling those of the German law; most notably, provisions for liquidation. Yet, the Hungarian law allows firms to file more easily for reorganization, although it imposes a requirement that creditors vote on granting a moratorium on debt repayment. If creditors reject the moratorium, the firm's petition for reorganization is rejected. Because the Czech and the Hungarian laws each contain some features that are similar to the German law and other features that are similar to the U.S. law, it is difficult to rank each country according to the classification of "debtor-oriented" versus "creditor-oriented" bankruptcy laws.

2.1 Czech Republic. One of the purposes of studying the Czech and Hungarian bankruptcy codes is to evaluate the costs to creditors and/or debtors of using the Czech code relative to the costs imposed by the Hungarian code. Costs cited by Czech bankers and those apparent from a reading of the bankruptcy code include the following: costs associated with filing a bankruptcy petition; a long period from the date of filing for bankruptcy to the date at which the court decides to declare the bankruptcy procedure open or to reject the petition; vague rules

[3] This table is modeled after a similar table, although with different entries and different countries, in Franks, Nyborg, and Torous (1996). Franks, Nyborg, and Torous compare bankruptcy codes in the U.S., the UK, and amendments to the German bankruptcy law that are due to become effective in 1999. The amendments to the German law are designed to render it more debtor-oriented.

regarding what activities constitute "asset stripping" and insufficient penalties for asset stripping; requirements for initiating a reorganization (composition) procedure; and requirements for approval of a reorganization plan.

A key requirement for court approval of a bankruptcy petition is that the firm be "overindebted," which is interpreted to mean that the firm has overdue claims to at least two creditors. When a creditor petitions for bankruptcy against a defaulter, the creditor has to prove that the firm is in default to at least one other creditor. It also has to argue that the firm possesses sufficient assets to cover the costs of the bankruptcy procedure. The creditor thus has to search among the firm's other creditors to find another with overdue claims. This requirement imposes significant costs on the creditor filing the petition. (Note that the U.S. law requires a joint filing by three creditors in creditor-initiated bankruptcies.) One Czech bank official described the search process as beginning by checking for tax or other payment arrears to the government. This is the easiest source of default to detect. If the firm is not in arrears to the state, then the process of obtaining information on default to other creditors becomes much more difficult.

Furthermore, it seems that firms can and do use the definition of overindebtedness strategically. If a creditor initiates a bankruptcy filing, the firm may repay all of its debts to its other creditors, leaving the initiating creditor as the only creditor with claims in default. The petition for bankruptcy will be rejected in this case. Bank officials described practices that banks undertake in order to circumvent this type of strategic behavior by the firm. One bank tries to sell a portion of its claim to a trusted partner (for example, a family member of one of the bankers) so that at the point of filing for bankruptcy, the firm is de facto in default to two creditors. Another method of satisfying the two-creditor rule is for the bank to have at least two loan agreements

with the debtor. Unfortunately, not all defaulters have signed two separate loan agreements with a given bank. It is clear that the burden on creditors of initiating bankruptcy is heavy. This burden would be expected to have a dampening effect on the number of bankruptcy filings initiated by creditors.

Another cost arising from bankruptcy initiations and affecting creditors is the long period between the filing for bankruptcy and the court's decision to initiate the bankruptcy procedure or to reject the petition. Estimates by a number of bank and ministry officials of the average wait between filing and the court's declaration is around six months, although it is not unheard of that the period is greater than one year. The problem that arises in this situation is that firm managers have the incentive to dissipate, or "strip," the firm's assets during the waiting period by, for example, transferring assets to a third party. Asset dissipation can be very difficult for creditors to detect or prove, due to limited information that they may have regarding the firm's assets. In addition, if the waiting period between the bankruptcy filing to court approval of the petition (declaration of bankruptcy) is longer than six months, the creditor may have no legal recourse even if it can be proven that asset dissipation occurred. The bankruptcy code stipulates that transactions involving the firm's assets in only the six-month period prior to the declaration of bankruptcy may be invalidated by the court.

The problem of asset stripping is also highlighted by Hashi et al (1997), who report that the most significant problem noted in interviews with 16 Czech liquidators is the lack of financial information for the firm. It should be remarked, however, that debtors are not the only parties guilty of asset stripping. One bank official admitted, in an interview with the author, to the practice of helping a debtor create a new firm consisting of the "old" firm's productive assets and

liabilities to the bank, thereby leaving the old firm with no productive assets but with liabilities to other creditors. If the transaction succeeded, the probability of repayment to the bank was increased. If, on the other hand, the other creditors realized what was happening within six months, they could file for bankruptcy of the firm and invalidate the asset transfers. These anecdotes indicate the absence of adequate auditing and oversight institutions in the Czech Republic. As a result, firms are able to evade repayment obligations. Even a bankruptcy law with an automatic trigger cannot compensate for the absence of such institutions

In addition to complaints about the long waiting period between the bankruptcy filing and court approval of the petition, bank officials complained that actions constituting asset stripping are not well defined, and penalties for such activities are too light. Bankruptcy amendments along these lines were being discussed in the Czech parliament in 1997. Among the amendments is an automatic trigger that requires firms to file for bankruptcy upon discovery of insolvency or overindebtedness. Penalties for not doing so would range from fines to prison sentences of up to two years.

Another potential source of inefficiency in the Czech bankruptcy procedure are the requirements for a reorganization procedure. This procedure is initiated, via a request to the court by a firm with more than 50 employees, for a protection period of three months, during which a stay (moratorium) is placed on creditors' claims. If the protection period is approved, the firm then files a request for a composition ("voluntary composition," or "ordinary settlement"). Table 1, which presents aggregate Czech bankruptcy statistics and which is discussed in Section 3, shows that almost no requests for composition have been submitted by firms. One of the potential explanations may relate to the size requirement for entry into reorganization. Another explanation

may derive from stringent requirements placed on reorganization plans, mirroring the German code. A valid reorganization plan must guarantee repayment of 45% of creditors' claims within two years. As a point of comparison, median recovery rates computed by Franks and Torous (1994) for a sample of 45 large U.S. firms that went through reorganization during the period 1983-1990 were 51% for all creditors taken together, 80% for secured debt, 47% for senior unsecured debt, and 29% for junior creditors.[4] These recovery rates for the U.S. suggest that a requirement of 45% recovery might not completely discourage entry into the reorganization procedure in the Czech Republic; however, it could be expected to significantly reduce the number of firms attempting reorganization. There is no obvious rationale for restricting the types of reorganization plans that may be voted on by creditors.

Another perceived problem with Czech bankruptcy procedures that was mentioned in interviews with bank officials is the behavior of liquidators. It is argued by some that liquidators act in their own, and not necessarily the creditors', interests. One bank questioned whether assets are always sold at their highest prices. Apparently, the price bids for assets are not always made available to the creditors' committee in liquidation proceedings. One bank even cited a case where a liquidator in one proceeding offered to make a private deal with the bank by which the bank would recover more than other creditors in its class if the bank paid the liquidator a commission on the asset sale.

A final problem with the Czech bankruptcy procedure is the heavy reliance on the court.[5] When a firm files a request for a protection period, it must submit a plan explaining how it plans

[4] Information regarding the period of reimbursement of creditors' claims was not available in Franks and Torous.

[5] This problem is also noted by Hashi et al (1997).

to solve its financial problems. The court must evaluate the feasibility of this plan before ruling on the firm's request. The court also has the right, at the request of the creditors' committee, to prohibit the firm from taking certain actions during the course of a protection period. Because there is no bankruptcy trustee appointed during this period, the court has effective supervisory powers over the firm. In addition, if the firm files for composition ("ordinary settlement" according to Czech terminology) and succeeds in having a reorganization plan approved, the court has the right under certain conditions to reject the plan. Finally, the court may decide upon the methods by which assets are sold during the liquidation procedure. According to Hashi et al (1997), the court often sets a minimum price below which assets cannot be sold, thus potentially lengthening the liquidation procedure. Hashi et al argue that Czech liquidation procedures are indeed quite long.

Given the inexperience and general understaffing of bankruptcy judges in economies in transition, minimizing the role of the court in bankruptcy procedures would enable bankruptcy to function more smoothly and, more importantly, to proceed more quickly. Implementing such modifications could significantly increase the willingness of creditors to use the procedure

2.2 Hungary. Comparison of the Hungarian and Czech bankruptcy laws reveals that requirements for entry into bankruptcy are less burdensome in Hungary than in the Czech Republic. The Hungarian law also foresees less court involvement at the initiation and reorganization stages. After a firm petitions for reorganization, creditors in Hungary vote on a moratorium on debt repayments; therefore, the court has no need to evaluate a financial plan submitted by the firm. The court's role in liquidation proceedings appears roughly the same in the two countries.

Beginning in January, 1992, and prior to September, 1993, an automatic bankruptcy trigger stipulated that any firm with any liability overdue by more than 90 days was required to file for bankruptcy. The firm entering bankruptcy could choose whether to file for reorganization or liquidation. On the other hand, if a creditor filed a bankruptcy petition against a firm, the firm automatically entered liquidation. Whereas an automatic moratorium of three months was granted to firms entering reorganization, a unanimous vote by creditors was required for the approval of reorganization plans. No such stringent requirement for approval of a reorganization plan is present in a bankruptcy law of any major industrialized country. Even in the U.S., where the debtor in reorganization separates the creditors into classes and the reorganization plan must be approved by each class of creditors, approval is achieved by a majority vote within each class.

Amendments accompanying the elimination of the automatic trigger in September, 1993 removed the automatic moratorium on debt repayment and made the moratorium subject to a majority vote by creditors. If creditors reject the moratorium, the court rejects the filing for reorganization. Another major amendment changed the requirement for approval of a reorganization plan, making it subject to a majority vote of creditors holding two-thirds of total claims.

As of September, 1993, a trustee is now appointed in reorganization as well as in liquidation proceedings. Reorganization plans in both Hungary and the Czech Republic are formally presented by the debtor at a meeting with creditors; however, this meeting may take place after negotiation with creditors, and multiple meetings may be held between the debtor and creditors for the purpose of voting on revised plans.

In Hungary, as in the Czech Republic, discontent has been expressed with respect to the

discretion that liquidators can exercise during liquidation proceedings. The remuneration scheme of liquidators has also created incentives to prolong the procedure.[6] There is widespread belief that liquidators abuse their positions, by transferring assets or resources to friends, acquaintances, or persons with whom they may have made a private agreement. A number of amendments passed in 1996 to the Hungarian bankruptcy law were aimed at tightening control over liquidators' actions and aligning their incentives with those of the creditors.

2.3 Bankruptcy codes and utilization of bankruptcy. The above discussion reveals that the Czech bankruptcy code imposes costs on creditors that are not present in Hungary. It is costly for creditors to acquire information necessary to file a bankruptcy petition against a debtor, and the lag in practice between the date of filing and the court's decision regarding the opening of a bankruptcy procedure is long. These costs almost certainly reduce the number of bankruptcy filings initiated by creditors in the Czech Republic. The Czech law also places significant restrictions on reorganization procedures and the terms of reorganization plans. Only firms with more than fifty employees may file for reorganization, and requirements on reimbursement of creditors are stringent. Both restrictions would be expected to lower entry into reorganization; the latter restriction would also be expected to reduce the rate of approval reorganization plans for firms that do enter reorganization.

One would expect the automatic trigger that was in place in Hungary in 1992 and 1993 to have increased filings for reorganization, and perhaps liquidation, during that period. Removal of the trigger might then be expected to result in a reduction in reorganization and liquidation filings by debtors. Whereas Hungarian firms may easily petition for reorganization, one would expect a

[6] Franks et al (1996) report similar problems with the incentives of German liquidators and suggest that German liquidation procedures are slowed as a result.

higher rate of filing for reorganization than would be the case where restrictions, such as those in the Czech law, applied. Yet, the required majority vote by creditors for granting a moratorium on debt repayments would be expected to lower the rate of opening of reorganization procedures (as opposed to the rate of request for reorganization) relative to a situation where such a vote is not required.

3. An aggregate view of bankruptcy experience

3.1 Czech Republic

The Czech bankruptcy law was passed in October, 1991, but came into effect only in April, 1993. Authorities had postponed implementation of the law because of a fear of a chain of bankruptcies that would disrupt the economy. The prospect of a chain of bankruptcies was still a concern in April, 1993. Table 1 presents aggregate data on bankruptcy filings in the Czech Republic in the years 1993-1996. The data in this table show that the expected chain of bankruptcies did not materialize. Indeed, the number of bankruptcy petitions in 1993 was relatively low, although it has grown steadily over time.

Less encouraging are the data on number of bankruptcy declarations, or bankruptcy procedures actually begun relative to the number of filings. The numbers of bankruptcy proceedings begun are very low throughout the period and are significantly lower than the number of bankruptcy filings. One principal reason for the low numbers of bankruptcy declarations is delay in the courts. Numbers of filings listed under the heading "proceedings not completed" represent the number of filings upon which the court has not yet ruled. This category gives an idea of the importance of this administrative delay. The percentage of bankruptcy filings during a given year that the court does not treat before the end of the year exceeds forty-five percent in every year, and this percentage exceeds 50% in 1993-1995. This suggests that unofficial estimates

of an average lag of six months between the date of filing and the date of court ruling on the filing are accurate.

A second explanation for the small number of bankruptcy declarations relative to the number of filings is that many filings for bankruptcy are rejected because the requirements for entry into bankruptcy are not satisfied. As was noted in Section 2, one requirement for entry is that the firm be in default to at least two creditors. A second requirement is that the value of the firm's assets be sufficient to cover the costs of the bankruptcy proceeding. According to ministry and bank officials, many filings are rejected because of insufficient assets. A final explanation for some filings for bankruptcy not leading to the opening (declaration) of a bankruptcy proceeding is that the filing party withdraws the petition because the firm and its creditors have reached an out-of-court agreement.[7] Rejections of filings for administrative reasons such as those cited here appear in Table 1 under the heading other types of settlement. Without more detailed data, it is impossible to know what percentages of this category are accounted for by the different explanations.

A surprising feature of the Czech bankruptcy data is that there have been virtually no requests for composition (reorganization). The restrictions placed by the law on reorganization plans and discussed in Section 2 may constitute a partial explanation for this result: firms entering bankruptcy procedures are in such financial distress that a reorganization agreement conforming to the restrictions is not feasible. Another potential explanation is the size requirement for firms applying for composition. It may be that very few firms with more than fifty employees are entering bankruptcy proceedings. Evaluation of these two hypotheses must await the availability

[7] Firm-level data for Hungary demonstrate that this outcome is not negligible for that country. One would expect that it also occurs with some frequency in the Czech Republic.

of more detailed bankruptcy data.

Table 3 presents numbers of bankruptcy declarations in the Czech Republic by control type of firm. This table reveals that bankruptcy procedures are dominated by small firms, a stylized fact that is consistent with bankruptcy experience in most other countries. Limited liability firms, which are generally small, and individual proprietorships together account for a large percentage of bankruptcy procedures. For the purposes of comparison Table 4 provides numbers of bankruptcy filings in Hungary by control type of firm. Although the data in Table 4 are not directly comparable with those of Table 3 (since the former represent filings and the latter represent proceedings actually begun), Table 4 nevertheless illustrates that bankruptcy in Hungary is also dominated by small firms.

3.2 Hungary

Table 2 presents numbers of yearly filings for reorganization and liquidation procedures in Hungary from 1992 through 1996. Total yearly filings for bankruptcy proceedings are obtained by adding reorganization filings to liquidation filings. The table reveals three striking features of Hungarian bankruptcy experience. The first is well known and is reflected only indirectly in the table but directly in Figure 1 (discussed below): a spectacular increase in reorganization and liquidation filings in 1992, with a spike in reorganization filings in April--upon the "bite"[8] of the automatic trigger. Over four thousand reorganization filings were initiated in 1992, of which 2259 filings for reorganization occurred in April. Almost ten thousand liquidation filings were initiated

[8] Precisely, the trigger specified that firms with any obligation overdue by more than 90 days had eight days within which to file for bankruptcy. Because the law came into effect in January, 1992, the end of the 90-day period plus one week occurred on April 8. Many of the April filings for bankruptcy occurred on that date.

in that year. Of these, 2424 filings occurred during the first quarter. and 1281 filings occurred in April.

A second notable feature of the data in Table 2 is the drop in total liquidation and reorganization filings in 1993. This decline is in part attributable to the removal of the automatic trigger in September of that year. The third remarkable feature is the dramatic decline in the number of reorganization filings over time, with the total number of filings in 1996 equal only to eighty. Indeed, the small number of reorganization filings suggests that reorganization is now only rarely employed.

More insight into Hungarian bankruptcy experience follows from examination of monthly data on reorganization and liquidation filings. Figure 1a presents monthly filings for reorganization from April, 1992 through September, 1996. The estimated average number of monthly filings for the first three months of 1992 (based upon a comparison of total filings during the year and monthly data from April through December) is 241. Figure 1a shows a sharp increase in reorganization filings in April, when the automatic trigger began to bite. It also reveals an undeniable drop in the number of reorganization filings in September, 1993, the month in which elimination of the automatic trigger took effect. (Figure 1b, which graphs reorganization filings from June, 1992, shows more clearly the drop in filings in Sept., 1993.)

The data thus suggest the existence of two distinct "regimes," corresponding precisely to the regimes in the bankruptcy law: the period during which the automatic trigger was in effect (Jan., 1992-Aug., 1993) and the period following removal of the trigger (Sept., 1993 onward). The number of monthly reorganization filings declines within each regime, with the number of monthly filings approaching zero toward the end of the time period covered by the data.

A question immediately arises concerning data on filings for liquidation: are similar regime changes identifiable in these data? Figures 2a and 2b provide the answer to this question. Liquidation filings appear to respond to the implementation of the automatic trigger. As mentioned above, 2424 liquidation filings occurred during the first quarter of 1992 and 1281 in April. In addition, a clear drop occurred in the number of monthly liquidation filings in September, 1993. There is an unmistakable response to the removal of the automatic trigger. Changes in the bankruptcy law thus also had an effect on liquidation filings. Yet, Figure 2 also suggests the existence of a third "regime" beginning in September, 1994. This regime is unrelated to any changes in the bankruptcy law. The source of this regime change, discussed in detail below, is a change in the number of liquidation filings by the tax office.

That the removal of the automatic trigger should have an effect on liquidation filings is not evident, unless the response is on the part of debtors who were filing for liquidation as a result of the automatic trigger. Figure 3, which provides data on monthly liquidation initiations by debtors during the period January, 1993-September, 1996, suggests that debtors' filings for liquidation may have responded to the removal of the trigger; however, it is not obvious from Figure 3 whether a "regime switch" occurred in September, 1993, as opposed to a continuous decline over time in liquidation filings by debtors.

In contrast, Figure 4, which plots monthly liquidation initiations by creditors during the period January, 1993-September, 1996, does indicate a clear regime change in September, 1993. This reaction on the part of creditors is surprising. Why might creditors reduce their filings for liquidation of debtors when an automatic trigger is eliminated? One potential explanation is that during the period of the automatic trigger senior creditors may have initiated liquidation as a

preemptive measure. These creditors knew that their defaulting debtors would be required to enter bankruptcy and would choose reorganization; yet, since junior creditors often benefit in reorganization procedures at the expense of senior creditors, the senior creditors may have decided to avoid reorganization altogether by initiating liquidation.[9] In this case, removal of the automatic trigger would have led to a reduction in liquidation filings by senior creditors.

If the above reasoning is correct, the decline in liquidation initiations by creditors should be attributable to senior creditors, such as banks and other creditors with secured debt. This conjecture may be partially addressed via Figures 5a-d, which present data on monthly liquidation initiations during the period January, 1993-September, 1994 (as well as estimated average monthly initiations for subsequent months[10]) by type of creditor initiating. The estimated averages after September, 1994 are plotted in order to better determine whether regime shifts have occurred. These figures do not offer support for the conjecture. They reveal that the decline in liquidation initiations was attributable primarily to the group "suppliers and other creditors." Since suppliers generally possess unsecured debt, they are usually junior creditors. In summary, unless the group "suppliers and other creditors" is comprised of a significant number of senior creditors, the decline in liquidations following the removal of the automatic trigger did not result from the explanation proposed above.

Additional evidence that appears inconsistent with the conjecture that senior creditors are

[9] Reorganization plans often violate the absolute priority of creditors; i.e., junior creditors receive something although senior creditors have not been paid in full. (See, for example Franks and Torous (1994), Aghion, Hart, and Moore (1994).) Thus, senior creditors have an incentive to file for liquidation in order to prevent the firm's entry into reorganization.

[10] Average monthly estimates were computed as follows. Averages for the months of Oct.-Dec., 1994, were computed by subtracting total liquidation initiations from January through September, 1994 from the total number of liquidations during 1994. Monthly averages for Jan.-Dec., 1995 and for Jan.-Sept., 1996 were based on yearly totals.

responsible for the decline in creditor-initiated liquidations is the lack of an obvious response by banks to the removal of the automatic trigger. The average number of monthly liquidation filings initiated by banks, which constituted only one to two percent of total liquidation filings during the regime of the automatic trigger, did not change in the latter four months of 1993 relative to the average for this group during the first eight months of that year. Indeed, banks initiated very few liquidations, automatic trigger or not. The explanation for suppliers' reactions to the elimination of the trigger is a focus of ongoing research. Analysis of firm-level data on liquidation filings, to be conducted at a later point, should shed more light on this issue.

What might explain the appearance of the "third regime" for liquidation filings beginning in September, 1994? There were no amendments to the bankruptcy code at this time. Examination of Figures 5a-d indicates that the only group of creditors whose behavior clearly exhibited a change in September, 1994, is the tax office. Average monthly liquidation initiations by the tax office jumped from 41 in the first eight months of 1994 to 167 in the last four months of that year. This increase in monthly liquidation filings accounts for virtually all of the aggregate increase in liquidation filings by creditors. It appears that the tax office suddenly became a "harder" creditor than it had been in previous years.

A final notable feature of the aggregate data is that filings for reorganization declined to extremely small numbers by 1996. One potential hypothesis is that this decline reflects a reduction over time in the amount of financial distress among firms,[11] perhaps as the economy has come out of recession or as different policies for resolving financial distress among firms--such as the automatic bankruptcy trigger, multiple bank recapitalizations, and bank loan consolidation

[11] This hypothesis was suggested, for example, by Gray et al (1996).

programs--have taken effect. Yet, the removal of the automatic trigger was clearly responsible for a large decline in reorganization filings. Monthly filings fell in September, 1993, from around 100 to just over 20. The number of monthly filings has nevertheless further declined in the years following removal of the trigger to less than ten.

The hypothesis that a decline in the aggregate level of financial distress is responsible for the decline in reorganization filings since September, 1993, would appear at first glance inconsistent with the data on filings for liquidation, which declined from 1993 to 1994, but then increased in 1995 and in 1996. On the other hand, the number of filings for liquidation does not represent the number of firms for which filings for liquidation have occurred: firms regularly have multiple filings for liquidation submitted against them. One of the explanations for multiple liquidation filings is administrative: when multiple creditors of a debtor independently file for liquidation within a relatively short period of time, each request may enter the bankruptcy statistics as a separate filing. Yet, there is also an important economic explanation for the occurrence of multiple liquidation filings against a single firm: most liquidation filings do not result in the opening of a liquidation procedure. In particular, out-of-court agreements are often concluded and the creditor withdraws the liquidation petition. Thus, a firm may have several liquidation petitions filed over a period of years before an actual liquidation procedure is begun. As an illustration using the firm-level data set that is reported on in Section 4, examination of firms which filed for reorganization during 1992-1993 yields the result that the number of ultimate liquidation filings against these firms was 1.4 times the number of firms for which a liquidation petition was filed. In summary, the link between financial distress and numbers of firms entering bankruptcy reorganization and liquidation remains an open question to be pursued

in ongoing research.

The aggregate bankruptcy data examined in this section give rise to a number of questions. First, it is widely acknowledged that the automatic trigger was draconian; it undoubtedly forced some firms that were not actually in financial distress into the reorganization procedure. Did the drop in reorganization filings following the removal of the automatic trigger represent only those firms which never should have entered reorganization, or did it also include firms which should have reorganized (or liquidated) but which could now delay the process due to passivity of their creditors? In other words, was there a net gain or loss in efficiency as a result of the bankruptcy amendment? Why have the number of reorganization filings fallen virtually to zero? Is liquidation serving as a substitute for the reorganization process? Section 4, which makes use of a firm-level data set on reorganization procedures provides additional information that can be useful for formulating hypotheses relating to these questions.

4. Hungarian reorganization: an examination of firm-level data[12]

This section begins to address some of the questions arising from the study in Section 3 of aggregate filings for reorganization in Hungary. It makes use of a firm-level sample of bankruptcy filings at the Budapest court during the period 1992-1996.[13]

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[12] Data collection and analysis in this section has been undertaken with Margita Toth, Department of Finance, Budapest University.

[13] The sample is taken from bankruptcy filings at the Budapest court. For the years 1992 and 1993 the sample was taken by drawing every fifth filing. The percentages of reorganization outcomes in our sample are consistent with percentages of outcomes for the population reported in Table 1. For 1994-1996, because of the small numbers of firms filing for reorganization in these years, the sample consists of all firms with limited liability that filed for reorganization and for which the cases were completed and in the Budapest court's files by mid-1997 when the data were collected. Cases not included in our sample were either missing, still ongoing, or completed but still in the hands of the judge presiding over the case. We are currently investigating the potential biases in the sample.

4.1 Characteristics of firms filing for reorganization. The discussion of Section 3 indicated that reorganization filings have become increasingly rare since the removal of the automatic bankruptcy trigger. A question that immediately arises is whether the characteristics of firms filing for reorganization changed in the period after removal of the trigger relative to the period of the trigger. Tables 5 and 6, which present data on the characteristics of firms filing for reorganization during the two regimes, offer an affirmative answer to this question. In the latter period, firms filing for reorganization were smaller in terms of value of assets:[14] their ratios of debt to assets were higher:[15] and the percentage of total debt owed to the state was notably higher. In 1996 none of the firms in the sample had any debt to banks, and an average of ninety-three percent of firms' debt was owed to the state. In comparison, the average percentage of debt to the state during the period of the automatic trigger was between 33 and 44 percent. The average percentage of debt to banks in the earlier period was also higher than in the latter; however, it is worth noting that the median percentage of debt to banks in every year was zero. Seventy-one percent of the sample of firms filing for reorganization in 1992 and for which data exists had no

[14] There is nevertheless large variation in the sizes of firms in each year. Firm sizes are normally defined by number of employees; however, we have no data on employment. Data on total assets is available for approximately 60% of firms in our sample for 1994-1996. One of the definitions of large firms currently used by the Hungarian Central Statistical Office is that in two successive years the firm's assets were greater than 150 million forint. Gray et al (1996) used the criterion of 100 milliion forint for firms in 1992 and 1993. This value was equivalent to U.S. $1.25 million in 1992. Percentages of firms in 1994-1996 with asset values greater than this amount are 27%, 11%, and 18%. Twelve percent of the firms in our 1992-1993 sample were large by this definition.

[15] In this table we use two alternative measures of the ratio of debts to assets. The first estimate uses the total amount of debt reported by firms in documents that were required to accompany the reorganization petition. The requirement to supply this information, however, appears not to have been uniformly enforced; therefore, we construct a second measure. This estimate uses the sum of long and short-term liabilities reported on the balance sheet that firms must submit with the reorganization petition and that should have been prepared no longer than three months prior to the filing.

debt to banks. Fifty-one percent filing from January through August, 1993 cited no bank debt. Although these observations are consistent with a study of financially distressed firms in the U.S. (Gilson, 1992) that indicated that firms with bank debt were more likely to restructure out of court, it is unclear whether they reflect simply the distribution of bank debt among the population of firms in Hungary.

As would have been expected given the draconian nature of the automatic trigger, its removal led to an increase in the average debt-to-assets ratio of firms filing for reorganization. Whereas during the period of the automatic trigger, the average ratio of debt to assets was 1.2 and the median ratio below one, after removal of the trigger the average and the median ratios increased to 1.9 and approximately one, respectively. This increase in the ratio of debt to assets across the regimes might lead one to conjecture that the percentage of reorganization filings resulting in approval of a reorganization plan fell in the latter period relative to the former. On the other hand, the elimination of the automatic trigger coincided with the substitution of a majority-voting rule for the previous requirement of unanimous consent by creditors for the approval of a reorganization plan. This amendment would have been expected to result, all things equal, in an increase in the percentage of approved plans.

4.2 Outcomes of reorganization. Table 7 presents data on the outcomes of reorganization filings during the two regimes. It illustrates that the percentage of failed reorganization attempts increased in the latter regime. During the period of the automatic trigger roughly 36% of reorganization filings ended in agreement (29% in agreements approved during the reorganization process and 7% in out-of-court agreements). Only thirty-two percent of filings ended in failure, either through creditors' rejection of a reorganization plan, firms switching to liquidation in the

midst of reorganization, or court rejection of firms' petitions for reorganization because liquidation had already been initiated.

A notable difference in reorganization outcomes in the two bankruptcy regimes reflected in Table 7 is the appearance during the latter regime of a significant percentage of filings that were rejected due to the unwillingness of creditors to approve a moratorium on debt repayments. This category was not applicable for the earlier period since the moratorium was automatic. The percentage of proposed plans not approved by creditors also declined in the latter period. It appears that the required vote on a moratorium moved forward the point of failure for reorganization proceedings that would ultimately have failed. In contrast to the earlier regime, fifty percent of reorganization filings during the latter regime resulted in failure, due either to lack of approval of a moratorium, to rejection of a proposed reorganization plan, to a switch to liquidation, or to rejection of the petition because a liquidation procedure was ongoing. One would expect that in both regimes firms for whom creditors rejected the reorganization plan would have turned to liquidation.

To put the observed percentages of reorganization failures into perspective, it is worth noting that a study of 1096 publicly traded U.S. firms filing for reorganization (Chapter 11 of the U.S. bankruptcy code) during the years 1979-1990 found that almost eighty percent of these firms switched to liquidation during the course of the reorganization procedure.[16] Viewed in this context, the thirty-two percent failure rate in Hungary during the automatic-trigger regime is all the more surprising.

That the success rate of reorganization procedures was greater during the regime of the

[16] "When Firms Go Bust," *Economist*, Aug., 1, 1992

automatic trigger than afterwards appears consistent with a conjecture that the automatic trigger was excessive and forced firms into the reorganization procedure that did not need to be reorganized. Success rates were thus higher than otherwise would have been the case. According to this logic, if the trigger had not been excessive, one would likely have observed a lower rate of approval of reorganization plans than in later years, as a result of two factors: (1) a large "stock problem" of bad debts that existed in 1992 and that had been exacerbated by creditor passivity prior to the implementation of the automatic trigger; and (2) the unanimous-consent requirement for creditors' approval of reorganization plans.

Another notable feature of the data in Table 7 is the high percentage of reorganization filings during the period of the automatic trigger that were rejected because the firm failed to provide the required documents. Twenty-nine percent of applications during the period of the automatic trigger met with such an "administrative ending." Presumably, any firm falling into this category and that had been required by the automatic trigger to file for bankruptcy would have also been required to file for liquidation immediately following the court's rejection of the reorganization petition. Yet, inspection of our data for firms filing during this period shows that most firms whose petitions for reorganization were rejected because of missing documents did not immediately enter liquidation. It was not uncommon for firms to wait between one and two years before entering. Moreover, liquidation filings for many of these firms were likely initiated by their creditors. Table 8 provides, for each outcome of reorganization filings, the percentages of firms eventually entering liquidation. This table indicates that during the period of the automatic trigger only 55 percent of firms whose petitions were rejected because of missing documents registered a liquidation filing within two years after the court's rejection of the

reorganization petition.

This observation raises the question whether some of the firms filing for reorganization intentionally failed to supply the appropriate documents in order to delay the process. One might conjecture further that if firms were strategically withholding documents in order to delay the bankruptcy process, that the percentage of firms falling into this category would have declined after the removal of the automatic trigger. Table 7, however, does not lend strong support for this conjecture. The proportion of firms in this category remained of roughly the same magnitude in 1994 before dropping in 1995 and 1996.

There are in fact a number of potential explanations for the outcome of rejection of a reorganization petition because of inadequate documents. These include: (1) the firm is attempting to delay the bankruptcy process by intentionally not supplying the necessary documents; (2) the filing for reorganization was a mistake and the firm realizes that it should file for liquidation; (3) a creditor files for liquidation simultaneously with the firm's filing for reorganization and a liquidation procedure is begun; (4) after filing for reorganization the firm reaches an out-of-court agreement with its creditors, and it never completes the documentation required for the reorganization proceeding nor formally withdraws its petition.

Data on dates of filings for liquidation can provide some indication of the relative importance of these alternative explanations. For example, a liquidation filing occurring simultaneously with or just after the reorganization filing would support explanations (2) or (3). A liquidation filing occurring just after the rejection of the reorganization petition would support explanation (1). The absence of a liquidation filing within a reasonable period of time following the official end of the reorganization procedure would appear to support explanation (4).

We have collected data on dates of liquidation filings for our sample of firms filing for reorganization during the period of the automatic trigger. Of 101 firms whose petitions for reorganization were rejected for this reason, five firms had liquidation petitions filed prior to their reorganization filing (in which case liquidation should have taken precedent[17]), and 3 firms had petitions for liquidation filed within three weeks of the reorganization filing. Fifteen firms had liquidation filings dated either just prior to the official rejection of their reorganization petition or within ninety days following this date. Another five firms had petitions for liquidation filed against them at some point following the petition for reorganization and before the court's rejection of the petition. These firms could be considered as firms for whom the creditors grew tired of waiting.[18] The remainder of firms either had no liquidation petitions filed against them or had liquidation petitions filed more than ninety days following the rejection of their reorganization petition. In summary, if dates of liquidation filings are indicators of the explanations for the outcome of rejection of the reorganization petition due to missing documents, we may conclude that explanations (2) and (3) account for roughly eight percent of firms in this category, explanation (1) accounts for fifteen percent, and explanation (4) accounts for the remainder, or seventy-seven percent.

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[17] This raises the question of why these firms were not assigned the reorganization outcome listed as petition rejected because liquidation is ongoing. Part of the answer, as is detailed in the next footnote, may be poor coordination between the reorganization and liquidation courts.

[18] According to the Hungarian bankruptcy law, if a petition for liquidation occurs after a petition for reorganization, the liquidation procedure should not be begun. Nevertheless, it appears that coordination in the courts was quite weak during this period, leading to the opening of liquidation procedures after a reorganization petition had been filed and, in many cases, after the reorganization procedure was already ongoing. Interviews by Margit Toth with bankruptcy court judges have indicated that the judges left the job of checking whether firms with liquidation petitions had already filed for reorganization to administrative personnel Judging from the number of cases in our data set where liquidation procedures were initiated after a filing for reorganization, the administrative personnel performed this task at best only partially.

Note that explanation (4) may include, for the period of the automatic trigger, firms which were bound by the trigger to file for bankruptcy but which would otherwise have been able to resolve their problems out of court. In this situation, creditors may have been in tacit agreement to allow firms to formally file for reorganization but to subvert the procedure by not complying with documentation requirements.

Data on dates of liquidation filings for firms filing for reorganization in the period after removal of the automatic trigger indicate the following. Of thirty firms whose reorganization filings were rejected because of missing documents, four had liquidation petitions filed either before or just after the filing for reorganization. Five firms had liquidation petitions filed either just before the official date of rejection of the reorganization petition or within ninety days following this date. One firm had a liquidation petition filed at some point after the reorganization filing but before the court ruled on the filing. Four firms have missing data for the date of the liquidation filing. In summary, the dates of liquidation filings suggest that during this period roughly 13 percent of the rejections of firms' reorganization petitions were due to explanations (2) or (3); 20% appear consistent with explanation (1); and 53 percent appear consistent with explanation (4). If the interpretation of the dates of liquidation filings is accurate, the percentage of firms with missing documents that appear to attempt to delay the process of bankruptcy is actually higher in the period following the removal of the automatic trigger than in the period of the automatic trigger.

In addition to data on liquidation filings of firms whose reorganization filings were rejected because of missing documents, Table 8 also presents data on liquidation filings for other reorganization outcomes. This table shows that seventy percent of firms whose reorganization

plans were approved during the period of the automatic trigger had a liquidation filing within two years of the end of the reorganization procedure. As a point of comparison, roughly 25 percent of large firms successfully completing reorganization procedures in the U.S. later find themselves in reorganization or liquidation.[19] This suggests that the automatic trigger was not as excessive as would have appeared from the approval rates of reorganization plans. Perhaps the high rate of approval during this period represented an attempt on the part of creditors and debtors to rapidly exit the reorganization procedure rather than genuinely reorganize the firm. Alternatively, creditors may have been overly optimistic about the possibility of repayment by highly indebted firms. In any case, the reorganization process in Hungary during the period of the automatic trigger appears to have largely failed to successfully reorganize firms.

Although one would have expected that firms whose reorganization plans were rejected by creditors would immediately file for liquidation, Table 8 demonstrates that, curiously, this is not the case. During the regime of the automatic trigger only 79 percent of firms in this category had a liquidation filing within two years of the end of the reorganization procedure. What the fate was of the remaining firms is an open question.

4.3 Initial econometric analysis. This subsection presents an initial (and simple-minded) attempt to identify the determinants of reorganization outcomes during the two bankruptcy regimes. Tables 9 and 10 present the results of a multinomial logit analysis of the determinants of "success" or "failure" of reorganization in the two bankruptcy regimes. The category of success includes the following outcomes: approval of a reorganization plan; negotiation of an out-of-court agreement; rejection by the court of a plan approved by creditors. Failure corresponds to the

[19] Gilson (1992).

outcomes of rejection by creditors of a reorganization plan or a switch to liquidation.

Table 9 presents results for the period of the automatic trigger. The only financial variable that is significant in determining the outcome of reorganization during this period is the ratio of profit to assets. The lower this ratio, the higher the probability that the reorganization attempt would fail. The ratio of debt to assets, number of creditors, and percentages of debt to suppliers and to the state are all insignificant. Surprisingly, another variable that is significant in explaining the outcome is a qualitative time variable corresponding to the date on which the reorganization petition was filed. The later this date within the period of the automatic trigger, the higher the probability of failure of reorganization.

Closer examination of the data reveal that eighty-five percent of reorganization procedures which were actually begun (i.e., excluding firms whose reorganization petitions were rejected) during the first four months of 1992 ended in approval of a reorganization plan. This percentage dropped to 67 percent by the last quarter of 1992 and was 30 percent in the first quarter of 1993. The explanation for the significance of the date on which the reorganization petition was filed remains elusive. The characteristics of firms entering reorganization do not appear to have changed significantly over the period. For example the ratios of debt to assets of firms filing in the latter part versus the earlier part of the period were not significantly different.

Table 10, which estimates determinants of reorganization outcome in the period following removal of the automatic trigger indicates that the number of creditors and the ratio of debt to assets are significant. The percentage of debt to the state is significant at the ten percent level. The greater the number of creditors, the lower the probability of success of reorganization. The higher the ratio of debt to assets, the lower the probability of success. The greater the proportion of debt

to the state, the higher the probability of success. In contrast to Table 9, neither the date of filing of the reorganization petition nor the ratio of profit to assets is significant.

These logistic regressions do not take into account the changes in the characteristics of firms filing for reorganization across the two regimes. This is a focus of ongoing work. Yet, these regressions nevertheless suggest that factors determining the outcomes of reorganization are different across the two regimes. The fact that the date of filing for reorganization is significant during the regime of the automatic trigger suggests at least two competing conjectures. One conjecture, which was mentioned above, is that neither creditors nor debtors wished to go through reorganization (at least at the beginning of the period), and they exited as quickly as possible. A competing hypothesis is that creditors (or their lawyers) were learning over time how to discriminate between viable and nonviable firms or to negotiate agreements. In order for this hypothesis to be true, however, creditors or their lawyers would have had to have participated in more than one reorganization proceeding during this time period

These conjectures yield different, and opposing, policy implications regarding the automatic trigger. The first conjecture suggests that the effect of the trigger was to generate a large number of court cases with little positive economic effect. The second conjecture suggests that the automatic trigger, though draconian, may have set into motion a learning process that ultimately facilitated the functioning of the bankruptcy mechanism. Consistent with this argument would be the view that, despite the fact that early decisions may have been ill taken, the ultimate effect of the trigger was positive

4.4 Summary. This section offers support to conclusions derived in Section 3 that changes in the Hungarian bankruptcy law had significant effects on debtor and creditor behavior. The

characteristics of firms filing for reorganization in the period following removal of the automatic trigger differ from those filing during the automatic-trigger regime. Whereas the result that ratios of debt to assets of firms filing for reorganization would rise after removal of the automatic trigger was predictable, the radical change in the distribution of debt across creditor groups was not.

The September, 1993, amendments to the bankruptcy code do not lead one to predict that reorganization filings will evolve in the manner identified in Section 2 and in this section. Nor are there any other readily identifiable institutional changes that would lead to the prediction. Why reorganization is now being initiated only rarely and why it is being increasingly dominated by firms with large proportions of liabilities to the state are open questions. We hope that our forthcoming study of the characteristics of firms entering liquidation will shed some light on the extent to which the liquidation procedure might be substituting for reorganization and on the extent to which different types of creditors may be responding differently to their defaulters.

5. Conclusions

This paper examines the bankruptcy codes and data relating to experience with bankruptcy procedures in Hungary and the Czech Republic. It attempts to assess experience in each country in light of differences in the bankruptcy codes and in other institutions. The bankruptcy data reveal significant differences in experience with bankruptcy in the two countries. They also give rise to numerous questions.

As was noted in Section 2, there are indeed significant differences in the bankruptcy codes in the Czech Republic and in Hungary. The Czech bankruptcy code imposes costs on creditors that are absent in Hungary. In private interviews conducted by the author in the spring of 1997,

several Czech bank officials readily admitted that initiation of bankruptcy is a last resort in their treatment of defaulters, and they cited a number of costs associated with the legal system and the bankruptcy code as the explanation. The banks' complaints appear legitimate. Nevertheless, given the existence of these bankruptcy costs, it is impossible to determine without access to data on banks' treatment of defaulters whether bankers' reluctance to use bankruptcy stems from excessive costs associated with the procedure or whether these costs constitute a convenient excuse for bankers to passively roll over debts in default.

A number of authors have argued that Czech banks have significant incentives to remain passive with respect to their problem debtors. That banks in the Czech Republic are still majority state-owned leaves them vulnerable to pressure by the government to continue lending or to give new loans to problem firms. In a case study of the largest Czech commercial bank Snyder and Kormendi (1997) find circumstantial evidence for this type of pressure. In a case study of the first Czech firm to successfully complete a reorganization procedure, the William Davidson Institute (1997) questions the economic rationale for a large, new loan extended by the same commercial bank to the firm in reorganization. Hashi, et al (1997) argue that banks' expectations of government bailouts create incentives for passivity.[20] Hlavacek and Tuma (1993) argue similarly that the government did not signal prior to 1993 a commitment not to bailout banks or firms in default. Consistent with this argument is the Czech government's postponement--because of the fear of a chain of bankruptcies--until April, 1993 of the bankruptcy law that was originally supposed to take effect in October, 1991. In addition, when individuals defaulted on loans from

[20] See Mitchell (1993, 1997) for theoretical treatments of the role that expectations of government bailout may play in banks' decisions to be active or passive with respect to their debtors.

the National Property Fund that were extended for the purpose of allowing them to purchase firms, the loans were forgiven. A final factor that would encourage passivity among banks is the fact that banks must accumulate reserves against potential loan losses, and the lack of adequate reserves slows the rate at which banks can force their debtors into bankruptcy.

The method of mass privatization used for Czech firms, together with problems of corporate governance that seem to currently plague a number of privatized firms, may also have contributed to the low numbers of bankruptcy filings.[21] If the corporate governance of newly privatized firms is ineffective and if firm managers have well established relationships with their suppliers (or other potential incentives to remain passive with respect to trade credit in default), then they may have relatively little incentive to use bankruptcy against their suppliers in default. Finally, as pointed out by Hlavacek and Tuma (1993), the voucher privatization method did not provide firms with new capital for restructuring; therefore, many firms privatized via this method will be unable to restructure and will thus likely find themselves in financial distress in the years following privatization. Observation of small numbers of bankruptcy filings for privatized firms would suggest that creditor passivity has persisted and, thus, that budget constraints have not hardened.

Many of the differences in bankruptcy experience are consistent with differences in the bankruptcy laws in the two countries and with differing evolution of the laws. Imposition of an automatic bankruptcy trigger in 1992 in Hungary had an enormous impact on the number of filings for bankruptcy. Elimination of this trigger in mid-1993 also had a significant effect. In contrast to Hungary, implementation of the bankruptcy law in the Czech Republic was effectively

[21] Hashi et al (1997) note that firms involved in the second wave of privatization were not allowed to enter bankruptcy until their shares were distributed in early 1995.

postponed until April, 1993, due to the fear by authorities of a chain of bankruptcies. No surge in bankruptcy filings occurred upon implementation of the law.

Filings for reorganization in Hungary have declined significantly since 1993 and are now close to zero. In addition, firms now filing for reorganization appear to have high concentrations of debt to the state. Liquidation filings have not exhibited a decline; however, many firms have multiple liquidation petitions filed against them. Questions that we are pursuing in our ongoing study of reorganization and liquidation in Hungary during the period 1992-1996 are why reorganization is now only rarely used, why a significant percentage of reorganization petitions are rejected because firms do not provide the required information, and what explains the evolution of the structure of liabilities of the firms entering reorganization.

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Table 1

Filings for Bankruptcy in the Czech Republic

	1993	1994	1995	1996
Filings for bankruptcy	1098	1816	2393	2996
Bankruptcy declarations	60	288	480	719
Filings for composition	1	2	2	6
Proceedings not completed	688	937	1312	1404
Other types of settlement	349	589	599	867

Source: Ministry of the Economy

Table 2

Reorganization and Liquidation Procedures in Hungary

Date	FR	VFR	CFR	DR	AER	AG	CiL	FL	FCL	FDL	DL	AEL	CL
1992	4169	1016	3153	2500	1260	740	703	9891	8131	1760	2227	4401	562*
1993	978	137	850	887	740	510	674	7242	5883	1359	2593	3975	1140
1994	189	136	53	79	351	90	28	5711	4715	996	2484	2997	1152
1995	145	139	6	28	175	21	9	6316	5398	918	2799	3202	2255
1996	80	80	0	14	76	9	4	7397	6372	1025	3078	3844	2998

Source: Ministry of Finance
Note: *: Data of Counties Tolna, Vas, Borsod, and Fejér are not included.

FR: filing for reorganization
VFR: voluntary filing for reorganization
CFR: compulsory filing for reorganization
DR: declared reorganization
AER: administratively ended reorganization
AG: agreement
CiL: Continued in liquidation
FL: filing for liquidation
FCL: filing for liquidation by the creditor
FDL: filing for liquidation by the debtor
DL: declared liquidation
AEL: administratively ended liquidation
CL: completed liquidation

Table 3

Declared Bankruptcies in the Czech Republic by Type of Firm Control

Type of control	1993	1994	1995	1996
SOE	11	26	25	33
Agricultural Coops	4	11	24	29
Other Coops	4	7	14	8
Partnerships		3	3	15
Limited Liability	22	139	245	415
Joint Stock	8	20	29	72
Individual Proprietorships	11	82	140	147
Total	60	288	480	719

Source: Ministry of the Economy, Czech Republic

Table 4

Bankruptcy Filings in Hungary by Type of Firm Control

	Reorganization					Liquidation				
Form	1992	1993	1994	1995	1996	1992	1993	1994	1995	1996
SOE		39	0	2	1		497	158	82	49
Cooperatives		90	9	11	3		900	404	330	279
Corporations		858	180	132	76		5863	5465	5904	7069
- partnership		n.a.	1	2	2		n.a.	43	44	40
- deposit partnership		n.a.	20	16	8		n.a.	669	992	1254
- limited liability		639	126	99	47		4163	3708	4098	4984
- joint stock company		n.a.	21	6	7		n.a.	412	437	555
- others		n.a.	12	9	12		n.a.	317	333	236
Total:		987	189	145	80		7242	5711	6316	7397

Source: Ministry of Finance, Hungary

Table 5

Characteristics of Firms Filing for Reorganization in Hungary During Period of the Automatic Trigger

	1992				1993 (Jan. - Aug.)			
Variable	**N**	**Mean**	**Med.**	St.Dev	N	**Mean**	Med.	S.D.
Assets*	160	76,356	16,849	230,752	33	275,254	16,720	965,218
Debt/assets	145	1.27	0.73	2.81	29	1.23	0.76	1.14
Liabilities/ assets	143	1.17	0.94	1.59	26	1.07	1.08	0.72
Distribution of debt								
% to state	220	43.38	35.00	36.38	47	32.70	28.00	32.48
% to suppliers	219	41.12	34.00	35.04	47	42.57	39.00	35.53
% to banks	219	10.52	0	22.04	47	19.80	0	33.12
% to owners	219	4.23	0	15.37	47	3.36	0	13.43
No. of creditors	194	16.05	8.0	22.22	44	17.7	11	18.93

* Nominal book value of assets (in thousands of forint) reported on balance sheet completed less than 3 months before reorganization filing.

Table 6

Characteristics of Firms Filing for Reorganization in Hungary:1994-1996

	9/93 - 1994				1995				1996			
Variable	**N**	**Mean**	**Med.**	St.Dev	N	**Mean**	Med.	S.D.	N	**Mean**	Med	S.D.
Assets*	42	120,858	17,235	224,643	20	80,911	8068	191,994	16	40,917	9019	75,391
Debt/asset	38	1.88	1.06	1.78	20	1.89	1.02	1.95	16	1.94	1.44	1.98
Liabilities/ assets	24	1.99	1.11	2.90	17	2.84	1.00	3.55	n.a	n.a.	n.a.	n.a.
Distributio n of debt												
% to state	51	43.92	39.0	35.96	24	56.38	51.0	36.70	23	92.78	100.0	17.61
% to suppliers	52	36.56	25.50	32.91	24	29.04	20.0	32.37	23	7.30	0	17.89
% to banks	52	16.46	0	28.52	24	8.00	0	19.97	23	0	0	0
% to owners	52	2.40	0	10.45	24	6.12	0	19.63	23	0	0	0
No. of creditors	39	29.59	13.0	54.84	25	18.88	4.0	27.88	21	3.52	2.0	3.94

*Nominal book value of assets (in thousands of forint) reported on balance sheet completed less than 3 months before reorganization filing.

Table 7

Outcomes of Reorganization Procedures in Hungary
(Percentages)

Outcome	1/92-8/93	9/93-12/94	1995	1996	9/93-1996
Plan approved by creditors	28.6	7.8	17.2	12.0	10.7
Out-of-court agreement	7.4	2.6	10.3	20.0	7.6
Petition rejected due to missing documents	28.6	27.3	20.7	12.0	22.9
No moratorium voted	n.a.	24.7	31.0	40.0	29.0
Creditors reject plan	11.9	10.4	0	0	6.1
Firm withdraws petition	2.8	5.2	6.9	8.0	6.1
Firm switches to liquidation	4.3	11.7	3.5	0	7.6
Court rejects plan approved by creditors	1.4	0	3.5	8.0	2.3
Petition rejected: liquidation already ongoing	15.0	10.4	7.0	0	7.6
Number of observations	353	77	29	25	131

Table 8

Percentages of outcomes of reorganization in Hungary followed by a liquidation filing*

(Parentheses represent percentage of firms in each cell for which data on liquidation filings was unavailable)

Reorganization Outcome	1/92-8/93**	9/93-12/96
Plan approved by creditors	51.5 (0)	21.4 (35.7)
Out-of-court agreement	23.1 (0)	40.0 (0)
Petition rejected due to missing documents	55.4 (0)	53.3 (13.3)
No moratorium voted	n.a.	63.2 (10.5)
Creditors reject plan	78.6 (0)	75.0 (25.0)
Firm withdraws petition	50.0 (0)	37.5 (0)
Firm switches to liquidation	100 (0)	100 (0)
Court rejects plan approved by creditors	100 (0)	0 (100)
Petition rejected: liquidation already ongoing	100 (0)	100 (0)

* Filings for liquidation for 1992-1993 are filings that occurred within two years of the end of the reorganization procedure

** Firms for which a filing for liquidation occurred before the reorganization process began are not included in the table. Also not counted are firms for which a filing for liquidation occurred after the start date for reorganization but before the end of the reorganization process and did not result in an actual procedure where the firm was liquidated.

Table 9
Logit analysis: 1992-1993
(Automatic Trigger)

Number of obs. 106
Chi2(7): 39.19
Prob. > Chi2: 0.00
Pseudo R2: 0.32

Variable	Coefficient	z	P > |z|
Outcome: Fail			
No. creditors	0.005	0.34	0.74
% Debt to state	0.002	0.20	0.84
% Debt to suppliers	0.018	1.51	0.13
Debt/Assets	0.420	1.48	0.14
Value of Assets	0.000	0.30	0.76
Firm type	0.194	0.25	0.81
Profit/Assets**	-1.646	-2.14	0.03
Filing date**	0.008	3.74	0.00
Constant	-92.75	-3.79	0.00

* Significant at 90% confidence level
** Significant at 95% confidence level

Table 10
Logit analysis: 9/93 - 1996

Number of obs. 61
Chi2(5): 29.57
Prob. > Chi2: 0.000
Pseudo R2: 0.36

Variable	Coefficient	z	P > |z|
Outcome: Agree			
No. creditors** (dummy)	-1.170	-2.04	0.04
% Debt to state*	0.032	1.66	0.10
% Debt to suppliers	0.026	1.29	0.20
Debt/Assets**	-0.944	-2.58	0.01
Firm Type**	1.355	2.21	0.03
Constant	-4.08	-1.38	0.17

* Significant at 90% confidence level
** Significant at 95% confidence level

APPENDIX

Characteristic	United States	Germany	Hungary (Automatic trigger)	Hungary (No Automatic Trigger)	Czech Republic
Triggering	Filing by the debtor or by three or more creditors together	Debtor or unsecured creditors initiate; automatic trigger if firm cannot repay creditors or is overindebted; i.e., liabilities exceed assets; secured creditors must settle outside of bankruptcy	Filing by debtor or by a creditor; If creditor files, firm must enter liquidation	Filing by debtor or by a creditor; if debtor was in reorganization less than 2 yrs earlier, must enter liq.; If creditor files, firm must enter liquidation. Creditors can vote to approve a switch to composition if requested by debtor	Filing by the debtor or a creditor

Requirements for entry	If three creditors file, must show that firm is not paying its claims; firm manager can dispute	Court must judge that firm entering reorganization is viable; Assets must be sufficient to cover costs of procedure	Debtor must file if overdue on any claim by more than 90 days	If creditor files, debtor must be insolvent; i.e., claims are overdue by more than 60 days	Debtor must be insolvent or overindebted; i.e., debtor is unable to pay claims to 2 or more creditors and liabilities exceed assets; Debtor must have sufficient assets to cover costs of proceedings; If creditor files, must show that debtor is insolv. and has insufficient assets; petitioner must pay small deposit ($370); Debtor cannot reorganize if in bankruptcy in last 5 years
Control rights in reorganization	Debtor in control; (in 50% of cases previous managers remain in control of firm)	Trustee appointed to supervise debtor's management; management makes ordinary operating decisions	Debtor in control; creditors may request a trustee at their own expense	Debtor in control until moratorium approved by creditors; trustee then appointed to oversee debtor's actions; may be required to approve transactions above an amt fixed by creditors	Debtor in control; creditors' committee appointed; committee may ask court to forbid certain transactions by debtor

Control in liquidation	Trustee is appointed to sell firm; firm halts operation	Administrator appointed and supervised by creditors' committee; unlimited stay on unsecured claims; administrator may keep the firm in operation	Liquidator appointed to sell the firm; Has discretion over method and timing of sale; Firm may continue operating until sale	Liquidator appointed to sell the firm; Has discretion over method and timing of sale; Firm may continue operating until liquidation procedure finished	Trustee appointed; Controls operation of firm until court decides to terminate firm's activity; Method of sale of firm must be approved by court
Moratorium on payments to creditors	Automatic moratorium (stay) granted on most claims	No moratorium; secured creditors may exercise claims	Automatic moratorium granted for 90 days; may be extended for 30 days	Creditors vote on moratorium of 90 days; may be extended for 60 days at request of creditors and debtor	Debtor with > 50 employees may request a protection period of 3 months; must provide plan for resolution of problems; protection may be extended by 3 months if creditors' committee consents
Formulation of reorganization plan	Debtor has sole right to propose plan during 4 months; period may be extended by the court	Debtor formally proposes plan at composition meeting	Debtor formally proposes plan at composition meeting; Negotiates with creditors beforehand; If plan not voted, additional meetings may be held.	Debtor formally proposes plan at composition meeting; Negotiates with creditors beforehand; If plan not voted, additional meetings may be held.	Debtor formally proposes plan at composition meeting; Negotiates with creditors beforehand; If plan not voted, additional composition meetings may be held

Approval of reorganization plan	Debtor divides creditors into classes; plan must be approved by a majority in each class with 2/3 value of claims; equity holders vote; court may use "cramdown" to enforce a plan when a class of creditors voted against	Majority vote by unsecured creditors with > ¾ unsecured claims; secured creditors cannot be forced to participate in plan; plan must repay secured creditors in full and 35% of unsecured claims (or 40% if repayment period > 1yr.)	Unanimous consent by creditors	Majority vote by creditors whose claims expired prior to bankruptcy declaration and 25% vote by creditors with unexpired claims; voting creditors must have 2/3 of total claims against firm	Majority vote by creditors with ¾ of filed claims; secured creditors don't vote; Plan must guarantee 45% repayment within 2 yrs. to nonpreferential creditors; court may reject a plan voted by creditors
Preferential claims in reorg.			Costs of proceedings; payment of trustee	Costs of proceedings; payment of trustee	Costs of proceedings; payment of administrator; taxes and claims by gov't
Composition during liquidation			Possible; Majority vote of creditors required	Possible; Majority vote of creditors by groups	Majority vote by creditors with > ¾ of filed claims; secured creditors don't vote; Reorganization plan must guarantee 35% repayment within 1 yr. to nonpreferential creditors; court may reject a plan approved by creditors

Absolute priority rule	Secured creditors; administrative costs; post-bankruptcy loans; taxes and wages; unsecured creditors			Administrative costs; wages; taxes; other claims; penalty interest payments	Secured creditors; administrative expenses; (if nonsecured assets insufficient to pay administrative expenses, secured creditors receive <70% of claims); wages; taxes; unsecured creditors

Sources: Franks and Torrous (1996), Gray et al (1996), Hoshi et al (1997), Mitchell (1990), Epstein (1992)