

Revisiting Hungary's Bankruptcy Episode

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Abstract

We take a retrospective look at Hungary's experiment with a particularly draconian bankruptcy law. For an eighteen-month period in 1992-93, the Hungarian bankruptcy code contained an unusual automatic trigger that required the managers of firms that held overdue debts of any size to any creditor to initiate reorganization or liquidation proceedings to avoid prosecution under the civil code. We analyze the impact of this "legislative shock therapy" on the economy during the period and examine its effects on resource reallocation and institution building. We argue that, although a key motivation for introducing the automatic trigger was to harden the budget constraints of firms, the empirical evidence suggests that hard budget constraints were already being imposed by banks and by other firms, and the effect of the automatic trigger was rather the exacerbation of a credit crunch and disruption of economic activity. We also suggest that other features of the Hungarian bankruptcy framework not connected to the automatic trigger provide the more important lessons. In particular, it is possible to introduce a bankruptcy track in a transition economy that can both transfer control of the firm from management to creditors and maintain the firm as a going concern while restructuring takes place.

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Non-technical Summary

Bankruptcy legislation is a court-based, market-oriented approach to reallocation that promotes both the release of assets so that they may be transferred to their most productive uses and the restructuring of debt to allow the continuation of viable but illiquid or insolvent companies. In addition to addressing these stock problems, bankruptcy legislation allows creditors to impose financial discipline on debtors because it affords a credible threat of action if the debtor defaults. Thus, it helps to create the proper financial incentives to prevent future bad debts. A key issue is how to separate firms where the most efficient outcome is to preserve the firm's going-concern value (reorganize/restructure) from firms where the most efficient outcome is liquidation and reallocation of the assets to other uses. The lack of good firm-specific information in transition economies makes this a daunting task.

The Hungarian Bankruptcy Act of 1992 received considerable attention at the time, in part because it contained an unusual automatic trigger. For an eighteen-month period, managers of firms that held overdue debts of any size to any creditor were required to initiate either reorganization or liquidation proceedings to avoid prosecution under the civil code. The motivation for this innovation, one that distinguished the Hungarian Bankruptcy Act from most other bankruptcy procedures, was the importance given to countering a perceived flow problem, namely creditor passivity and the lack of payments discipline. Less noticed at the time, but also providing valuable lessons, was the structure of the liquidation procedure in the 1992 Act. Whereas a firm in the reorganization track was left in the control of incumbent management, a firm in the liquidation track was put under the control of a court-appointed liquidator. The mandate of the liquidator was to dispose of the assets of the firm in order to satisfy as best as possible the claims of the firms' creditors, but the liquidator could choose to keep the firm operating as a going concern while this was done, and indeed was given certain incentives to do so.

The paper looks at two perceived key sources of creditor passivity and soft budget constraints, namely interenterprise and bank credit, and argues that concerns about these were exaggerated in the Hungarian case. The volume of trade credit in Hungary was stable in the period prior to the introduction of the bankruptcy reform and comparable to levels found in Western market economies; nor was late payment any more of a problem than in the West. Banks had large bad debts, but enterprise-level data from 1991 show that the banks were presenting firms with hard budget constraints, sometimes capitalizing interest and rescheduling the debts of loss-making firms but not putting in new money. The real source of soft budget constraints in Hungary was the state itself, in its inability to collect taxes and its toleration of tax arrears in loss-making firms, in its inability to act as a tough owner and prevent management of state-owned firms from stripping assets, and in its implementation of a series of bail-outs of banks and important debtors.

The paper argues that the main effect of the automatic trigger was a disruption of economic activity. The many firms that entered reorganization were cut off from credit markets because, unlike the liquidation procedure, the Bankruptcy Act did not allow for new borrowing by firms in the reorganization track to take precedence over pre-bankruptcy debts. Survey evidence suggests that most of the restructuring seems to have taken place via the liquidation route rather than via reorganization. Indeed, it is not clear that a track that left incumbent management in control was necessary at all. The usual justification for protecting both the firm and its incumbent management is that inefficient termination and loss of the going-concern-value of the firm is avoided. The Hungarian experience, however, suggests that it is possible to structure a bankruptcy procedure so that it discourages inefficient termination but at the same time removes control from incumbent management and places it in the hands of an agent who is more likely to engage in major restructuring and more likely to look after the interests of the creditors.

I. Microeconomics for Transition Economies

As many countries move into the latter years of the first decade of transition, microeconomic issues and resource reallocation have taken center stage. Institutional reform, enterprise restructuring, and financial sector reform have become the focus of attention. However, the design of institutions that provide proper incentives to induce agents to act in response to market signals has proven to be the most difficult aspect of the transition as Svejnar (1991) predicted. Efficiency demands the reallocation of resources that are “frozen” in less-productive uses as measured by market principles. However, supply network linkages may induce a ripple effect from firm closures. Hence imposing strict legislation that promotes enterprise liquidation may take down “good” firms with “bad” firms due to these interdependencies. Although imposing a hard budget constraint on companies is a necessary condition for financial discipline, it must be supplemented by market-enabling legislation to promote the efficient allocation of resources. The purpose of our paper is to take a retrospective look at Hungary’s experiment with a particularly draconian bankruptcy law. For an eighteen-month period, the Hungarian bankruptcy code contained an unusual automatic trigger that required the managers of firms that held overdue debts over any size to any creditor to initiate reorganization or liquidation proceedings to avoid prosecution under the civil code. We analyze the impact of this “legislative shock therapy” on the economy during the period and examine its effects on resource reallocation and institution building.

To stylize the issue of resource reallocation, we can divide the real sector of transition economies conceptually into three groups of firms. The first consists of firms that are profitable and viable in the new market environment; for these, the financial sector should be developed sufficiently to provide credit on reasonable terms. The second consists of firms that are unprofitable and nonviable; these should be liquidated and their assets should be reallocated as quickly as possible. The third consists of firms that are unprofitable but potentially viable and in need of restructuring to survive and prosper in the new market environment. Our focus is on the last two groups, i.e., on financially-distressed firms. The issue is how to separate firms where the most efficient outcome is to preserve the firm’s going-concern value (reorganize/restructure) from firms where the most efficient outcome is liquidation and reallocation of the assets to other uses. The lack of good firm-specific information in transition economies makes this a daunting task.

Bankruptcy legislation is a court-based, market-oriented approach to reallocation that promotes both the release of assets so that they may be transferred to their most productive uses and the restructuring of debt to allow the continuation of viable but illiquid or insolvent companies. In addition to addressing these stock problems, bankruptcy legislation allows creditors to impose financial discipline on debtors because it affords a credible threat of action if the debtor defaults. Thus, it helps to create the proper financial incentives to prevent future bad debts, i.e., the flow issue. Hungarian policymakers chose this market-oriented approach to resolving the bad debts of firms in 1992. The Hungarian bankruptcy experiment received considerable attention at the time, in part because it contained an unusual automatic

trigger that required many firms to enter reorganization. The purpose of this paper is to revisit the Hungarian bankruptcy episode to see what lessons can be learned with the advantage of hindsight. We suggest that, whereas most attention at the time of the experiment was directed at the automatic trigger, other features of the Hungarian bankruptcy framework not connected to the trigger provide more important lessons. In particular, it is possible to introduce a bankruptcy track in a transition economy that can both transfer control from management to creditors and maintain it as a going concern while restructuring and reorganization takes place.

Section two begins with a discussion the role of bankruptcy in market economies, focusing in particular on the relationship between how the contingent control rights of creditors are exercised and the problems of inefficient termination vs. inefficient continuation. We then discuss various aspects of bankruptcy reform in transition economies: the deep transition-induced recessions, creditor passivity, and soft budget constraints. In section three, we describe the Hungarian policy response, the introduction in 1992 of bankruptcy legislation with an automatic trigger plus a new banking act. Section four discusses a perceived key source of creditor passivity and soft budget constraints, namely interenterprise or trade credit, and argues that this concern was exaggerated in the Hungarian case. Section five considers whether banks were a source of a source of soft budget constraints, and argues using evidence from enterprise-level that here too concern about the existence of flow problems was exaggerated. Section six analyzes the Hungarian experience with the bankruptcy experiment. Section seven concludes with lessons from the Hungarian experiment and policy implications for other transition economies.

II. Bankruptcy in Market and Transition Economies

Bankruptcy in market economies

Bankruptcy is the legal framework that determines the governance of a firm that has been declared, or declared itself, insolvent and unable to pay its creditors. Bankruptcy allows creditors to exercise their contingent property rights in the event of the firm defaulting upon its debts. What makes the design of bankruptcy frameworks more complex than simply assigning control of the firm to the creditor(s) is that typically a firm has multiple creditors, with claims of varying seniority (Hart, 1995). Faced with a debtor entering financial difficulties, creditors have an incentive to engage in a socially wasteful race to seize their collateral or obtain court judgements against the firm. Bankruptcy frameworks specify collective procedures that spell out how the various creditors can exercise control over the defaulting firm and its assets, and how they may negotiate or bargain with the debtor and with each other.

A desirable goal for a bankruptcy procedure is ex post allocative efficiency, meaning an efficient (re)allocation of the assets of the firm (Hart 1995). The direct costs of the procedure (administrative resources needed, speed of the procedure) figure here, of course. Still more important is whether termination or continuation of the firm is the more efficient outcome. Continuation will be inefficient if the

outcome of the bankruptcy process is a firm that continues as a going concern after reorganization but whose value is less than the liquidation value of the assets following shutdown and asset dispersal. Termination will be inefficient if the loss of the firm's going-concern value is large relative to what can be obtained by shutting down the firm and selling off the assets. This may happen even if, for example, the firm's assets are currently in best use and all that is really needed is a simple rescheduling of claims – once a firm is shut down, even temporarily, much firm-specific capital can be lost (e.g., relational capital involving the firm and its customers, suppliers, and employees if they abandon the firm, or even physical capital if assets deteriorate rapidly when not maintained¹).

The nature of limited liability, and the assignment of differing priority to claims of different creditors, can in principle lead to inefficient termination instead of continuation, or inefficient continuation instead of termination. Creditors, for example, may prefer a rapid and cheap but inefficient termination to continuation in which the expected value of the firm is high but uncertain, if the liquidation value of the firm will with certainty be great enough to cover their claims (but leaves little left over for equity-holders). By the same reasoning, senior creditors may seek (inefficient) termination because the potential up-side gains from continuation are shared with junior creditors and equity-holders. On the other hand, inefficient continuation can arise when a coalition of senior creditors and management are able to gamble with junior creditors' claims by investing them in a risky activity with uncertain returns, i.e., continuation, even though the junior creditors do not participate fully in the upside gains. In general, the greater the uncertainty, the larger this problem (White, 1989).

Bankruptcy frameworks typically include features that aim to protect the bankrupt firm's going-concern value while it is in bankruptcy. It is common, for example, to give firms in bankruptcy the ability to reenter credit markets by freezing the debts of the firm at the start of bankruptcy and giving new credit subsequently granted to the firm super-priority over the frozen pre-bankruptcy debts. One such set of features aims to reduce inefficient termination through the way the control rights of creditors are specified. Secured creditors are usually prevented from removing unilaterally their collateral from a bankrupt firm, and the responsibilities of the liquidator in charge of the bankrupt firm are often specified by law to be to operate the firm in the interest of all creditors (instead of, e.g., those of senior creditors). One important such limitation on the contingent control rights of creditors that is sometimes observed is the right of management to obtain unilaterally an automatic stay on the claims of creditors – a protection period – while they seek to negotiate a settlement with them.

This link between measures to allow continuation and measures limiting the rights of creditors is found in some but by no means all bankruptcy frameworks, as a comparison of the US and UK frameworks shows. In the US, the link is very clear. Firms that enter liquidation under Chapter 7 of the US Bankruptcy Code are typically shut down and have their assets dispersed under the control of the bankruptcy trustee (the

¹ For example, a steel foundry that is shut down and cools off will be very expensive to restart.

liquidator) who represents the creditors.² Under Chapter 11, firms reorganize as going concerns under the control of their management, protected from their creditors and able to operate; this protection can last for years. This protection may well be preferred by creditors as well as by management, if the losses from inefficient termination via Chapter 7 are substantial enough. By contrast, in the UK all three main bankruptcy tracks allocate control to the creditors. Receivership and administration are used to maintain the firm as a going concern while reorganization takes place; the main difference between the two is that the receiver is primarily responsible to the main secured creditor³ whereas the administrator is responsible to the creditors generally. The third track, liquidation, is used when the firm is to be shut down and the assets dispersed; it is overseen by a liquidator who is again responsible to the creditors generally.

A bankruptcy framework will also affect ex ante efficiency via the incentives and behavior of creditors, owners, and management. The most obvious of these is that a bankruptcy system should provide creditors with some expectation of being able to get their money back from a firm that defaults; without this basic protection, creditors will be unwilling to offer financing in the first place. The prospect of bankruptcy has a disciplining role on management and can help to align their incentives with investors in the firm (Hart 1995); the fear of losing their jobs in bankruptcy should get them to take measures to avoid it. A bankruptcy procedure that is too lenient on management can thus lead to managerial inefficiency; but a procedure that is tough on management can also generate problems, since management may engage in excessive risk-taking in the hope of being able to avoid bankruptcy should their gambling pay off (White, 1989).

Bankruptcy reform in transition countries

The discussion of bankruptcy above was in general terms; in this section we relate these aspects of bankruptcy to the specific characteristics of transition countries in general and Hungary in particular.

Hungary began the transition with a combination of macroeconomic shocks, i.e., the transition-induced recession, the collapse of CMEA, and an extreme change in relative prices due to liberalization. This meant, on the one hand, many firms entering financial distress, and on the other hand, potentially large gains to reallocation of assets from inefficient uses in activities determined by socialist planners to uses appropriate to a market-led economy. The potential allocative efficiency gains to implementing an effective bankruptcy framework were therefore large. At the same time, however, implementing a bankruptcy framework brings with it the problem of how to preserve going-concern value where this is efficient. Putting many firms through bankruptcy could run the risk of allocative inefficiency through inefficient termination of firms on a large scale. It was precisely the fear of this outcome that led the Czech authorities, for example, to delay implementation of their bankruptcy framework in 1993.

² Baird (1986) argues, however, that this need not be the case and that under Chapter 7 the bankruptcy trustee may continue to operate the firm if this is in the best interests of the estate. Nevertheless, this is rarely done in practice.

³ The main bank of the firm, whose security takes the form of a "floating charge" over the assets of the firm.

Hungary also started the transition with a problem of "creditor passivity" (Mitchell, 1993). A bankruptcy law had been enacted in 1986, but had been rarely used by creditors. There are a number of reasons for this. First, bankruptcy was a new and relatively unused procedure and creditors would be deterred by the prospect of large transactions costs to filing and lengthy completion times. One reason for the banks' reluctance to pursue liquidation would be their unwillingness to draw attention to non-performing assets in their portfolios. Another is that the aforementioned macroeconomic and transition shocks, plus the legislative shock of the rapid introduction of Western-style financial legislation and regulatory requirements, made the continuation value of financially distressed firms extremely uncertain. Creditors were highly exposed to downside risk with limited or no compensating participation in upside return. This uncertainty is likely to have generated a bias towards continuation on the part of the senior creditors, the banks. In some transition economies, policymakers tried to resolve the issue of inefficient continuation by involving major creditors in both decision-making and up-side gains sharing, e.g., the Polish bank-led enterprise restructuring program. Hungarian policymakers took a different approach and stressed a market-based reallocation of resources via bankruptcy.

A problem of particular concern in transition economies is that firms may have soft budget constraints. Soft budget constraints can be defined in a number of ways (Schaffer 1998); for our purposes, we will use Kornai's "paternalism" definition, i.e., a paternalistic agent, typically the state or one under the direction of the state, rescues distressed firms from failure by injections of cash in the form of subsidies or additional credit. Both creditor passivity and soft budget constraints can directly enable loss-making or insolvent firms to continue in operation, but for different reasons. In the case of creditor passivity, inefficient continuation arises because the return to creditors of liquidating the firm is insufficient; in the case of soft budget constraints, because the state or creditors value the continuation of the firm for its own sake and are willing to bear the costs of keeping it afloat by providing subsidies or extending new credit even in the absence of a prospect of repayment. It is worth noting that soft budget constraints and creditor passivity may interact, as Mitchell (1998a) notes; if distressed firms are expected to be rescued in the future, creditors may wait for the rescue rather than pursue immediate liquidation.

The sources of soft budget constraints that the Hungarian authorities were most worried about were the state-owned commercial banks and state-owned firms themselves; the volume of bad bank debt, and of overdue trade credit ("inter-enterprise arrears") had been growing since the start of transition. But it was not just the commercial creditors of firms who were not exerting effective corporate governance over firms. Hungary began the transition with an enterprise sector that was almost entirely state-owned, and the problems of ineffective control by the state as owner extended beyond merely tolerating inefficiencies within the firm. Asset-stripping by incumbent management was a particular problem. A 1996 survey of crisis managers installed in 37 troubled state-owned firms in the early 90s illustrates this. The crisis managers were asked in the survey to rank the importance of various possible sources of the crisis. Loss of demand for the firm's products came first in the list, rated as first or second in importance in 13 and 6 firms, respectively. The next most important factor was the failings of the previous management (first in 9 firms,

second in 7), ahead of liquidity problems, debt problems, supply problems, and others. The two main failures of the previous management, in the view of the crisis managers who replaced them, were asset stripping and bad investment decisions.

Finally, as we shall see below, the weakness of the Hungarian state as owner was mirrored in the weakness of the state as creditor – with the start of transition, the Hungarian tax authorities, like those in most other transition countries, began to have problems collecting taxes from firms, and tax arrears started to accumulate.

III. Hungary's Legislative Shock Therapy

At the beginning of 1992, Hungary implemented what has been termed “legislative shock therapy” (Abel and Bonin, 1994): the statutory frameworks for both bankruptcy and banking were comprehensively reformed. In this section we describe the contents of the new frameworks and the motivation behind their introduction.

Bankruptcy

The 1992 Bankruptcy Act (formally, Act XL of 1991) was passed by Parliament on 24 September 1991 and came into effect on 1 January 1992, superseding the Law-Decree No. 11 of 1986 on liquidation and winding-up. The introduction of the 1992 Bankruptcy Act was motivated by a dissatisfaction with the 1986 Act and a perceived need for new measures. The 1986 Act was a product of the socialist era and unsatisfactory in some respects, e.g., it was designed with state-owned legal entities in mind. The 1992 Act was meant to establish a uniform bankruptcy procedure comparable to those found in Western countries.

The Act applied to legal entities regardless of ownership (individual entrepreneurs are not covered). It allowed for three types of procedures: liquidation (winding-up) proceedings in which control of the firm passed to a court-appointed liquidator; reorganization proceedings affording the debtor firm temporary protection from its creditors and leaving incumbent management in control; and final accounting. The 1986 Act had introduced liquidation procedures that were broadly similar to those in the 1992 Act. The main innovation of the 1992 Act was the introduction of reorganization proceedings. Final accounting refers to the cessation of activity of an economic entity without a legal successor in cases not covered by liquidation. We do not discuss this last procedure here, and instead concentrate only on liquidation and reorganization.

Liquidation

Although the first of the two main tracks in the Hungarian bankruptcy framework is usually referred to as “liquidation”,⁴ it is somewhat misleading use of the term. The essential feature of the

⁴ In Hungarian, “felszámolási eljárás”.

liquidation track in the Hungary bankruptcy framework is in fact the transfer of *control*, away from incumbent management and into the hands of the liquidator, an agent who is meant to represent the interests of the creditors. With respect to the continuation decision, however, the liquidation track is flexible: firms in liquidation can be closed and the assets sold off, but they can also continue operations during liquidation and after restructuring emerge from liquidation as going concerns. For these reasons the Hungarian liquidation track can be described as resembling a combination of the “administration” and “liquidation” tracks in the UK bankruptcy framework.

The liquidation procedure arises when an insolvent firm is unable to meet the claims of its creditors and is placed under the control of a court-appointed agent, the liquidator. Liquidation proceedings may be initiated either voluntarily by the debtor, or by a creditor with a debt past due by application to the court. In the latter case, the court may, upon the request of the debtor, grant a delay of up to 30 days for the settlement of the debt. The law does not require the debtor to file for liquidation if certain circumstances arise; unlike the reorganization track (see below), there is no “automatic trigger”. Liquidation begins formally after the court’s declaration that the debtor is insolvent, at which point the claims against the debtor are frozen and the court appoints an official liquidator. The mandate of the liquidator is, within two years, to dispose of the assets of the firm in order to satisfy as best as possible the claims of the firm’s creditors. The liquidator is, however, responsible to the court and not directly to the creditors. If the creditors (or the debtor) object to any action of the liquidator, their only recourse is to complain to the court, which then may or may not set aside the measure and/or instruct the liquidator to undertake a different measure. Only if the liquidator does not comply with this court order can the petitioner ask for the court to replace the liquidator. More generally, the involvement of the court in the affairs of the firm is limited, and the liquidator has considerable autonomy.

The prioritization of the settlement of the debts of a firm in liquidation follows the absolute priority rule (APR) and is as follows:

1. Liquidation costs. Liquidation costs include the liquidator’s fees plus wages and any other costs arising from the continuation of the economic activity of the firm following the start of the liquidation procedure. Such costs include debts acquired since the start of the liquidation procedure. The liquidator’s fees are 2% of the gross revenues derived from turnover and the sales of assets and collected claims, but not less than H Ft. 250,000 (approximately US \$25 thousand in 1992 prices). The court may deviate from this payment schedule, however, in complex cases.
2. Secured creditors.
3. Social security and tax debts. (Within this class, social security debts take priority over other tax and tax-like claims.)
4. Claims of other creditors, including trade creditors.
5. Interest, late penalties on taxes, and the like.

If at the end of the liquidation, assets remain after satisfying the claims of the creditors, these are distributed among the equity holders of the firm.

The creditors and the debtor may reach a settlement at any time during the liquidation procedure. A settlement constitutes a program designed to restore the debtor's solvency and an agreement between the debtor and the creditors concerning the timing of debt repayments, write-downs of claims, and restructuring measures. Unanimous agreement of creditors is not necessary for the settlement to be approved by the court and implemented. Rather, agreement of half the creditors in each class (corresponding roughly to debt categories 2-5 above) is enough, provided they hold two-thirds of the total value of claims.

The liquidation track has two pro-continuation features. The first is essential to continued operation of a firm in bankruptcy and is often found in bankruptcy frameworks, namely the freezing of existing debts and the super-priority given to new debts. The treatment of wages and other current costs, including new borrowing, as priority claims means firms in liquidation are able to employ staff, purchase inputs, sell output, and raise funds from banks or other creditors (e.g., trade creditors). The second pro-continuation feature, a Hungarian novelty, is found in the statutory specification of the liquidator's remuneration scheme. By rewarding the liquidator with 2% of *all* gross revenues – not just of revenues from sales of assets but revenues from gross sales as well – the liquidator is given a strong incentive to maintain the firm as a going concern while in liquidation (Gray et al. 1996). These two pro-continuation features were reinforced by the relative independence of the liquidator from the creditors, who might otherwise try to pressure the liquidator into choosing early and possibly inefficient termination.

Reorganization

The second main track of the Hungarian bankruptcy framework is usually referred to as “reorganization” or, sometimes, “bankruptcy”.⁵ The key distinguishing feature of this track is not, however, that the firm is given an opportunity to reorganize as a going concern – this can happen in the “liquidation” track as well – but rather that control remains with incumbent management while reorganization and negotiation with the creditors takes place. In this broad sense, the reorganization track resembles Chapter 11 of the US Bankruptcy Code. But the resemblance does not go much deeper than that: unlike Chapter 11, the reorganization track in the Hungarian bankruptcy framework was designed to be a rapid procedure with limited court involvement, it had limited attractions to incumbent management, and it had a peculiar form of “automatic trigger” that could send a firm into compulsory reorganization.

In the reorganization procedure outlined in the 1992 Act, a debtor firm renegotiates its debts with its creditors while temporarily protected from them. The debtor enjoys a 90-day period of protection (including protection from liquidation proceedings) while negotiating with its creditors. This protection is extendible for another 30 days by the bankruptcy court upon the joint request of the debtor and the creditors. During the protection period, the debtor remains in control of the firm. At their own expense, the creditors may request that a property supervisor be installed to represent the interests of the creditors and supervise the assets and financial activities of the firm. Unlike the liquidation procedure, in the

⁵ In Hungarian, “csodeljárás”.

reorganization procedure the settlement agreement between the debtor and the creditors requires the approval of *all* creditors present at the creditors' meeting; this is referred to in the bankruptcy literature as unanimous consent procedure (UCP). The debtor and the creditors are allowed very substantial flexibility in drawing up the settlement agreement. If the debtor and the creditors are unable to come to an agreement by the time the deadline expires, the bankruptcy court declares an end to the reorganization procedure and begins liquidation proceedings *ex officio*. Once the debtor has entered the reorganization procedure, it is prohibited from filing for reorganization again for three years. If, during this period, the debtor is unable to meet the claims of its creditors, it enters the liquidation route directly.

The logic of the kind of reorganization procedure implemented in the 1992 Act is to give a debtor in financial difficulties a period of protection from creditors during which the debtor can formulate a restructuring plan. Under the 1992 Act, it is the debtor who files for reorganization; either the debtor or the creditors may file for liquidation of the debtor. Debtors may exercise their option to file if they foresee that they will be unable to meet claims on the firm maturing within a year or if they have debts past due that they are unable to pay.

An important feature of the reorganization procedure is the approach, or more accurately, the non-approach, to debts acquired by the debtor firm during reorganization, while it is protected from its creditors. There is no distinction made in the Act between debts acquired prior to filing for reorganization and debts acquired during reorganization. In effect, any debts incurred by the debtor firm during the protection period, i.e., new lending by banks or trade credit for goods being received from suppliers, are thrown into the pot with prior debts and subject to renegotiation. This can result in these creditors refusing to deal with the firm while in reorganization, which in turn would be a deterrent against filing for reorganization. By contrast, the liquidation track has special features allowing firms to raise capital while protected from existing creditors.

The main innovation of the 1992 Act was an automatic trigger that *required* a firm to file for reorganization if it has a debt that it was unable to repay within 90 days of the debt becoming due. The condition for obligatory filing is: if a firm has a payable of *any* size, owed to *anybody*, that is overdue 90 days or more, it had to file for reorganization within eight days. If the firm did not file for reorganization when it was legally required to do so, the firm's managing director would be held responsible according to the Civil Code for the failure to file. The only way in which this requirement to file could be avoided is if the firm separately filed for liquidation instead.⁶

Bankruptcy frameworks sometimes have automatic triggers, but the Hungarian automatic trigger was novel in two respects. First, the bankruptcy framework required the firm to file for reorganization, though in effect this meant a requirement to file for reorganization or liquidation. In effect, managers were being required to seek protection from creditors who were not actually pursuing them through the

⁶ In fact, under Section 26 of the Act, if the automatic trigger bites (the firm has a payable overdue over 90 days) and the firm files for liquidation instead of bankruptcy, then insolvency (a requirement for the liquidation to proceed) is automatically presumed.

bankruptcy courts. In Germany and the UK, for example, the requirement to file is a requirement to file for a bankruptcy procedure in which control is removed from the incumbent management. Second, automatic triggers are typically based on measures of insolvency, e.g., liabilities that exceed assets (Germany, UK), or a permanent inability to make payments on debts as they come due (Germany). The reason for this is to deter management from trying to gamble their way out of insolvency with the creditors' money. The Hungarian trigger, by contrast, was based on a peculiarly tough measure of illiquidity – the simple presence of overdue payables, without regard to their size or to whether they might reasonably be expected to be paid. The reason for this variation from international practice in the choice of the trigger is that it was meant to serve a different purpose. It was not meant to prevent excessive risk-taking by management; nor was it intended to identify over-indebted firms that needed workouts. The approach taken in, e.g., the Polish bank and enterprise restructuring program. Rather, the automatic trigger was the main instrument by which the new Bankruptcy Act was intended to improve the state of payments discipline and harden budget constraints in Hungary. In particular, it was intended to address the perceived problem of growing interenterprise debt and arrears.

Banking Act

The second part of Hungary's legislative shock therapy was a new banking law enacted at the same time as the new bankruptcy law. The Banking Act (officially, Act No. LXIX of 1991 on Financial Institutions and Financial Institutional Activities) was promulgated on 1 December 1991. The act introduced three categories of qualified or "problematic" loans for rating the loan portfolios of the banks, mandated the accumulation of provisions (loan-loss reserves) against loans so qualified, and specified a schedule for meeting capital adequacy targets. Temporary regulations for loan classification were applied retroactively to the balance sheets of the banks for the full year of 1991. According to a subsequent decree from the State Banking Supervision (SBS) in March 1992, banks must classify assets in their portfolios as "bad" if the borrower is in default for more than one year or the claims are held against a company that is in liquidation proceedings. Provisions equal to 100% of total "bad" debt had to be accumulated by the end of a three-year period. The banking act legislates two other categories of qualified loans, namely "substandard" and "doubtful", with provisions equal to 20% of the former and 50% of the latter to be accumulated within the same time period. The Banking Act made the banks recognize the drop in the real value of their assets over a relatively short period of time. It was expected to bring the problem of bad debts into the open and by doing so to discourage banks from further lending to problem borrowers, i.e., to harden their budget constraints. It did *not*, however, contain any special measures aimed at promoting or easing workouts of the stock problem; this was to be covered by the regular routes of liquidation and reorganization as specified in the Bankruptcy Act.

Summary

The motivation behind Hungary's legislative shock therapy was two-fold. First, the liquidation and reorganization procedures were meant to facilitate the restructuring or termination of troubled firms and to bring about the settlement of creditors' claims. In this sense, the Bankruptcy Act was directed at a stock problem, namely the liabilities of the debtor. The second motivation, one that distinguishes the Bankruptcy Act from most other bankruptcy procedures, was the importance given to countering a perceived flow problem, namely creditor passivity and the lack of payments discipline. The weight given to fighting the perceived flow problem is evident not only from the 90-day automatic trigger, but also from the treatment by the Act of the stock problem. The Act did not contain any significant measures to promote fast-track workouts of the debts of insolvent firms; the requirement of 100% agreement of creditors on the restructuring plan in the reorganization procedure was unusually strict; and the Ministry of Finance did not increase funding of the bankruptcy court system despite the flood of bankruptcy filings which followed the introduction of the Act.⁷ The absence of special or accelerating workout procedures in or accompanying the Banking Act carries a similar message: stopping the perceived flow problem was the top priority. The significance of the flow problem, i.e., the perceived problems of the lack of payments discipline between enterprises and of banks providing firms with soft budget constraints, is therefore crucial to evaluating the success of the 1992 Hungarian Bankruptcy and Banking Acts on their own objectives.

IV. Interenterprise Credit in Hungary: Was It a Problem?

There are two measures of interenterprise credit in Hungary commonly used: data on the so-called "queue" reported by the National Bank of Hungary (NBH) and collected from Hungarian commercial banks, and data on payables and receivables deriving from enterprise balance sheets. We consider these two data sources in turn. The value of payables in the queue is the most commonly cited figure for interenterprise credit in Hungary. The rapid increase in the size of the queue in the period 1989-91 was a source of concern for policymakers and was probably the main source of evidence for the assertion that there was a serious payments discipline problem in Hungary. The queuing data have, however, been much misinterpreted.

The queue refers to payables of firms that have been sent to the firms' banks and are waiting to be paid because the firms have insufficient funds in their accounts to cover the payables. The payables wait in a queue for the funds to arrive, hence the name. The data are reported by the NBH, which collects them from the commercial banks. Under the pre-reform system, banks were legally required to operate queues but, starting in 1990, the queuing procedure became optional. This meant that firms and banks could decide for themselves if they wanted to arrange to queue payables in the cases when the firms had insufficient funds. The alternative was for the banks to return the payment requests to the creditors. We have no

⁷ On this last point, see Mizsei (1994).

information about the proportion of firms or transactions subject to queuing arrangements following this change, although we suspect that most medium and large firms kept them.

Table 1 presents some data on the queue. Between the end of 1989 and the end of 1991 the queue did increase noticeably, from about 4% of GDP to about 7%. However, the key fact about the queue is the identity of the queued payables. What was not realized by most observers and policy-makers at the time is that not one but three types of payables appear in the queue: payables to other enterprises; payables to banks; and tax, social security, and other tax-like payables. The NBH did a study in early 1990 of the identity of queued payables based on a survey of Budapest firms. They found that queued payables to other enterprises, i.e., interenterprise arrears, accounted for only perhaps 20% of the total of queued payables. Queued payables to banks accounted for a similar fraction. The largest component of the queue was in fact tax and social security payables, at about one-half of total queued payables.

During a field trip to Hungary in January 1994, we asked the staff of the commercial bank branches we visited about the composition of the payables in the queues of their customers as of early 1992. Their responses were that as of that date, the composition of the queue was similar to what the NBH found in early 1990: less than a quarter for both payables to other enterprises and payables to banks, and about half in tax and social security payables. We conclude that, given the relatively low importance of payables to other firms in the queue, the increase in the amount of queued payables in 1989-91 is less evidence of deteriorating payments discipline between firms than it is evidence of a deterioration of tax discipline, i.e., an increase in tax arrears.

Although the increase in queued payables in 1990-91 does not necessarily mean that payment discipline between firms was poor and/or declining, this could still have been the case. We address this question directly using the second source of aggregate data on interenterprise credit, payables and receivables as reported by firms to the Central Statistical Office (CSO). We begin with several international comparisons of aggregate trade credit. Table 2 shows receivables (trade credit extended) and payables (trade credit received) of the enterprise sector as a percentage of GDP in Hungary and in several developed Western countries. Total trade credit in Hungary at the end of 1991 amounted to about 30-35% of GDP; less than in some developed Western countries and more than in others. Table 2 also shows that the scale of total interenterprise credit had been roughly flat in Hungary in the period 1988-91. These stocks of total trade credit are equivalent to an average payment period of roughly two months (Table 3). Since this stock was approximately constant over the period 1988-91, in aggregate in Hungary, inflows of trade credit approximately equaled outflows. Nor was the percentage of trade credit overdue unusually high by Western standards. According to Hungarian CSO data, at the end of 1991, 47% (by value) of total receivables in the Hungarian enterprise sector were overdue (as defined by the reporting enterprises). This is about the West European average, as can be seen from Table 3. Simply put, there was no serious payment discipline problem with respect to trade credit in Hungary prior to the introduction of the bankruptcy reform; as in the West, Hungarian firms did pay each other for goods delivered – but as in the West, they just paid each other late.

In our view, dealing with the phenomenon of late payment by forcing late-paying firms to file for reorganization was thoroughly misguided. In a market economy, payment discipline is enforced primarily by *market forces*. When a customer fails persistently to pay a supplier, the supplier will typically learn the obvious lesson and stop shipping to the customer in the future, or ship only for cash or payment in advance. We note that the key prerequisite for this lesson to be learned is, very simply, the hard budget constraint. A firm that doesn't learn this lesson is simply throwing money away; and if it throws enough away it will cease to be able to stay open. Our interpretation of the existing evidence from transition countries is that this lesson is indeed learned by most firms.

The results of a World Bank survey of 200 medium and large Hungarian manufacturing enterprises conducted in early 1994 provide strong evidence that, in fact, Hungarian firms did learn the lessons of what to do about customers who don't pay. Firms were asked what methods they used to control overdue receivables, and how often they used them. The responses are summarized in Table 4. Every firm in the survey used at least one method to control their overdue receivables frequently. Payment in advance, charging interest on overdue receivables, refusing to supply until past debts are repaid or renegotiated, and "informal methods" are the most commonly mentioned methods. Note that payment in advance is required substantially less frequently from traditional customers, reflecting the fact that these customers are able to establish themselves as important or reliable customers. Particularly noteworthy for our purposes is the infrequency with which legal methods are used, just as in Western countries; only 17% of firms say they use them always or frequently. Since the survey was taken immediately after the trigger episode, the infrequency with which legal methods were used by the respondents is striking.

As just noted, late payment is endemic in developed Western countries, but in practice only a small fraction of late payments are pursued through the courts. Transactions costs are one important reason for this. Another is that supplier/customer relationships are typically repeated, long-term relationships. Suppliers are not likely to take customers to court in such circumstances; late payments will simply be reflected in the next round of negotiations over price and payment terms. The scale of late payment reflects in part the relative bargaining strength of the partners; customers can extract trade credit in this way from suppliers if their bargaining position is strong. Most overdue trade credit, including overdue trade credit in transition economies, is therefore not involuntary credit, as is sometimes claimed; firms readily learn what kind of promptness of payment to expect from their customers, and if they continue to extend trade credit to customers that pay late regularly, they do so voluntarily. If, however, a customer tries to extract more trade credit than the supplier is willing to offer, or if the customer decides not to pay at all, then the supplier will simply stop selling, and only at this point we may reasonably describe the overdue debt as involuntary. It is at this point that the system of contract enforcement, including the bankruptcy framework, becomes relevant, because the supplier has the option of pursuing his claim through the courts.

An effective system for contract enforcement therefore provides a deterrent to non-payment following "one-off" or "last-time" purchases by customers. In fact, such a system was put in place in Hungary in 1986 (the 1986 Liquidation Act, mentioned above), and the 1992 Act did not introduce major

changes to this procedure; as before, a creditor could pursue a debtor through the courts by filing, or threatening to file, for liquidation. That the liquidation procedure was not widely used prior to 1992 is best explained in terms of creditor passivity: the expected low return to filing, institutional weaknesses with the legal framework for debt collection, and the relative novelty and lack of experience with the procedure. Problems with collecting debts make credit both more expensive and more difficult to obtain and, thus, impose real costs on the economy. If the problem in Hungary lay in the incentives for creditors to pursue debtors through the courts, it would seem logical that policy changes should have been directed at these incentive problems by making it easier and more profitable for creditors to pursue their debtors. The approach adopted in Hungary essentially forced debtors to pursue their creditors and did not address these underlying incentive problems in an obvious way.

V. Were Banks in Hungary a Source of Soft Budget Constraints?

The other group of creditors, aside from firms themselves, about whose behavior the Hungarian authorities were deeply concerned in 1991 was the banks. The banks' bad debt problems began to emerge in 1990-91; by the end of 1991, total problematic loans (including interest arrears) as classified under temporary State Banking Supervision regulations amounted to Ft. 88 bn, or (adjusting for comparable treatment of interest arrears) about 10% of total credit to the enterprise sector. The Hungarian authorities were worried that, as with interenterprise debt, that there existed a serious bad debt flow problem in the banking sector, i.e., that Hungarian firms were pumping money into their loss-making clients. If banks were indeed providing loss-making firms with soft budget constraints, this would help explain the few liquidations sought by banks against delinquent firms. Both the Banking Act and the Bankruptcy Act, it was thought, would address the flow problem by hardening the budget constraints of firms and improving payment discipline; the former, by requiring banks to qualify debts and provision accordingly, thus helping to bring the problem into the open and hopefully discouraging further bad lending; and the latter, by discouraging firms from running arrears to banks and again by bringing the problem into the open by forcing problem firms into reorganization or liquidation. Work-out of the stock problem would be handled by the bankruptcy framework.

The concerns of the Hungarian authorities about the scale of the bad debt problem were indeed well-placed, as subsequent events demonstrated. By the end of 1992, total problematic loans had ballooned to Ft. 289 bn, almost two thirds of which was classified in the bottom "bad" category. In other words, we estimate (again adjusting for comparability and including interest arrears) by the end of 1992, about one-third of total credit to the enterprise sector had been qualified by banks, and about 20% of total credit was classified as "bad". In early 1993 the government implemented a "loan consolidation program" (the "1992 LCP") in which it removed Ft. 102.5 bn. of "bad" loans from the books of the banks, and then about Ft. 20 bn. more in a related operation. Loans classified by the banks as problematic then ballooned again in 1993. We estimate that at the end of 1993, including the bad loans taken from the banks as part of "loan

consolidation” (and again including interest arrears), over half of credit to the enterprise sector had been classified as “problematic” in some way, and over one-third was in the bottom “bad” category.

But were, in fact, Hungarian banks a major source of soft budget constraints in 1991 or subsequently? The empirical problem is that we can make only limited inferences from the fact that problematic loans grew rapidly in the early 1990s in Hungary. Data on problematic loans are based on the banks’ own application of the loan classification rules. An increase in loans classified as “problematic” is an accounting flow and indicates only the recognition by the banks of the existence of problem loans - a stock problem - but not necessarily that new problem loans are currently being created by bad lending practices - a genuine flow problem. In the face of a significant shock to the real economy, some lag in “marking to market” the loan portfolio and realizing fully the decrease in asset values would be a natural response in any banking system. For the purposes of this paper, the question is whether or not at the time of formulation of the Hungarian legislative shock therapy in 1991, Hungarian banks were providing firms with soft budget constraints. Our approach in this section is to employ data from the borrowers rather than the lenders to try to characterize how bank debt was being allocated.

To see whether Hungarian banks were providing firms with soft budget constraints in 1991, we look at the net bank financing of loss-making firms. Bank financing net of interest charges, i.e., the change in nominal bank debt less interest due, is a useful indicator of soft budget constraints because it provides an absolute benchmark. If the bank is providing a distressed firm with a soft budget constraint then net bank financing will be positive; cash is flowing from the bank to the firm. Conversely, negative net bank financing of loss-makers suggests the banks are imposing hard rather than soft budget constraints.

The scatterplot in Figure 1 shows the relationship between firm profitability and net bank financing received by the firm. The database used covers all medium and large non-financial firms in Hungary in 1991, but to make the scatterplot readable we plot only larger firms with an average 1991 bank debt greater than US \$1 million. We also exclude firms which were majority foreign-owned at the end of 1992 (we do not have 1991 ownership data) because even a loss-making foreign-owned firm may be likely to be a reliable creditor (e.g., a greenfield foreign direct investment just starting up). The size of each firm’s average bank debt in 1991 is indicated by the size of the plotted circle. The vertical axis measures net bank financing in 1991 as a percentage of the firm’s end-1991 assets, i.e. $(\text{end-91 bank debt} - \text{start-91 bank debt} - \text{1991 interest costs}) \div (\text{end-91 assets})$ in %; the horizontal axis measures firm profitability in the previous year, 1990, as a percentage of the firm’s end-1990 assets.

Figure 1 shows that in 1991, Hungarian banks were apparently presenting unprofitable firms with *hard*, not soft, budget constraints. For nearly all unprofitable firms, net bank financing in 1991 is negative (quadrant II is almost empty compared to quadrant III) - interest payments to banks exceeded nominal increases in bank debt, usually by a wide margin. In 1991, prior to the introduction of both the Bankruptcy Act and the Banking Act, it appears that the banks were already attempting to withdraw from their uncreditworthy clients.

It was the continued existence of significant numbers of unprofitable firms in Hungary combined with low numbers of liquidations that was considered as evidence of the existence of soft budget constraints. If loss-makers were not being kept afloat by injections of either trade credit or bank credit, then how were they financing their losses? We attempt to address this question by calculating the sources and uses of financing separately for Hungarian firms making operating profits and operating losses, using the same comprehensive dataset of medium and large nonfinancial firms. The contribution of changes in different categories of current assets and debt is calculated as the real change in end-1991 prices-normalized by end-1991 total assets; sources of financing are indicated by negative values for changes in assets and positive values for changes in debt. We calculate both weighted averages (i.e., aggregates for the profitable and unprofitable groups) and medians. The results are presented in Table 5.

The picture is consistent with the evidence present above. Firms making operating losses in 1991 actually decreased their holdings of debt to suppliers and to banks in real terms. The main source of financing for loss-makers was on the asset side: in particular, inventory decumulation and reductions in trade credit extended (commercial receivables). The only significant source of financing of loss-makers on the debt side was an increase in tax and social security debts. Here we have further evidence, in addition to that on the “queue” presented above, that if any creditor was presenting firms with soft budget constraints, it was apparently the government, by allowing loss-making firms to accumulate tax arrears instead of pursuing them into liquidation. This pattern – tax arrears as a source of soft budget constraints – is a common one in transition countries (Schaffer 1998).

VI. The 1992 Bankruptcy Act and the Trigger Episode

Reorganizations and the automatic trigger

The new bankruptcy act came into operation at the start of 1992, and in the first quarter of 1992 there were over 700 filings for reorganization. The 90-day automatic trigger of the Bankruptcy Act started to bite in only in April 1992,⁸ however, and in that month there were over 2,000 petitions for reorganization (Table 6). The April 1992 filings alone amounted to almost half of all filings for reorganization in the period when the automatic trigger was in operation. The number of reorganization filings then fell immediately in May down to 201, and the rate then gradually declined from about 150 per month in mid-1992 to less than half that by September 1993, when the automatic trigger was removed from the statute books. About 80% of filings in the period through September 1993 were compulsory filings, presumably required by the automatic trigger. Most of the overdue debts that caused the trigger to bite were probably overdue trade credits; while the volume of trade credit was comparable in scale to bank credit, much more of the former was overdue (47% vs. 10% at the end of 1991). Voluntary filings were also concentrated in the early part of the bankruptcy experiment – about 1,000 such filings took place in 1992, compared with

⁸ 90 days from when the Act took effect on 1 January 1992, plus an 8-day deadline for filing.

137 in all of 1993. Not all filed reorganizations made it as far as the formal announcement by the court; about 30-40% of all filings terminated in an administrative end, meaning withdrawal from or rejection by the court of the procedure for administrative reasons. The remaining filings went on to the next stage, formal initiation (announcement) of reorganization proceedings by the court.

The size distribution of firms in which reorganization was formally initiated by the courts reflected that in the economy as a whole. Most firms that filed for reorganization were relatively small, but a substantial number of large firms also filed, and these large firms accounted for the bulk of employment, sales and exports of all firms that entered reorganization (see Table 7). By the end of 1993, about 3-4% of all legal entities in the economy were in or had been through court-declared reorganization, but this underestimates the volume of economic activity in firms that entered reorganization, because larger firms were more likely to have done so: for example, over 10% of all firms with employment over 300 filed for reorganization in 1992-93 (Table 8). We estimate that employment in all firms in which reorganization was formally declared by the courts in 1992-93 amounted to about 12-13% of total enterprise sector employment. If the size distribution of filed reorganizations that did not go on to formal court initiation is similar to that of those formally started by the court, employment in all firms that filed for reorganization during 1992-93 would come to about 20% of enterprise sector employment.

We have data collected by the NBH from the commercial banks on credit to enterprise in reorganization and liquidation; these are presented in Table 9. In the first few months after the automatic trigger started to bite, about 8% of all bank credit was to firms in reorganization; this gradually fell to about 2% by the end of 1993. Assuming that firms were on average in reorganization 90-120 days, these data suggest that the equivalent of about 20-30% of the total credit stock was in firms that went through reorganization in 1992-93.⁹ There have been suggestions that the banks protected some customers from reorganization by extending credit to enable them to pay off overdue payables and thus avoid having to file; but even if so, the amount of outstanding credit to firms that were not so privileged was very substantial.

1991 data on all firms in court-announced reorganizations in 1992 shows that they were financially less healthy than average but not extraordinarily so (Table 10). As noted above, the automatic trigger was based on a measure of illiquidity rather than insolvency. Consistent with this, Table 10 shows that firms in reorganization in 1992 were making large losses in 1991 (equivalent to 13% of assets, compared to near-zero profits in the enterprise sector as a whole) and had themselves debtors who were late in paying them (overdue receivables); but they were not actually very highly indebted (as a group, they had a 1991 debt/asset ratio of 0.58 compared to 0.39 for all Hungarian firms¹⁰).

⁹ The scale of this figure suggests that banks were including credit to firms which had filed for bankruptcy, not just to firms where bankruptcy was eventually formally announced.

¹⁰ As a benchmark, debt/assets ratios in firms in the G7 countries, also measured at book value, range from 0.58 (UK) to 0.72 (Germany); see Rajan and Zingales (1995). The book value of the assets of Hungarian firms filing for reorganization would likely be overestimates of the market value for obvious reasons, but inflation rates of 30-odd percent in 1990 and 1991 would have introduced a bias in the opposite direction.

Most reorganization filings were apparently dealt with fairly promptly, as required by the law. By the end of 1993, over 90% of the reorganization filings had been brought to closure. As noted above, the most common conclusion to a reorganization filing was an administrative end. Anecdotal evidence suggests that sometimes debtor firms would deliberately misfile their reorganization applications in order to play for time. Using a sample of reorganization filings from the documents of the Budapest court, Mitchell (1998b) finds that about 30% of the petitions during this time period were rejected due to missing documents. She reports that more than 50% of these firms filed for liquidation in subsequent years (Mitchell, 1998b, Table 6).

Of the reorganization cases formally announced by the court and subsequently completed in 1992, termination via agreement with creditors was initially more common than continuation into liquidation, but in 1993 liquidation became the more common exit route (see Table 6). Mitchell suggests this may have been because creditors, learning from their experiences in previous reorganization procedures, started to require better-formulated restructuring plans from the debtors. Furthermore, Mitchell found that 70% of the firms in her sample that initially came to agreement with their creditors in the reorganization process were in liquidation proceedings within three years. She found this percentage to be the same for all the firms in her sample that filed for reorganization regardless of the outcome of that filing. As liquidation becomes the final route for financially distressed firms, the court dockets obviously become more crowded.

The content of restructuring plans in the reorganizations that ended in agreement between debtor and creditors consisted of fairly simple measures (Gray et al. 1996). Financial restructuring measures (rescheduling of debt, capitalization of interest, debt write-offs, etc.) were the most common. Separately, Mitchell (1998b) reports that, based on a sample of firms filing for reorganization during the period of the automatic trigger, 70% of those whose reorganizations ended in agreement with their creditors subsequently filed for liquidation within the following two years. Thus in terms of real restructuring, freeing up assets to move into other uses, etc., reorganization was not particularly successful. The direct contribution of the automatic trigger to restructuring, via putting large numbers of firms into reorganization, thus appears to have been limited.

After mounting dissatisfaction with the bankruptcy experiment, in September 1993 the Hungarian Parliament amended the 1992 Bankruptcy Act. The automatic trigger was removed and the UCP was loosened to a requirement similar to that which governed agreements for firms in liquidation. Once the trigger was removed, compulsory filings for reorganization disappeared, leaving only small numbers of voluntary filings – about 100 a year (Table 6). The infrequency with which debtors file for voluntary reorganization (in early 1992, before the trigger became a binding constraint, during the trigger period, and after it was removed in late 1993), demonstrates that reorganization was not seen by management as an attractive option, despite the fact that it temporarily preserved their control of the firm. The reason for this, we argue, is that entering reorganization cut firms off from credit markets; and by forcing many firms to enter reorganization in these conditions, the automatic trigger in effect generated a credit crunch in 1992.

Firms that were thrown into reorganization, even if they were in arrears on only one kind of credit or even to only one creditor, were cut off from access to all kinds of credit as a result. A supplier will obviously not want to extend trade credit to a firm about to enter reorganization. The absence of any clause in the 1992 Bankruptcy Act giving priority status to debts incurred during reorganization was a powerful disincentive for suppliers to extend trade credit to firms in reorganization. The supplier, if it is to ship at all to a firm near or in reorganization, will demand payment in advance or on delivery. The firm will not be able to solve this liquidity problem with the help of bank credit because a bank will not lend for the same reasons. Lending to a firm about to enter reorganization is clearly a mistake, and lending to a firm in reorganization is just as mistaken because of the lack of priority status for new lending.¹¹ A potential customer may be unwilling to start or remain in a long-term relationship with a firm in (or about to enter, or leaving) reorganization if it has doubts about whether this supplier will still exist as a going concern in a year's time. The economy-wide and coordinated implementation of the automatic trigger had the effect of causing many firms to try to repay overdue trade credit in early 1992 so as to avoid having to file for reorganization. Both bank credit and trade credit fell substantially in real terms in 1992 (see Table 11) and the 1992 Bankruptcy Act may have been a major factor (in the case of trade credit, the major factor) behind this. This loss of liquidity could have depressed output, perhaps significantly.

Evidence on the impact of the 1992 Bankruptcy Act can be culled from a World Bank survey of 200 Hungarian medium and large manufacturing enterprises conducted in early 1994. Firms were asked if, in the period April 1992 to August 1993 when the automatic trigger was active, they were involved in a reorganization procedure as a debtor or as a creditor. If they responded affirmatively, they were asked whether they lost sales or suppliers as a consequence. The results are reported in Table 12. About one-fifth of the sample had actually filed for reorganization during this period, a figure consistent with the aggregate data cited above. About one-half of these, or 10% of the total sample, lost either sales or suppliers as a result (most lost both). What is surprising is how numerous are the firms affected by reorganization as creditors, and how costly they report the experience to be. Fully three-quarters of the entire sample were involved in reorganization procedures as creditors. About four-fifths of these, or 63% of the entire sample, report they lost either sales or suppliers as a result. As one would expect, nearly all of these creditor firms involved in costly reorganizations say they lost sales as a result. Most surprising of all is the degree to which the demand shock of these lost sales was passed on by creditor firms to their suppliers: about 70% of the creditor firms, or 42% of the entire sample, report they lost suppliers as a result of being involved in a reorganization as a *creditor*.

It is not clear why more creditors report reorganization to have been costly than do debtors. One reason may be selection bias; firms with severe difficulties that filed for reorganization may have

¹¹ When we enquired at the special division for loans to firms in bankruptcy or liquidation at one of the three major commercial banks, they said that in their experience they never saw any lending to firms in the middle of a bankruptcy procedure. They also said that for the bank to be willing to lend, special conditions would have to be attached to the loan (e.g. a repayment guarantee offered by a third party).

subsequently entered liquidation (or even closed down) and hence may have been unwilling (or unable) to participate in the survey. Even if we take the lower figure (one-half) as the estimate for the proportion of costly reorganizations, the evidence suggests that the automatic trigger experiment was costly because of the propagation of trigger-induced liquidity problems originating in the debtor firms and then spreading to their creditors. This sample provides fuel for those who argue that forcing reorganization and liquidation too quickly in the transition economies will lead to a snowballing effect that will disrupt significantly the real economy.

Finally, what of the so-called queue, the growth in which provided some of the impetus behind the introduction of the automatic trigger? The scale of queuing following the implementation of the Bankruptcy Act did indeed fall quite sharply (see Table 1). It has been suggested that this indicates an improvement in payments discipline; but most of this is actually a statistical illusion. According to a study of the NBH, 70% of the drop in the queue was due to the debtor protection afforded by the Bankruptcy Act; when firms entered reorganization, their payables were automatically removed from the queue.

Liquidation

The number of liquidation procedures also increased dramatically with the introduction of the new Bankruptcy Act in 1992. Liquidations outnumbered reorganizations by a substantial margin; in 1992, there were almost 10,000 liquidation filings and, in 1993, there were a further 7,000 (Table 13). The monthly data for liquidation filings following do not show the same huge spike in April 1992 as the reorganization filings: the number of liquidation filings jumped dramatically as soon as the law came into effect at the start of the year, with over 2,000 filings in the first quarter of 1992, and only a modest increase in April of 1281 filings, compared to an average of about 800 filings per month for the year as a whole. It is important to note that this was far exceeded by the April 1992 surge in reorganizations. The main increase in liquidation filings thus took place before the automatic trigger bit, and the direct contribution of the automatic trigger to the increase in the number of liquidations, via debtors caught by the trigger filing for liquidation rather than reorganization, was very limited.

Table 13 also presents some information about the initiators of liquidation proceedings. About 15-20% of liquidations were initiated by the debtor itself; another 10% were initiated by state creditors (the tax collection, social security, and customs authorities). Hardly any were initiated by the banks (less than 1% in 1992 and only 2% in 1993). The bulk of liquidations (about 70% or so) were initiated by state enterprises and "other creditors"; in other words, by trade creditors. The surge in liquidation filings in the early 1992 was therefore not caused by debtors filing for liquidation in order to escape having to file for reorganization. Rather, it would appear that creditors reacted quickly to the introduction to the new bankruptcy law and started to file in large numbers for liquidation of their debtors. Creditors may initially have been motivated to do this in part by the prospect of their debtors filing for reorganization because of the trigger, but we have no direct evidence of this one way or the other. Whatever the reason for the very rapid start in widespread use of the liquidation procedure, it has continued to be used in Hungary on a large

scale. The removal of the automatic trigger in late 1993 may account for the subsequent moderate fall in annual filings for liquidation in 1994 to not quite 6,000 filings, but filings subsequently increased to over 7,000 in 1997.

As in the case of reorganization, a large number of liquidations never really get started and instead terminated in an administrative end; over 4,000 ended this way in 1992. The numbers of court-announced liquidations are still substantial, however, and in fact rose somewhat over time, from 2,227 in 1992 to over 3,000 in 1996. Exits from reorganization to liquidation accounted for relatively few of the total number of liquidations.

As with reorganization, most firms in liquidation were small, but the bulk of economic activity in firms in liquidation was accounted for by larger firms. As of the end of 1993, about 7% of total bank credit was to firms in liquidation. Allowing for credit to firms in liquidation taken from the banks in the 1992 LCP and for credit to firms in completed liquidations, we estimate that in excess of 10% of the total credit stock was held by firms in liquidation in 1992-93. Gray et al.'s (1996) survey-based study suggests that firms that entered liquidation were in serious financial difficulties compared with those that entered reorganization; not merely very unprofitable, but also insolvent.

Termination of a liquidation via administrative end is apparently quick, but those liquidations that do proceed were, however, fairly time-consuming. Only about 600 liquidations were completed in 1992, and many or most of these were probably started prior to 1992, under the old liquidation law. The rate at which liquidations were closed increased in 1993 and 1994 to over 1,000 per year, but this was still only about half the rate of court announcements so that a significant backlog developed. Filings continued to exceed completions in 1995 and 1996, and only in 1997 did the number of completions start to approach the number of filings. As noted above, the law allows up to two years to complete a liquidation, and so it appears likely that some liquidations have been missing the two-year deadline.

There are several reasons for the relatively slow pace of the liquidation procedure. It is the liquidator's duty as set out in the Bankruptcy Act to try to recover as much as possible for the firm's creditors, which is an incentive for "slow-and-correct" rather than "quick-and-dirty" liquidations. Prices for the assets of firms were low, reportedly 20-30% of book value.¹² This low yield was due, in part, to the large number of ongoing liquidations and the glut of assets being offered on the market. Evidently, liquidators were reluctant to accept these prices. Probably just as important are the strong continuation biases built in to the liquidation procedure: priority to new debt and ongoing operating costs, the structure of compensation of the liquidator (a percentage commission of not only sales of assets but also current revenues), and the relative independence of the liquidator vis-à-vis the creditors. The Gray et al. (1996) study shows that about one-half of large firms in liquidation, and one-quarter to one-third of small firms, operated as going concerns during liquidation. Finally, Gray et al. report, based on interviews of liquidators, that liquidators saw themselves not only as representing creditors' interests but also as agents

¹² OECD 1993, p. 84. We were quoted a similar figure at a firm in liquidation that we visited in 1993.

for restructuring firms. The problem of inefficient termination on a large scale – a particularly serious danger for a transition economy – would thus seem to have been at least partially avoided by the way the liquidation framework was structured. Indeed, inefficient continuation may have occurred, but the time limit for completing liquidations would have limited the scale of this.

The Gray et al. study indeed suggests that liquidations, unlike reorganization, led to major restructuring of firms, including labor shedding, asset sales, privatization, and management change. An important caveat to this is that the Gray et al. study, and our survey of crisis managers, suggest a substantial number of liquidations were of “shell” firms where assets had already been stripped by previous management or owners. For these firms, the transfer of control to the liquidator came too late. Nevertheless, in terms of promoting restructuring and freeing assets to be deployed in more efficient uses, it is the liquidation procedure, not the reorganization procedure, that has been most successful part of the Hungarian bankruptcy experiment. Moreover, liquidation is now a commonly used procedure in Hungary. As Gray et al. (1996) argue, the bankruptcy reform can be viewed as a success with respect to “institution-building”. Whether the automatic trigger played a role in establishing liquidation as a working institution is not clear, however. A firm that was caught by the automatic trigger could avoid reorganization by filing for liquidation instead, since a firm in liquidation was not cut off from new credit and liquidation could also lead to settlement. In fact, most firms didn’t take this route; liquidation filings were indeed higher than normal in April 1992, but not by very much compared to the surge in reorganization filings, and in any case most liquidations in 1992 were initiated by creditors, not debtors. The contribution of the trigger via this route to the large numbers of liquidations would have been limited at most. It is possible that the domestic publicity given to the bankruptcy reform and the trigger in particular increased public awareness of the various possibilities open to creditors who are not paid, including filing for liquidation of the debtor, but we have no evidence of this one way or the other.

Spillovers: the impact on the banking sector

According to the State Banking Supervision’s rules for classification of bank debt, credit to firms in liquidation (but not to firms in reorganization) must be rated in the bottom category of bad. During this period, the banks were reluctant to openly recognize their bad debts. Moreover, while the liquidation process is in progress, a debtor firm in liquidation is not required to service or repay inherited debts, including inherited bank debt. Finally, the bargaining power of banks relative to their firms is typically large compared to the bargaining power of trade creditors. While a highly-indebted firm is outside reorganization/liquidation procedures, banks have better prospects of extracting money from it than would trade creditors, and possibly even than would state creditors. For these reasons, we would not expect to see banks file frequently for the liquidation of their debtors.

The bankruptcy experiment contributed to the cash flow problems of the banking sector in two ways. First, firms did not service or repay their bank debt while in the 90-day protection period offered by

reorganization, thus contributing to the cash flow problems of the banking sector.¹³ Second, the bank debts of firms that left reorganization via liquidation would be classified as non-performing for the entire length of the liquidation procedure. Thus by putting many firms in a position where they would not service their bank debt either temporarily (while the reorganization negotiations took place) or for a longer period (while liquidation took place), the bankruptcy experiment contributed to the cash flow and bad debt problems of the banking sector.

That said, the bankruptcy and banking acts do not seem to have generated a very significant change in hardness of budget constraints that the banks presented to firms. We argued above, based on enterprise-level evidence on net bank financing of firms, that banks were not providing firms with soft budget constraints in 1991. The pattern of financing for 1992 and 1993, after the introduction of the new legislation, was in fact very similar to that in 1991, as Figures 2 and 3 demonstrate: net bank financing of loss-making firms was negative. In 1992 and 1993, too, banks were attempting to withdraw from their bad debtors at the same time that they were declaring large volumes of their lending to be non-performing.

The financial distress in which Hungarian banks found themselves did not lead to the “gambling” behavior that is frequently attributed to banks that have essentially lost their equity due to the liabilities of bad loans. Rather, our data indicate that the banks were acting “as if” they were “conservative” bankers trying to extract themselves from high-risk, deadbeat clients. Most likely, a primary concern of the bankers in the large state-owned banks during 1992 was the collection of information required to satisfy the new banking regulations and the international auditors. Equally important was the daunting task of creating the internal management structure necessary both to monitor their loan portfolios and to rationalize lending activity in a market economy. The evidence indicates that, while the bankers were scrambling around attempting to adjust, they were also trying to prevent their loan portfolios from deteriorating still further. This is not to say that the large Hungarian banks were well-managed banks throughout this period. Rather, at best, these banks were involved in damage control and, at worst, they were simply overwhelmed by the requirements of the new regulatory and market environments. The creditor passivity problem with respect to the large Hungarian banks can be attributed to a lack of expertise and information regarding workouts, to the fact that filing for liquidation or otherwise attempting a workout require openly recognizing their bad debt as “bad” and the banks lacked the equity to fully mark to market, because the prospective return to liquidation was low, and probably also because they were playing for time anticipating some government support. A full analysis of the incentives that generated this conservative behavior would take us too far afield. We note here only that the career prospects of a Hungarian banker who was seen to bear some

¹³ In a World Bank survey of 200 manufacturing firms, about one-fifth of the sample filed for reorganization during this period, a figure consistent with the aggregate data. Of these firms, 40% had not failed to repay a bank loan on time in the last two years. Surprisingly, 18% of the firms that had not filed for reorganization during the trigger period had failed to repay a bank loan on time during the same period. In the total sample, 25% of the firms had failed to repay a bank loan on time in the last two years. Of these, 74% capitalized the interest and/or rescheduled the loan and 24% subsequently repaid the loan. In the sample, 28% of the firms

responsibility for making bad loans suffer as a result, both because bad loans delay privatization (and subsequent expected salary increases) and because the likelihood of obtaining an attractive new job in alternative employment (e.g. joining a new or foreign-owned bank) declines.

VII: Policy Lessons for Transition Economies

Transition economies face the problem of reallocating resources in a short period of time. Much attention has been given to macroeconomic stability and enterprise privatization in orchestrating the transition, and deservedly so. However, and somewhat surprisingly, the necessity to develop the institutional infrastructure required to unlock frozen resources locked in unproductive uses for a market economy has been neglected. Although the problem of creditor passivity has been recognized, no satisfactory way has been found to involve creditors in decision-making or give them participation in the potential upside gains from restructuring. In capitalist market economies, the involved parties have created such mechanisms without government action, e.g., strip-financing, debt convertible to equity. But these require well-developed, sophisticated capital markets. Would it be preferable for the governments in transition economies to concentrate on providing the necessary legal (e.g., contract law) and institutional infrastructure for such arrangements to evolve rather than to intervene directly? In our opinion, the transition economies do not have the luxury of an evolutionary strategy. Hungary had in place traditional bankruptcy legislation prior to the implementation of the new policies but the incentives for creditors to act were lacking. Hence, some government action was necessary to “jump-start” the reallocation process.

Hungary had made significant progress in developing a strong market-oriented legal framework to deal with resource reallocation. Yet in so doing, Hungarian policymakers experimented with a draconian instrument, the automatic reorganization trigger. It was designed to deal with flow problems that were non-existent for the most part, namely the incentives for firms to continue to accumulate involuntary trade credit and soft budget constraints provided by the banking sector. By 1992 when the trigger was instated, banks were already becoming tough and firms were already imposing financial discipline on each other. The real source of soft budget constraints in Hungary was the state itself, in its inability to collect taxes and its toleration of tax arrears in loss-making firms, in its inability to act as a tough owner and prevent management of state-owned firms from stripping assets, in its implementation of a series of bail-outs of banks and important debtors. The first lesson from the Hungarian bankruptcy experiment is: policy-makers should concentrate on getting taxes collected, avoiding bailouts, and implementing a reasonable corporate governance framework for the commercial banks, and should trust market forces to ensure that firms themselves impose hard budget constraints on each other.

The trigger episode enforced a time-compressed quick fix of an inherited stock problem on an underdeveloped infrastructure that was ill equipped to handle the magnitude of the reorganization filings.

had been classified as a qualified debtor by a bank during the period 1990-94. Of these, two-thirds were classified as creditworthy by the bank at the time of the survey.

The trigger was a sledgehammer that caught firms with temporary liquidity problems and effectively cut them off from the short-term bridge financing because the reorganization legislation had no provision for super-priority of new borrowing while in reorganization. Hence, lending to these firms was a risky venture and neither banks nor trade creditors were interested in doing so. Furthermore, the 100% creditor agreement clause allowed a minor creditor to hold the negotiation process hostage and force the firm into liquidation. The resulting legislated credit crunch exacerbated the output drop in the real economy and prolonged the wait for its recovery. The second lesson from the trigger episode is: don't shake things up unless you are sure of the problem and you have a good idea of the expected outcomes.

From the period April 1992 to September 1993, the trigger certainly shook things. Undoubtedly, as resources were reallocated and more efficient downsized restructured companies emerged, the real economy benefited. Most of the restructuring, however, seems to have taken place via the liquidation route rather than via reorganization. Indeed, it is not clear that a reorganization route was necessary at all. The usual justification for reorganization is that by protecting firms from their creditors, inefficient termination and loss of the going-concern-value of the firm is avoided. The Hungarian experience, however, suggests that the liquidation route does not have to have this anti-continuation bias, and at the same time it can be structured to remove control from incumbent management and place it in the hands of an agent who is both more likely to engage in major restructuring and more likely to look after the interests of the creditors. The third lesson of the episode is: concentrate on getting the liquidation framework right, so that it both transfers control away from incumbent management and favors continuation over (inefficient) shutdown.

The bankruptcy reform was indeed successful in establishing liquidation as an operating institution in Hungary, and in this sense can be deemed a success. This suggests that some sort of trigger which increases the use of the liquidation framework may have some use; as liquidation is used more and firms, liquidators, lawyers and judges accumulate experience with it, the incentives to use it improve. A liquidation trigger, based on insolvency criteria rather than, as in the Hungarian experiment, illiquidity criteria, is sometimes found in Western bankruptcy frameworks. Such a trigger, if introduced in a transition economy in a non-disruptive way, could increase use of the liquidation framework. The fourth lesson of the episode is: not all triggers are alike, and some may be useful.

The form of trigger contained in the Hungarian bankruptcy framework created a financial externality that was not attended to properly by the government. The large number of companies in reorganization and liquidation proceedings exacerbated the already weak cash flow positions and distressed balance sheets of the state-owned banks. Thus, the episode contributed to a rapid recognition of the stock of bad debt in the banking system and, hence, forced the government into several bank recapitalizations. The fifth lesson from the episode is: don't neglect the financial repercussions of shaking up the real sector especially if the financial sector is yet to be rationalized.

Creditor passivity was rational in Hungary as liquidation values were low due to an underdeveloped and thin secondary market for assets. The bargaining power of banks with respect to their clients is typically large relative to that of other creditors. While a highly-indebted firm is outside

reorganization or liquidation procedures, banks have better prospects of extracting money from it than do even state creditors. None of the provisions in the new Bankruptcy Act addressed the basic issue of creditor passivity due to low liquidation values. Indeed, by forcing a rapid resolution of a stock problem, the trigger exacerbated the low resale prices by adding to supply. The final lesson from the episode is: don't try to impose a quick market fix on an inherited stock problem, especially when the underlying market is nascent and thin.

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Table 1: The "Queue" in Hungary 1987-93
Payables queued at banks and waiting for payment

Date (end-period)	Million forints	As a percentage of GDP
1987	14.0	1.0
1988	45.5	3.2
1989	72.8	4.3
1990.Q1	67.5	
1990.Q2	75.3	
1990.Q3	82.4	
1990.Q4	90.5	4.4
1991.Q1	119.3	
1991.Q2	130.8	
1991.Q3	139.8	
1991.Q4	158.6	6.8
1992.Q1	187.0	
1992.Q2	168.0	
1992.Q3	106.0	
1992.Q4	104.0	3.7
1993.Q1	94.0	
1993.Q2	90.0	
1993.Q3	103.0	

Note: Queued payables greater than 25 million forints.

Source: László and Szakadát (1992); NBH.

Table 2

Trade Credit Extended and Trade Credit Received: Hungary and Developed Western Economies Compared		
Country & date	End-year trade credit as a % of GDP	
	Trade credit extended (commercial receivables)	Trade credit received (commercial payables)
Hungary		
1988	37	28
1989	35	27
1990	36	29
1991	35	30
1992	29	22
Canada 1990	16	14
US 1990	17	14
France 1990	38	35
Japan 1990	59	45
Finland 1990	20	23
Sweden 1990	21	20
UK 1990	20	19

Sources: Hungarian CSO, UK CSO, OECD, authors' calculations.

Table 3

Trade Credit and Overdue Trade Credit in Hungary and Selected West European Countries			
Country	Total trade credit in months	Overdue trade credit in months	Overdue trade credit as a % of total trade credit
Hungary (end-1991)	1.7	0.8	47
Denmark	1.6	0.7	40
Finland	1.8	0.8	45
France	3.5	1.6	44
Germany	1.6	0.6	38
Ireland	2.0	1.0	50
Italy	3.0	1.0	33
Netherlands	1.7	0.7	42
Norway	1.6	0.6	38
Sweden	1.6	0.6	38
Switzerland	2.0	1.0	50
UK	2.6	1.6	62
West European average	2.1	0.9	44

Notes: Trade credit is trade credit extended (commercial receivables). Western figures are survey-based; figures for Hungary are based on balance-sheet aggregates.

Sources: Intrum Justitia, reported in Chittenden et al. (1993), Hungarian CSO, authors' calculations.

Table 4

How Hungarian Manufacturing Firms Control Their Overdue Receivables: Results of a 1994 Survey of 200 Manufacturing Firms		
Method used to control overdue receivables	Always or frequently used?	In use?
Require payment in advance from new customers	42%	83%
Require payment in advance from traditional customers	13%	53%
Refuse to supply until the past debt is paid or renegotiated	40%	82%
Charge interest on overdue receivables	62%	87%
Informal methods (phone, letter, ...)	66%	87%
Legal action	17%	71%
Sell overdue receivables on debt market	0%	14%
Average number of methods always or frequently used	2.3	
Percentage of firms with at least one method always or frequently used	100%	
Response rate	189/200	

Source: World Bank Research Project on Enterprise Behavior and Economic Reform.

Table 5: Financing of Hungarian Firms 1991-93

Financing of Hungarian Firms Making Operating Profits (OP) and Operating Losses (OL) Real Changes in Assets and Debt as a % of End-year Assets						
Weighted means (aggregates); medians in parentheses						
	1991		1992		1993	
	OP	OL	OP	OL	OP	OL
Current Assets Sources (-) and Uses (+) of Financing						
Total current assets	-8.4 (-10.4)	-23.9 (-22.4)	-6.9 (-12.6)	-26.2 (-25.8)	1.8 (-1.7)	-7.2 (-11.1)
Commercial receivables	-0.4 (-1.0)	-13.5 (-6.8)	-1.8 (-4.0)	-8.0 (-8.2)	0.0 (-0.6)	-2.3 (-1.9)
Inventories	-5.2 (7.0)	-10.4 (-11.9)	-5.4 (-7.2)	-12.7 (-13.5)	-0.2 (-1.5)	-4.3 (-5.3)
Cash and deposits	-1.3 (-0.7)	-1.6 (-1.1)	0.1 (0.2)	-1.0 (-0.3)	1.5 (-0.1)	-1.1 (-0.4)
Other current assets	-0.6 (-0.9)	1.7 0.4	0.2 (-0.5)	-4.6 (-1.3)	0.4 (0.4)	0.5 (-0.3)
Debt Sources (+) and Uses (-) of Financing						
Total debt	-5.8 (-5.1)	-4.5 (-1.8)	-4.7 (-8.5)	-9.7 (-9.3)	0.7 (-2.2)	-1.1 (-1.8)
Commercial payables	-2.2 (-1.1)	-3.4 (0.4)	-2.4 (-2.4)	-5.8 (-4.9)	0.1 (-0.5)	-1.2 (-1.0)
Bank debt	-1.4 (-1.6)	-1.3 (-1.9)	-1.0 (-1.2)	-1.1 (-1.5)	-0.5 (-1.5)	-2.1 (-2.0)
Other debt	-2.1 (-0.9)	0.3 0.2	-1.3 (-3.0)	-2.8 (-2.4)	1.2 (0.0)	-2.2 (1.2)
of which, tax and social security debts:	0.5 0.3	2.2 1.1	n.a.	n.a.	n.a.	n.a.
Miscellaneous						
Operating profit/assets	9.4 (7.8)	-8.4 (-7.0)	5.9 (6.4)	-9.2 (-7.4)	6.2 (7.7)	-7.0 (-6.9)
Profit/assets	2.4 (0.9)	-17.2 (-16.1)	-0.1 (0.3)	-18.4 (-17.8)	0.8 (1.1)	-12.8 (-14.9)
Net bank financing/assets	-3.0 (-3.8)	-3.5 (-4.0)	-1.8 (-2.8)	-3.4 (-3.4)	-1.5 (-2.9)	-4.6 (-3.9)
N	2067	771	939	733	1296	555

Notes to Table 5: Data cover all medium and large non-financial Hungarian firms, excluding firms with missing values. Firms grouped into profit categories according to performance in a given year. Contribution of assets and debts to financing calculated as the real change in opening and closing stocks in end-year prices deflating using the December-December industrial price index (1991: 22.1%, 1992: 18.8%, 1993: 10.3%) and normalizing by end-year assets. Weighted means are aggregates taking all firms in that profit category. Operating profit = earnings before interest, taxes and depreciation. Net bank financing = end-year nominal bank debt minus start-year nominal bank debt minus interest costs.

Table 6: Reorganizations in Hungary

	1992		April	Q2	Q3	Q4	1993		Q4	1993 TOTAL	1994	1995	1996
	Q1	Q2					Q1	Q2					
Ministry of Finance data:													
Filings of which:	724	2605	2259	418	422	4169	372	332	195	88	189	145	80
Voluntary						1016					136	139	80
Compulsory						3153					53	6	0
Court-announced	285	1152	205	473	590	2500	295	257	238	97	79	28	14
Closed (including not announced) of which:						2703					469	205	89
Administrative end						1260					351	175	76
Agreement with creditors						740					90	21	9
Liquidation started						703					28	9	4

Source: Ministry of Finance, except for 1994-96 data from Mitchell (1998b).

Table 7

Employment in Firms in Court-Announced Reorganization in 1992			
Size class by employment	Number of firms	1991 Employment	
		Thousands	As a % of total enterprise sector employment
All firms entering reorganization	2294	273	9.7
of which, with employment			
> 300	233	167	
51-300	656	84	
< 50	1401	22	

Note: Employment in all entities with legal status was 2825 thousand in 1991.

Source: Hungarian CSO. Data differ in coverage from Ministry of Finance data reported in Table 6.

Table 8

Court-Announced Reorganizations 1992-93 by Size of Firm		
Size class by employment	Number of firms	As a % of all firms with legal status
All firms entering reorganization	3074	3.6
of which, with employment		
> 300	174	10.7
51-300	738	12.2
21-50	604	7.9
< 20	1558	2.3

Source: Hungarian CSO.

Table 9

Bank Credit to Firms in Reorganization and Liquidation May 1992 - November 1993			
Date (end-month)	Total bank credit (billion ft.)	of which, % to firms in	
		Reorganization	Liquidation
Before 1992 LCP reduction of credit stock:			
1992.05	725.0	8.9	4.3
1992.06	727.2	8.4	5.2
1992.07	740.1	8.5	5.7
1992.08	746.3	7.7	6.3
1992.09	750.2	7.7	6.9
1992.10	755.3	6.1	7.4
1992.11	763.8	5.2	7.6
1992.12	763.3	4.3	7.7
1993.01	749.2	4.6	8.2
1993.02	775.9	4.4	7.8
1993.03	n.a.	n.a.	n.a.
After 1992 LCP reduction of credit stock:			
1993.04	711.2	2.7	5.0
1993.05	704.9	2.2	4.4
1993.06	711.8	2.2	4.9
1993.07	726.6	2.6	5.0
1993.08	716.6	2.6	5.5
1993.09	738.3	2.2	6.4
1993.10	740.1	1.8	6.3
1993.11	747.2	1.8	6.7

Source: NBH.

Table 10

1991 Indicators of Firms in Court-Announced Reorganization in 1992		
	Firms in Reorganization	Total enterprise sector
Profit/sales in %	-12.7%	0.5%
Debt/asset ratio (book value)	0.58	0.39
Receivables/asset ratio (book value):		
All receivables/assets	0.19	0.13
Overdue receivables/assets	0.12	0.06
Non-overdue receivables/assets	0.07	0.07

Source: Hungarian CSO.

Table 11

The 1992 Credit Crunch in Hungary			
	1.1.92	31.12.92	% real change
Commercial receivables of medium and large enterprises			
Billion forints	466	449	-18.8
As % of GDP	20%	16%	
Commercial payables of medium and large enterprises			
Billion forints	353	311	-25.7
As % of GDP	15%	11%	
Bank credit to enterprises (small entrepreneurs excluded; effects of 1992 LCP excluded)			
Billion forints	705.4	695.5	-17.0
As % of GDP	30%	25%	

Notes:

(1) Data on trade credit derive from the enterprise dataset used in the paper. The data are not directly comparable to those in Table 2 because of differences in data coverage and data definitions.

(2) % real change calculated using the producer price index (18.8% Dec. 1991-Dec. 1992).

(3) % of 1991 GDP for 1.1.92; % of 1992 GDP for 31.12.92.

Table 12: The Costs of Reorganization: Results of a 1994 Survey of Hungarian Manufacturing Firms

Were you involved in a reorganization procedure in the period April 1992 to August 1993:		
	as a debtor?	as a creditor?
	(as a % of responding firms)	(as a % of responding firms)
Yes	19%	75%
If yes, did you lose		
sales	9%	58%
suppliers	8%	42%
(sales or suppliers)	(10%)	(63%)
as a result?		
Response rate	173/200	157/200

Source: World Bank Research Project on Enterprise Behavior and Economic Reform.

Table 13: Liquidation in Hungary 1989-94

	1989	1990	1991	1992 Q1	April	Q2	Q3	Q4	1992 TOTAL	1993 Q1	Q2	Q3	Q4	1993 TOTAL	1994	1995	1996
Filings of which, by initiator:				2436	1281	3033	2197	2225	9891	2180	2156	1633	1273	7242	5711	6316	7397
Debtor-initiated									1760	436	389	281	253	1359	996	918	1025
Creditor-initiated									8131	1744	1767	1352	1020	5883	4715	5398	6372
State (tax and tax-like)									~900	146	165	152	145	608			
Banks									~60	44	30	42	43	159			
State enterprises									~1100	297	209	131	102	739			
Other creditors									~6100	1257	1363	1027	730	4377			
Court-announced									2227	591	683	639	680	2593	2484	2799	3078
Closed (including not announced)	141	233	526	120	161	529	911	667	4936	1206				5115	4149	5457	6842
of which:									4401					3975	2997	3202	3844
Administrative end									562					1140	1152	2255	2998
Completed liquidation																	

Source: Ministry of Finance, except Kornai (1993) for 1989-91, breakdown for creditor-initiated liquidation in 1992 deriving from somewhat different figures in Mitchell (1994), and Mitchell (1998b) for 1994-6.

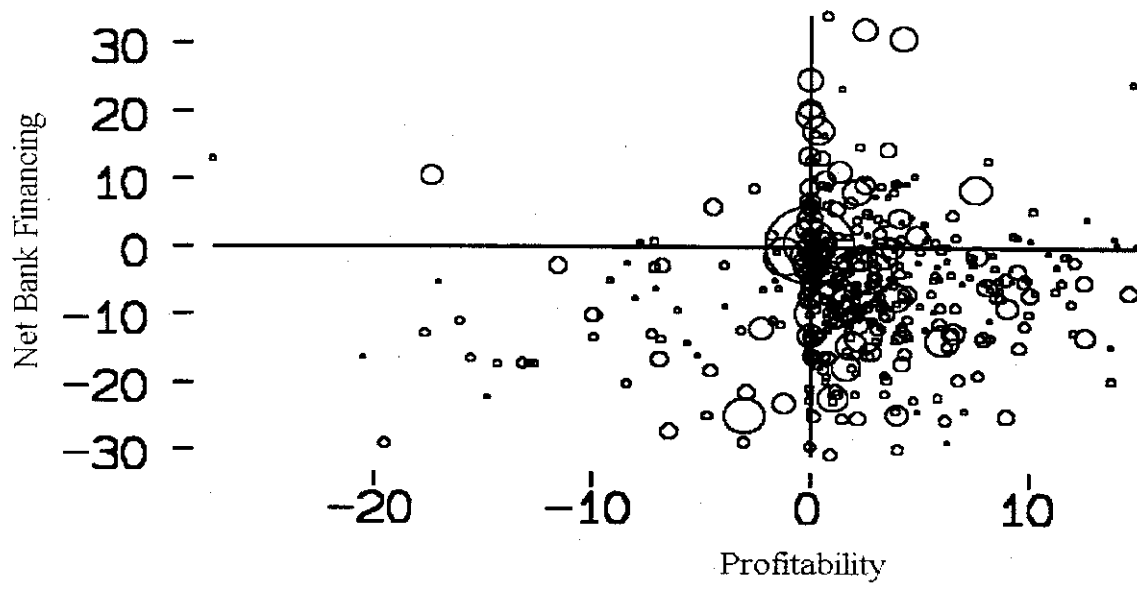


Figure 1: 1991 Net Bank Financing vs. 1990 Profitability

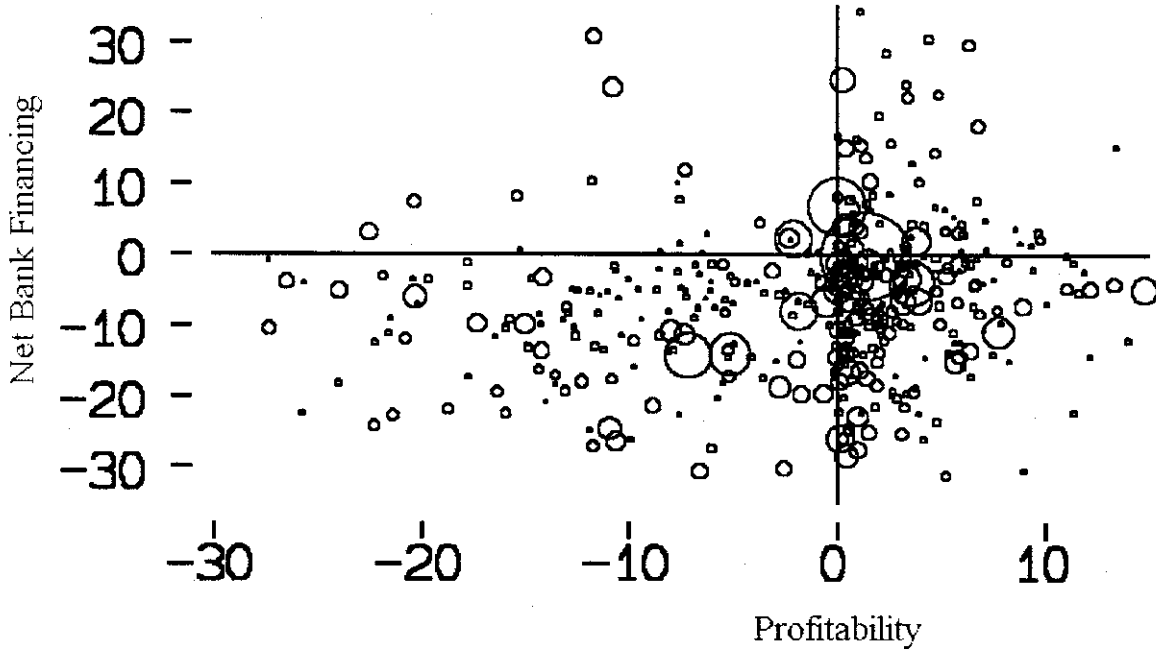


Figure 2: 1992 Net Bank Financing vs. 1991 Profitability

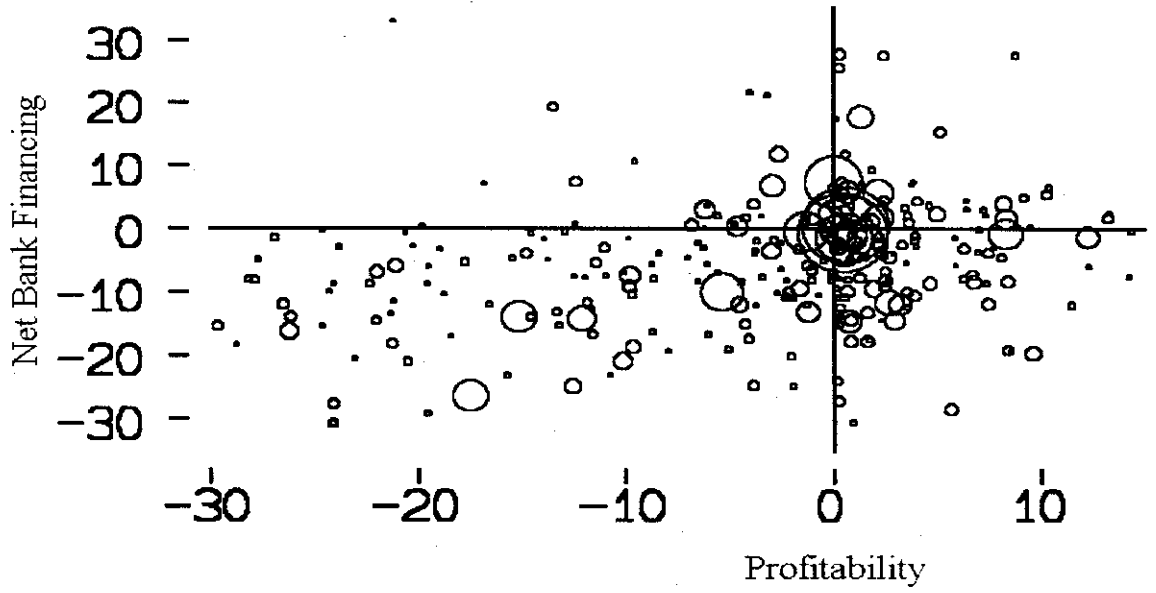


Figure 3: 1993 Net Bank Financing vs. 1992 Profitability