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## An institutional approach to banking reform in Eastern Europe

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Kiel Working Paper No. 560

AN INSTITUTIONAL APPROACH TO  
BANKING REFORM IN EASTERN EUROPE

by

Claudia M. Buch

February 1993

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## Abstract

This paper applies the arguments of institutional economics to the issue of banking system reform. Institutional reforms are of particular importance in the financial sphere because banking operations were heavily restricted under central planning and, at the same time, banks are assigned a crucial role in the restructuring of the economies and the establishment of effective corporate control. A universal banking system provides the institutional framework which suits the requirements of Eastern Europe best because it opens a wide avenue of contract designs. Hazards of universal banking can be reduced by imposing regulatory requirements. This paper relates the theoretical findings of institutional economics to the progress made with reforms in the banking systems.

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## 1. INTRODUCTION\*

Institutional issues are receiving increasing attention in economics. In particular, many problems of the Eastern European economies in transition<sup>1</sup> can be explained by market imperfections, transaction costs and inadequate institutional structures [Raiser, 1992, Schmieding, 1993]. This paper applies the arguments of institutional economics to the issue of banking system reform.<sup>2</sup> Institutional reforms are of particular importance in the financial sphere because banking operations were heavily restricted under central planning but, at the same time, banks are assigned a crucial role in the restructuring of the economies and the establishment of effective corporate control. The paper argues that a universal banking system provides the institutional framework which suits the requirements of Eastern Europe best. As universal banking opens a wide avenue of potential contract designs, scarce resources can be exploited most efficiently and market imperfections can be mitigated. Potential hazards of universal banking can be reduced by imposing regulatory requirements on banks.

The paper is organized around three main parts. The second part treats institutional aspects which arise from imperfections in financial markets. It describes the foundations of institutional approaches (2.1), assesses the role of banks (2.2), shows the importance of main-bank relationships for the emergence of long-term commitments (2.3), and establishes the case for equity finance (2.4). The third part shows the importance of universal banks within this theoretical framework (3.1) and evaluates the need for and the design of prudential regulations (3.2). In each section, the implications of the models are applied to the specific situation of Eastern Europe. Part four analyzes the reform experience of Poland, Hungary, and former Czechoslovakia with respect to the development of financial indicators (4.1), legislative changes (4.2), and behavioral adjustments (4.3). The last part concludes and gives implications for future reforms.

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\* The author wishes to thank Ralph Heinrich and Holger Schmieding for helpful comments and discussions on an earlier draft.

<sup>1</sup> Throughout the paper, the term Eastern Europe is used as a shorthand for "the Eastern European economies in transition".

<sup>2</sup> On this discussion see Corbett/Mayer (1991), Rybczynski (1992), or Walter/Smith (1992).

## 2. INSTITUTIONAL ISSUES IN THE THEORY OF FINANCIAL MARKETS

### 2.1. Foundations of Institutional Approaches

#### 2.1.1 General Issues

In all markets which entail imperfections due to costly information and to transaction costs, institutions enable exchanges. These institutions can take the form of *formal* economic, legislative, or political rules or of *informal* habits, traditions, or rules of conduct.<sup>3</sup> Within the financial sector, four types of transaction costs [North, 1992] can be identified:

*Cost of measuring:* In any kind of contract, the amount and type of the contractual obligations needs to be specified. In financial contracts, the real value of the medium of exchange, the money, can be easily specified only in a non-inflationary, stable environment. But as soon as inflation is present and as contracts are insufficiently indexed, long-term financial contracts will hardly be concluded. In addition, financial contracts typically entail agreements on the conditional exchange of assets for which property rights are hard to define. In particular, creditors demand the provision of collateral as a safeguard against unexpected bankruptcies. But the value of collateral is undetermined if the market value of assets, which might serve as collateral, is unknown and if property rights are not specified and protected.

*Cost of impersonal exchanges:* The size of a market determines whether exchanges are conducted on a personal or an impersonal basis. The larger the market and the group of actors involved, the greater will be the share of impersonal exchanges conducted on a formal basis. In this sense, impersonality is an inherent feature of financial markets. The bundling of savings from many individual agents and the allocation to single investors constitutes the original role of financial markets in general and banks in particular. Depositors' safety thus depends on the ability and willingness of the bank to administer the funds at the depositors' best interest. As a consequence, impersonal financial transactions require costly specification and enforcement mechanisms such as rating and supervisory systems for banks.

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<sup>3</sup>Organizations, in contrast, are the agents that shape the direction of institutional change [North, 1990, p. 73]. Financial institutions thus incorporate organizational elements (their employees, managers, customers, ...) as well as institutional elements (their regulatory framework, acknowledged codes of conduct, ...).

*Cost of enforcement:* If performance cannot be accurately measured and if information is distributed asymmetrically, financial contracts incorporate moral hazard problems. The separation in time of contractual agreement and of its completion - or the *heterogeneity* of loan contracts [Stiglitz, 1991, p. 13] - causes the need of prospective lenders to monitor and to control the activities if borrowers have superior information on the project (asymmetric information). Incomplete or delayed performance control could induce borrowers to falsely state the profitability of the project, to walk away with the borrowed money, or to start projects riskier than lenders prefers (moral hazard). Under equity contracts, the principle-agent-problem becomes even more acute because the incentives of the manager diverge from the incentives of the owners of an enterprise. If, for example, the manager receives a fixed salary, he (or she) may try to reduce his work effort needed to receive that salary instead of maximizing the profits of the enterprise.

*Cost (and benefit) of ideology:* If the costs of measuring, of impersonal exchanges, and of enforcement by themselves reduce the incentives to conclude financial contracts, ideology matters<sup>4</sup>. Ideology determines whether rules are adopted only on paper or whether they are actively implemented into every-day decision-making. This holds if the ethic and moral standards, which served as a reference for a particular law, diverge from the subjective beliefs of those who are supposed to implement the law. The larger this (perceived) gap, the lower will be the willingness to apply the law.

To the extent that transaction costs influence the outcome of market transactions, economic agents will conclude relational contracts.<sup>5</sup> In contrast to standard economic contracts, which ex-ante exactly specify contingencies to be observed ex-post, relational contracts specify procedures by which to accommodate to new situations [Richter, 1989/90]. In the absence of observable contingencies, relational contracts specify ex-ante enforcement mechanisms on which the contracting parties can rely. The need for and the effectiveness of relational contracts differs from one economy to another just as transaction costs do; country-specific differences depend on the relevant institutional, regulatory, and behavioral framework.

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<sup>4</sup>Ideologies contain all the subjective beliefs, dogmas, sound theories and myths that individuals consult in order to explain the world around them [North, 1992, p. 485].

<sup>5</sup>Relational contracts are *characterized by ongoing, complex, and open-ended relations plus the requirement of an agent for information gathering, adjudication of the ongoing-relation, etc.* [Boudreaux/Ekelund, 1987, pp. 540-541]. This is the result of the theory of regulations which is based on the findings of the new institutional economists. See Richter (1989/90) for an overview.



### **2.1.2 The Eastern European Institutional Framework**

While transaction costs prevail in all financial markets, these costs are of even greater importance for Eastern Europe. In Eastern Europe, uncertainty over property rights and over the market values of assets plays a particularly pronounced role because many restitution and privatization issues remain unsolved. Besides, there has been no experience with the enforcement of property rights through the legal system as well as with the treatment of seniority issues. These problems drive up the cost of measuring. Also, impersonal exchanges are more costly in Eastern Europe than in advanced economies, because rating and supervisory systems are extremely underdeveloped. Therefore, many actors in the Eastern European financial markets are currently sticking to old, well-established business relations. These relations, however, are often highly inefficient and hamper a proper allocation of resources. Finally, the difficulties with establishing hard budget constraints in Eastern Europe can serve as an example for high costs of enforcement and of ideology. Although bankruptcy laws had been passed rather early in the reform process, bankruptcy proceedings were initiated against very few enterprises only. Bankruptcy proceedings and failures of enterprises were perceived socially undesirable and morally reprehensible. Thus, enterprises and banks continued to grant credit to ailing firms. Doing so, they expected to be bailed out by the government in case of financial problems, and they implicitly relied on the government having the same negative attitude towards enterprise failures. If reputational concerns are important, borrowers should have the same incentives as lenders because borrowers do not want to default on contractual terms. But as the enforcement of bankruptcy laws remains weak and as reputational concerns are small, Eastern European borrowers have a great incentive to default.

The order of magnitude of transaction costs in Eastern Europe would warrant a heavy reliance on relational contracts. However, well-defined regulatory networks and well-known rules of conduct do not exist in the Eastern European economies. In the post-socialist financial systems many basic rules are unknown, economic agents are inexperienced with market-based financial transactions, and the regulatory and legislative framework of their operations entails a lot of uncertainties.

These deficiencies have their roots in the traditional financial system of a centrally planned economy which gave households and enterprises little-to-no discretion over their financial transactions. First of all, the monetary circuits of the private and of the enterprise sphere were strictly separated. Private households held their savings with the state-owned Savings Bank; they were usually not allowed to keep more than one account or to choose

their bank freely. The Savings Bank delivered all its assets to the Central Bank that, in turn, allocated credit via Investment Banks according to the production and investment targets set out in the central plan. Hence, banks were dependent upon central directives and could not allocate savings individually. Banks did not have to assess the creditworthiness of an enterprise or to take the riskiness of a prospective investment project into account. Accordingly, banks never got into the position to refuse applications for financial funds or to force enterprises into bankruptcy. Instead, the government granted credit to privileged enterprises or to industries at low interest rates; sometimes, loans were issued under an unlimited maturity to, for example, finance inventories. The government could thus fund part of its budgetary outlays for subsidy payments by steering the financial system through a monopolized banking system.<sup>6</sup> Under central planning, banks did not have any incentive to invest into information capital for three main reasons. First, the accounting systems were set up as arithmetic accounting mechanisms rather than as full-blown information systems. There was thus no valuable information available which could have served as a basis for a reasonable credit classification. Secondly, banks had no incentives to invest into the acquisition of information on an enterprise or on a particular project because interest rates were kept artificially low. As banks could not decide over their pricing policies independently, they could not earn a fair return for their investment. Finally, banks were virtually not exposed to any loan risk. Government guarantees for certain types of loans completely eliminated risk considerations in the lending decision of banks.

In the socialist financial system, neither banks nor enterprises served the economic functions they have in a market economy; they were shell-institutions set up in order to meet the requirements of the central plan. Transforming the financial system thus means to completely change the role of banks from passive agents of fiscal policy towards active participants of a market system. However, the first market-oriented reforms in Eastern Europe to some extent added to the problem of inefficiencies in capital allocation: Enterprises that could not obtain credit on the tighter official credit markets started to build up an inefficient network of interenterprise credit; as repressed inflation turned into open inflation, inflation-hedges and foreign exchange holdings were accumulated; bribery and lobbying became a successful way to obtain credit. Partly, this was the result of incomplete reforms. While the old monobank system was abandoned, reformers missed out on the introduction of an encompassing new system.

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<sup>6</sup>The tendency not to take account of implicit subsidies via the banking system to state enterprises as government expenses yet prevails in many post-socialist states, and in particular in the republics of the former Soviet Union. Although state banks continue to lend to state enterprises on preferential terms, these indirect subsidies are not accounted for in the central budget.

The peculiar state of the Eastern European banking systems leads to three main implications. First, changes of formal regulations and institutions remain insufficient if people's subjective models of behaving do not adjust. The informal set of constraints shapes economic behavior and needs much more time to develop than formal rules. Implementing a new institutional system does not only mean to formally change laws, to allow private ownership of banks, and to liberalize interest rates. Rather, informal and ideological constraints must be changed. Secondly, informal rules can adjust only if formal changes are consistent in themselves. For example, privatizing enterprises without credibly protecting the property rights of the new owners would constitute a case of inconsistent formal changes. The goal of consistent formal changes is most likely to be met by a fast and encompassing rather than a slow and gradual reform strategy. Gradual approaches expose reform programs to claims for a reversal of the strategy and thus lack credibility if interim lobbying activities are deemed successful.<sup>7</sup> This argument needs to be modified to the extent that the simultaneous liberalization and restructuring of all sectors of the economy may threaten overall macroeconomic stability. Nonetheless, reforms should aim at establishing correct and consistent incentives within the already liberalized sectors. Finally, the availability of information on the new situation as well as incentives to learn are essential for the success of the pass-through of formal changes into informal rules.<sup>8</sup> Only if people are aware of the changes taking place in their environment can they adjust their behavior accordingly.<sup>9</sup> Incentives to build up information capital need thus to be strengthened.

## 2.2. The Role of Banks in Financial Markets

Banks contribute to lower transaction costs by organizing the market for capital. The role of banks to collect savings and to allocate these to the most profitable investments is motivated by at least four considerations:

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<sup>7</sup>Calvo and Frenkel (1991) follow a similar line of reasoning with their proposal to follow a strategy of rules rather than of discretionary policy measures. As rules can have the potential to bind the actions of the government in the future by making departures from pre-specified actions more costly, rule-driven policies are more time consistent and thus credible.

<sup>8</sup>Contrary to this, the Russian government decided to launch an informational campaign on the planned voucher privatization only *after* the program had already started.

<sup>9</sup>This idea essentially underlies the voucher privatization schemes as implemented in Czechoslovakia. Although voucher privatization can be criticized from a purely economic point of view because it neither provides enterprises with true entrepreneurs nor with new capital, it is nonetheless one tool to encourage market-type decision making.

- Banks are better able to diversify their portfolios and to pool risks than individuals. They thus transform production, liquidity, and term-structure risks according to the individual preferences of their depositors.
- Banks monitor, control, and certify borrowers and pool the available information on investment projects. They thus save transaction costs as compared to private individuals. Because of their informational advantages, banks reduce problems arising from moral hazard and from asymmetric information. They provide one solution to the increasingly costly principle-agent-relationships that arise when societies want to utilize gains from specialization [North, 1992, pp. 484-485]. However, cost-savings from delegating monitoring need to be weighted against the costs of providing the right incentives to the intermediaries to act in the interest of depositors.
- Banks provide the framework for a functioning payments mechanism.<sup>10</sup>

In a model by Diamond (1984), banks contribute to lower transaction costs by working as delegated monitors. In the model, an entrepreneur needs to obtain financing for an investment project. The project yields an output of  $Y$ . The entrepreneur's action does influence  $Y$  but he is the only one who can costlessly observe  $Y$ ; the only variable lenders can costlessly observe is the aggregate payment  $z$  that they receive. The market for financial funds is perfectly competitive such that lenders require an expected return equal to the risk-free rate  $R$ . All agents are risk-neutral. Two cases can be distinguished depending on the ability of lenders to (costly) monitor the borrower. If monitoring is *impossible*, lenders will impose a non-pecuniary penalty  $\phi^*(z^*)$  on borrowers and choose a face value of the loan  $z^*$  such that their expected return just equals  $R$ :

$$(1) E [ Y - z^* - \phi^*(z^*) ] = R$$

The penalty can be thought of as the negative consequences that a bankruptcy has for the borrower because, for example, he loses his good reputation. Alternatively, the penalty could take a pecuniary form of collateral. If monitoring is *possible*, the lenders have to assess whether they can lower the face value of their loan and yet receive the same expected return by substituting the bankruptcy penalty by the cost of monitoring. Still they have to decide who should monitor the borrower. Diamond shows that delegated monitoring by a financial intermediary is optimal when the costs of monitoring ( $K$ ) and the costs of providing the right incentives for the intermediary ( $D$ ) are less than the costs of

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<sup>10</sup>The crucial importance of a functioning and efficient payments system can currently be observed in the Ex-Soviet Union where delays in the payments system cause major disruptions in the financial sphere. The issue is not taken up explicitly in this paper.

each individual lender monitoring the borrower ( $m \cdot K$ ) or of imposing the bankruptcy penalty, respectively:

$$(2) K + D \leq \min [ E ( \phi^*(z^*), (m \cdot K) ) ]$$

This condition will be met if the financial intermediary has a net cost advantage through diversification, i.e. the higher the number of independent investment projects financed, the lower the cost of monitoring. Individual investors are not able to diversify the unsystematic or firm-specific risk of a particular loan project away because the costs of assembling a large portfolio individually would be too high.

The Diamond-model has been extended by von Thadden (1990) in a model where in the absence of banks investment decisions are short-sighted. Von Thadden shows in his model that the structure of the financial system determines the planning horizon of entrepreneurs. Enterprises can either be of a bad or of a good type. Good enterprises have the option to undertake a short-term project with its higher pay-off in the first period or a long-term project with its higher pay-off in the second period. The long-term project yields an overall higher expected return. Binding contracts can be concluded. Bad enterprises always yield a zero expected return. Financiers can freely observe the outcome of the project after period one but cannot observe the type of enterprise or the firm's investment policy. As the investment's outcome serves as the sole screening device, good firms choose the inefficient short-term project because they fear a withdrawal of funds after period one. Within an institutional framework which encourages banks to invest into the screening of enterprises and to improve the information on enterprises, longer-term strategies will be chosen.

To sum up, both models explain the existence of banks by cost-savings from specialization. In the Diamond-model, banks reduce the cost of monitoring by diversifying their loan portfolios. Whereas these benefits from diversification are rather technical and can be replicated by assembling the appropriate loan portfolio, von Thadden stresses the active role of banks in collecting and processing information. In the von Thadden-model, banks reduce the cost of short-termism in investment decisions because they invest into information on enterprises. For the individual investor, the cost of acquiring this information would be too high and the economy would end up in a sub-optimal equilibrium in the absence of banks.

As regards policy implications, the delegation-models imply that the establishment of information systems is among the major tasks in reforming formerly planned financial

systems. Better information systems enlarge the incentives on part of the banks to acquire information and thus allow them to exploit their comparative advantages in processing information. In the future, the building of information capital will depend on the availability and quality of financial data, the stability of relative prices oriented at scarcities prevailing on the world market, and the profitability of investment in information. This profitability is reflected in the interest rates that banks should be allowed to charge [Caprio, 1992, p. 19]. Interest rates should thus be liberalized rather than held at low and even negative levels in real terms. Audits of banks and enterprises by foreign agencies will furthermore contribute to a better pool of information available. In addition, the Diamond-model implies that the possibilities of banks for diversifying their portfolios lowers the overall costs of managing a bank's portfolio. The larger the number of assets banks can diversify into, the potential for effective monitoring.

### 2.3. The Mechanics of Commitment

In the above models, complete, long-term contracts could be enforced [von Thadden, 1990, p. 4]. However, long-term contracts that are fully time-consistent and that do not incorporate incentives to diverge from ex-ante determined specifications when payments fall due, is much lower than in developed market economies.<sup>11</sup> Longer-term contracts cannot be enforced legally, all possible future contingencies which might influence the contractual obligations cannot be specified, and the future macro-economic situation cannot be predicted with a reasonable degree of certainty. At the same time, long-term finance is urgently needed to restructure the economies. In this situation, longer-term contracts can be facilitated through main bank relationships as shown by Fischer (1990).<sup>12</sup> Main-bank relationships are defined as

- banks having a dominant share in the credits of an enterprise and being the first consultants to the enterprise in all financial affairs,
- close - even personal - relationships between banks and enterprises, and
- a large incentive on part of the bank to restructure the enterprise [Fischer, 1990, p. 3].

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<sup>11</sup>The share of long-term credit was 39% in Czechoslovakia (July 1992) and only 34% in Hungary (April 1992). In Poland, only 15% of all credits were granted for longer-term investments (December 1991). In Russia, there were virtually no credits with a maturity of more than year at the end of 1992. As a comparison: In Germany, the share of long-term credit was 73% in November 1992. (Sources: NBH, NBP, State Bank of Czechoslovakia 1992a, Deutsche Bundesbank)

<sup>12</sup>On the importance of relationship banking see also Sharpe (1990), Boot/Greenbaum (1992), and Besanko/Thakor (1992).

Fischer uses a two-period, game theoretical model with two banks and one enterprise. The probability with which the enterprise will turn out to be successful is unknown. Because of a negative return in the first period, the enterprise needs to obtain long-term financing. However, contracts can be settled and enforced effectively for only one period. In the first period, the profitability of the investment project, which is negative, is the same for good and bad enterprises. At the beginning of the period, the type of the enterprise that determines its probability of success is specified randomly. At this time, the banks cannot distinguish enterprises of different type. In the second period, the bank that financed the project in the first period has an informational advantage over the other bank. The enterprise is committed to deal with this bank because it has, by assumption, no opportunity to signal its performance at the beginning of the second period and because both banks act simultaneously.<sup>13</sup> In this scenario, only one bank, the main-bank, will enter into a debt contract and compensate losses from the first period by quasi-monopolistic gains in the second period. The possibility that *both* banks finance the project in period one is excluded by the assumption that the enterprise makes losses at first. Would both banks offer finance, they had the same information available prior to period two. In that case, the banks would incur zero profits and thus not get compensated for their losses in period one.

The Fischer-model explains how exclusivity in banking relations avoids the problem that, during an interim period in which the performance of an enterprise can already been observed, competition of outside financiers might drive down the cost of loans. In this case, the first-period financier would not get compensated for its risky capital outlays and, hence, not enter the contract in the first period [Hellwig, 1991]. Solving the two-period-game by backward induction, the enterprise's only chance to obtain funds in the first period lies in a credible commitment to the financier later.<sup>14</sup> Alternatively, there could be reputational threats incorporated into the model that would hinder the enterprise to switch banks after one period. The mechanics of commitment only work if the bank and the enterprise have invested into their transaction-specific relationship: The enterprise has disclosed information on its profitability to the bank and promised to let the bank share the returns of the investment project; the bank has financed the investment outlays conditional upon the - credible - commitment of the enterprise to stay with the bank. Both contracting parties benefit from this form of relational contract which helps them to overcome the problem of prohibitively costly long-term contracts.

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<sup>13</sup>The problem that the enterprise could signal its performance through some share of self-financing can be precluded because both types of enterprises would have the same incentive.

<sup>14</sup>In a similar model by Sharpe, the commitment is on the part of the *bank* which commits itself not to exploit its monopolistic price setting margin against the interest of the firm [1987, p. 1084].

The argument of the commitment analysis goes beyond the standard arguments of diversification and risk sharing, on the one hand, and monitoring and control, on the other hand. But to some extent, the approach does not truly provide new explanations for the existence of banks. In theory, individuals could assume the role of banks and reap the fruits of exclusivity themselves; the existence of banks only receives its justification from savings in transaction costs and from advantages of pooling funds, which preclude individuals from assuming banking functions themselves.

In the model, the reason why long-term contracts are not realized lies in the potential for interim competition of banks at a point where it is clear that the project was a success but returns have not yet been reaped fully. In Eastern Europe, the situation presents itself different because competition remains weak. Here, long-term contracts are not concluded because of macroeconomic instability, a lack of and inexperience with institutionalized enforcement mechanisms, and the incentives to re-negotiate contracts when they fall due *just because of* close bank-investor-relations: The observed accumulation of bad loans on the balances sheets of banks in Eastern Europe is caused by close bank-firm-relationships. When contractual payments fall due and enterprises cannot repay, borrowers and lenders re-negotiate on the contractual terms because of their close ties.<sup>15</sup> Bankruptcies of clients would therefore inevitable trigger banking failures. Ex-ante negotiated penalties in form of bankruptcy threats are not exercised because, in theoretical terms, the contract has a *weak re-negotiation-proofness constraint* [Hellwig, 1991]. There would be less scope for re-negotiation if enterprises owed funds to a number of banks. According to this analysis, close ties to a main-bank are undesirable and main-bank relationships should be *discouraged*. This last aspect in particular seems to contradict the policy implications of the commitment analysis which implied a *strengthening* of main-bank relationships.

The supposed contradiction dissolves if a longer-term perspective is adopted: The banking structure that exists now is certainly not warranted because it merely continues the former shell financial system. Many banks inherited concentrated loan portfolios which expose them to a high degree of firm-specific and branch risk. Although most banks are independent on paper they are still state-owned and their fate depends on governmental decisions on a debt-reduction strategy. There are at least three policy measures that help to cut the preserved main-bank relationships. First, old ties between banks and enterprises must be disrupted by writing off bad loans, which constitute a legacy from the communist

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<sup>15</sup>Note that this does not only hold for the old, state-owned banks. Many new banks - especially in the former Soviet Union - are effectively owned by (state-) enterprises which founded banks in order to get access to the refinancing facilities of the central bank.



past, and by recapitalizing the banks with interest-bearing government bonds. A renewed accumulation of bad loans can be avoided if credits from state banks to state enterprises are subject to credit ceilings.<sup>16</sup> Secondly, by eliminating restrictions on the regional and sectoral operations of banks, the problem of portfolio concentration and of inherited main-bank relationships is reduced. Over the course of the privatization of banks, existing large branch networks should be split up into smaller units. Thirdly, if new private banks in general and foreign banks in particular enjoy unrestricted market access, a more competitive banking environment will break up traditional structures. Foreign banks can contribute to the development of competitive structures because their international reputation is at stake; they will thus have little incentive to engage in risky or dubious ventures. As, in a competitive system, new banks can offer more preferential credit terms, the continuation of old and inefficient relationships will become increasingly costly to enterprises. In the long-run, when privatized or new private banks dominate, there is no reason to limit their scope of activities of banks or to discourage the evolution of main-bank relationships. The more freedom private banks have, the greater is the potential for long-term financial relation.

In a model similar to the Fischer-approach, Besanko/Thakor (1992) arrive at a quite different conclusion as regards the desirability of competition in banking: They propose to regulate entry into banking in order to create an imperfectly competitive banking industry and thus to reduce the scope for interim competition. This would enhance stability because banks had an incentive to exploit their comparative informational advantages from repeatedly dealing with the same customers. From an empirical perspective, Mayer argues along the same line. Mayer analyzed the financial systems of five large industrial economies and found that, indeed, commitments of enterprises to main-banks constitute an important determinant for the provision of long-term finance. He concludes that competition should be discouraged and that the liberalization of financial markets might be harmful because it fosters competition [Mayer, 1987, p. 26].

However, the reasoning of Besanko and Thakor is besides the point. Inefficient main-bank relationships in Eastern Europe can only be broken up if new banks enter the market. Market access of new banks widens the group of banks to which an enterprise can commit itself; the enterprise may reasonably prefer to deliver its commitment to a diversified, international bank with a good reputation rather than to the local affiliate of a domestic, state-owned bank. Besides, main-bank relationships and competition in banking

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<sup>16</sup>For a detailed analysis see Schmieding/Buch (1992).

are not mutually exclusive.<sup>17</sup> Even in the Fischer-model, competition from the outside bank could have interfered with the main-bank relationship. But in a multi-period game, the enterprise had an incentive to stick with its main-bank and thus not to put its credibility at stake. As of today, banks and enterprises in Eastern Europe are pursuing short-term goals and reputational concerns do not constitute credible threats. Once enterprises adopt longer-term perspectives and learn about the benefits of commitments, new market entrants will foster the switch from old and harmful towards new and beneficial main-bank relationships.

The commitment analysis implies that banking systems which allow close relationships should be expected to outperform systems in which main-bank relationships cannot be attained. Whereas the divestment of old and inefficient main-bank relationships can at least be speeded up by the implementation of suitable laws, policies designed to directly promote new, beneficial main-bank relationships are hard to develop. Finally, close relations between banks and their customers will only evolve over time in a stable and trustworthy environment. The Fischer-model hinges on the assumption that enterprises can credibly commit themselves and let the banks participate in the project returns. Commitments like this will only be credible if agents have proven their reliability for some time. Nevertheless, indirect measures can be implemented that, in general, aim at lengthening and deepening customer relations. Among these indirect measures is the establishment of a universal banking system that allows banks to perform commercial as well as investment banking activities. Under universal banking, a potential debtor finds advice and different forms of financing under one roof and stays with the bank for a longer period of time [Fischer, 1990, p. 3].

#### **2.4. The Case for Equity Finance**

In a perfect, textbook world where neither market imperfections nor transaction costs matter, the investment decision can be separated from the financing decision. This is the well-known irrelevance theorem of Modigliani/Miller [Modigliani/Miller, 1958, pp. 268-269]. But if transaction costs and imperfections prevail, different forms of financing are not equivalent and the market value of a firm depends on its capital structure. In this situation, the optimal combination of debt and equity finance (leverage ratio) can be calculated by comparing costs and benefits of these forms of financing. The enforcement of debt contracts, for example, is costly because the lender cannot monitor the borrower

<sup>17</sup>The experience of Germany shows that even within liberalized and competitive banking system, benefits from main-bank relationships can be exploited.

completely. Adverse incentives on part of the borrower can be mitigated by either imposing bankruptcy penalties such as collateral or having the borrower monitored by a financial intermediary. However, both conditions are seldom met fully. Cho (1986) has thus shown how markets failures can partially be overcome by utilizing positive features of equity contracts.

Debt financing can be disadvantageous to banks because moral hazard and adverse selection make the profit from lending money a decreasing function of the interest charged: High interest rates deter prospective good borrowers with high returns (adverse selection), the remaining borrowers will tend to choose projects that are highly risky (moral hazard). Moral hazard occurs because, under a fixed-rate debt contract, the return to the borrower rises with the riskiness of the project undertaken.<sup>18</sup> Let us assume that borrowers can choose between risky, high-yield and safe, low-yield projects. Borrowers receive the following returns: In the bad state of the world, they always lose their collateral, which is, however, only incomplete. In the good state of the world, they pay the fixed interest and gain the more the higher the return of the project. Hence, borrowers choose the high-risk project because their expected return increases with the riskiness of the project. Lenders receive some collateral in the bad state of the world but never more than the interest plus the principal in the good state. Their return decreases with the riskiness of the project, assuming that interest rates are kept constant. This moral hazard effect adds to the adverse selection effect which had rationed prospective good borrowers out of the market to begin with. In this scenario, interest rates can not function as efficient screening devices.

Based on this reasoning, Cho [1986, p. 192ff] concludes that interest rate liberalization does not suffice to improve the allocation of resources across firms. Because of adverse selection effects, banks will ration efficient firms out of the market if information is asymmetrically distributed and if collateral is incomplete. According to Cho, equity financing is superior to debt financing because it avoids diverging incentives of borrower and lender, respectively. With a performance-oriented salary, the manager of the firm should have an incentive to pursue the same goals as the owners of the enterprise and to maximize the enterprise's market value. Because of the beneficial features of equity finance, Cho proposes to focus on the development of efficient stock markets over the course of financial development.

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<sup>18</sup>See appendix for a numerical exposition.

However, heavy reliance on equity finance in Eastern Europe is highly unrealistic. Even in developed market economies, equity finance contributes only a comparatively small share to all corporate finance [Stiglitz, 1991, p. 10; Mayer, 1987, p. 13]. The reason for this is asymmetric information that precludes the possibility of the equity holders to monitor the manager efficiently: Equity finance *does* solve the adverse selection problem but *does not* solve the moral hazard problem. Moral hazard problems in equity contracts comprise the incentives of the manager to cheat, i.e. to falsely indicate good performance to the extent that the manager's disutility from the risk of being detected as a liar does not outweigh his utility gains derived from working less hard. In addition, stock markets in Eastern Europe - at least in the short-run - are likely to be even more underdeveloped than the banking systems.

Having these caveats in mind, banks may yet have an interest in providing debt-contracts with equity-like components. In principle, collateral, which is often incomplete such as in the above example, could serve a similar function as equity because it imposes a self-selection constraint on the borrower [Riordan, 1992, p. 21]. In the above example, banks would indeed be indifferent which project to finance if collateral was complete. But with incomplete collateral, the return to the bank decreases in the bad state of the world without rising in the good state when a riskier project was chosen. In the good state, banks may be satisfied with receiving a fixed return on a debt contract without having to monitor the management extensively. If, however, the performance of the enterprise starts deteriorating, the bank has a vital interest in influencing the business decisions directly as it could under equity financing. The combined use of equity- and debt-like components in financial contracts are features of the financial systems of Germany and Japan.<sup>19</sup> In a study on the German banking system, Harm found that the combined use of debt and equity materializes in a *contingent transfer of rights* [Harm, 1992b, p. 12]. In Germany, many debt contracts include authority provisions such as board seats, proxy votes, and equity ownership of banks in enterprises [Harm, 1992b, p. 27]. The system of a contingent transfer of rights benefits banks because moral hazard problems, which would put the entire invested capital at risk in the bad state of the world, can be mitigated. At the same time, banks receive a safe return in the good state of the world without incurring the cost of monitoring. Enterprises benefit from giving bankers a say in enterprise affairs because

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<sup>19</sup>Lessard (1989) extends this proposal to the area of international finance. He focuses his recommendations on the design of contracts that combine both, debt and equity components, such that each contracting party bears risk according to its comparative advantages. These comparative advantages are determined by different potentials for monitoring and for the diversification of risk. For example, a local farmer may have a greater potential to influence and to evaluate the production-related risk of a farming project whereas a large, international investor has greater leeway to hedge against country specific risks associated with the project.

they need to dispose less collateral.<sup>20</sup> Similarly, Japanese banks hold large equity stakes in enterprises and are highly involved in the financial affairs of companies coming under financial distress [Mayer/Alexander, 1990, p. 1]. If enterprises run into difficulties, the banks re-negotiate on the debt contracts, offer distress borrowing, and are engage in restructuring activities. Hence, Japanese banks share the business risk of the company [Mayer, 1987, p. 24].<sup>21</sup>

The importance of equity finance and of contract-specific allocations of risk indicate that reforms in Eastern Europe should be oriented towards the establishment of a universal banking system. Universal banks have a greater potential for offering the optimal financial structure and can be important providers of risk capital. In addition, the board membership of bankers and the possibility to hold equity stakes in enterprises provide banks with an important source of information on their clients. Also, enterprises can rely on the financial expertise of a universal bank which engages in different forms of financing.<sup>22</sup> Another way to exploit the positive features of equity finance are debt-to-equity swaps which allow the conversion of existing debt claims into ownership stakes.<sup>23</sup> The resulting equity holdings would give banks the ability and the incentives to actively monitor the management. Nevertheless, debt-to-equity swaps can cause regulatory problems if banks are not privatized up front [van Wijnbergen, 1992, p. 14] and tend to preserve existing inefficient alliances between state banks and state enterprises in Eastern Europe [Schmieding, 1991].

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<sup>20</sup>Although the German case is often referred to as a reference it should be noted that the good performance of the German financial system is to a large extent founded on the stability of the system in the last decades. Harm calls this situation an "reputational equilibrium" [1992b, p. 16]. The German case has also been analyzed by Mayer/Alexander (1990) who support the view that German banks provide more long-term finance because they exert control over enterprises and Edwards/Fischer (1991) who do *not* find significant control of banks. Similarly, Harm (1992a) in a study on the financing of small German firms rejects the control-hypothesis. Instead, he argues. government programs are an important tool to stimulate credits to small enterprises.

<sup>21</sup>Another important feature of the Japanese system are cross share-holdings called *keiretsu*, i.e. banks own shares of their clients who also own shares of their banks. In addition, the development of the Japanese economy after the second world war has been largely facilitated by a high degree of leverage and government involvement in credit allocation. See Walter/Smith (1992) for a description.

<sup>22</sup>In fact, experience from Eastern Germany shows that banks contribute a major share to the restructuring of enterprises through their board membership even if they do not offer credit facilities or undertake equity investment [Carlin/Mayer, 1992, pp. 45].

<sup>23</sup>The new Polish law on the restructuring of banks and enterprises, which was passed in late December 1992, allows for debt-to-equity swaps as a solution to the problem of non-performing loans in the balance sheets of banks.

### 3. UNIVERSAL BANKING AND PRUDENTIAL REGULATIONS

#### 3.1. The Case for Universal Banking

In universal banking systems, banks are allowed to engage in commercial as well as in investment banking activities and to exercise certain control functions in enterprises: Bankers may hold seats in the board meetings of enterprises, they may exercise proxy-voting on behalf of their non-commercial customers. Universal banks are also allowed to hold equity stakes in enterprises. The two main arguments in favor of universal banking can be summarized as informational advantages and economies of scope that universal banks are able to exploit. Informational advantages from delegated monitoring can be better utilized by universal banks. These advantages contribute to longer-term commitments. Economies of scope arise from complementarities in producing financial services from the shared use of inputs: because fixed input resources can be used jointly, the joint production of financial services becomes cheaper than their individual provision [Steinherr/Huveneers, 1990, p. 8].<sup>24</sup> Universal banks can utilize the positive features of equity finance and thus mitigate adverse selection and reduce risk. However, universal banking is usually charged with a number of disadvantages and potential pitfalls because, according to its opponents, it entails:

- the danger of cross-holdings between enterprises and banks (*interlocking ownership*) which can lead to monopolistic market structures;
- potential *conflicts of interest* that arise from simultaneously taking deposits from non-commercial customers, from granting credit to, and being equity owner of an enterprise. Conflicting interests could stem from insider information that the bank acquires as a board member of the enterprise on projects that would raise the price of the enterprise's common stock and which the bank uses for its own interests rather than to the benefits of its private customers;
- *risk-concentration* in the portfolio of banks which hold debt as well as equity of an enterprise increases the probability of joint bankruptcies and
- *cross-subsidization* of financial services, i.e. relatively price-inelastic products such as savings accounts are sold at higher prices in order to subsidize other products.

These alleged dangers have induced several authors to caution against the introduction of universal banking systems because the safety of savers' deposits and the stability of the financial system might be at stake [Steinherr/Huveneers, 1990]. Warnings

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<sup>24</sup>For a general discussion see Saunders/Walter (1991) or Buch/Monti (1991).

against universal banking and claims for a restriction of banking activities are especially relevant in the context of Eastern Europe:

- Many banks are still state-owned and may thus not perform universal banking activities in the best interest of their depositors. Instead, conflicting interest may not only arise from the banking business itself but from the perceived need to support the general economic policy of the government. Bankers who feel obliged to support ailing state enterprises put the deposits of the savers at risk.
- The portfolios of many banks are loaded with bad loans inherited from the socialist past or accumulated after major market-oriented reforms had been implemented.<sup>25</sup> Bad loans lead to creditor passivity and strengthen the case for risky distress lending and the roll-over of interest payments [Begg/Portes, 1992].
- Banks and enterprises are inexperienced with financial transactions. As neither stock markets nor efficient supervisory systems provide appropriate checks-and-balances, banks might easily become exposed to large risks. As depositors have limited information over the profitability of banks, banking failures might require government bail outs. In the absence of other functioning control and information systems it might thus be advisable to restrict banking operations right from the start in order to prevent excessive risk taking.
- Close links between banks and enterprises already exist. These result from earlier restrictions of banking activities to pre-defined regions and branches. Because the existing main-bank relationships are harmful and the incumbent managers are unlikely to work more efficiently in the future, close ties between banks and enterprises hamper the evolution of better financial systems.
- Competition in the banking sector remains limited. Even though new private banks have been founded, few state-owned banks still retain the vast bulk of deposits and grant the majority of credits. So far, market involvement of foreign banks has remained mostly at the preliminary stage of founding representative offices.<sup>26</sup> In the absence of competitive structures in the product markets of enterprises as well, interlocking ownership relations can thus lead to highly monopolized structures and great market power.

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<sup>25</sup>The problem of bad loans is certainly less pronounced in countries such as former Czechoslovakia than in the successor states of the Soviet Union.

<sup>26</sup>Czechoslovakia, Hungary, and Poland, have reserved for themselves the right to limit the market access of foreign banks for the coming ten years through the association treaties with the European Community. Russia even intends to restrict the market access of foreign banks in the near future almost entirely.

In spite of the dangers of universal banking and the particular importance of these in Eastern Europe, the introduction of a universal banking system is the superior option for these economies. The long-run benefits from universal banking outweigh the alleged dangers:

- In a universal banking system, scarce human capital can be used most efficiently. Unlike in developed market economies, the network of banks and financial institutions remains shallow in Eastern Europe and only few people are employed in financial services. The existing resources have thus to be utilized most efficiently. This can be done by tailoring financial contracts to the particular need of an investor.<sup>27</sup> Under a separated banking system, new affiliates would have to be found if the banks wanted to engage in the investment banking business. This, however, would put an unnecessary drain on the existing resources.
- Universal banks have the potential to accompany new enterprises through all stages of financing, starting with self-financing combined with short-term credits, via longer-term credit commitments towards public share issues. To the extent that privatization will most likely be bottom-up, i.e. through the emergence of new private enterprises, these temporal financing patterns are likely to be observed in Eastern Europe.
- In a similar vein, universal banks are able to provide the long-term capital which is needed for restructuring the existing enterprises. As much of the existing capital stock is grossly outdated, it will have to be replaced by technically more advanced capital goods. These, however, will have a long pay-back period and should thus be financed with long-term credits.
- The countries of Eastern Europe are in great need for risk capital and effective systems of corporate governance. Both can be contributed by universal banks. The existing management in the still state-owned enterprises are certainly skilled in dealing within a bureaucratic planning system [Heinrich, 1993]. However, the incumbent managers have no experience with market-type decision making while they have great incentives to exploit their enterprise's assets to their own personal benefit. In a market-based financial system such as the Anglo-Saxon systems, control over the management of enterprises is exercised by the market through take-over threats. Also, stock markets are the major source for risk capital. Because stock markets are severely underdeveloped in Eastern Europe<sup>28</sup>, much of the corporate governance of

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<sup>27</sup>For empirical studies favoring this view see Mayer (1987), Harm (1992b), Carlin/Mayer (1992).

<sup>28</sup>In Hungary, the Budapest stock exchange, which was founded in 1990, has only 21 shares listed [The Economist, 28.11.1992]. However, the weekly turn-over on the Hungarian stock-market (\$7 million) exceeds that of the Polish stock market (\$3,7 million). The Polish stock market was founded in 1991; shares of 15 companies are listed. In former Czechoslovakia, a stock market has yet to be founded; plans aim at establishing it in March or April 1993 [VWD, 18.12.1992].



enterprises and of the risk capital will have to be provided by banks. Unless banks are not given the possibility to monitor the utilization of that capital and to actively participate in the corporate governance of enterprises, they will have little incentive to fulfil these functions.

- All banking activity is potentially subject to fraud. Moral hazard and asymmetric information are not unique features of universal banks. All banks which take short-term deposits from their non-commercial customers and lend long-term credits to their commercial clients incur risks. One extreme solution to this inherent problem would thus be to forbid banking activity completely and to allow only risk-free banks with government bonds as assets, as has been proposed by McKinnon [1992].

Despite their long-run benefits, the hazards of universal banks need to be addressed by appropriate prudential regulations. Prudential regulations receive importance from the inherent tendency of universal banks to acquire great market power and thus to undermine market competition through the exploitation of scale and scope economies. In addition, regulations are justified by the perceived need to protect depositors or to stabilize the financial system [Baltensperger/Dermine, 1992, p. 33].<sup>29</sup> Consequently, Steinherr/Huveneers (1990) propose to restrict equity holdings of banks, board membership of bankers, and proxy voting rights in order to avoid conflicting interests, and to split up commercial banks in order to avoid cross-subsidization of banking services and risk bundling<sup>30</sup>. This paper, in contrast, argues that, apart from some standard prudential regulations covering the capital-adequacy or the liquidity of banks, banks should be free to decide which financial contract they want to offer. Incidentally, to the extent that economies of scope are product-specific, banks themselves will be interested in some kind of specialization.<sup>31</sup>

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<sup>29</sup>Historically, the major boost to the regulation of banking activities has been triggered by the financial crises of the 1930s. In Germany, the banking crisis led to the introduction of general capital-adequacy and liquidity requirements, in the United States, regulators went as far as to restrict the regional expansion and the allowed activities of banks through the Glass-Steagall-Act. Japanese regulations implemented at this time were inspired by the American legislation.

<sup>30</sup>Note that the bundling of risk and the implied reduction of transaction costs is one important justification for the existence of banks from a theoretical point of view.

<sup>31</sup>In a survey of the empirical literature on scale and scope economies in banking, Clark (1988) concludes that economies of scale are relevant only at low levels of output and that only product-specific economies of scope exist, i.e. financial firms benefit from adding specific products to their individual product mix but not from simultaneously providing all possible financial services (global economies of scope).

### 3.2. The Role of Prudential Regulations<sup>32</sup>

In a textbook situation, prudential regulation and banking supervision would have no justification: All depositors have perfect information over the activities of a bank; if these activities are not in the depositors' best interest, they turn to another bank. As competition is unrestricted, depositors always find a bank fitting their personal preferences best. But market imperfections become important in a more realistic framework [Greenwald/Stiglitz, 1991]. Just as banks have an informational problem in monitoring and controlling the use of lendable funds by their debtors, depositors have to overcome incentive problems, which would run against their own interests, on part of the banks. These imperfections require government intervention through general guidelines for conducting banking business. But prudential regulations are not only in the interest of depositors who are concerned about the safety of their savings. Also a central bank, which aims at creating and maintaining a stable currency, wants to be assured of a controllable and stable process of money creation, this interest is particularly pronounced if the central bank acts as a lender-of-last-resort, or if it provides some form of deposit insurance. Finally, enterprises which receive loans from the commercial banking system, are interested in reliable information on the quality of banks if they, as described above, invest into long-term relationships to main banks.

Having these justifications for prudential regulations in mind, four questions are relevant for the Eastern European economies:

- Should prudential regulations such as restrictions applying to the market entry of banks, interest rate and credit ceilings, operational restrictions, diversification rules and capital-adequacy-requirements be introduced or maintained, respectively?
- Would it be sufficient to copy existing Western regulations?
- Does the specific situation of the Eastern European reform states require differential legislation for an interim period until banks are privatized and until some basic competitive environment has developed?
- Who should supervise banks and control for the compliance with prudential regulations?

The answer to the first question has already been given above. To the extent that markets are imperfect and that information is asymmetrically distributed, some regulation

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<sup>32</sup>Following the terminology of Baltensperger (1989/90), this paper addresses only issues of prudential regulation, not of other protective measures such as deposit insurance systems, lender-of-last-resort facilities, or reserve requirements. Prudential regulations in this sense comprise interest rate and loan ceilings, market entry restrictions, operating constraints, and capital-adequacy-requirements.

of commercial banking activities is warranted. The justification of regulations stems from the fact that bank-runs can be individually rational although they are irrational from a collective point of view. Because banks finance illiquid longer-term assets with short-term deposits [Baltensperger/Dermine, 1992, p. 279], not all depositors could liquidate their deposits simultaneously. If the probability of a bank's bankruptcy becomes too high, each individual depositor would find it rational to try and withdraw his deposit. This would incidentally speed up the bankruptcy of the bank, making the expectation of a bankruptcy a self-fulfilling prophecy. Another reason for banking regulations is that assets of banks are not easily tradable. Because the value of a bank's assets largely reflects bank-specific investment in information on customers, these assets yield only little revenue when auctioned off in a conciliation procedure. Depositors are thus likely to recoup only a minor share of their capital held in banks over the course of a conciliation procedure. To protect the financial system from systemic banking failures, safeguards enhance the trust in the banking system and ease the access to information on banks.

In developed market economies the case for *exogenously* imposed regulations is less pronounced than in Eastern Europe because the safety of banks can be assured through non-public internal and external disciplining market forces and through *endogenous* regulations<sup>33</sup> which comprise the bank's investment in brand name capital [Richter, 1989/90, pp. 154-155]. However, the financial systems in Eastern Europe are too fragile to be left completely uncontrolled. Markets for managers, which could effectively impose behavioral threats on management behavior, are underdeveloped, banks' investments into brand names are limited and can not yet cause major reputational concerns, and the general inexperience with financial operations is pronounced. Because of a general uncertainty over the future economic situation, many banks are oriented towards short-term goals. They discount future profits at a very high rate and do not conclude reputational (implicit) contracts [Sharpe, 1990, p. 1082]. The Eastern European countries are thus not in the position to heavily rely upon reputational concerns.<sup>34</sup>

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<sup>33</sup>For an application of the concepts of endogenous vs. exogenous regulations to product markets see Boudreaux/Ekelund [1987, p. 544].

<sup>34</sup>The experience of the Chile in the late 1970s gives some anecdotal evidence for the hazards of financial markets liberalization without taking due consideration of the introduction of some prudential regulation. Between 1973-75, Chilean banks were privatized without simultaneously implementing an effective banking supervision. Many banks were purchased by large industrial conglomerates, the so-called *grupos*, within which an intrinsic network of financial relations was built up: The economy started to assume a high degree of short-term foreign indebtedness; as the *grupos* could not borrow externally themselves, funds were channelled through the banking system; interest payments were rolled over, creating a "false demand" for credit; and assets of dubious quality served as collateral against which enterprises received credits from the banks. Although insufficient regulations of the banking system was certainly not the sole source of instability in Chile at that time, it contributed its major share to the financial collapse at the early 1980s [McKinnon, 1988, Edwards, 1986, Harberger, 1987, and Vittas, 1992, p. 14].

The lack of reputational mechanisms emphasizes the importance of basic banking regulations. To the extent that the introduction of regulatory measures can be an *efficiency reducing result of rent-seeking activities* by politicians rather than an *efficiency-increasing exogenous response to market failures* [Boudreaux/Ekelund, 1987, p. 537], politicians should be given little discretion over the concrete design of regulations. Prudential regulations should be restricted to general guidelines concerning capital-adequacy-requirements, and diversification rules regulating the maximum exposure of banks.<sup>35</sup> These measures address the problems of risk exposure and interlocking ownership.<sup>36</sup> It has already been argued [Schmieding, 1991] that the post-socialist reform states should adopt an existing Western system, ideally one which conforms to the banking regulations of the European Community.<sup>37</sup> Considering the lack of human capital and the time that would be required to work out a completely new system for Eastern Europe, the rules should indeed conform to EC- or the guidelines set by the Basel Bank for International Settlement (BIS). The adaptation of existing regulations would have the additional advantage that the scope for bargaining and discretionary decisions of regulators is minimized.

To the extent that many banks are still state-owned and carry a heavy burden of bad loans as a legacy from the past, banks have greater incentives to assume risk than banks in developed market economies for which the regulations were designed. First of all, the quick recapitalization of banks with interest-bearing government bonds and a debt write-off to enterprises are means to cope with the bad debt quickly. These measures need to be closely tied to the privatization of banks and, to the extent that privatization proceeds only slowly, must be combined with transitional safeguards in the form of ceilings on credits from state banks to state enterprises [Schmieding/Buch, 1992]. These credit ceilings intend to stop the flow problem of non-performing loans. The ceilings are similar to maximum-exposure restrictions as laid down in many Western banking laws. They differ as they are tied to the sales proceeds or assets of the enterprise rather than the bank's assets. For an interim period, the maximum exposure of state-owned banks should be tighter than for private banks. Similarly, allowed equity holdings in enterprises, which should be unrestricted for private, universal banks, should be lower for state banks. At the

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<sup>35</sup>As a matter of fact, restrictions on the maximum exposure of banks are less harmful than they seem at first sight. As main-banks can always be the sole placing agents of a syndicated loan issue, limits that restrict the activity of a single bank can be avoided.

<sup>36</sup>In addition, adequately enforced capital-adequacy-requirements combined with an efficient lender-of-last-resort facility by the central bank can effectively substitute state-supported deposit insurance systems which would entail severe moral hazard problems.

<sup>37</sup>The harmonized standards for EC-banks comprise solvency ratios, fitness and properness, disclosure of information to clients, and customer protection through guarantee funds. In addition, mutual recognition and home country control and supervision apply [Fitchew, p. 9].

same time, equity holdings of enterprises in banks should be restricted in order to discourage the unhealthy alliances of banks and enterprises in many of the reform states.

Barriers to the market entry of new domestic and foreign banks should be lifted. The current, non-competitive structure of the post-socialist financial markets constitutes a major impediment to financial development. All banks that fulfil certain standard requirements should be admitted. The selection should be independent from the desire to protect domestic banks or to keep foreign banks out of the market. Instead of requiring differential documentation of foreign as compared to domestic banks, domestic licensing should be based on the approval granted by a foreign agency. In addition, interest rate ceilings aimed at reducing the scope for cross subsidization and at channelling funds to preferred sectors of the economy should be abolished. These indirect subsidies allocated through the banking system should be made explicit and show up in the central budget. These ceilings constitute a major distortionary element and prohibit banks from incorporating correct price signals into their decisions.<sup>38</sup>

For any set of prudential regulations, the issue remains as to which kind of agency should be assigned the supervision of banks. Central banks, ministries of finance, or independent private agencies are among the potential candidates. Leaving prudential regulation of the commercial banking system up to the central bank has the particular advantage that information which is collected by the bank anyhow can be utilized most efficiently. As the central bank usually compiles data on the banking system, it already possesses the required information. However, if banking supervision remained with the central bank, the bank could come under pressure and weaken the budget constraints of commercial banks: If the central bank does not have an excellent record of independence and of withstanding claims to fund the banking system, the central bank may easily undermine its credibility by being supervisory board and lender-of-last-resort of the banking system at the same time. A similar objection can be raised against the Ministry of Finance as the supervisor of the commercial banking system - apart from the fact that this particular set-up would be close to resembling the original situation of the reform states. If

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<sup>38</sup> Apart from regulations that directly concern the banking system, legislative measures designed to protect property rights are a crucial element of capital market reforms. The effective protection of property rights represents the single most important challenge to a government which wants to establish functioning capital markets. The protection of property rights includes the enforcement of legal contracts by the government and all other economic agents, the right to take recourse to the court system, and the possibility to acquire private ownership stakes. North/Weingast (1989) in analyzing 17th-century England found that the protection of property rights and a credible commitment of the government to honor its financial obligation were the foundations of economic development (p. 824). While significant institutional changes were implemented, holders of wealth gained influence in financing decisions and could thus not be simply expropriated anymore (p. 829).

the Ministry were to realize that the liquidity position of the banks is worsening, it is likely to refrain from declaring the banks illiquid and finally bankrupt. The Ministry may fear either that it has to bail out the banks in order to protect depositors or that it has to bail out the enterprises, the loans to which turned out being uncollectable, in order to protect the workers. Both options impose a heavy financial burden on the budget.<sup>39</sup>

The most promising option is the delegation of banking supervision to private agencies for which conflicts of interest tend to be less pronounced.<sup>40</sup> As a modification to this approach, the central banks could decide to maintain the supervisory function officially but to contract the actual audits out to private businesses. Because the trust in private agencies is potentially jeopardized by fraud and moral hazard, Western agencies should be employed as their international reputation would be at stake. The reliance on Western agencies has two further advantages. First, foreign-based auditing has positive implications for the domestic human resources because it saves scarce resources in the short-run and new personnel will be trained by the foreign firms to undertake audits in the long-run. Secondly, as Western auditors analyze domestic banks, domestic and foreign investors will be assured that the banks comply with Western regulations.<sup>41</sup> The measure will thus strengthen confidence in the information on the financial positions of banks and finally speed up the privatization of banks.

#### 4. EXPERIENCE WITH IMPLEMENTING INSTITUTIONAL CHANGES

An effective implementation of institutional changes in Eastern Europe would, first of all, require an overall growth of the financial sector. This would imply a greater role of banks in the economic process. Furthermore, a more competitive banking system, a larger market share of private banks, legislative changes which aim at establishing universal banking systems, an adjustment of prudential regulations to Western standards and behavioral adaptations of banks and policy-makers are elements of institutional change. Within this framework, the successes of Poland, Hungary, and former Czechoslovakia<sup>42</sup>

<sup>39</sup>In fact, this potential conflict of interest has been made responsible for the reluctance of the Chilean supervisory board to take a tough stand against banks which were heavily exposed to risk [de la Cuedra/Prieto, 1990, p. 3].

<sup>40</sup>To a large extent, the reform countries have already made use of this option as they had the quality of their banks be determined by private, foreign firms. In Czechoslovakia, for example, private investment funds have been asked to prepare state-owned banks for privatization.

<sup>41</sup>If the state wants to retain some control over the supervision of banks, private competitors should be allowed [Dermine, 1991].

<sup>42</sup>On the development in the banking system of the former Soviet Union see Buch (1993).

will be assessed against three types of indicators. First, the overall state of the financial system will be evaluated by looking at indicators of financial deepening, at interest rates, and at the prevalent market structures in the banking industries. Secondly, banking legislation will be analyzed in particular with respect to regulations which affect universal banking activities. Thirdly, due to a lack of disaggregated data on banking behavior, the success of implementing behavioral (informal) changes will be evaluated against the enforcement of bankruptcy laws and the progress made with the privatization of state-owned banks.

#### 4.1. Development of Financial Indicators

For the quantitative assessment of financial development strategies, three indicators are usually considered: financial intermediation ratios, real interest rates, and the density of the branch network of the banking system [Fry, 1988, p. 130]. This paper proceeds slightly different by substituting the latter measure by measures which quantify the competitive structure and the profitability of the banking system. With respect to the financial intermediation ratios (table 1), one would expect that, over the course of financial development, the importance of highly liquid monetary assets in the form of cash and demand deposits (M1) declines: Because of the liberalization of interest rates, savers are offered longer-term, interest-yielding financial claims, and shift their currency holdings into these assets. At the same time, more advanced payment techniques such as automatic tellers are introduced and reduce the need to hold transactions balances. Taking these two effects together, the ratio of M2/GDP (overall financial depth) should rise and the ratio M1/GDP (monetary financial depth) should decline.

In fact, since 1981, the M1/GDP-ratio has been sharply falling from 36.62 percent to 10.05 percent (1990) in Poland which is significantly less than the ratio of developed market economies (about 20 percent). A somewhat more modest decline from 45.56 percent in 1981 to 33.88 percent in 1991 occurred in former Czechoslovakia. In Hungary, a significant fall of the M1/GDP-ratio cannot be identified as the ratio has been around 21 percent throughout the 1980s. Compared to the situation of developed market economies, former Czechoslovakia shows a considerably greater *monetary* depth. However, the M1/GDP-ratio has traditionally been higher in former Czechoslovakia than in Poland and Hungary. As regards the reform countries' *financial* depth, the development has been quite differentiated. In former Czechoslovakia, the ratio of M2 to GDP was with 63,83 percent in 1991 about as high as in developed market economies although there was no

significant positive trend throughout the 1980s. Similarly, there was no positive trend for Hungary but the country had a lower financial depth with 43,89 percent in 1991 as compared to developed economies (about 60 percent)<sup>43</sup>. The situation in Poland, again, presents itself significantly different. The Polish indicator of financial depth was fairly high in the early 1980s with 62,72 percent in 1981 but it dropped to a mere 22,48 percent in 1990.

The sharply diverging development in Poland can be explained by two factors. First, when domestic real interest rates dropped sharply and foreign assets became more easily available in early 1989, many Poles shifted their currency holdings into dollar-denominated assets. Whereas in 1988 only 678 billion zloty were held in foreign assets, this number increased to 10,372 billion zloty in 1989. Polish foreign assets holdings increased by a further 600 percent in 1991. If these assets are included, the monetary depth in Poland increases to 17,04 percent in 1990 which is about as high as in the United States. However, the indicator of financial depth remains rather low with only about one third of total gross domestic product in 1990. Secondly, an averaging procedure was used for calculating the data which puts a downward bias on the results. Because the monetary aggregates are (inflated) end-period values whereas the GDP-data is a flow variable, the monetary data has been adjusted by the formula:  $M1_t = 0.5 * (M1_t + M1_{t-1})$  [King/Levine, 1992, p. 7]. The numbers for Poland are in particular biased because the monetary aggregates have increased considerably in 1991 but the averaging procedure used for adjusting the data puts weight on the low last-period values. In 1991, Polish M1 has risen by 25 percent and M2 by 45 percent. However, a reliable GDP-estimate for 1991 has not been available.

In summary, all three countries have about the same monetary depth as compared to developed countries. But the financial depth for Hungary and Poland is much lower than in developed countries and the comparatively high degree of financial depth of former Czechoslovakia cannot be taken as an indicator of financial deepening because the ratio has traditionally been high.

Due to high inflation rates and a low responsiveness of nominal interest rates right after interest rates liberalization, real interest rates were negative at much of the early stages of financial reforms (table 2). However, positive real lending rates had been established much faster than positive real deposit rates which indicates a strong market position of the banks. As regards *real deposit rates*, the most dramatic fall occurred in

<sup>43</sup>Due to the high Japanese savings ratios, the M2/GDP-ratio in Japan is much higher than in Germany and the United States and is thus not used as a basis for comparison.



Poland with a minimum of - 582,47 percent in the third quarter of 1989. Real deposit rates in Poland remained negative throughout if only demand deposits are considered. In the first half of 1992, however, positive real interest rates on deposits had at least partially been restored: In May 1992, Polish 12-months certificates of deposits yielded on average 55 percent whereas monthly inflation at that time stood at a rate of 4 percent [NBP, 6/1992]. In Hungary, real deposit rates were significantly negative only in the first quarters of 1990 (- 55 percent) and the first quarter of 1991 (- 45 percent); since mid-1991, positive real deposit rates were generally restored. In former Czechoslovakia, real deposit rates have been highly negative at the beginning of 1991 (January: - 129 percent) and became positive in the second half of that year. In all three countries, positive real interest rates are generally paid on time deposits. *Real lending rates* have been positive throughout much of the 1989-1992-period. Negative real interest rates were paid on deposits in the first quarters of 1990 and 1991; partially this is attributable to the liberalization of prices. In Poland, for example, the price liberalization of January 1990 repressed the real lending rate to an exceptionally low -1,946.9 percent. However, Polish banks quickly adjusted their lending policies and earned temporarily as much as 60 percent in real terms on their credits.

In all three countries, banks have realized high profits since their operations have been liberalized. These gains have been particularly pronounced for Polish banks which incurred considerable windfall-profits from inflation. In the first quarter of 1990, the average lending rate of Polish banks (200 percent) was more than four-times higher than the deposit rate (60 percent). In 1990, Hungarian banks were highly profitable such that taxes and dividends from the financial sector accounted for 7.6 percent of fiscal receipts [Abel/Bonin, 1992]. In 1991, banks realized spreads between lending and deposit rates of more than 40 percent in Poland and of around 7 percent in Hungary and former Czechoslovakia. In 1992, spreads between lending and deposit rates seemed to be increasing again (table 2). This, however, does not imply that the profitability of the banks is improving. Quite the contrary holds true. Real profit growth had become negative in 1991 for almost all of the largest banks in Eastern Europe. Yet, the level of profits on capital remained fairly high, which indicates the high level of profits the banks made in 1990 (table 7). In Hungary, almost half of the banks reported losses for the first half of 1992. The decrease in profits indicates that competition in banking is becoming more fierce and that banks are increasingly concerned about non-performing loans [The Banker, 9/1992]. The increasing spreads thus indicate that banks try to improve their earnings record through their pricing policy.

Although many new banks have started operations and banking activities have been substantially liberalized (table 3), the banking systems in Eastern Europe are not very competitive. In former Czechoslovakia, for example, the large state-owned banks accounted for 92.8 percent of all deposits and 80.1 percent of all credits in July 1992 as compared to shares of almost 100 percent at the end of 1990 (table 7). As the banks continue to operate in their hereditary fields, the bulk of deposits (37.8 percent) remains with the Czech Savings Bank, which holds only 10.2 percent of all credits. Because of the uneven distribution of credits and deposits across banks, large interbank money-markets have developed. The degree of competition can also be assessed by looking at concentration ratios (table 5) which measure the percentage of market assets held by the largest banks. In former Czechoslovakia, the five largest banks hold 88.4 percent of all assets, followed by 78.97 percent in Hungary and 63.65 percent in Poland. The corresponding ratios for the United Kingdom or Germany lie slightly above 30 percent and for the total EC at 17 percent. With respect to the market share of the three largest banks, only Poland's banking industry with a share of 47.39 percent resembles somewhat the situation of EC-member Portugal (49.7 percent). These numbers indicate that the Polish banking system is the most competitive of the reform states<sup>44</sup> although all the countries are yet far behind Western European countries.

#### 4.2. Legislative Changes

All three countries have officially introduced universal banking systems. However, the definition of universal banking as applied in the relevant laws differs from the concept employed in this paper (table 3). Basically, the banking laws provide for the banks only to perform all kinds of *commercial* banking activities, which means that they can simultaneously engage in the deposit taking and the lending business. Notwithstanding the degree to which this definition departs from the traditional role that banks played in the planned economies, universal banking needs to include in addition that banks can engage in commercial and *investment* banking activities and that banks are assigned an active role in the corporate governance of enterprises. More specifically, banks need to be allowed to exercise proxy voting on behalf of their non-corporate customers, to be eligible for holding seats in the board meetings of enterprises, and to be allowed to hold equity stakes in enterprises. In short, bankers should be involved in corporate decision making.

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<sup>44</sup>For Hungary and Czechoslovakia only the asset size of the largest banks rather than of the total banking system has been available. The data is thus biased and draws a more favorable picture of the competitive structure of the Polish banking system.

With respect to the involvement in corporate decision making, the Hungarian banking system is the most restrictive one. Hungarian banks are not allowed to engage in investment banking activities. In addition, the Hungarian laws contain a number of safeguards against bank involvement in corporate decision making. In practice, proxy voting could be restricted through limitations on so-called indirect control, a term which is defined rather vaguely in the law. In fact, surveys of privatized enterprises in Hungary revealed that banks have not played an important role in the privatization process. Poland and former Czechoslovakia, in contrast, assign greater roles to their banks in corporate governance albeit through a policy of laissez-faire rather than of deliberate legislative action. In former Czechoslovakia, banks are currently acquiring a role in corporate governance through a more or less spontaneous set up of investment funds that manage the voucher privatization. However, to what extent these investment funds will actively try and influence corporate policies is still unclear; as of today, the funds operate under few legislative rules. In Poland, a new law, which was passed in December 1992, will give banks an explicit role in the restructuring of enterprises. As the old, non-performing loans of enterprises will not be written off in Poland in a wholesale manner, banks, enterprises, and all other engaged parties will have to settle the enterprise's affairs on a case-by-case basis. Banks are likely to play an important role in these conciliation procedures as they traditionally have served main-bank functions. The new Polish law will also provide for debt-to-equity swaps which, if exercised by the banks, will give financial institutions an important role in enterprise affairs.

Concerning prudential regulations in general and capital-asset-requirements in particular, all three countries have adjusted their banking laws to EC- and Basle-type standards (table 3).<sup>45</sup> Temporary exceptions allow for lower ratios and take thus account of the inherited bad loan portfolios of many banks. As of the end of 1991, only three of the 15 largest banks in Eastern Europe had reached a capital asset ratio of about 8 percent, which corresponds to the benchmark set by the Basle Bank for International Settlements (table 4).

### **4.3. Behavioral Adjustments**

As regards the assessment of behavioral adjustments in Eastern Europe, some proxy-variables are employed. These comprise the implementation of bankruptcy laws for enterprises as well as for banks, the privatization of banks, the share of credit allocated to

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<sup>45</sup>The adjustments were effectively implemented into with the banking laws of December 1991 in Czechoslovakia, of March 1992 in Poland, and of December 1991 in Hungary.

the private sector and a solutions to the problem of non-performing loans in the balance sheets of banks.

The introduction and the enforcement of bankruptcy laws constitutes an important indicator of the willingness to speed up structural adjustments and to harden the budget constraints of enterprises. In former Czechoslovakia, the bankruptcy legislation remains one main bottle-neck of reforms because an appropriate amendment to the bankruptcy law has recently been postponed for another six months.<sup>46</sup> In Poland, the bankruptcy law of September 1991 implies that state-owned enterprises, which have delayed their tax payments by three months, should be automatically liquidated or restructured. In May 1992, the number of insolvent Polish enterprises was 4,317. Although these figures seem quite impressive, they include many small and newly-founded enterprises but not the large state-monopolies which have not yet been forced into bankruptcy on a large scale. The enforcement of the bankruptcy law for the large state-owned enterprises remains weak because it would constituted a major drain on the state budget [Raiser, 1992, p. 33]. Hungary has made considerable progress with the implementation of its new bankruptcy law which has been in force since February 1992 and is currently being modified. As a consequence, 3,658 enterprises have been declared bankrupt within the first eight months of 1992 [NBH]. Insolvent enterprises are enlisted on a bill-discount-refusal-list which indicates that the central bank does not discount bills of exchange written by these enterprises. Poland and Hungary have also imposed a bankruptcy threat on their banks. Two banks in Poland (in 1991) and three banks in Hungary (in 1992) already had to close.<sup>47</sup>

The privatization of banks has started recently. In former Czechoslovakia and Poland, one bank in each case has been privatized, Hungary is planning the privatization of four banks. However, the state intends to keep significant ownership stakes in privatized banks in all three countries. Credit allocation to the private sector has improved considerably in former Czechoslovakia. Here, private sector credit was virtually non-existent in the first quarter of 1990 when 85 percent of all credit went into the state sector and 15 percent to cooperatives. However, in the second quarter of 1992, private sector credit accounted for 15.4 percent of all credit and the share of the state sector was down to 71.2 percent (graph 1). In Poland, the share of private sector credit in total credit for non-financial businesses was 15.76 percent at the end of 1990 and increased to 23.40

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<sup>46</sup>The Russian bankruptcy law, which to some extent shares more similarities with a privatization rather than a bankruptcy law, will be enforced only in March 1993 although it was worked out as early as in July 1992.

<sup>47</sup>Estonia has set a positive example because in December 1992 a large private bank was closed.

percent at the end of 1991, the remainder being allocated to the socialized sector. Unfortunately, comparable data for 1992 has not been published by the Polish central bank. In Hungary, the share of small in total deposits was 11.2 percent whereas only 8.5 percent of all entrepreneurial credits was granted to small businesses [NBH, August 1992, p. 29]. As the bulk of small enterprises is presumable owned by private entities, this can be interpreted as a bias against lending to private enterprises.

Behavioral changes are also reflected in how the countries deal with the problem of non-performing loans in the balance sheet of banks. The importance of informal constraints underlies the argument of Hrnčir [1992, p. 29] *against* debt relief to former Czechoslovakian enterprises as a solution to the problem of non-performing loans. Enterprises and banks, Hrnčir argues, need to experience the economic consequences of their past careless habits. They will only learn the rules of the new game if hard budget constraints, which are identical to strictly implemented bankruptcy laws for the purpose of this argument, force them to adjust. That implies that contractual agreements must be honored and enforced. Hrnčir's reasoning correctly applies the notion of informal constraints. However, he neglects one crucial point: Forcing economic agents to honor contracts which they entered into under completely different circumstances - or, for that matter, under a wholly different set of formal constraints - may be seen as a burden from the past that unnecessarily hampers the evolution of new informal rules. The phenomenon of creditor passivity has been mentioned in this context, which explains why banks and enterprises do not initiate bankruptcy proceedings against their main customers [Begg/Portes, 1992, pp. 7-8]. Thus, a clear cut with the past by writing off old, non-performing loans instead of enforcing their repayment serves as a better step towards the evolution of new rules [Schmieding/Buch, 1992].

The Eastern European countries have long delayed an effective solution to the problem of bad debt.<sup>48</sup> Former Czechoslovakia has been the first country to found a bank which took over non-performing loans from the commercial banking system. Subsequently, banks were recapitalized with government bonds. However, the program has only partially solved the problem because a substantial amount non-performing loans remained on the balance sheets of the banks. A similar program was started in Hungary in early 1993 where banks can apply to transfer non-performing loans to a special fund and be recapitalized by government bonds. In Poland, a recapitalization of banks in a wholesale manner is not planned. Instead, the new law on the restructuring of banks and enterprises aims at a case-by-case solution.

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<sup>48</sup>For an overview of the implemented policies see Schmieding/Buch (1992), pp. 19-26.

## 5. CONCLUSIONS

In Eastern Europe, banks need to switch from being passive agents of the central planning process towards contributing a major share to the economic development of the countries. In this situation, the establishment of a new institutional structure, comprising formal and informal rules, constitutes the most important task of reformers. Whereas informal rules can only gradually evolve over time, a universal banking system constitutes an institutional set-up which has the potential to speed up the adjustment process. Universal banks are best suited to efficiently utilize scarce resources through economies of scope and through informational advantages over specialized banks, to improve the corporate governance of enterprises, and to facilitate long-term contracts through main-bank relationships.

Poland, Hungary, and former Czechoslovakia have made considerable progress towards the establishment of two-tiered banking systems and towards the liberalization of their banking sectors. Nevertheless, in many areas, they limp behind advanced market economies. The most severe shortcomings of reforms are the delayed recapitalization and privatization of banks, the retarded implementation of Western-type prudential regulations, the unwillingness to enforce bankruptcy laws, and the lack of competition in banking. In addition, some states deliberately discourage universal banking activities. These shortcomings should be addressed by future reforms.

In particular, the introduction of universal banking systems should be made more explicit by assigning private banks a larger potential role in the corporate governance of enterprises. This can be achieved by eliminating restrictions on the scope of the operations of private banks, by allowing unrestricted market access to foreign banks, and by allowing proxy voting and board memberships of private bankers. State-owned banks should be discouraged from making loans to ailing state-owned enterprises or from holding large equity stakes in these firms. Equivalently, state-owned enterprises should be forbidden to hold large equity stakes in banks. Potential hazards of universal banking must be addressed by prudential regulations. These prudential regulations should comprise capital-adequacy-requirements based on appropriate Western regulations and should be more restrictive for the still state-owned banks.

## **APPENDIX**

Table 1: *Financial Intermediation Ratios [Percent]*

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
<b>Ratio of M1 to GDP</b>											
CSFR	45,56	46,55	47,91	47,12	38,25	37,55	37,41	39,2	41,29	37,17	33,88
Hungary	NA	22,13	21,19	20,08	21,31	23,24	23,36	21,59	18,98	19,33	21,59*
Poland	36,61	24,15	23,97	21,85	21,46	21,03	20,02	16,09	10,87	10,05	NA
								(17,48)**	(15,53)	(17,04)	
Germany	15,73	15,62	16,02	16,36	16,7	17	17,73	18,46	18,91	20,54	21,67
Japan	28,31	29,08	28,69	27,81	27,36	27,97	28,86	28,92	28,56	27,49	27,67
USA	14,44	14,95	15,11	14,67	14,99	16,25	16,67	16,11	15,58	15,19	15,65
<b>Ratio of M2 to GDP</b>											
CSFR	68,94	71,11	74,52	74,89	62,34	63,24	64,84	67,84	71,35	67,47	63,83
Hungary	NA	49,29	47,16	44,79	45,83	47,77	46,32	42,84	38,11	38,93	43,89*
Poland	62,72	41,03	41,03	38,57	38,31	38,21	38,22	32,95	36,57	22,48	NA
								(34,34)**	(41,24)	(29,46)	
Germany	53,33	54,29	54,91	55,29	56,74	57,62	59,21	59,54	59,23	61,3	63,45
Japan	84,55	87,91	90,53	90,73	91,85	95,95	101,59	105,27	109,41	111,88	110,67
USA	53,03	54,46	56,76	57,52	58,81	60,79	60,8	59,17	57,96	57,05	57,23

\*) own calculations based on NBH and Planecon      \*\*) including foreign assets

Sources: International Financial Statistics (IMF); NBH, Monthly Report August 1992; Planecon, Monthly Economic Monitor Hungary. Vol. VIII, No. 23



Table 2: Interest Rates [Percent]

	1989 I	II	III	IV	1990 I	II	III	IV	1991 I	II	III	IV	1992 I	II
<b>Nominal Deposit Rate</b>														
CSFR	NA	NA	NA	NA	2,59	2,67	2,81	3,33	7,6	8,2	8,62	8,04	8,61	6,66 <sup>a</sup>
Hungary	9	9	9	14	16	20	20	23	23	23	23	22	27 <sup>b</sup>	22 <sup>b</sup>
Poland	21	21	21	21	60	25,2	11	15	19,3	18,7	10	14,5 <sup>c</sup>	14,5 <sup>c</sup>	12,75 <sup>c</sup>
<b>Real Deposit Rate (based on CPI-changes)</b>														
CSFR	NA	NA	NA	NA	-7,15	-0,37	-37,19	-13,82	-129,24	-29,3	0,33	2,11	-2,42	1,4
Hungary	NA	1,83	0,39	7,87	-54,89	6,97	-1,09	9,24	-44,8	-4,12	12,36	4,67	-5,09	8,67
Poland	NA	-92,62	-248,26	-582,47	-502,44	-40,53	-59,08	-59,43	-6,06	-40,54	-52,64	-45,22	-26,18	-10,11
<b>Nominal Lending Rate</b>														
CSFR	NA	NA	NA	NA	5,37	5,44	5,58	7,68	15,76	15,61	14,95	14,97	14	13,54 <sup>d</sup>
Hungary	14	14	14	17	17	21	21	28	30	30	30	29,0	29,5 <sup>e</sup>	33,5 <sup>e</sup>
Poland	44	44	50,7	117,3	260	68	34	43,7	66	63,3	49	49,0 <sup>f</sup>	49,0 <sup>f</sup>	49,0 <sup>f</sup>
<b>Real Lending Rate (based on PPI-changes)</b>														
CSFR	NA	NA	NA	NA	4,16	5,04	5,58	-56,44	-153,15	-22,52	17,17	11,4	1,84	5,18
Hungary	NA	0,34	6,45	17	-33,62	2,09	13,41	1,81	-64,69	22,99	23,3	23,92	16,87	NA
Poland	NA	6,82	-32,16	-141,36	-1946,9	62,53	21,32	19,95	-88,99	61,66	40,02	32,94	-10,11	16,15
<b>Spread</b>														
CSFR	NA	NA	NA	NA	2,78	2,77	2,77	4,35	8,16	7,41	6,33	6,93	5,39	6,88
Hungary	5	5	5	3	1	1	1	5	7	7	7	7,0	2,5	11,5
Poland	NA	23	29,7	96,3	200	42,8	23	28,7	46,7	44,6	39	30,0	34,5	36,25

a) short-term deposits of private sector; b) current account deposits; c) demand deposits; d) short- and medium-term credit to private sector; e) credits maturing over one year; f) credits with lowest risk rate; all others: IMF-definition

Sources: International Financial Statistics (IFS); NBH; NBP; SBC

Table 3: *Legislative Framework*

Sources: Hungary: "Act on Financial Institutions", amended December 1991, in: Ministry of Finance (Hungary) [1991, 1992] ; CSFR: "Act on the State Bank of Czechoslovakia", "Act on Banks", amended December 1991; Poland: OECD, "Banking Act" of 1989, amended March 1992; Kostro [1992]; Slay [1992]

	Czechoslovakia	Hungary	Poland
Activities of Banks	<ul style="list-style-type: none"> <li>• Banks can perform deposit and credit business, investment in securities, financial leasing</li> <li>• for foreign exchange operations, a licence is needed</li> <li>• so far, few banks have started to expand their operations beyond their original activities</li> </ul>	<ul style="list-style-type: none"> <li>• in 1987, single-account system was abolished</li> <li>• since January 1989, all banks are allowed to deal with households and enterprises at the same time</li> <li>• the banking law explicitly differentiates commercial, investment, specialized, and savings banking activities</li> <li>• different regulatory requirements hold for these activities</li> <li>• financial institutions may not engage in investment fund management</li> </ul>	<ul style="list-style-type: none"> <li>• in July 1989, single-account system was abolished</li> <li>• new law (3/1992) allows non-bank financial institutions to engage in banking operations upon approval by National Bank</li> <li>• new law says that contributions to other legal persons and value of purchased shares or bonds may not exceed 25% of bank's funds</li> <li>• banks are assigned an important role in restructuring of enterprises</li> </ul>
Involvement in Corporate Governance	<ul style="list-style-type: none"> <li>• equity holdings need to be notified and approved by the central bank if they exceed 10% of the <i>firm's</i> capital or if the sum of all equity holdings exceeds 25% of the <i>bank's</i> capital</li> <li>• temporary holdings might be higher</li> <li>• banks have assumed a rather active role in the management of investment funds</li> </ul>	<ul style="list-style-type: none"> <li>• The law defines influential participation in an enterprise as direct or indirect ownership exceeding 10% or of voting rights <i>or</i> as the bank having significant influence on the business decisions. In this case, loans shall not be provided for obtaining participation in that enterprise</li> <li>• investor's maximum stake in bank is restricted to 25%</li> <li>• banks cannot perform investment banking activities but can hold maximal share of 25 % in special purpose institutions</li> </ul>	<ul style="list-style-type: none"> <li>• debt-equity-swaps, which would make banks shareholders of enterprises, are envisaged with the passage of the new law on the restructuring of banks end enterprises (passed 12/1992)</li> </ul>

	Czechoslovakia	Hungary	Poland
Market access of foreign and of domestic banks	<ul style="list-style-type: none"> <li>• banks can take the form of a joint-stock company or of a state financial institution</li> <li>• purchases of foreigners of an existing bank exceeding 15% need to be approved</li> <li>• foreigners can 1) found representative offices, 2) participate in joint banks, 3) found independent companies with 100% capital, and 4) subsidiaries of foreign banks (since 1.1.1992)</li> <li>• differential capital-asset ratios for new/old banks discriminate new banks against exceptions possible within the framework of the Europe Agreement with EC for the next 10 years</li> <li>• in September 1991, 40 representative offices, 6 joint venture banks, and 8 subsidiaries of foreign banks were already operating</li> </ul>	<ul style="list-style-type: none"> <li>• foreign banks need an approval for their activities by the government except for the case that their share in the capital of a bank is less than 10%</li> <li>• limited market access for EC-banks for next 10 years laid down in Europe Agreement</li> <li>• foreign banks hold 12-13 % of all equity capital in Hungarian banks</li> <li>• altogether, 37 banks are operating in Hungary; foreigners hold shares between 16 and 100 % in 12 commercial banks</li> </ul>	<ul style="list-style-type: none"> <li>• foreigners participate in 16 polish banks with shares of 2 to 100 %</li> <li>• limited market access for EC-banks for next 10 years laid down in Europe Agreement</li> <li>• altogether, 90 banks have been operating in Poland in the second quarter of 1992</li> </ul>
Market Exit	<ul style="list-style-type: none"> <li>• if banks do not meet liquidity requirements, conservatorship can be imposed. So far, however, no bank has been closed.</li> </ul>	<ul style="list-style-type: none"> <li>• three banks have been closed in July 1992 //bankruptcy law of 1934</li> </ul>	<ul style="list-style-type: none"> <li>• two banks have been closed after banking scandal in 1991; another one closed in September 1992</li> </ul>
Capital-adequacy / Minimum capital requirements	<ul style="list-style-type: none"> <li>• capital adequacy of banks founded before 1/1990: 4.5% until 12/1991, 6.25% by 12/1993, 8% by 12/1996; for the savings bank 1%; for banks established after 1/1990: 8% to 12/1991</li> <li>• minimum capital US-\$ 10 Mio or CSK 300 Mio</li> </ul>	<ul style="list-style-type: none"> <li>• in 1992: 7.25%, by 1/1993: 8% weighted risk/asset ratio</li> <li>• 2 billion Forint for commercial banks, 500 Mio for specialized financial institutions and investment banks, 100 Mio for savings banks as joint stock companies</li> </ul>	<ul style="list-style-type: none"> <li>• 8% capital-and-ratio applies, but recapitalization of state-owned banks aims at raising the ratio to 12%</li> </ul>

	Czechoslovakia	Hungary	Poland
Reserves	<ul style="list-style-type: none"> <li>• mandatory minimum reserves are set at 8% for term deposits and 2% for demand deposits</li> </ul>	<ul style="list-style-type: none"> <li>• pre-tax risk-reserves must be build up at a rate of 20% for assets qualified substandard, 50% for doubtful assets, and 100% for bad assets</li> <li>• general after-tax reserves are 1.25% of the balance sheet total and 1% of securities and guarantees</li> </ul>	<ul style="list-style-type: none"> <li>• pre-tax reserves must be maintained for below standard loans (20 %), doubtful loans (50 %) and lost loans (100 %) since November 1992; full compliance by December 1993</li> </ul>
Maximum exposure / Interlocking ownership	<ul style="list-style-type: none"> <li>• (see "Involvement in Corporate Governance")</li> </ul>	<ul style="list-style-type: none"> <li>• large credits (=credits to a single borrower or a group of borrowers) may not exceed six times the warranting capital of the institution</li> <li>• single credit may not exceed 25% of the warranting capital or 50 Mio Forint</li> <li>• non-financial institutions may not hold more than 25% of the registered capital of a financial institution (except for the state)</li> </ul>	<ul style="list-style-type: none"> <li>• with the new banking law of March 1992, the threshold for one single loan has been fixed at 10% of the bank's equity and a maximum of zloty 10.5 billion; for banks with a week capital base, the exposure to one single client may not exceed 15%</li> </ul>
Privatization of Banks	<ul style="list-style-type: none"> <li>• proposal approved by government in January 1992</li> <li>• state will retain 45% share in some banks</li> <li>• traditionally independent Zivnostenska Bank owned now by BHF (40%) and private World Bank enterprise (15%) (The Banker)</li> <li>• Czech savings bank partially privatized (37%) (VWD, 28.10.)</li> </ul>	<ul style="list-style-type: none"> <li>• intends to privatize 4 large banks after having raised equity capital</li> <li>• state share (now 35-40%) shall be lowered to 25% by 1997 (VWD, 23.10.)</li> <li>• for an interim period, large banks shall not be sold to foreign investors because state wants to retain control</li> <li>• credit consolidation prior to privatization</li> <li>• minimum time frame for privatization: 6 months</li> </ul>	<ul style="list-style-type: none"> <li>• first privatization in July 1992: 47.5% of Export Development Bank sold in public offering, 52.5% retained by foreign trade firms and banks (VWD, 13.7.)</li> <li>• two more banks are waiting to be privatized with 20% of shares to foreign investors, 30% to the government, 40% to the public, and 10% to the staff</li> <li>• out of 90 banks, state hold 14 alone and &gt;70 as in mixed ownership</li> </ul>

Interest rate liberalization and Credit Ceilings	<ul style="list-style-type: none"> <li>• maintained restrictions at first</li> <li>• maximum allowed spread cancelled in</li> <li>• Credit limits for major banks are yet in place but are to be abolished in April 1992</li> </ul>	<ul style="list-style-type: none"> <li>• deposit rates are fully liberalized for deposits of more than 6 months</li> </ul>	<ul style="list-style-type: none"> <li>• state banks free to set their interest rates from the beginning of the reforms but: moral suasion of the central bank</li> <li>• housing and agricultural credits granted at preferential, low interest rates</li> <li>• in 1991, central bank attempted to induce banks to grant 50% of all new credit to private enterprises; however, only 20% of all new credit actually went to provide firms</li> </ul>
Deposit Insurance		<ul style="list-style-type: none"> <li>• from January 1993 on, banks have to join a mandatory insurance system and may set up an additional voluntary system</li> <li>• in December 1992, a credit guarantee system was founded by the government and some banks which guarantees 80 % of credits of max. 2 Mio D-Mark</li> </ul>	<ul style="list-style-type: none"> <li>• new regulations shall be in place soon</li> <li>• currently, 80 % of all deposits are government insured (Slay)</li> </ul>
Competition (Regional and sectoral expansion)	<ul style="list-style-type: none"> <li>• when splitting up the monobank, only two banks were created, one in each republic, and an investment bank took over the monobank's long-term credit portfolio</li> <li>• now: 43 commercial banks are operating (26 Czechoslovakian, 6 foreign, 11 joint ventures)</li> <li>• competition laws says that market share in credit-business should not exceed 30% of relevant market, but: high concentration prevails (see table)</li> <li>• separation of Republics will constitute set-back with regard to de-concentration of bank's loan portfolios as industries are regionally concentrated</li> </ul>	<ul style="list-style-type: none"> <li>• enterprises in similar industries concentrated in one bank, regional concentration of loan portfolios</li> <li>• 70 banks are already operating</li> <li>• in spite of liberalization of banking activities, most deposits are still concentrated with the Savings Bank which, until 1989, was shielded from competition</li> </ul>	<ul style="list-style-type: none"> <li>• computer simulations based on the volume of transactions and the number of accounts were used to decide on the number of banks and the location of branches</li> <li>• 120 banks are already operating</li> <li>• yet, PKO BP dominates the market with 30% of the deposit and 20% of all credits, especially housing credits; it sets interest rates with respect to refinancing rate</li> </ul>

Table 4: *Profitability and Liquidity of Largest Banks*

		Tier-One Capital [\$m]	Assets [\$m]	Capital-Asset- Ratios [%]	Real Profits Growth [%]	Profits on Capital [%]	Return on Assets [%]
Czechoslovakia	1) Ceskoslovenska obchodni banka	525	11,315	4.64	-15.4	84.3	3.06
	2) Komerčni banka	425	9,085	4.68	-13.9	129.2	4.6
	3) Ceska statni sporitelna	273	8,821	3.09	14.4	99.0	1.92
	4) Vseobecna uverova banka	239	4,839	4.94	-25.4	89.2	3.12
	5) Investicni banka	161	4,555	3.53	-53.1	55.2	1.30
Hungary	1) National Savings Bank	388	8,575	4.52	-84.2	12.6	0.48
	2) Hungarian Credit Bank	100	3,840	2.59	na	-41.1	-1.20
	3) Commercial & Credit Bank	217	2,923	7.44	-43.8	29.6	2.16
	4) Foreign Trade Bank	160	2,675	5.98	-42.3	27.9	1.60
	5) Budapest Bank	141	1,793	7.88	20.1	85.6	6.01
Poland	1) Powszechna Kasa Oszczednosci BP- State Savings	181	6,923	2.61	33.5	355.5	6.52
	2) Bank Handlowy w Warszawie	663	6,756	9.82	3.6	39.9	3.50
	3) Bank PeKao SA (Polska Kasa Opieki)	286	5,722	4.99	-64.3	37.0	1.60
	4) Pomorski Bank Kredytowy (Pomerian Credit)	74	3,507	2.10	13.3	441.6	5.03
	5) Bank Gospordarki Zywnosciowej (Food Industry)	213	3,150	6.75	-33.9	258.6	11.06

Source: The Banker, 9/1992; Tier-One-Capital = shareholders' equity (common stock, declared reserves, preference shares)

Table 5: *Concentration Ratios*

	Number of Banks	Assets (billion \$)	Concentration Ratios (% of Market Assets)	
			5-firm	3-firm
CSFR	44	43.68*	88.4	66.89
Hungary	NA	25.08**	78.97	61.15
Poland	NA	40.94	63.65	47.39
Portugal	40	43.3	NA.	49.7
UK	661	1337.8	32.6	26.5
W-Germany	4465	1465.0	31.2	21.2
EC Total	7192	5489.4	17.0	10.7

\*) 10 largest banks

\*\*) 23 largest banks

Sources: The Banker, September 20; 1992, Riordan, 1992

Table 6: *Insolvent Enterprises*

	Hungary	Poland
1991 I	413	781
II	481	1457
III	NA	2106
IV	716	2880
1992 I	786	4144
May	NA	4317
<b>Total 1992/1 - 1992/8</b>	<b>3658</b>	<b>NA</b>

Sources: NBP, NBH



Table 7: *Market Share of Czechoslovakian Banks*

	Share in Credits		Share in Deposits	
	31.12.1990	31.7.1992	31.12.1990	31.7.1992
Commercial Bank Prague	47,8	24,7	17,5	18,4
General Credit Bank, Prague	20,1	14,7	7,9	6,5
Investment Bank, Prague	14,6	10,5	8,9	5,1
Investment Bank, Bratislava	-	5,0	-	2,3
Czechoslovak Trade Bank	5,1	7,0	2,7	4,4
Agrobank	1,6	3,1	0,4	1,6
Czech Savings Bank	6,7	10,2	42,3	37,8
Slovak Savings Bank	3,6	4,9	20,0	16,7
Total Big Banks	99,5	80,1	99,7	92,8
Consolidation Bank	-	12,4	-	2,2
Other Banks	0,5	7,5	0,3	5,0

Source: Hrnčir (1992)

*Numerical Example for the Benefits of Equity Finance:*

The following example shows why the borrower is interested in choosing the high-risk project whereas the bank prefers the low-risk project. By assumption, both projects have the same expected return ( $E=95$ ), require the same investment outlays ( $I_0 = 80$ ), and carry the same interest rate ( $i = 0.05$ ). A collateral of  $C = 80$  has to be paid even if the return does not cover interest and principal payments that become due at the end of period 1. Notice that the collateral is incomplete because it does not perfectly hedge the banks against the risk of default. Complete collateral of  $C=84$  would make the bank indifferent as to which project should be chosen. However, incomplete collateral does not seem a highly unrealistic assumption. In Germany, for example, banks are able to secure an average of 85 percent of their loans [Harm, 1992, p. 24]. The pay-out of the two projects in period 1 is given in table 1. The returns to the borrower and the creditor, respectively, depend on the type of project chosen:

Return to Borrower:

$$B_R \quad 0.75 * (70-80) + 0.25 * (170-84) = 14$$

$$B_S \quad 0.5 * (90-84) + 0.5 * (100-84) = 11$$

Return to Creditor:

$$C_R \quad 0.75 * 80 \quad + 0.25 * 84 \quad = 81.6$$

$$C_S \quad 0.5 * 84 \quad + 0.5 * 84 \quad = 84$$

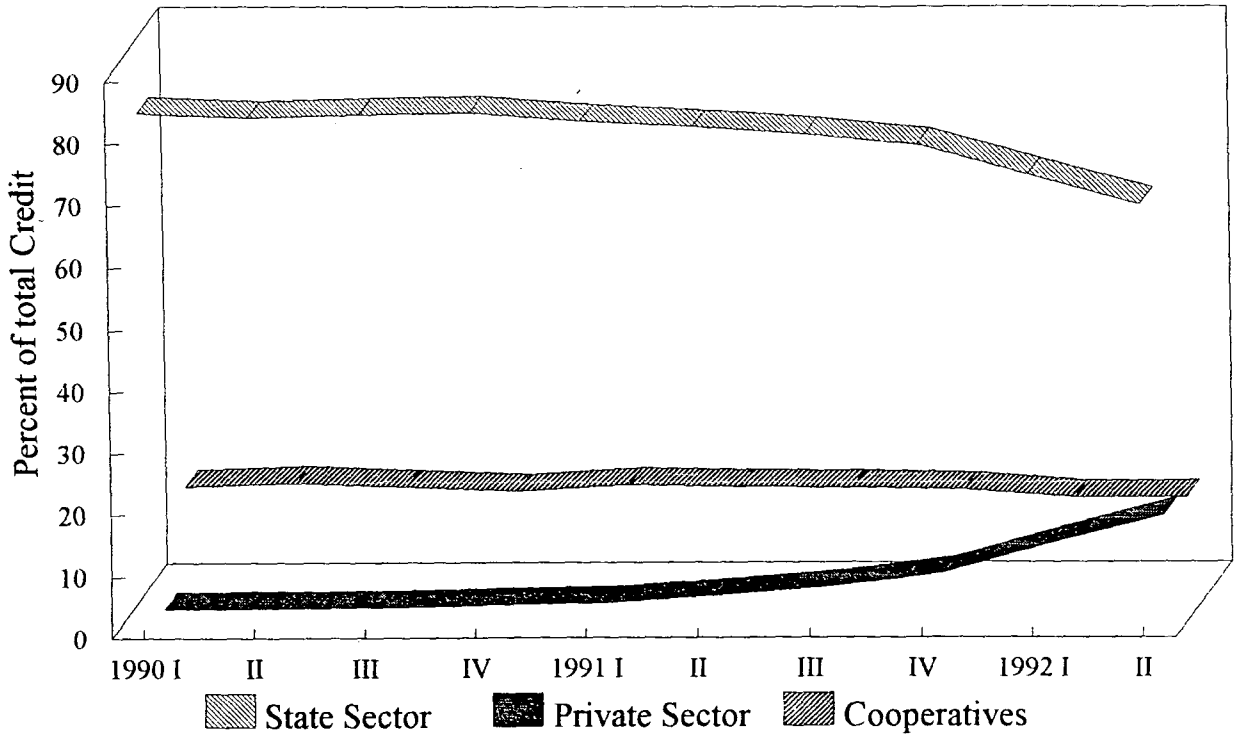
Table 8:

Project	Bad State of the World	Good State of the World
R (Risky)	70 (0.75)	170 (0.25)
S (Save)	90 (0.5)	100 (0.5)

(probabilities in brackets)

In this example with incomplete collateral, the creditor does not participate in the high gains of the risky project but incurs a loss when the risky project's bad state is reached. He thus prefers the safe project over the risky project. He would be indifferent as to which project was chosen if he would receive full collateral or, alternatively, be compensated for his loss by some participation rights in the bad state of the world. These participation rights would correspond to equity-components such as board memberships, proxy voting, or direct participation.

### Credit Allocation in Czechoslovakia



Source: SBC

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