European Bank
for Reconstruction and Development

Law and finance in transition economies

by Katharina Pistor, Martin Raiser and Stanislav Gelfer

Abstract

This paper offers a first comprehensive analysis of legal change in shareholder and creditor rights protection in transition economies and its impact on the propensity of firms to raise external finance. The paper uses the investor rights indices developed by La Porta et al. (1998) as a starting point, but expands them to capture a greater range of potential conflicts between different stakeholders of the firm. It supplements the analysis of the law on the books with an analysis of the effectiveness of legal institutions (legality). For assessing financial market development we use common measures of stock and credit market development. We find that external finance is still very underdeveloped in transition economies, despite legal change that has substantially improved shareholder and creditor rights. The only legal index with a significant positive impact on capital market development is the index that codes securities legislation (SMINTEGR). There is also some indication that credit market development benefited from improvements in the law on the books. The effectiveness of legal institutions (legality) has a much stronger impact on external finance than the law on the books. This is true especially for debt, but also for equity finance. This finding contrasts with studies in market economies showing that the quantitative effect of the law on the books is greater than legality at least for capital market development (La Porta et al. 1997; Levine 1998). Instead, it supports the proposition that legal transplants and extensive legal reforms are not sufficient for the evolution of effective legal and market institutions (Berkowitz, Pistor and Richard, 1999).

JEL Classification Number: G30, K22, O16, P34.

Keywords: corporate finance and governance, corporate and securities law, law enforcement, socialist transition.

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We would like to thank Sorniza Dimitrova, Dmitri Gavriline and Violetta Bessenich for excellent research assistance. Funding for this project was provided by the EBRD, which is gratefully acknowledged.

The authors are affiliated at the Max Planck Institute for Foreign and Comparative Private Law, Hamburg (Pistor) and the EBRD (Raiser and Gelfer).

Working paper No.48 **Prepared in February 2000**

1. INTRODUCTION

The relevance of law for corporate governance has long been debated in the literature. Legal scholars have suggested that in comparison with competitive capital product and managerial labour markets, the role of law is at best secondary (Easterbrook and Fischel, 1991) or even trivial (Black, 1990).[1] Recently, however, law has been elevated to an important determinant of stock market development (La Porta et al., 1997) and the banking sector (Levine, 1998). Empirical analyses suggest that the quality of the law on the books has high explanatory power for financial market development (La Porta et al., 1997; La Porta et al., 1998) (hereinafter LLSV) and (Levine, 1997). Ironically, economists rather than lawyers have been the promoters of the new relevance theory of law for corporate governance. In a survey of corporate governance around the world, Shleifer and Vishny (1997) argue that the structure of firms and the level of stock market development may be determined by the quality of shareholder protection. In countries with strong shareholder protection, investors can afford to take minority positions rather than controlling stakes. As a result, firms tend to have dispersed shareholders as owners and capital markets are rather liquid. By contrast, where shareholder rights are not well protected, investors will compensate this deficiency by taking controlling stakes in a firm.

In this paper we provide a first attempt at applying the propositions of LLSV to the transition economies. The motivation for this exercise is twofold. First, corporate governance problems loom large as explanations for the poor performance of the corporate sector in many transition economies (Stiglitz, 1999). It is thus of interest to see whether these problems are related to a mismatch between the emerging post-privatisation ownership structure and the protection of ownership rights provided by the law. Second, enterprises in transition arguably face particularly salient financing needs. The capital stock of many existing enterprises was rendered obsolete by the abolition of central planning and resulting changes in relative prices, while at the same time cheap investment finance from the state largely disappeared. The extent to which firms are able to access external finance is therefore not only a potential indication of the quality of shareholder and creditor protection but also an important factor behind successful restructuring efforts.

Some scholars have recently argued that the classic corporate governance paradigm with its focus on the control of management by outside investors is too narrow to capture the specific problems of transition economies and other emerging markets (Berglöf and von Thadden, 1999). In particular, small investors are unlikely to play an important role in these economies, either today or in the foreseeable future. Moreover, experience in emerging markets shows that capital markets are not the only institution that allows entrepreneurs to diversify risk and thereby facilitate the financing of innovation. The formation of business groups, which pool risk between their members, may substitute for developed financial intermediaries, particularly where information and coordination costs are high (Khanna and Palepu, 1999) – although this may come at the cost of substantial negative externalities (Kali, 1999).

This broader perspective directs attention to potential corporate governance problems that may arise from conflicts between a larger group of stakeholders, including owners, creditors, managers, workers and the state. In this paper, we take a first step towards broadening the scope of LLSV's analysis, by expanding their set of legal indicators to include indices that capture the ability of the law

[1] For a critique of some of these arguments, see, however, Bebchuk (1989) and Coffee (1989).

to deal with a range of potential conflicts, including those between shareholders and managers, minority shareholders and blockholders, shareholders and workers, and creditors and managers. However, in gauging the impact of the law on corporate governance, we maintain the focus on external finance. Arguably, the protection of minority shareholders from blockholders is equally as important for development of equity markets as for protection against management. The ability of managers to take operational decisions in the face of stakeholder resistance may also influence the confidence of investors and the development of external finance.

Moreover, the experience of the past decade inspires little confidence in the development of alternative institutional arrangements to deal with the problem of risk diversification in transition economies. At best, the verdict on the impact of financial industrial groups on enterprise innovation in transition economies is still out (for positive accounts see Perotti and Gelfer (1998) and Hayri and McDermott (1998)). In many instances, it may be argued that these groups were actively trying to fend off pressures for restructuring among their members, and sometimes became simply a vehicle for asset stripping on a grander scale, or a forceful lobby for continuing subsidies from the state (Johnson, 1997). While the discipline of market competition may in time force entrepreneurs to adopt other corporate strategies, in the short run there is substantial scope for using the financing needs of enterprises in transition economies as an important leverage to influence those enterprises' corporate behaviour (Willer, 1997). This in turn, following LLSV's argument, requires adequate legal protection.

The paper goes beyond the analysis of the law on the books, however. For the law on the books to affect financial market development, law enforcement must be at least credible. Past experience with legal reforms suggests that improvements in the law on the books are frequently ignored as prevailing policies render the law on the books meaningless, countries lack the resources and/or capacity to ensure effective law enforcement, or economic agents distrust the formal legal system that is administered and enforced by the state (Berkowitz, Pistor and Richard, 1999; Pistor and Wellons, 1999; Trubek and Galanter, 1974). Assessments of the legal environment in transition also tend to conclude that the quality of law enforcement is at least as important as the extensiveness of the law (e.g. EBRD, *Transition Reports*, 1997-99). Thus, while the law may be relevant for corporate governance and enterprise finance in transition, it is a priori not clear whether legislative reforms produce the desired effect in the absence of more far-reaching reforms to legal institutions and the judicial process. We provide a tentative analysis of the relative weights of the law and law enforcement, or "legality" as we will refer to it below, for enterprise finance. The experience of transition so far confirms that legality is the more important of the two.

The paper is structured as follows. Section 2 identifies the key problems of corporate governance in transition. Section 3 introduces the legal indices we use to assess the quality of shareholder and creditor rights and reports the scope of legal change along these indices. Section 4 supplements this analysis with an investigation into the effectiveness of legal institutions as opposed to the law on the books. Section 5 analyses the relation between legal change – of laws and legality – and the development of financial markets in transition. Section 6 concludes.

2. THE PROBLEM OF CORPORATE GOVERNANCE IN TRANSITION

A useful point of departure for an analysis of corporate governance in transition economies is to think about the problems of corporate control under central planning. Enterprise structures in central planning were characterised by two distinctive features that have persistent influence until the present day (Kornai, 1992). First, enterprises under central planning did not have to worry about raising external finance. Their budget constraints were soft; passive finance was provided under the central plan. Hence the concepts of financial discipline and accountability were essentially absent from the socialist firm. Second, the state as the owner of most assets had a pervasive monitoring problem in trying to ensure that managers of socialist enterprises acted according to the targets set out by the central plan. The two problems were closely inter-related. Absent the sanction of enforcing financial discipline by cutting off supplies and ultimately forcing an enterprise to close down, the problem of corporate control could never be resolved.[2]

When central planning was abolished, the lack of external financing became a serious constraint on enterprises (Calvo and Coricelli, 1992). As funds previously provided under the central plan were reduced or funding fully abolished, investment expenditures were slashed and capacity utilisation rates fell dramatically with the lack of working capital. Enterprises reacted in a variety of ways. In the most successful cases, sufficient cash flow was generated by reorienting sales, and capital expenditures could be financed from retained earnings. In the majority of cases, however, enterprises resorted to involuntary borrowing from suppliers, workers and the state through the run-up of payment, wage and tax arrears. The problem of substituting government finance with new sources of external finance is thus very much at the heart of the problem of corporate governance and restructuring in transition.

Parallel to the reduction of state financing, economic reforms in transition countries also fundamentally altered the structure of ownership rights through privatisation. However, in this endeavour governments were constrained by the power of incumbent managers, who had accumulated implicit control rights as a result of weak state monitoring under central planning. In many transition economies, privatisation simply led to the explicit recognition of these control rights through the allocation of ownership titles to insiders (EBRD, 1997). Further, new outside owners were often dispersed and weak – particularly where voucher privatisation prevailed. As a result, transition has in some instances created an extreme version of the two classical problems of corporate governance: the control of managers by dispersed outside owners; and protection of minority shareholders against strong blockholder interests (Dyck, 1999). Against this background, external investors have been cautious in providing new capital, and restructuring efforts have been disappointing. Indeed, unchecked by owners and with little access to new funds to finance risky restructuring, managers faced incentives that were skewed towards asset stripping and expropriating minority shareholders (Black, Kraakman and Tarassova, 1999).

[2] The Communist Party tried to resolve the monitoring problem by introducing parallel lines of political authority in enterprises, through a parallel management structure reporting to the party in each enterprise. This in many cases only exacerbated the information problem, while limiting managerial autonomy in areas where it would have benefited the enterprise.

Despite changes in ownership structures, the state has in many ways retained direct influence even over privatised companies. The direct provision of financing is not the most important vehicle for exercising this influence. Rather the state has traded access to subsidies and regulatory favours for influence and in many instances allowed soft budget constraints to be perpetuated by widespread tax arrears. In many large companies the state retains effective control rights as the largest single shareholder or through golden share provisions.

At the risk of simplification, the problem of corporate governance in transition may thus be summarised as follows:

- the almost complete absence of external finance to replace state funding under the central plan;
- the entrenched position of incumbent enterprise managers, who retain effective control rights even where privatisation has shifted ownership to outsiders; and
- the remaining influence of the state over corporate decision-making through a nexus of subsidies, regulatory favours and tax arrears provided in exchange for residual control rights.

All three problems are closely intertwined. Enterprises will be unable to tap external sources of funds as long as they remain subject to extensive state intervention and/or insider control. Conversely, insider control will remain pervasive as long as potential investors are doubtful about the possible returns on their investments and refrain from acquiring substantial amounts of shares. And as long as enterprises are unable to survive on their own, the state will feel it necessary to ensure the survival at least of key enterprises.

In the subsequent analysis, we focus on the problem of external finance. Arguably, this is key for untangling the knot of corporate governance problems. Suppose that external funds were accessible at reasonable costs. This would not only reduce the need for state support, but also lead to a change in the ownership structure of firms. New emissions would over time crowd out insiders who may also find it attractive to part with their current holdings provided that outsiders are willing to offer a reasonable price.

Charts 1 and 2 give an indication of how distant the transition economies still are from such a scenario. They show the ratio of private sector credit to GDP and stock market capitalisation to GDP respectively in 1998, in relation to a worldwide benchmark, given by the level of per capita income. It is well established that financial depth tends to increase with rising incomes, and this is the case for transition economies as well. However, in particular the more wealthy transition economies are mostly far below their market economy benchmark with respect to both private sector credit and stock market capitalisation. While in the advanced transition countries, some increase in private sector credit has resulted in recent years from progress in reform and macroeconomic stabilisation (see below), the supply of funds to equity markets has almost entirely come from abroad and has gone to a very few Blue Chip companies.[3]

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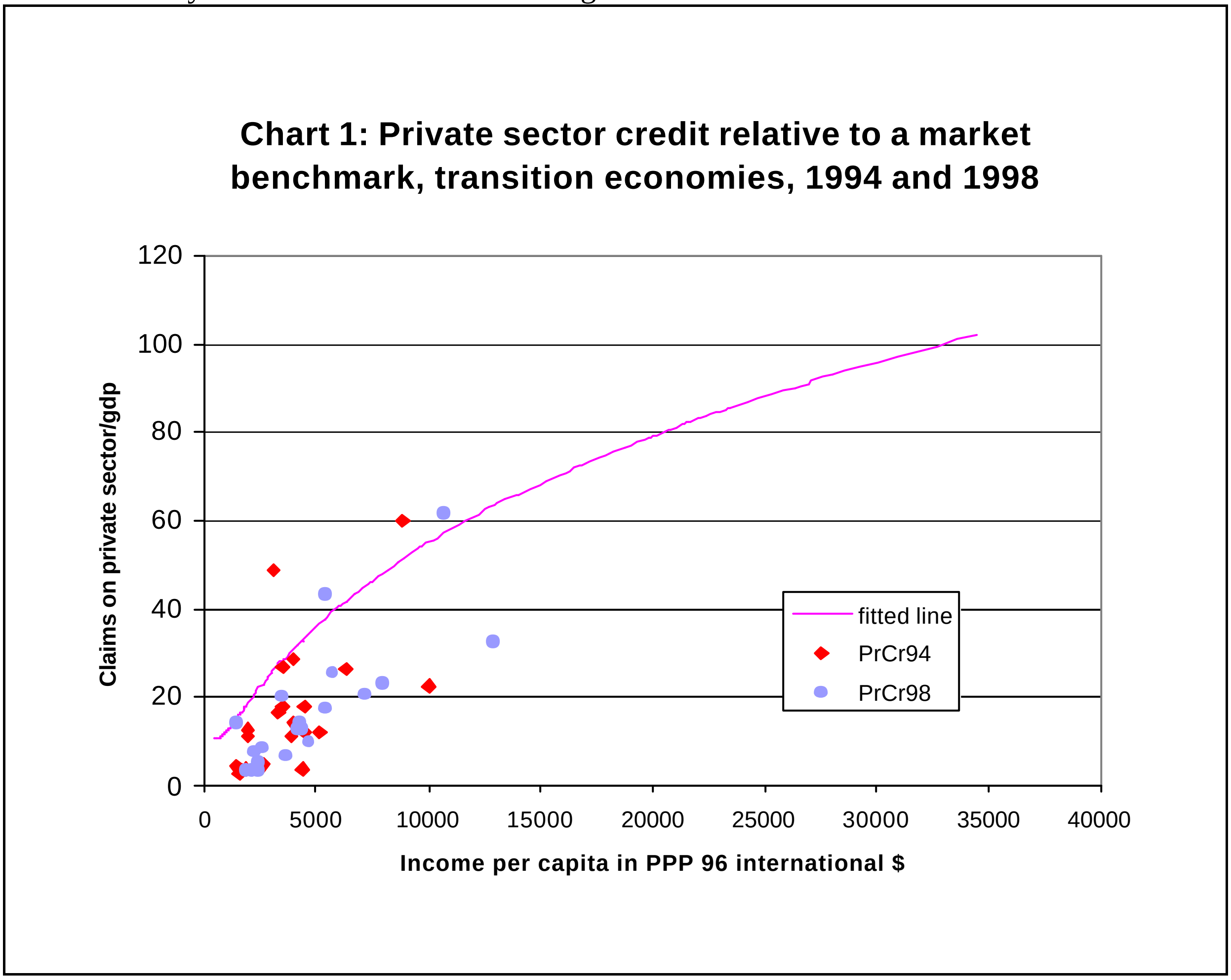
[3] These results are confirmed by data from a survey of 3,000 companies in transition economies conducted by the EBRD in collaboration with the World Bank in 1999 (Business Environment and Enterprise Performance Survey – BEEPS). The data reveal that on average 56% of total investment funds in all large firms have come from internal sources, 9% from the state, 9% from bank loans and 4.5% from equity issues. The remaining 20% are accounted for by other sources of finance, including friends, family, money-lenders, development finance from the government, suppliers credits and leasing arrangements (data on file with the authors).

If financial market development may be one important avenue for solving the corporate governance problems of transition economies, the question arises, how such development might be accelerated. As noted, the evidence for market economies suggests that the law, and in particular the quality of shareholder and creditor rights a legal system offers, could be important factors. We therefore now turn to an analysis of shareholder and creditor rights in transition economies.



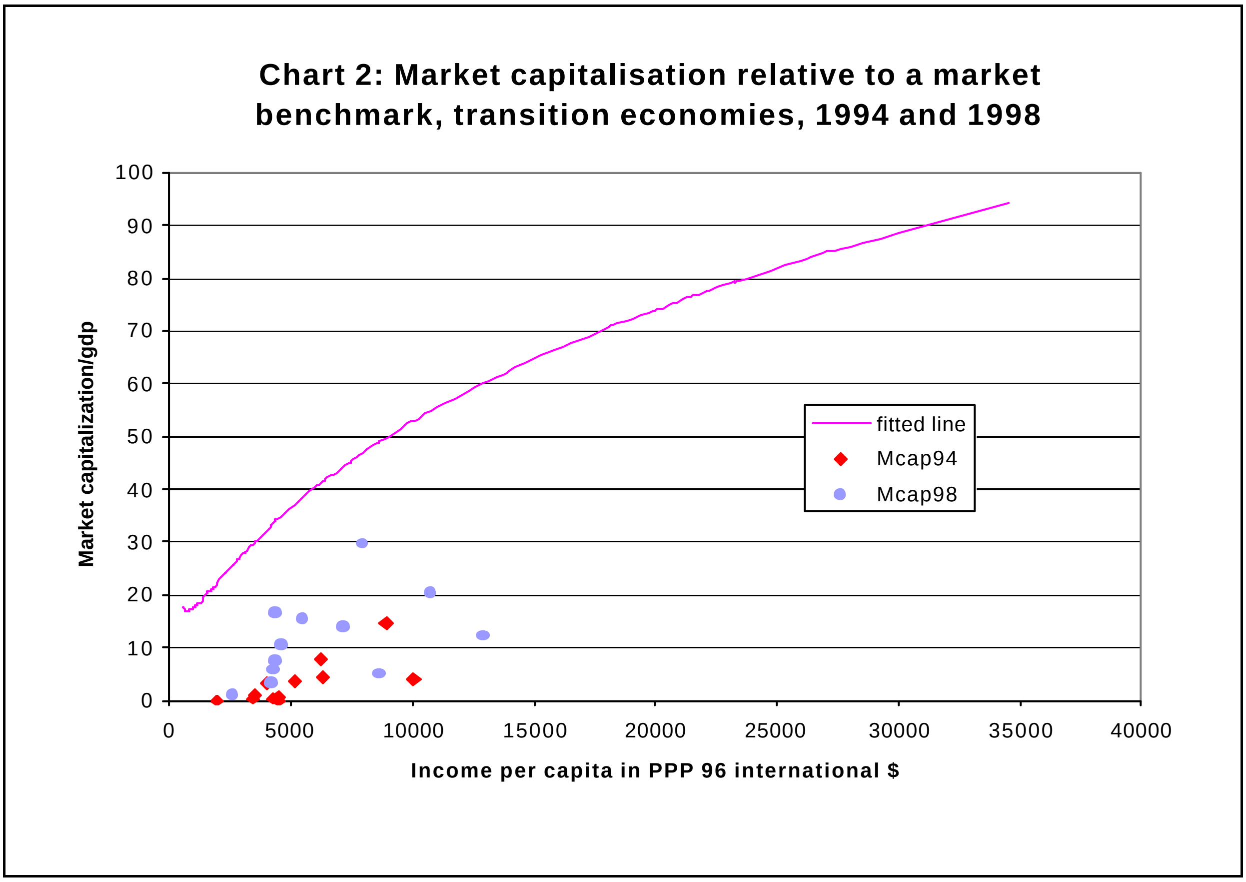


Chart 2: Market capitalisation relative to a market benchmark, transition economies, 1994 and 1998
Market capitalization/gdp
100
90
80
70
60
50
40
30
20
10
0
0
5000
10000
15000
20000
25000
30000
35000
40000
Income per capita in PPP 96 international $
fitted line
Mcap94
Mcap98

3. LAW ON THE BOOKS: SHAREHOLDER AND CREDITOR RIGHTS IN TRANSITION ECONOMIES

To analyse the scope of legal change and the relation between legal change and financial market development in transition economies, we constructed a database that codes shareholder and creditor rights from 1990 through 1998. We capture annual change with the year-end status being used for coding purposes. Because data for the earlier period are not complete, we use the period from 1992 through 1998 for most of our analyses. The coding system as well as individual country scores for all the indices constructed in this section can be found in the Annexes. A detailed analysis is provided in a companion paper to this one (Pistor, 1999).

The first legal database for shareholder and creditor rights in a large sample of countries around the world was constructed by LLSV. It captures 49 countries, but does not include transition economies. We refer to the cumulative shareholder rights index (called antidirectors index by LLSV) as LLSVsh. LLSVsh is composed of 6 variables: (1) proxy voting by mail; (2) shareholders are not required by law to deposit their shares prior to the general shareholders‘ meeting; (3) cumulative voting, or proportional representation of minorities on the board of directors is ensured by other means; (4) an oppressed minorities mechanism, defined as the ability of shareholders to sue directors or to challenge the decisions of shareholder meetings in court, is in place; (5) the minimum percentage of share capital that entitles a shareholder to call an extraordinary shareholders' meeting is less than or equal to 10 per cent; and (6) shareholders have pre-emptive rights when new shares are issued that can be waived only by a shareholder vote. Most of these indicators are aimed at protecting minority shareholders.

The protection of minority shareholders, however, is not the only purpose of corporate law. Corporate statutes are used to allocate control rights over the firm to various stakeholders. The mechanisms of control offered by a corporate law may differ across countries, and so may the stakeholders that are the primary beneficiaries or targets of these control rights. Moreover, the means used by different legal systems to protect shareholders may be functional substitutes (Coffee, 1999a; La Porta et al., 1999). In other words, weaknesses in some provisions may be compensated with strengths in others. To capture the potential variations in the mechanisms of control and the allocation of control rights, we create five cumulative indices in addition to LLSVsh for shareholder rights: VOICE, EXIT, ANTIMANAGE, ANTIBLOCK and SMINTEGR. Their exact definition is provided in Annex 1.

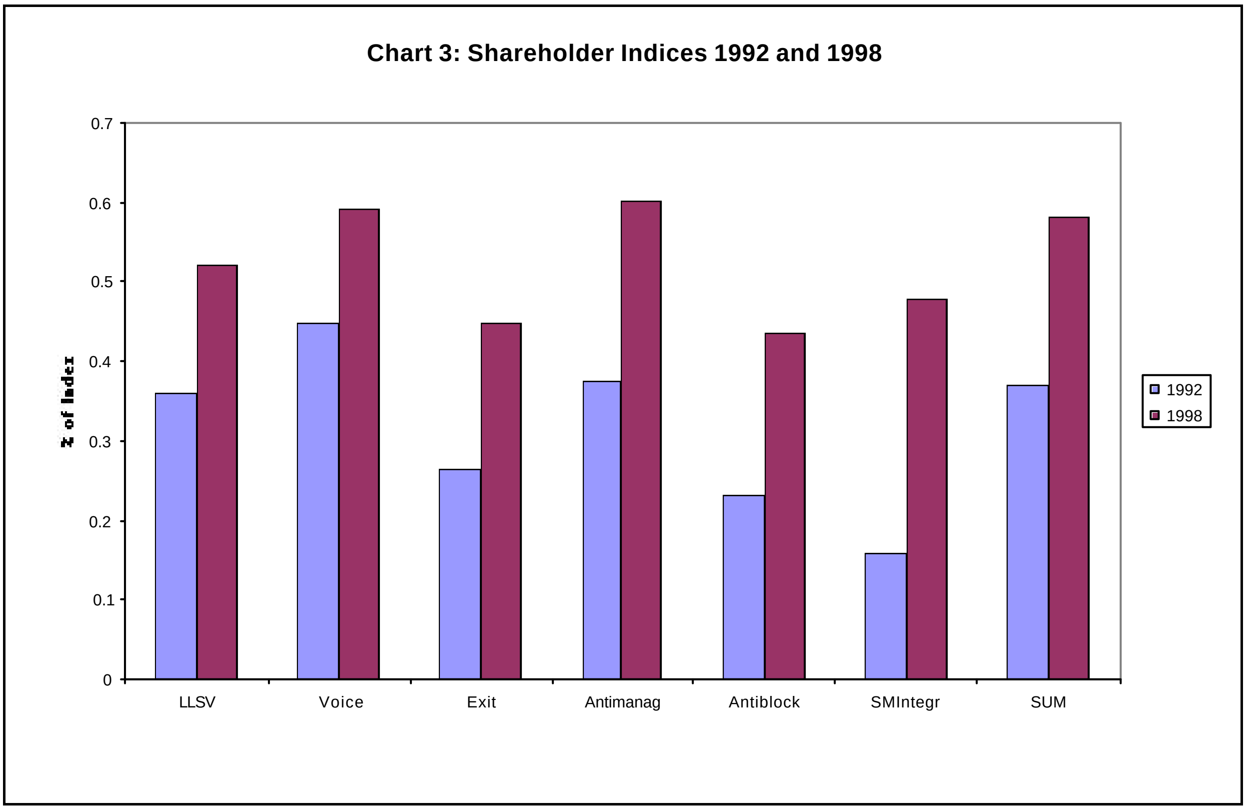
The corporate governance literature commonly distinguishes between “voice” and “exit” as the two alternative strategies shareholders may invoke to assert their control over company management (Coffee, 1991; Hirschman, 1970). Voice refers to mechanisms of internal control, mostly through voting and information rights. The indicators we use include the shareholders' rights to hire and fire managers, judicial recourse, and quorum requirements for decision making in particular with respect to those decisions that may affect the value of the company. Exit means that shareholders may liquidate their holdings by selling their shares in case they are not satisfied with the way a company is managed. These two control mechanisms are protected by different legal rules. Most of the LLSVsh indicators are legal rules that protect “voice”. Our VOICE index includes all of the LLSVsh variables, as well as other control variables, which may, but do not have to, be specifically targeted at minority shareholders. These include the right of minority shareholders to call an audit commission, minimum quorum requirements for a shareholder meeting to take binding decisions, supermajority requirements for adopting decisions that affect the existence of the corporation in its current form (including amendments of the charter, the liquidation of the company, or mergers and reorganisations), the possibility to fire directors and managers at any time and without cause, and the absence of mandatory provisions on employee or state representatives on the board, which might weaken shareholder control.

The EXIT index includes legal rules that allow shareholders to leave the corporation more easily. These include a legal provision that protects the right to sell shares without prior approval by other shareholders or the company's directors (without exceptions to this rule, i.e. for bearer shares, which are often found civil law countries); and the absence of extensive formal requirements for selling one's shares. EXIT also includes rules that facilitate exit by shareholders in case of take-overs and other major transactions, which may endanger their position in the company. In particular we include put options and mandatory take-over rules.

With ANTIMANAGE and ANTIBLOCK we try to assess the relative weight given by a legal system to the conflict between shareholders and management on the one hand, and minority shareholders and blockholders on the other. Comparative corporate governance analysis has shown that the conflict widely assumed to be at the heart of the governance problem, the principal-agent conflict between shareholders and managers, is not the relevant conflict in many countries (Berglöf, 1995; Berglöf and von Thadden, 1999; La Porta, Lopez-de-Silanes and Shleifer, 1999). Firms with highly concentrated ownership typically have a shareholder whose stake is large enough to effectively control management. The strong position of a blockholder may, however, endanger the position of minority shareholders. ANTIMANAGE includes legal rules aimed at protecting shareholders against management. These rules include the right of shareholders to challenge decisions taken by management in court, the right to fire management without cause, and rules against self-dealing by management personnel. ANTIBLOCK rules are designed to protect minority shareholders against blockholders. The right to challenge decisions taken by the shareholder meeting as opposed to decisions taken by the board is an example for shareholder rights included in ANTIBLOCK. Others are cumulative voting rights, pre-emptive rights of current shareholders in the case of new emissions, and a quorum requirement that takes binding decisions of at least 50 per cent in a shareholder meeting as well as put options for shareholders that have voted against major decisions affecting the current structure of the firm.

Finally, we create a stock market integrity index (SMINTEGR). It codes rules that aim primarily to ensure the integrity of the capital market. We use self-dealing, insider trading rules, provisions on the independence of a shareholder register, and the existence and formal independence of an agency charged with supervising the stock market to capture this function. While VOICE, EXIT, ANTIMANAGE and ANTIBLOCK overlap with the original LLSV index to a greater or lesser extent, SMINTEGR captures an entirely different aspect of legal protection, which may be of special relevance in transition.

Chart 3 documents the level of shareholder protection across the six indices as well as for the sum of all indices used (SUMsh) in 1992 and in 1998. To compare the indices, each of which is composed of a different number of variables, we report the percentage of total scores for each index. It is evident that the level of shareholder protection has changed substantially across all indices. Change has been particularly impressive with respect to SMINTEGR, which was the least developed in 1992. The best-developed index at that time was VOICE. This suggests that in most countries the internal control structure of the corporation was already fairly well developed. By 1998 VOICE had fallen behind slightly, as ANTIMANAGE advanced to the most developed legal indicator.



The scope of legal change in transition economies is also impressive on an international scale. The only index for which we have comparative data is the LLSV index. Table 1 compares the level of shareholder rights in transition economies in 1992 and 1998 with the world average and the average achieved by different legal families.

Table 1: Shareholder rights in comparison

	Average of shareholder rights (LLSVsh)
World average (49 countries)	3.00
Common law family	4.00
French civil law family	2.33
German civil law family	2.33
Scandinavian civil law family	3.00
Transition economies 1992	2.17
Transition economies 1998	3.13

Source: La Porta et al. (1998) and compilation by author.

Within a period of only six years, the average level of shareholder rights as measured by LLSVsh has improved from substantially below world average to well above world average. In fact, by 1998 transition economies scored higher on this index than the three civil law families in the LLSV sample and are surpassed only by the common law countries. This seems to suggest a strong response by law-makers to the problems of weak shareholder protection, in some cases under foreign pressure and with foreign advice (Pistor, 1999). Whether this legislative activity was matched by a strengthening of legality is examined below.

Shareholders are not the only providers of capital to a corporation. Creditors are also important contributors to external funds, and the quality of legal protection may well determine their willingness to lend. LLSV constructed a creditor rights index (LLSVcr) with four variables, all of which address the role of creditors, and in particular secured creditors, in bankruptcy: (1) restrictions such as creditor consent exist for going into reorganisation as opposed to liquidation; (2) secured creditors are not stayed in bankruptcy; (3) secured assets are satisfied first when assets are distributed; and (4) management does not stay during bankruptcy, but is replaced with a court or creditor appointed manager/receiver.

We expand the number of creditor rights variables and use them to construct additional indices. They allow us to distinguish between different types of creditor rights and also to measure a precondition for effective creditor rights – the existence of a well-developed collateral law. They are called CREDCON, REMEDY and COLLAT (see Annex 1 for definitions).

CREDCON captures the extent to which creditors can control the bankruptcy process. It overlaps with LLSVcr, but excludes the first variable of that index, because none of the countries in the sample has a clear separation of liquidation and reorganisation procedures similar to the US model, which has clearly influenced the choice of this indicator. The index does, however, employ the other three variables of LLSVcr and adds two more variables: automatic trigger to go into bankruptcy, and creditor consent for adopting a liquidation or reorganisation plan.

The relevance of LLSVcr as well as CREDCON depends on the existence and scope of collateral rules in a legal system. The two indices assume that creditors can secure their claims and that information about security interests is readily available – assumptions that were not borne out by the facts in transition economies, especially not in the early days of reform. To capture the existence of legal provisions on security interests, we included the index COLLAT. We code whether land can be used as a collateral, security interests in moveable assets can be created without transferring the asset to holder of the security interest, and whether the law includes provisions for a register to make available information about the existence of security interests in an asset possessed by the debtor. Obviously, these indicators do not capture the range of security interests many legal systems offer, which include security interests not only in tangible assets, but also in present and future rights. Also they do not include important functional substitutes, such as the transfer of the full ownership title as a security in lieu of legal rules that would allow the perfection of collateral without the creditor obtaining possession over the relevant asset. However, in transition economies an effective legal regime for security interests in tangible assets appears to be of primary importance.

The last index is called REMEDY. The position of creditors can be strengthened by creating a legal framework that allows them to secure their loans and enforce their rights in an insolvency procedure. These rules, which are captured in the CREDCON and COLLAT indices, give creditors *ex ante* control rights which they can enforce in a bankruptcy procedure. Alternatively, or as a supplement to these rules, the law may allow creditors to impose sanctions on management *ex post*, which go beyond their original contractual rights or claims based on security interests. For instance, creditors may hold management liable for violating bankruptcy rules, or they may challenge the validity of transactions between the debtor and other parties that were carried out in the time immediately preceding bankruptcy. REMEDY addresses these ex post sanctions, which could serve as functional substitutes for only weakly protected ex post rights.

In Chart 4 we present the level of creditor rights according to these four indices for 1992 and 1998. As before, the percentage of the total index is used for comparative purposes. The data demonstrate impressive improvements in creditor rights in the region. The worldwide comparison taking the LLSVcr as a benchmark (see Table 2) shows that improvements in creditor rights were even more dramatic than in shareholder rights. In 1992, transition economies scored well below world average. By 1998 they scored not only higher than the world average, but also higher than any of the major legal families.

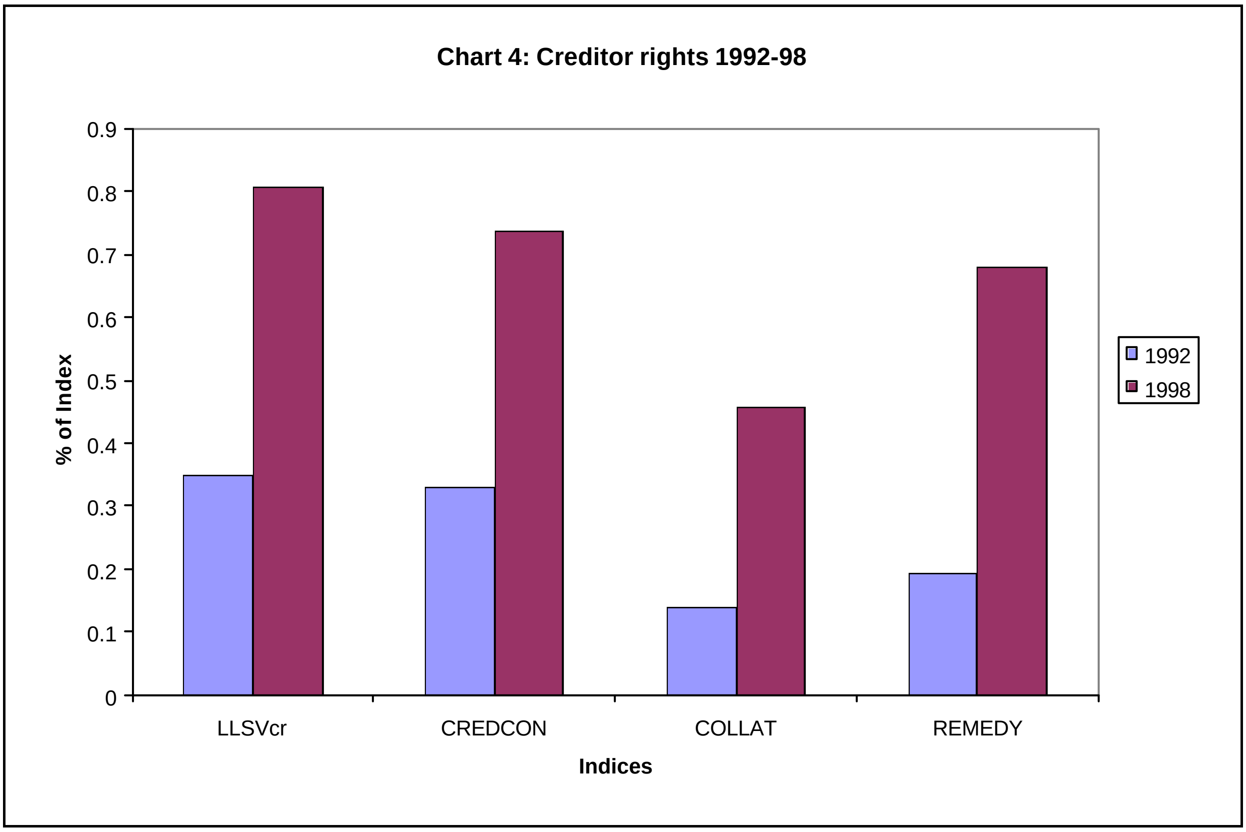


Table 2: Creditor rights in comparison

	Average of creditor rights (LLSVcr)
World average (49 countries)	2.30
Common law family	3.11
French civil law family	1.58
German civil law family	2.33
Scandinavian civil law family	2.00
Transition economies 1992	1.40

Transition economies 1998	3.23

Source: La Porta et al. (1998) and compilation by author.

In summary, since the introduction of economic reforms, substantial efforts have been made to strengthen creditor and shareholder rights. Comparing the scope of change using our various shareholder rights indices we saw that legal change did not focus exclusively on the strengthening of minority shareholder rights. While management has been a clear target of the reform efforts, suggesting that the classic corporate governance paradigm has influenced reforms, anti-blockholder rights as well as the supervision of stock markets also improved substantially. There is also little evidence that countries pursued a particular governance model in designing legal change. Rather an all-round improvement of shareholder and creditor rights has taken place.[4]

[4] There are, however, some regional differences. For details see (Pistor, 1999).

4. LAW IN ACTION: THE EFFECTIVENESS OF LEGAL INSTITUTIONS

The above analysis has focused exclusively on the quality of the law on the books. These changes alone say little about the effectiveness of the new laws, i.e. their use in practice. This depends on the voluntary compliance rate on the one hand, and on the effectiveness of legal institutions that are charged with enforcing the law on the other. Both are mutually reinforcing. Where voluntary compliance is high, enforcement by the state is necessary in only a few cases and thus can be quite effective – provided that a minimum level of resources is available. Where compliance is low, however, the ability of enforcement institutions to ensure that the laws are used and followed in practice is rather limited to start with, and enhancing their effectiveness alone may not fundamentally alter the respect for the law. At the same time, voluntary compliance requires a credible threat that defection will be sanctioned. Effective law enforcement by the state may not be the exclusive, but is certainly an important element in making this threat viable.

We use three variables to measure the effectiveness of legal institutions in transition economies: (1) a *rule of law* rating provided by outside expert assessment; (2) an index of the *effectiveness* of corporate and bankruptcy law in transition economies constructed by the EBRD; and (3) survey data on the ability of the legal system to protect private property rights and enforce contracts, which we call the *enforcement* index. These variables are closely related, but not identical with indices that are commonly used in the literature to assess legality. Following (Knack and Keefer, 1995; Mauro, 1995) and others, LLSV (1998) use for their 49 countries five indices: rule of law,[5] the efficiency of the judiciary, the prevalence of corruption, contract repudiation and expropriation by the government. These data were not available to us for most of the transition economies.

For the *rule of law* rating, we use an expert assessment reported annually for 1996-98 by the Central European Economic Review (CEER).[6] The *effectiveness* index is taken from the EBRD *Transition Reports*, which use survey data to rank countries according to the effectiveness of legal reforms in the area of corporate and bankruptcy law. Finally, the *enforcement* index is taken from the Business Environment and Enterprise Performance Survey (BEEPS), implemented by the EBRD in 20 transition economies during May-June 1999.[7] It reports the percentage of firms in the sample that agree that the legal system will protect their property rights and enforce their contracts. Table 3 reports the country scores and the correlation coefficients between these various legality indicators.

[5] The "rule of law" index is based on several variables that measure the extent to which state power is transferred in an orderly manner, and law rather than violence is used for contract enforcement.

[6] This expert assessment comes closest to the ICRG rule of law ratings used by LLSV in their empirical work. Indeed, across the 20 transition economies for which a composite country risk index by ICRG is reported in the *World Development Report* 1999, the correlation with *rule of law* from CEER is 0.83. We prefer the CEER rule of law rating since it captures the concept of legality more directly than a composite risk index and is available for all the 24 countries for which we have legal indices as well.

[7] See footnote above.

Table 3: Legality in transition economies

Country/Year	Rule of Law [a] 1998	Legal Effectiveness [b] 1998	Enforcement [c] Now	Enforcement [c] 3 years ago
Albania	2.7	2	NA	NA
Armenia	4.9	3	0.58	0.51
Azerbaijan	3.2	2	0.73	0.66
Belarus	2.3	2	0.46	0.48
Bosnia and Herzegovina	2.1	1	NA	NA
Bulgaria	5.9	4	0.58	0.59
Croatia	7	3	0.65	0.64
Czech Republic	8.3	4	0.45	0.44
Estonia	8.5	4	0.77	0.61
FYR Macedonia	5.4	4	NA	NA
Georgia	4	3	0.62	0.39
Hungary	8.7	4	0.71	0.76
Kazakhstan	4.5	2	0.45	0.43
Kyrgyzstan	4.4	2	0.30	0.35
Latvia	7.5	2	NA	NA
Lithuania	7.2	3	0.35	0.39
Moldova	4.7	3	0.26	0.33
Poland	8.7	4	0.75	0.70
Romania	5.6	4	0.57	0.52
Russia	3.7	2	0.27	0.25
Slovak Republic	6.4	2	0.64	0.59
Slovenia	8.4	3	0.74	0.65
Tajikistan	1.4	3	NA	NA
Turkmenistan	2.5		NA	NA
Ukraine	3.4	2	0.26	0.30
Uzbekistan	2.7	2	0.77	0.75
Correlation RoL*Eff	0.64			
Correlation RoL*Enf	0.39			
Correlation Eff*Enf	0.35			

[a]Expert rating from a survey of regional experts in the Central European Economic Review. Ratings were published in 1996, 1997 and 1998.

[b]Legal effectiveness rating from EBRD survey of legal practitioners across the region. Range from 1 to 4 (highest). The survey was administered each year since 1995. However, survey questions in 1995 and 1996 addressed investment laws rather than company laws. While similar effectiveness ratings were included in both earlier and later surveys, a fully consistent time series would have to be newly constructed from the raw data. Below we use the overall legal reform rating from 1995 and 1996 as proxy for the effectiveness ratings in those years.

[c]Proportion of firms in EBRD/WB survey who agree with the statement: "I am confident that the legal system will uphold any contract and property rights in business disputes".

Source: Business Environment and Enterprise Performance Survey (BEEPS).

All three measures of legality show striking differences among transition economies today. In fact, the variance in legality measures is much larger than the variance in the law on the books. Using the BEEPS data on *enforcement,* for example, we find that the proportion of firms that do not trust the legal system to protect their rights is staggering in many countries, particularly in the CIS. In Kyrgyzstan, Moldova, Russia and Ukraine, three-quarters of all enterprises do not trust the legal system to enforce their rights.

These results are mirrored in our other legality indices. While Bosnia and Herzegovina for obvious reasons ranks lowest on legal effectiveness in 1998, most other countries with low scores can be found in the former Soviet Union. The average for this region is 2.3, while the average in the central and east European countries is 3.1 and, when dropping Bosnia and Herzegovina, even 3.4. The rule of law index shows similarly large cross-country variation. It ranges from a low of 1.4 in Tajikistan to a high of 8.7 in Hungary and Poland (on a scale of 1 to 10). The CIS average is 2.98 against an average in central and eastern Europe of 6.96. In spite of the similarity in the general pattern, the correlation coefficients between the enforcement index from the BEEPS survey and the two other legality indices are not very high (below 0.4). At the same time, the EBRD's effectiveness index and the rule of law rating are relatively highly correlated, with a coefficient of 0.64 for 1998. In the regressions of external finance against the indices of legal reform and legality reported below, we tested all three legality indices.

Comparing the results for law on the books and legality, it does not seem that the two are closely related. Cross-country correlations between the three legality indices and the indices of shareholder and creditor rights achieved in 1998 are generally inconclusive. Particularly in the CIS, the high levels of legal protection achieved by 1998 are not mirrored in similarly high ratings for law enforcement. Indeed, it might be argued on the contrary that the very pace of legal change may have negatively affected law enforcement as it presented legal practitioners with a new body of law that they were initially unfamiliar with. It would be consistent with this story that changes in legal protection in central Europe (Hungary, Poland and the Czech Republic) have lagged behind the extent of improvements in Armenia, Russia or Kazakhstan. In a similar vein, Berkowitz, Pistor and Richard (1999) have argued for market economies that where formal laws were in the past introduced into a legal system that was both unfamiliar with and unreceptive to the new laws, legality today is significantly lower than in countries where the legal transfer was smoothed by cultural proximity, legal adaptation and the availability of lawyers trained in the application of the new laws.

Unfortunately, the data on legality for the transition economies do not extent back before 1996, so that a test of whether the extent of changes in laws and changes in legality may be negatively correlated is not possible.[8] Table 4 present simple correlations of the changes in laws on the books in 1992-98 and the level of legality achieved in the latter year. Changes in laws on the books are

[8] For Albania, Bulgaria, the Czech Republic, Hungary, Poland, Romania, Russia and Yugoslavia, the ICRG dataset extends back to the mid-1980s (Czechoslovakia and Soviet Union in earlier years). From this data it appears that the east European countries have all recorded improvements in the rule of law, the quality of the bureaucracy and the risk of contract repudiation. In Yugoslavia, the situation has become worse, for obvious reasons, and in Russia improvements over the level of legality achieved in the Soviet Union are marginal. Yet, this sample is far too small to draw any conclusions on the potential impact of rapid change in formal laws on law enforcement.

measured as the changes in the sum over all indices constructed in Section 3. The results are again generally inconclusive. The correlations for effectiveness and rule of law are virtually zero. With respect to law enforcement measured by the BEEPS, there seems to be a marginally negative correlation, which is, however, statistically not significant. Given the limitations of the small sample, only the merger of this dataset with a larger market economies sample would allow a more robust test of whether some of the transition economies are among those that have suffered from a "legal transplant" effect as found by Berkowitz, Pistor and Richard (1999).

Table 4: Simple correlation coefficients

Legal Index	***Rule of Law***	***EBRD Effectiveness***	***BEEPS Enforcement***
LLSVsh 98	-0.29	-0.07	-0.26
VOICE 98	-0.39	-0.27	-0.37
ANTBLK 98	-0.13	0.36	-0.27
SMINTGR 98	0.15	0.34	0.10
EXIT 98	-0.17	-0.06	-0.35
ANTIMG 98	-0.09	0.04	0.09
LLSVcr 98	0.05	-0.16	0.24
CREDCON 98	0.44*	-0.05	0.36
COLLAT 98	0.04	0.25	-0.04
REMEDY 98	-0.12	-0.33	-0.02
ChLLSVsh 92-98	-0.31	-0.12	-0.27
ChVoice 92-98	-0.35	-0.27	-0.37
ChANTBLK 92-98	-0.20	0.12	-0.40
ChSMINTGR 92-98	-0.06	0.14	-0.00
ChEXIT 92-98	0.05	-0.01	-0.18
ChANTIMG 92-98	0.10	0.06	0.22
ChLLSVcr 92-98	-0.14	-0.24	0.14
ChCREDCON 92-98	-0.24	-0.15	0.13
ChCOLLAT 92- 98	-0.17	0.21	0.10
Ch REMEDY 92-98	-0.21	-0.38*	-0.18

Note: A * means the correlation coefficient is statistically significant at the 10% level. Not all countries could be scored for all legal indices in 1992. The numbers of observations can thus differ from indicator to indicator, affecting the threshold level for statistical significance.

If rapid improvements in formal legal protection are not necessarily associated with improvements in law enforcement, better legal protection may indirectly benefit legality if it leads to increased external finance. If investor protection is at least marginally beneficial for the development of financial markets, this in turn might raise the demand for adequate law enforcement by shareholders and creditors. Conversely, it might be that without prior improvements in legality, enterprises may not have better access to external finance even under the best formal legal protection. The next section examines to what extent the quality of the law on the books on the one hand, and legality on the other has affected the development of external finance in the transition economies so far.

5. LAW, LEGALITY AND EXTERNAL FINANCE IN TRANSITION ECONOMIES

As discussed in Section 2 above, the lack of access to external finance is one of the key issues for corporate governance in transition economies. While corporate behaviour, insider control and state intervention are important problems in their own right, the extent of external finance may signal the severity of a wide range of corporate governance problems, and also provide one avenue for their solution.

This section uses aggregate data on stock market capitalisation and private sector credit to examine the impact of law on external finance, in the vein of the cross-country studies by LLSV and Levine (1998). At the country level, the share of stock market capitalisation and private sector debt (bank credit plus non-financial bonds) to GDP are the most commonly used indicators of external finance. In the case of capital markets, LLSV use a correction to account only for those firms where ownership is widely held.[9] Apart from the protection of shareholder and creditor rights a number of other factors may influence financial depth, for instance the size of the economy, its growth rate, its level of income per capita as well as the quality of law enforcement. The basic empirical model may be written as:

$$EF = Const. + \mathrm{a}{*}Law + \mathrm{b}{*}Legality + \mathrm{c}{*}Controls + u,$$

Where *EF* is external finance, *Law* is represented by the legal indices of Section 3, *Legality* is represented by the indices from Section 4, *Controls* comprises a vector of other exogenous variables and *u* is an error term, satisfying the normal properties.

We ran a number of regressions with market capitalisation and private sector credit as the dependent variables. The results appear in Tables 5-7. In the case of market capitalisation, we also used a correction for the degree of concentrated ownership, taking data from the BEEPS survey.[10] In order to correct for swings in stock prices between 1997 and 1998, we used the average capitalisation in these two years in all regressions.

Tables 5-7 report results for all the indices of legal protection developed in Section 3 separately, to test whether some elements of the law may have been more important for the development of external finance than others. We took the value of these indices achieved in 1998, assuming that law on the books affects the development of external finance directly without considerable lags. This may not be realistic, as there may be learning effects that lead old laws to persist in their relevance for some time. However, law on the books if lagged has an increasingly negative impact on external finance the longer the lags, and this effect becomes significant for the 1992 value. This is implausible and likely reflects mis-specification. Yet, using contemporaneous scores for the legal indices to explain the level of external finance raises another problem, namely that current laws may have been in part influenced by financial market developments themselves. To get around this endogeneity

[9] The correction is one minus the average stake of the ten largest corporations held by the three largest shareholders.

[10] The correction we use is to multiply capitalisation with the share of enterprises in the survey reporting outside ownership by more than three owners – taken to reflect dispersed outside holdings as in the external capital measure of LLSV.

problem, we used two-stage least squares with the lagged values of the legal indices as instruments for the current level of law on the books.

The three legality indices from Section 4 were tested separately but in Tables 5-7 we report only the results using the *rule of law* index from the CEER. Legal *effectiveness*, as reported by the EBRD, gives very similar results, while the results for the *enforcement* variable from the BEEPS survey are much weaker, albeit with similar signs (results are not shown for reasons of space). Again we used instrumental variable techniques with lags from earlier years (1995-97) as instruments for legality in 1998. A privatisation dummy and a measure of macroeconomic stability were included as controls. We also tried using the log of GNP in US dollars and the average growth rate over the 1994-98 period as controls, but as these were generally insignificant and used up scarce degrees of freedom, these results are not reported. Following LLSV, we do not include GDP per capita as a control. It is highly correlated with our legality variables and makes interpretation of standard errors difficult. All regressions were run using robust techniques to correct for heteroscedasticity.

Tables 5-6 present the main results for market capitalisation. They may be summarised as:

Legality has a positive impact on market capitalisation. This impact is quite large. Taking the OLS results, the difference between Russia's and Poland's rating for *rule of law* for instance would be sufficient to explain a 20 percentage point difference in market capitalisation (Table 5). Law on the books by contrast is insignificant and the coefficients have mostly inconsistent signs. This basic result is confirmed by the IV regressions and holds for both the uncorrected (Table 5) and the corrected value of market capitalisation (Table 6). In the latter case, the coefficient on legality is obviously lower as all dependent variables were scaled with a correction factor that lies between 0 and 1.[11]

With respect to the separate indices of shareholder protection, the only one to achieve marginal significance is the SMINTEGR index, measuring the quality of securities markets regulations. In Table 5, SMIN98 has a positive coefficient, significant at the 10 per cent level. This is in line with the importance attributed to securities markets regulations by observers of the legal framework for corporate governance in transition economies (Black, Kraakman and Tarassova, 1999; Coffee, 1999b). However, even in this case, the value of the coefficient is small: a one-point rise (corresponding to a 15 per cent increase in the total range of the index, which ranges from 0 to 6) is associated with a 1.5 percentage point increase in market capitalisation – hardly an impressive increase. In Table 6, the coefficient is still positive but no longer significant.

The results in Tables 5-6 are also robust to the inclusion of a dummy for countries that introduced voucher privatisation (which was combined in some countries with automatic listings on the stock market). The privatisation dummy has a positive sign and is marginally significant in the regressions for market capitalisation. This effect disappears once we use the corrected capitalisation measure (Table 6), suggesting that voucher privatisation has not led to greater outside ownership via the capital market in the majority of cases. Indeed, where it originally did, such as in the Czech and

[11] Slavova (1999) reports results, suggesting that the extensiveness of financial market regulations and company laws is more important than its effectiveness, where both extensiveness and effectiveness are taken from EBRD's survey of legal practitioners. The results are likely due to some degree of "blending" of the concepts of extensiveness and effectiveness inherent to the survey approach chosen by EBRD. The legal practitioners asked to rate the laws in the country are reporting partially on their understanding of how these laws are applied – something which the coding approach chosen in this paper does not do. In this sense, Slavova's results may not be incompatible with ours.

Slovak Republics, a process of ownership consolidation has since reduced dispersed shareholdings through the stock market.

Table 5: Shareholder rights and capital market development-dependent variable: market capitalisation / GDP, average (97-98)

	OLS	OLS	OLS	OLS		IV	IV	IV	IV
Variable	1	2	3	4	**Variable**	1	2	3	4
LLSVsh98	0.96 (1.96)				**LLSVsh98**	1.30 (2.97)			
VOICE98		0.54 (0.68)			**VOICE98**		0.37 (0.80)		
SMIN98			1.55[a] (0.87)		**SMIN98**			1.21 (0.96)	
ANTBLK98				0.93 (1.05)	**ANTBLK98**				0.22 (1.42)
Legality	3.67[c] (1.17)	3.89[c] (1.14)	3.48[c] (1.04)	3.56[c] (2.17)	**Legality**	3.50[c] (1.17)	3.77[c] (1.26)	3.69[c] (0.98)	3.51[c] (1.09)
Privatisation method	4.71 (3.89)	4.60 (3.97)	6.22[a] (3.11)	4.97 (3.90)	**Privatisation method**	4.14 (4.06)	4.73 (3.81)	6.40[a] (3.14)	5.02 (3.86)
(const)	-17.71[a] (8.86)	-20.14[b] (8.93)	-19.84[c] (5.84)	-17.56[b] (7.00)	**(const)**	-17.54 (11.67)	-18.16 (11.50)	-20.00[c] (5.06)	-14.54[a] (7.13)
R-Sq	0.42	0.42	0.50	0.43	**R-Sq**	0.41	0.42	0.50	0.41
F-Statistic	3.77[b]	4.14[b]	8.41[c]	4.98[b]	**F-Statistic**	3.47[b]	3.10[a]	10.52[c]	5.36[b]
Number of observations	19	19	19	19	**Number of observations**	19	19	19	19

Note: Standard errors in parentheses.

[c] Significant at 1%; [b] Significant at 5%; [a] Significant at 10%.

Table 6: shareholder rights and capital markets – dependent variable: (corrected) external market capitalisation / GDP, average (97-98)

	OLS	OLS	OLS	OLS		IV	IV	IV	IV
Variable	1	2	3	4	**Variable**	5	6	7	8
LLSVsh98	0.57 (0.87)				**LLSVsh98**	0.37 (1.50)			
VOICE98		0.10 (0.34)			**VOICE98**		-0.11 (0.47)		
SMIN98			0.88 (1.28)		**SMIN98**			0.62 (0.53)	
ANTBLK98				0.49 (0.55)	**ANTBLK98**				-0.20 (0.74)
Legality	2.29[c] (0.61)	2.33[c] (0.65)	1.9466[c] (0.61)	2.1509[c] (0.66)	**Legality**	2.27[c] (0.58)	2.28[b] (0.77)	2.06[c] (0.66)	2.25[c] (0.63)
Privatisation method	1.14 (2.2)	1.3675 (2.115)	0.9972 (1.926)	0.9653 (2.469)	**Privatisation method**	1.2 (2.2)	1.8 (2.1)	1.2 (2.1)	1.5 (2.4)
(const)	-10.1[b] (4.6)	-9.59 (5.9)	-9.5 (3.6)	-9.3 (4.1)	**(const)**	-9.5 (6.5)	-7.7 (7.9)	-9.3 (3.5)	-7.5 (3.8)
R-Sq	0.58	0.57	0.65	0.59	**R-Sq**	0.58	0.56	0.65	0.55
F-Statistic	7.98[c]	6.06[c]	9.39[c]	7.72[c]	**F-Statistic**	9.10[b]	5.88[c]	14.56[c]	12.56[c]
Number of observations	17	17	17	17	**Number of observations**	17	17	17	17

Note: Standard error in parentheses.

[c] Significant at 1%; [b] Significant at 5%; [a] Significant at 10%.

Table 7: Dependent variable: private credit / GDP, average 97-98

	OLS	OLS	OLS	OLS		IV	IV	IV	IV
Variable	1	2	3	4	**Variable**	5	6	7	8
LLSVcr98	0.89	-0.18	1.56		**LLSVcr98**	-0.17	-1.63	1.09	
	(2.2)	(1.99)	(2.02)			(2.28)	(1.82)	(2.19)	
REM98				1.34	**REM98**				0.68
				(2.72)					(2.58)
Rule of Law	1.58	4.51 [c]		4.56 [c]	**Rule of Law**	2.37			4.83 [c]
	(1.86)	(1.40)		(1.39)		(1.77)			(1.55)
Macro-stability	33.61 [a]		42.92 [c]		**Macro-stability**	28.97 [a]		42.99 [c]	
	(17.45)		(11.47)			(16.29)		(11.45)	
(const)	-3.19	-6.94	1.01	-9.66	**(const)**	-3.05	-4.95	2.4679	-10.28
	(8.89)	(8.07)	(7.02)	(8.09)		(9.52)	(8.19)	(7.59)	(8.75)
R-Sq	0.53	0.38	0.51	0.39	**R-Sq**	0.52	0.37	0.50	0.38
F-Statistic	4.88 [b]	5.43 [c]	7.02 [c]	5.44 [b]	**F-Statistic**	4.92 [b]	5.34 [b]	7.06 [c]	4.86 [b]
Number of observations	22	22	22	22	**Number of observations**	22	22	22	22

Note: Standard errors in parentheses.

[c] Significant at 1%; [b] Significant at 5%; [a] Significant at 10%.

The results for private credit are shown in Table 7. The main results are:

- Again legality tends to dominate the impact of the protection of creditor rights. And again the impact is quantitatively large. Following the OLS results, the difference in *rule of law* between Russia and Poland now explains a 25 percentage point difference in private sector credit to GDP. Creditor rights in 1998 are insignificantly related to private credit. This result holds for all three indices of legal protection developed in Section 3 and for both the OLS and IV specification.
- The significance of legality is greatly reduced if a measure for macroeconomic stability is included, measuring the proportion of years since the beginning of transition in which inflation was below 30 per cent and the budget deficit below 5 per cent. Countries with unstable macroeconomies tend to have lower private credit to GDP ratios, as bank claims are eroded by inflation. The regression coefficient suggests that one more year with macro-stability during the first decade of transition yields roughly a 3-4 percentage point increase in private sector credit to GDP. Macrostability is, however, highly correlated with the *rule of law* index, leading the latter to lose statistical significance when jointly included. Multicollinearity was less of a problem with the *effectiveness* rating leading both legality and macrostability to be significant when jointly included (results not reported).

The regressions reported in Tables 5-7 are static. However, levels of external finance might be determined by some exogenous factors, such as starting points. Indeed, given that the transition economies are far away from a market equilibrium the level of external finance achieved in 1998 may still have mostly to do with the extent of the initial imbalance. This suggests trying an estimation in first differences to eliminate unaccounted level heterogeneity. A dynamic formulation moreover would allow one to test for the impact of changes in legal protection, controlling for initial levels. For private sector credit, data for a sufficient number of countries are available since 1994, so that the change in private credit between 1994 and 1998 can be used as dependent variable. We test the following specification:

chPrivCred(98-94) = Const. + a* *DPrivCred*94 + b**Law*94 + c**chLaw*(98-94) + d**Legality* + e**Controls* + *u*,

where *PrivCred* is the share of private credit in GDP, the prefix "ch" indicates change, the prefix "D" denotes the difference between private credit in GDP in 1994 and the level predicted by a market benchmark (determined by GDP per capita), and all other variables are as defined above. Note that the specification assumes that Legality remains constant over the time period. This reflects data constraints and, while some changes may have occurred in this period, they are unlikely to have matched the changes in law on the books and to have fundamentally affected cross-country patterns. As endogeneity of the legal indices to the level of external finance was not found to be a serious issue above, we only report OLS results for this regression.

The results, which appear in Table 8, are striking: once initial distortions are controlled for, creditor protection by the law seems to matter. Both the initial level in 1994 and the changes over 1994-98 are positive and statistically significant, although the impact is not particularly large. A one-point increase in creditor protection during 1994-98 (25 per cent of the total range) gives a 5 per cent of GDP increase in private sector credit. The results also show a clear tendency of adjustment towards the market benchmark with about half of the distance to the benchmark closed during this four-year period. Legality as measured by the *rule of law* rating loses statistical significance in this dynamic specification. The EBRD's *effectiveness* rating produces a statistically significant coefficient, although its size is small: for every point increase in *effectiveness* (ranging from 1 to 4) private credit increases by around 5 per cent of GDP over this period. The macro-stability measure again is highly significant with every additional year of macro-stability during the first decade yielding a 1.2 percentage point increase in private credit to GDP. The small size of the coefficients in the dynamic specification must be seen in the context of adjustment, where the coefficients express changes predicted over and above those that would naturally arise from convergence to the market benchmark. Indeed, when *DprivCred*94 is excluded, the size of coefficients for the legal indices rises by around one-half.

While we hesitate to draw strong conclusions from the results of the dynamic analysis, an exclusively pessimistic assessment of the role of legal reforms in transition does not seem warranted. If complemented with better law enforcement, the remarkable level of legal protection achieved in the transition economies may yet usher in a period of rapid growth in external finance. However, there is also the possibility that the difficulty and complexity of interpreting the new laws in an environment that remains unreceptive to Western notions of corporate governance consumes much of the administrative capacity of the legal system – giving it little resources to enforce the new laws properly.

Table 8: Initial creditor rights, legal change and creditor markets
Dependent variable = change in private credit / GDP 1994-98

	Legality measure = rule of law	Legality measure = rule of law	Legality measure = effectiveness
Variable	1	2	3
Const	-24.34[c] (5.76)	-21.56[c] (4.26)	-30.20[c] (-4.76)
Distance to Benchmark 1994	-0.46[c] (0.16)	-0.54[c] (0.18)	-0.43[c] (-3.48)
LLSVcr.94	3.20[b] (1.49)	3.06 (1.82)	3.01[b] (2.21)
ChLLSVcr94-98	5.32[c] (1.65)	5.41[b] (1.80)	4.99[b] (3.53)
Legality (average 1996-1998)	1.25 (0.74)	-	4.82[b] (2.74)
Macrostability	-	12.81* (7.21)	-
R-Sq.	0.65	0.67	0.72
F-Statistic	15.21[c]	15.01[c]	18.03[b]
Number of observations	22	22	22

Note: Standard errors in parentheses.
[c] Significant at 1%; [b] Significant at 5%; [a] Significant at 10%.

6. CONCLUSION

The most important lesson from this paper is that a key aspect of weak corporate governance in transition – namely the absence of external finance – cannot be solved only by improvements, however radical, in the legal framework for the protection of shareholder and creditor rights. The extent of legal reform in these areas of the law has been impressive by any standard. In fact, many of the countries of the former Soviet Union which received legal technical assistance primarily from the United States can today boast higher levels of investor rights protection on the books than some of the most developed market economies, such as France or Germany. Yet, it is unlikely that in the foreseeable future the development of the law will be matched by the development of financial markets.

An important constraint on financial market development is the absence of effective legal institutions, or what we have termed "legality". Our regression analyses show that legality has overall much higher explanatory power for the level of equity and credit market development than the quality of the law on the books. In a way, this result is a reflection of a more fundamental problem in the transition from central planning to the market. This transition requires at its core the transformation of the role of the state from a direct coordinator of economic activity to an impartial arbiter. The lack of confidence in the rule of law reflects the extent to which this transformation has remained partial, as governments continue to play to vested interests, often those that have benefited from asset redistribution during the initial transition. Improving the law on the books in such an environment is at best a partial solution, but will not be rewarded unless a commitment to rule-based governance of markets is made credible.[12]

These findings imply that corporate governance is an integral part of state governance. In particular, an effective system of external private finance requires a credible commitment by the state that private rights will be honoured and enforced, and not undermined by state interventions. Where these conditions are present, the law on the books may indeed make a difference. Where they are absent, changes in the law on the books will have at best a marginal effect. In their analysis of law and finance around the world, LLSV (1998) show that effective law enforcement is not a substitute for poor laws on the books. The experience of transition economies suggests that the reverse is also true: Good laws cannot substitute for weak institutions.

[12] It is interesting to note that the only shareholder rights index that shows a positive and statistically significant correlation with stock market development, is SMINTEGR. This index captures rules that are designed to protect the functioning of the market. Laws that establish an independent state agency to supervise capital markets and prohibit insider trading and self-dealing seem to be taken as a sign that the state is seriously committed to making these markets work against the odds of private predators and state intervention.

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ANNEX 1: CODING OF SHAREHOLDER AND CREDITOR RIGHTS

Shareholder rights

N°	Indicator	Value	LLSVsh*	SMINT	VOICE	EXIT	ANITMG	ANTIBL
1	Mandatory one-share-one vote rule	1/0	X		X			
2	Proxy by mail	1/0	X		X			
3a	Shares not blocked before the meeting	1/0	X		X			
3b	No registration cut-off date before the meeting	1/0	X		X			
4a	Cumulative voting for election of members of supervisory board	1/0	X		X			X
4b	Other rules to ensure proportional board representation	1/0	X		X			X
5a	Shareholder may take judicial recourse against decisions by executives, supervisory board	1=direct and/or derivative suit by individual shareholder or minority group (not more than 10%) 0.5 if legal claim is limited to nullifying decisions of the board and does not include liability of management 0 if shareholders cannot sue or have to request supervisory board to sue	X		X		X	
5b	Shareholders may take judicial recourse against decisions taken by the shareholder meeting	1=judicial recourse provided 0=no such provision	X		X			X
6	Current shareholders have a pre-emptive right in case new shares are issued by company	1=pre-emptive right mandated by law, which may be changed only by decision of shareholders 0=no pre-emptive right, or only optional	X		X			X

7	Shareholders, representing not more than 10% of total shares, may demand convocation of extraordinary shareholder meeting	10%=1 20%=0.5 0=more than 20% of shares required for calling extraordinary shareholder meeting	X		X		X	
8	Corporate statutes specify the amount of dividends to be paid out to shareholders	1=proportion of profits set aside for paying dividends 0=no such provision	X					
9	Executives (including General directors) are appointed or dismissed by the supervisory board rather than by the shareholder meeting	1 0.5 if board appoints, but general meeting dismisses 0 if shareholder meeting appoints and dismisses			X		X	
10	Members of the management and Supervisory board may be dismissed at any time without cause	1 = if law does not specify conditions for dismissal 0 = if law requires specific cause (including violation of contract)			X		X	
11	At least 50% of total voting shares must be represented at a shareholder meeting for it to take binding decisions	1=50% or more of total shares required for quorum 0=less than 50% required			X			X
12	Audit commission may be called by minority shareholder representing not more than 10% of shares	1=if 10% of shares required 0.5=if 20% of shares required 0=if more than 20% required or not regulated			X		X	
13	Fundamental decisions, including charter changes, liquidation of companies, sale of major assets, require qualified majority (at least 3/4)	0.5 for charter changes and liquidation only 0.75 the above plus changes in charter capital, and/or company reorganisation (including mergers, takeovers) 1 for the above and sale of major assets			X			
14	Supervisory board members are elected by shareholders (no mandatory representation of employees or the public)	1/0			X			

15	Right to transfer shares is not restricted by law and may not be limited by charter	1=if the right to freely transfer shares cannot be restricted by statute 0=if this right can be restricted, even only for bearer shares				X		
16	Formal requirements for the transfer of shares are limited to endorsement (bearer shares) and registration (registered shares)	1=no additional formal requirements 0=notary certification, documentation of contracts etc. required for valid transfer				X		
17	Minority shareholders have a put option (may demand that their shares are bought by the company at fair value) in case they have voted against major transactions, including mergers, reorganisation, sale of major assets, charter changes etc.	1=put option by law 0=not regulated				X		X
18	Mandatory take over bid (threshold)	1 for 25% or less 0.75 for more than 30% 0.5 for more than 50%				X		X
19	Conflict of interest rules, including rules on disclosing conflict and abstaining from voting are included in the law	1=transaction specific conflict of interest rules 0=no such rules, even if some competition rules (i.e. members of the board may not serve on boards of other firms) are included		X			X	
20	Shareholder register must be conducted by independent firm (not by the issuing company)	1=mandatory rule for publicly traded companies, including companies exceeding a legally specified number of shareholders 0=if register is administered by the company		X				
21	Insider trading prohibited by law	1=rules against insider trading exist 0=no insider trading rules		X				
22	Acquisition of larger blocks of shares triggers mandatory disclosure (threshold)	1 for 10% 0.75 for 25% 0.5 for 50% 0, 25 for more than 50% 0 if no mandatory disclosure		X				X

23	A state agency conducts capital market supervision	1=if the task of supervising the securities market is assigned to a designated state agency		X				
24	Capital market supervision is formally independent	1=if the agency is independent and neither part of or directly subordinate to a government ministry (i.e. ministry of finance)		X				

*: LLSVsh includes seven separate indicators. We have decomposed some of their indicators into two separate ones. Note, for example, that indicators 4a and 4b as well as 5a and 5b are each one indicator in their database. To achieve comparable results with LLSV, they should therefore be computed as (4a + 4b)/2 and (5a + 5b)/2 respectively. With respect to indicators 3a and 3b, LLSV use only 3a. I have added 3b, because registration of shares prior to the shareholder meeting has similar effects as blocking shares. Although trading remains possible in the first case, trading shares after the registration date will have not influence on voting at the shareholder meeting. Again, the two indicators could be computed as (3a + 3b)/2. Indicators that were originally coded by La Porta et al., but were not included in their cumulative index are in parenthesis.

Creditor rights

N°	Indicators	Value	LLSVcr	CREDCON	COLLAT	REMEDY
1	Restrictions for going into reorganisation (i.e. creditor consent)	1/0	X			
2	No automatic stay on secured assets	1/0	X	X		
3	Secured assets first	1=first or after costs of bankruptcy procedure are met 0.75= second after costs and other creditor category 0.5=third after costs and other two creditor categories 0.25=fourth after costs and other creditor categories 0=priority not different from unsecured creditors	X	X		
4	Management does not stay in charge (receiver)	1/0	X	X		
5	Legal reserve Minimum percentage of total shares required to avoid voluntary dissolution	0 for no restriction 0.5 for simple majority 1 for qualified majority	(X)			
6	Automatic trigger to file bankruptcy (i.e. if debtor unable to meet obligations for more than 90 days)	1/0		X		
7	The adoption of a reorganisation or liquidation plan requires creditor consent	1/0		X		
8	Establishing a security interest in movable assets does not require transfer of asset	1/0			X	
9	Law requires establishment of register for security interests in movables	1/0			X	

10	An (enforceable) security interest in land may be established	1/0			X	
11	Legal provision that allows creditors to pierce the corporate veil	1/0				X
12	Management can be held liable for violating provisions of insolvency law (lower threshold than criminal activities required)	1/0				X
13	Transactions preceding the opening of bankruptcy procedures may be declared null and void	0.25=3 months prior to bankruptcy 0.5=6 months prior to bankruptcy 0.75=1 year prior to bankruptcy 1=more than 1 year				X

Note: La Porta et al. (1998) code 1/0 and do not use the scaled coding proposed for variable 3.

ANNEX 2: SCORES FOR SHAREHOLDER RIGHTS INDICES (1992-98)

	LLSVsh				SMINTEGR			
Country	**1992**	**1994**	**1996**	**1998**	**1992**	**1994**	**1996**	**1998**
Albania	3	3	3	3	1	1	1	1
Armenia	2.5	2.5	5.5	5.5	0	3	5	5
Azerbaijan	2.5	2	2	2	1	1	1	1
Belarus	1.5	1.5	1.5	1.5	1	1	1	1
Bosnia	0	0	0.5	0.5	0	0	0	0
Bulgaria	4	4	4	4	1	1	5	5
Croatia	0	2.5	2.5	2.5	0	1	6	6
Czech Republic	2	2	3	3	3	3	4	5
Estonia	2	2	3.75	3.75	0	2	4	4
FYR Macedonia	0	0	2.5	2.5	0	0	1	5
Georgia	2.5	2.5	3	3	0	0	0	0
Hungary	2.5	2.5	2.5	3	3	3	3	5
Kazakhstan	2.5	2.5	2.2.25	5.2.25	1	1	5	6
Kyrgyzstan	2.5	2.5	2.2.25	2.2.25	0	0	2	2
Latvia	3.5	3.5	3.5	3.5	1	1	1	1
Lithuania	2.5	3.75	3.75	3.75	2	1	1	1
Moldova	3	3	3	3.5	1	2	2	4.75
Poland	3	3	3	3	4	4	4	4
Romania	3	3	3	3	1	1	1	1
Russian Federation	2	2.5	5.5	5.5	2	3	3	3
Slovak Republic	2.5	2.5	2.5	2.5	0	2	2	2
Slovenia	0	2.5	2.5	2.5	0	3	3	3
Ukraine	2.5	2.5	2.5	2.5	1	1	1	1
Uzbekistan	2.5	2.5	3.5	3.5	0	0	2	2

	VOICE				EXIT			
	1992	**1994**	**1996**	**1998**	**1992**	**1994**	**1996**	**1998**
Albania	7.75	7.75	7.75	7.75	1	1	1	1
Armenia	8	8	12	12	1	1	3	3
Azerbaijan	8	7.5	7.5	7.5	1	1	1	1
Belarus	6	6	6	6	1	1	1	1
Bosnia	0	0	3.5	3.5	0	0	0	0
Bulgaria	10.75	10.75	10.75	10.75	0	0	2	2
Croatia	0	5.2.25	5.2.25	5.2.25	0	1	1	1
Czech Republic	3.5	3.5	4.5	4.5	1	1	2.5	2.5
Estonia	6.75	6.75	9.5	9.5	2	1	2	2
FYR Macedonia	0	0	5.75	5.75	0	0	0.5	0.5
Georgia	8	8	9	9	1	1	0	0
Hungary	6.2.25	6.2.25	6.2.25	6.75	1.5	1.5	1.5	0.5
Kazakhstan	8	8	7.2.25	12.5	1	1	3	3
Kyrgyzstan	7	7	9.2.25	9	1	1	2	2
Latvia	7.2.25	7.2.25	7.25	7.25	1	1	1	1
Lithuania	8.25	9.75	9.75	9.75	1	1	1	1
Moldova	7.75	7.75	7.75	9	2	2	2	4
Poland	6.25	6.25	6.25	6.25	3	3	3	3
Romania	5.75	5.75	5.75	5.75	1	1	1	1
Russian Federation	6	7	12	12	3	3	3.75	3.75
Slovak Republic	4	4	4	4	0	1	1	1
Slovenia	0	6.25	6.25	7.25	0	3	3	3
Ukraine	8	8	8	8	2	2	2	2
Uzbekistan	8	8.25	10	10	1	2	3	3

	ANITMANAG				ANITBLOCK			
	1992	1994	1996	1998	1992	1994	1996	1998
Albania	5	5	5	5	3	3	3	3
Armenia	2.5	2.5	5	5	2	2	4.5	4.5
Azerbaijan	2.5	3	3	3	2	1	1	1
Belarus	1.5	1.5	1.5	1.5	1	1	1	1
Bosnia	0	0	1.5	1.5	0	0	0	0
Bulgaria	5	5	5	5	3	3	5	5
Croatia	0	4	4	4	0	2	3	3
Czech Republic	2	2	2	2	1	1	4.5	4.5
Estonia	2	2	4.5	4.5	1	1	4	4
FYR Macedonia	0	0	2.5	2.5	0	0	3.5	4.5
Georgia	2.5	2.5	4	4	2	2	2	2
Hungary	2	2	2	4	2.5	2.5	2.5	4.5
Kazakhstan	2.5	2.5	3.5	5.5	2	2	3	6.25
Kyrgyzstan	1.5	1.5	3.5	4	2	2	3	3
Latvia	3	3	3	3	3	3	3	3
Lithuania	4	3.5	3.5	3.5	2.5	3.5	3.5	3.5
Moldova	2	2	2	3	2	2	2	6.25
Poland	3	3	3	3	4.5	4.5	4.5	4.5
Romania	4	4	4	4	4	4	4	4
Russian Federation	3	3	5	5	2	2.5	6	6
Slovak Republic	2	2	2	2	1	1	1	1
Slovenia	0	3	3	4	0	3.75	3.75	3.75
Ukraine	2.5	2.5	2.5	2.5	2	2	2	2
Uzbekistan	2.5	2.5	5	5	2	2	3.5	3.5

ANNEX 3: SCORES FOR CREDITOR RIGHTS INDICES (1992-98)

	LLSVcr				CREDCON			
Country	**1992**	**1994**	**1996**	**1998**	**1992**	**1994**	**1996**	**1998**
Albania	0	0	3	3	0	3	3	3
Armenia	0	0	0	3	0	0	0	4
Azerbaijan	0	3	3	4	0	4	4	3
Belarus	2	2	2	2	3	3	3	3
Bosnia	0	0	0	4	0	0	0	4
Bulgaria	0	3	3	3	0	4	4	4
Croatia	0	0	4	4	0	0	5	5
Czech Republic	3	3	3	3	4	4	4	4
Estonia	3	3	3	4	4	4	4	4
FYR Macedonia	0	0	1	1	0	0	0	0
Georgia	0	0	2.75	2.75	0	0	2.75	2.75
Hungary	3.75	3.75	3.75	3.75	4.75	4.75	4.75	3.75
Kazakhstan	1.5	1.5	1.5	2.75	1.5	1.5	1.5	2.75
Kyrgyzstan	0	0	0	3	0	0	0	3
Latvia	4	4	4	4	4	4	5	5
Lithuania	4	4	4	3	3	3	3	3
Moldova	3	3	3	4	3	3	3	4
Poland	2.25	2.25	2.25	2.25	4.25	4.25	4.25	4.25
Romania	0	0	4	4	0	0	4	4
Russian Federation	0	3	3	2.5	0	3	3	3.5
Slovak Republic	3	3	3	4	4	4	4	5
Slovenia	0	4	4	4	0	5	5	5
Ukraine	4	4	4	4	4	4	4	4
Uzbekistan	0	2.5	2.5	2.5	0	4.5	4.5	4.5

	COLLAT				REMEDY			
Country	**1992**	**1994**	**1996**	**1998**	**1992**	**1994**	**1996**	**1998**
Albania	0	1	1	1	1	1	2	2
Armenia	0	0	2	2	0	0	0	1
Azerbaijan	0	0	1	3	0	0.5	0.5	1.75
Belarus	1	1	1	1	0.75	0.75	0.75	0.75
Bosnia	0	0	0	0	0	0	0	0.75
Bulgaria	1	1	3	3	0	2	2	2
Croatia	0	0	1	1	0	0	2	2
Czech Republic	1	1	1	1	1	1	1	1
Estonia	0	3	3	3	1	1	1	1
FYR Macedonia	1	1	1	3	0	0	0	0
Georgia	0	2	2	3	0	0	0	0
Hungary	1	1	3	3	1	1	1	1
Kazakhstan	2	2	2	3	0	0	1	2.75
Kyrgyzstan	0	0	1	3	0	0	0	2.75
Latvia	0	0	0	1	0.75	0.75	0.75	1
Lithuania	1	1	1	3	0.75	0.75	0.75	0
Moldova	0	1	2	3	0	0	1	1
Poland	1	1	1	3	1.5	1.5	1.5	1.5
Romania	0	0	0	1	0	0	2	2
Russian Federation	1	1	1	2	0	0.5	1.5	2.5
Slovak Republic	1	1	1	1	1.5	1.5	1.5	2
Slovenia	1	1	1	1	0	1.75	1.75	1.75
Ukraine	2	2	2	2	0.75	0.75	0.75	0.75
Uzbekistan	0	0	0	2	0	1.75	1.75	1.75