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# **Corporate Governance, Ownership Structures and Investment in Transition Economies: the Case of Russia, Ukraine and Kyrgyzstan**

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# **Corporate Governance, Ownership Structures and Investment in Transition Economies: the Case of Russia, Ukraine and Kyrgyzstan<sup>1</sup>**

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## **Abstract**

In this paper we analyze interrelations between ownership structures, corporate governance and investment in three transition countries: Russia, Ukraine and Kyrgyzstan. In contrast to most empirical papers on corporate governance, we study companies with very little exposure to public financial markets. Our empirical analysis is based on two years of data obtained through large-scale surveys of firms. Ukrainian companies appear to have the best corporate governance practices, while Russian companies – the worst. We find that the relationship between ownership concentration and corporate governance is non-linear. In Russia, the relationship between the share of the largest non-state shareholder and corporate governance is either positive or insignificant when the blockholder's stake is below a certain threshold; however, a further increase in the blockholder's share is associated with worsening corporate governance. We find a similar effect in Ukraine, but only for managerial ownership. In both countries, corporate governance improves as the combined share of small shareholders grows. No robust effects of the ownership structure are found for Kyrgyz firms. Further we show that the market for corporate control seems to have little relationship to the firms' corporate governance practices. We find no link between the quality of corporate governance and either the need for outside finance or actual investments financed with outside funds in either of the three countries.

Keywords: corporate governance, transition, ownership structure, investment  
JEL Classification: G32, G34

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## 1. INTRODUCTION

It is well recognized by now that good corporate governance creates value. Studies by Gompers et al (2003), Durnev and Kim (2005), Black et al (2005), Black et al (2006a), Klapper and Love (2004) and several other papers show that in various countries better corporate governance is associated with a higher firm's market value. Ultimately, sound corporate governance practices help channeling private sector funds into profitable projects and, thus, contribute to the economic development of a country (Claessens (2006)). While many of the economies of the former Soviet republics have been growing relatively fast over the last years, they still have a long way to go to catch up with the OECD countries. One of the likely impediments to growth in these countries is poor corporate governance. Therefore, it is important to understand where the incentives of managers and controlling owners to adhere to high corporate governance standards can come from and what should be done to improve these incentives.

Theoretically, one of the main incentives to establish good corporate governance practices is the need for outside finance. Corporate governance helps establish commitment mechanisms that ensure adequate return for outside investors (Shleifer and Vishny 1997) and, hence, lowers the cost of outside finance for a firm. Chen et al (2004) and Skaife et al (2004) provide evidence that better governance reduces the cost of equity capital. Sengupta (1998) and Bhojraj and Sengupta (2003) find that better corporate governance is associated with a lower cost of debt capital.

Most theorists and practitioners agree that improving the quality of corporate governance and increasing transparency would help firms in CIS countries to attract outside finance and would eventually accelerate the development of CIS economies. Unsurprisingly, corporate governance has recently become one of the widely debated issues in Russia and other CIS countries. However, there has been no solid empirical evidence that firms with better corporate governance in transition countries are indeed more successful in attracting outside finance.

Firms in transition economies are characterized by high degree of ownership concentration. Empirical studies suggest that ownership concentration is related to firms' corporate governance, financing and investment policies. In a sample of firms from 27 mostly developing and transition economies, Durnev and Kim (2005) find a positive association between ownership concentration and corporate governance. Guriev et al (2003) find a similar effect for Russia. Filatotchev et al. (2001) show on a sample of Russian firms that ownership concentration is negatively related to investment. Filatotchev et al. (2007) demonstrate for a sample of Hungarian and Polish firms a hump-shaped relationship between ownership concentration and the management's expectations of relying on public equity finance.

In this paper we study the relationship between firms' ownership structures, outside investment and the quality of corporate governance in three countries: Russia, Ukraine and Kyrgyzstan. While these countries feature a number of similarities in terms of institutional environment, economic and financial market development, and ownership structures of companies, there are also important differences in the structure of economy, initial conditions and in the speed and design of reforms during transition period.

With notable exceptions<sup>5</sup>, there is a lack of empirical research on corporate governance in these countries. Our first goal is to assess the quality of corporate governance in the three countries, examine its dynamics and do cross country comparisons of corporate governance practices. Our second goal is to establish firm-specific determinants of corporate governance, with a special attention to the effects of the ownership structure and the need for outside funds. Our third goal is to estimate whether corporate governance has an impact on the actual investment financed with outside funds (what we will call *outside* investment in the paper).

Most of the international research on corporate governance has focused on large publicly traded firms with readily available data on market values. Relative openness of listed firms allows obtaining financial and ownership data that are more reliable than those of non-listed companies. In contrast to this literature, our paper focuses mainly on the non-listed firms. In transition economies, ownership structures of such firms are often obscure, financial data are unreliable and information on corporate governance practices is publicly unavailable. Therefore, we have collected our data through surveys and interviews of top managers<sup>6</sup>. The data was collected through mail surveys among Russian and Ukrainian enterprises and face-to-face interviews in Kyrgyzstan in years 2005 and 2006. As a result, we obtained two years of data on ownership, investment and corporate governance practices in the sample firms.

We find that firms in all three countries are characterized by high ownership concentration in the hands of managers and large outside shareholders. Outside blockholders seem more powerful in Russia and Ukraine, while managers are more powerful in Kyrgyzstan. Controlling for the firm size, we found that Ukrainian companies have the best corporate governance practices, while Russian companies – the worst. We did not find any significant changes in either corporate governance practices or ownership structures over the year between the two rounds of the surveys.

Our second main result is that corporate governance is related to firms' ownership structures in Russia and Ukraine, but not in Kyrgyzstan. The form of this relationship is non-monotonic and qualitatively different in Russia and Ukraine. In Russia, the relationship between the share of the largest non-state shareholder and the quality of the corporate governance is either positive or insignificant when the blockholder's stake is below a certain threshold; however, a further increase in the blockholder's share is associated with worsening corporate governance. We find a similar effect in Ukraine, but only for managerial ownership: corporate governance improves until the managers' stake reaches roughly 50%, and then falls. In both countries, corporate governance improves as the combined share of small shareholders grows. No robust effects of the ownership structure are found for Kyrgyz firms.

The link between ownership and corporate governance is not well understood by economists. On the one hand, higher ownership concentration creates incentives for the principal owner to increase firm value, which may induce him to practice good governance. On the other hand, greater accumulation of control allows the controlling shareholder ignore the rights of minority shareholders and eliminates pressures of the market for corporate control. Another possible reason why higher ownership concentration may lead to worse corporate governance is that the two may be substitutes: a large stake of a controlling shareholder signals his commitment to the

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<sup>5</sup> Black et al (2005), Guriev et al (2003), IFC(2005)

<sup>6</sup> The data was collected in the framework of INTAS research project. The project was undertaken by a group of experts from several research centers: CEFIR (Moscow), CASE-Poland, CASE-Kyrgyzstan, IET (Moscow) and STCSR (Kiev).

shareholder value maximization, implying less need for corporate governance mechanisms. The combination of these (and possibly other) factors may potentially lead to a non-monotonic link between ownership concentration and corporate governance. A separate problem is that ownership structure may be endogenous and may itself depend on the firm's corporate governance.

The differences in the relationship between ownership structure and corporate governance that we find across the three countries are probably related to the differences in the legal framework and institutional environment in these countries (Pistor et al. 2000) and are a subject of further research.

One of the reasons, why managers and major shareholders may practice good corporate governance is a discipline imposed by the market for corporate control. In our surveys we collected data on takeovers, takeover attempts and threats in Russia and Kyrgyzstan (restrictions on the questionnaire size did not allow us to collect this information for Ukraine). We did not find any robust evidence that hostile takeovers have a discipline effect in the two countries: neither improvements in corporate governance lead to fewer takeover threats, nor takeover threats lead to subsequent improvements in corporate governance.

The absence of a relationship between the market for corporate control and corporate governance may be explained by high ownership concentration, underdeveloped capital markets and weak legal environment. Controlling shareholders having stakes above 50% are effectively immune to a hostile acquisition through stock purchases, which reduces incentives to treat minority shareholders well. Moreover, underdeveloped capital markets make financing acquisitions more difficult. Finally, weak legal environment gave rise to a variety of "grey" and "black" takeover schemes, based on illegal or pseudo-legal means. Good corporate governance may be of little help to prevent such takeovers.

Our third main result is that, contrary to many existing studies, corporate governance seems to be unrelated to investment in any of the three countries.<sup>8</sup> Neither need for external funds leads to improvements in corporate governance nor better corporate governance results in more externally financed investment. The absence of a link between corporate governance and outside investment can be explained by underdeveloped public capital markets and weak legal enforcement. The latter undermines the credibility of corporate governance mechanisms and also makes transparent firms vulnerable to expropriation by private raiders and the state. As a result, good corporate governance practices both fail to lower the cost of outside funds and may create additional costs related to the insecurity of property rights. Thus, for most firms, it does not pay to practice good corporate governance even if they have a need for outside investment.

The rest of the paper is organized as follows. The next section describes the methodology of our surveys and structure of samples obtained. Section 3 briefly looks at the managers' perception of the goals of corporate governance. In Section 4 we provide a descriptive analysis of corporate governance practices in the three countries. Finally, Section 5 presents a regression analysis of the determinants of the corporate governance and the link between governance and outside investments.

## **2. DATA**

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<sup>8</sup> A number of empirical studies find a positive effect of investment opportunities and need for outside finance on corporate governance: see e.g. Durnev and Kim (2005), Black et al (2006b)

## 2.1. Methodology of data collection

The data on ownership, corporate governance practices and investment was collected through mail surveys in Russia and Ukraine and face-to-face interviews in Kyrgyzstan in two rounds in years 2005 and 2006. We also used official statistics to obtain data on employment, industry and region.

Reliance on surveys rather than official statistics is predetermined by limitations on the availability of data due to the countries' economic and institutional environment as well as by the nature of our sample, consisting largely of closely-held companies. Non-transparency of ownership structures and the widespread use of nominal owners render official ownership data uninformative. Financial data, especially those based on local accounting standards are generally unreliable, while the information on corporate governance practices is often impossible to obtain but by asking managers of a company directly.

The cost of using survey data is a risk of biased responses or absence of responses to sensitive questions. However, first of all, all survey respondents were guaranteed confidentiality of the information provided by them. Secondly, in Russia and Ukraine, the same panel of firms was regularly surveyed on various issues for more than ten years. That allowed establishing confidential relations between firms and the institutions conducting the surveys over these years.

In Russia the surveys were conducted by the Business Surveys Laboratory of the Institute for the Economy in Transition (IET). IET has developed and maintained a panel of top managers of about 1200 industrial enterprises as part of monthly business surveys, which have been conducted since 1992 with the methodological support of the European Commission, Eurostat and OECD. The panel covers all regions and sectors of Russian industrial sector. The panel includes mainly medium and large enterprises. The majority of respondents to regular business surveys are high level managers. The rate of response to surveys has been about 800-900 firms (65-70%), which is exceptionally high for enterprise surveys in Russia and is due to established long-term connections with firms. Based on this panel, in 2002 and 2003, IET and CEFIR conducted the surveys on the demand for modern standards of corporate governance (see Guriev et al. 2003). The methodology developed for that study served as a basis for developing the methodology for our paper.

In Ukraine the surveys were conducted by The Scientific Technical Complex of Statistical Research (STCSR). STCSR has conducted regular business surveys since 1996 using European harmonized methodology. The surveys of industrial, construction, transport, agricultural, and other enterprises are conducted. The surveys are conducted on quarterly basis, using a consistent panel of respondents constructed separately for different sectors of economy. The industrial enterprises panel consists of 1800 enterprises and includes virtually all the large industrial firms and most of the medium-sized firms. The response rate has been usually 85-90%, which is even higher than in Russia.

In Kyrgyzstan the surveys were conducted by the Center for Social and Economic Research – Kyrgyzstan (CASE-Kyrgyzstan). Due to the absence of a panel of firms, such as those maintained in Russia and Ukraine, in Kyrgyzstan the surveys were carried out using a different methodology. Kyrgyzstan is a small country with a small economy. The total number of industrial enterprises is about 450, out of which about 300 are privatized companies (the rest are state-owned enterprises and de novo firms). Thus, the Kyrgyz sample includes all sectors of industry in all 8 regions of the

country. Given the relatively small number of firms, it was possible to conduct the survey via face-to-face interviews with the help of a survey firm with an excellent track record in this field.

## 2.2. Sample description

Our sample is based on two rounds of surveys and interviews, conducted in 2005 and 2006 in Kyrgyzstan, Russia and Ukraine according to the methodology described above. In each round we received responses from around 1100-1200 Ukrainian, 1000 Russian and 300 Kyrgyz companies. Roughly 75%-90% of the first round respondents participated in the second round as well.

Figures 1a and 1b in the appendix give an idea of the size distribution of companies in the sample. Most of the companies are medium or large size enterprises, but not very large. Though Russian firms are somewhat bigger than Ukrainian ones and substantially bigger than Kyrgyz ones, this difference should be attributed to the natural difference in the size of companies in the countries' industries. Thus, the samples are equally representative.

Table 1 gives further information on the types of firms in the sample. Less than 15% of enterprises in each country's sample are listed. This distinguishes our study from most of the corporate governance empirical literature which focuses on listed firms. A majority of the firms are open joint-stock companies (OAO)<sup>9</sup>. Most firms are not parts of business groups, although in Russia almost third of surveyed firms are members of business groups. We control for the form of incorporation and group membership in our empirical analysis as these variables are likely to affect corporate governance practices.

Tables 2a and 2b display the average ownership structure in the three countries. All countries exhibit substantial concentration of ownership in firms. Average stake of the largest blockholder in a firm (it can be manager, outsider or state) is above 50% in all three countries; highest ownership concentration is observed in Kyrgyzstan. Outside blockholders seem to be more powerful in Russia and Ukraine, while manager-owners are more powerful in Kyrgyzstan. This can be explained by the difference in the sizes of firms, and Figures 2a-2c provide support for that. In all three countries the management's share falls with firm size, while the largest outsider's share either rises with firm size (in Russia and Ukraine) or exhibits no clear trend (in Kyrgyzstan). Small shareholders jointly have on average less than 25% of shares in all three countries.

Another observation from Table 2a is that average ownership structures seem rather stable: they have not changed much over the year between the rounds of the survey in any country. Previous studies have shown that ownership concentration in Russia has been steadily growing since the mass privatization in early 90s (Biletskiy et al (2001), Dolgopyatova (2003), IFC(2005)). It is possible that the average ownership structure has stabilized over recent years.

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<sup>9</sup> Corporate law in the three countries has provisions for two types of joint stock companies. An *open* joint stock company doesn't have limitations on the number of shareholders, and shareholders can trade their shares freely. A *closed* joint stock company has limitations on the number of shareholders (not more than 50 in Russia and Kyrgyzstan) and doesn't allow shareholders to sell their shares freely – other shareholders in the company have preemptive rights on buying shares. A closed joint stock company cannot list its shares on a stock exchange.

### **3. COMPANIES' PERCEPTION OF GOALS AND PROBLEMS OF CORPORATE GOVERNANCE**

Before moving to the analysis of the corporate governance practices, it is useful to get an idea of what managers themselves think about the goals and the problems of corporate governance. Tables 3 and 4 summarize managers' responses to these questions.

Regarding the goals, we should keep in mind that the question the respondents were asked was about the goals that corporate governance *actually* serves achieving in *their* companies, not about any hypothetical goals or goals that corporate governance should serve ideally. "Raising the effectiveness of the decision-making process" is the most frequently mentioned goal of corporate governance in all three countries. On the contrary, "facilitating access to capital markets" and "prevention and (or) resolution of corporate conflicts" – the reasons that the theory predicts to be crucial – are at the bottom of the list. Another frequently mentioned goal of corporate governance is "raising the company's reputation". However, reputation itself is useless unless it is capitalized in e.g. better terms of raising outside finance or more trustworthy relationships with business counterparties or employees. Since access to capital markets is not considered a goal of corporate governance in most companies, the latter interpretation of the role of reputation seems more plausible.

The discrepancy between the theoretical view and the managers' perceptions may be explained in two ways. First, managers may have a different from corporate governance scholars idea of what corporate governance is. Second, in a weak institutional and economic environment, corporate governance may indeed be of low importance for access to capital markets and resolution of corporate conflicts in most firms.<sup>10</sup> Our empirical analysis in section 5 supports the latter conjecture as we find almost no link between corporate governance and outside investment.

Another interesting observation from Table 3 is a high frequency of mentioning compliance with the law among the goals of corporate governance. This implies that many managers see no gains from raising the corporate governance standards above the level required by the law.

Closely related to the question about goals is the question about problems of corporate governance (Table 4). Here the respondents tend to indicate country-wide problems. Inadequacy of legislation is considered the main problem by respondents in all countries, but its importance is especially high in Ukraine. Weak minority shareholder protection is also very important in all countries, while poor quality of judicial system is considerably important only in Russia and Kyrgyzstan. These results give an idea on which aspects of the legal system reforms in each country should focus.

### **4. CORPORATE GOVERNANCE PRACTICES IN FIRMS**

To assess the quality of corporate governance in companies we asked various questions about corporate governance, concerning shareholder rights, board composition, transparency and disclosure. Table 5 contains the most important

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<sup>10</sup> This does not mean, however, that corporate governance is useless for attracting outside finance for any firm. It is very likely to matter for the largest listed companies that are exposed to public capital markets (especially international ones). The study Black et al (2005) found a strong link between corporate governance and market valuations of the largest Russian firms, which should have an implication for their ability to raise outside finance.



corporate governance questions and summarizes the results for the two years of the survey.

A quick look at the table gives an impression that Ukraine has the best corporate governance practices, while Kyrgyzstan – the worst. However, if we control for the firm size, Russia becomes the worst, as we will see later. Per unit costs of corporate governance are likely to be lower at larger companies, hence the larger the size, the higher the probability that the company has adopted good corporate governance practices.

Apart from the firm characteristics the observed differences in corporate governance practices may be caused by the different requirement of corporate law in three countries. Table 6 provides some information about the norms of corporate law in the three countries with respect to the issues listed in Table 5. Interactions between these legal requirements and firms' characteristics, such as the ownership structure, may produce the observed differences in corporate governance practices. For example, Russian corporate law is more favorable to minority shareholders than Kyrgyz law as it requires cumulative voting for board members, which gives more power to minority shareholders. However, much fewer firms in Russia have minority shareholders' representatives on the board, in spite of the fact that a higher share of firms has minority owners in Russian sample (about 80%, same in Ukraine) than in Kyrgyz sample (about 70%). A higher average combined stake of small shareholders in Kyrgyz firms compared to Russian firms may be a part of the explanation. Different levels of law enforcement and compliance with the law may also contribute to the observed differences.

Another conclusion arising from Table 5 is that corporate governance practices did not change much from 2005 to 2006. This is likely to be related to the fact that the average ownership structure in the three countries did not change over this period, and, as we will show in section 5, ownership structure is one of the main determinants of corporate governance.

In order to develop a single measure of the quality of corporate governance, we constructed a scalar index of corporate governance, adopting the approach of Guriev et al (2003). Our main index aggregates answers to the six questions, highlighted in bold in Table 5. The choice of these particular questions was due to our desire to achieve a good balance between aggregating as much information about various aspects of corporate governance as possible and keeping the number of observations large enough, as there are some missing values in the answers. We tried adding more questions as well as different combinations of questions, but such modifications significantly reduce the number of observations.

To construct the main index we assigned value 1 to an answer if it was “yes”, and 0 if it was “no”. Firms with a missing answer to any of the six questions were excluded. We used two different ways of aggregating answers: simple sum and the first principle component. By *CGI* we denote the index based on a simple sum of answers, while *CGI\_pc1* is the first principle component. The two indices are not very different in fact – the correlation between them ranges from 0.94 and 0.98 depending on the country and the year. We report our results only for *CGI*, though we also use *CGI\_pc1* to check for the robustness of the results – they remain essentially the same.

As Figure 3 shows, all three countries exhibit a rather large variation in corporate governance practices that the firms follow. The mean value of *CGI* is highest for Ukraine and lowest for Russia; the difference in the mean values between Russia and the other two countries is statistically significant while the difference between Kyrgyzstan and Ukraine is not. At the same time the median index value is

the same for Russia and Kyrgyzstan (3 points) and higher for Ukraine (4 points). It means that in Russian sample there a smaller percentage firms have very good governance score, which is obvious from the graph.

As we mentioned before, it is important to adjust these differences for firm size. Figure 4 demonstrates that in all three countries, larger firms are more likely to adopt the norms of good governance. Interestingly, for the very large firms (more than 5000 employees) country matters less: their corporate governance practices are similar irrespective of the country (here we can only compare Russia and Ukraine as Kyrgyzstan does not have really large companies).

In addition to the aggregate index of corporate governance, we also use two other indices in our regression analysis: shareholder rights index (*SRI*) and transparency and disclosure index (*TDI*). The first index is essentially a sub-index of *CGI*, taking into account only answers to the questions about the *shareholder department*, *supplying agenda* of the general shareholder meeting, *independent registrar* and the *representatives of minority shareholders* on the board, as those questions that reflect the strength of shareholder rights in a company. The second index aggregates answers to the question about *international accounting standards* and three additional questions: whether a company's annual reports are *audited by an independent auditor*, whether a company *discloses annual financial reports*, and whether a company *discloses all its beneficial owners*. The answers to these questions bear the basic information about transparency and the disclosure practices of a company. While *SRI* is highly correlated with *CGI* (the correlation coefficient ranges from 0.83 to 0.93 depending on the country and the year), *TDI* is much less correlated with *CGI* (the correlation coefficient ranges from 0.28 to 0.7).

## 5. REGRESSION ANALYSIS

### 5.1. Determinants of corporate governance.

To analyze the determinants of corporate governance we run a series of regressions in which we regress our corporate governance indices on a number of variables, including size, legal form, ownership structure, outside investment needs, industry, etc. We focus on running separate regressions for each country. The reason we prefer not to pool all three countries is that the relationships between firm-specific variables and corporate governance may differ qualitatively among them, and one of our goals was indeed to capture such differences. Nevertheless, For Russia and Ukraine we ran regressions on the pooled sample with a country dummy (we did not include Kyrgyz firms in the pool as they are substantially smaller in size). As expected, the pooled regressions showed that, controlling for firm- and industry-specific variables, Ukrainian firms have better corporate governance than their Russian counterparts, with a Ukrainian dummy positive and significant at 1% level (not reported).

First, for each country, we run simple OLS regressions on each year of data. The dependent variable is *CGI*. We also present the results for *SRI* and *TDI* indices. Tables 7a-7c present the results for year 2006 with the same year regressors (the results for 2005 are generally similar).

Importantly, there arises an endogeneity problem when we try to estimate the effects of firm characteristics on its corporate governance practices. In particular, there is likely to be a reverse causality in the relationship between corporate governance and ownership structure: corporate governance may affect changes in

ownership. In attempt to at least partially deal with this problem we also run regressions of corporate governance in 2006 on firm characteristics in 2005. Tables 8a-8c present the results with lagged regressors.

The regressions' results confirm the positive effect of size in all three countries, discussed earlier. Open joint-stock companies (OAO) practice better corporate governance than other business forms (mainly closed joint-stock companies). Listing is also associated with better governance practices, though this effect is mostly insignificant in Ukraine and Russia. Most likely, listing can only matter when a company gets listed either in the highest tiers of local stock exchanges or abroad: even if we have such companies in our sample they are likely to be very few. Business group membership is insignificant in all three countries.

Our special interest is devoted to the relationship between corporate governance and outside investment (i.e. investment financed with outside funds). Theoretically, greater need for outside funds should make firms improve their corporate governance practices in order to attract outside investors. This result has been also obtained empirically in a number of papers (e.g. Durnev and Kim (2005), Black et al (2006b)). At the same time, better corporate governance reduces the cost of outside funds and, hence, should result in more externally-financed investment. We test for the latter in the next subsection. Here we examine whether a need for outside finance is associated with better corporate governance.

We have two proxies for the need for outside finance. First, *funds\_need* is a direct answer to the question whether a firm has plans to attract outside finance in the next 3 years. It equals 1 if the answer is yes, and 0 if the answer is no. Second, we use the *loan\_need* variable. It equals 1 if the respondent said the firm was ready to raise a long-term bank loan at the interest rate of 3% or higher and 0 if there was no need for a bank loan.

Need for outside finance, as proxied by *loan\_need*, turned out to be statistically insignificant in all countries except in a few specifications in Russia. When we use *funds\_need*, the results remain qualitatively the same. Hence, it appears that the need for outside finance does not induce firms to practice better corporate governance in either country. We postpone the discussion of this result to the next section.

The most interesting results concern the effects of the ownership structure on corporate governance. A greater aggregate share of small (each owning less than 5% of a firm) shareholders is associated with better corporate governance in Russia and Ukraine, but its effect is insignificant in Kyrgyzstan. The same positive effect was obtained by Guriev et al (2003) for Russia.

The largest non-government shareholder's share seems to have a non-linear effect in Russia and Ukraine, though its effect is mostly insignificant in the latter country. Initially, ownership concentration in the hands of the largest private shareholder improves corporate governance. However, after it reaches 40-45%, its further increase is associated with a fall in the corporate governance quality. In Kyrgyzstan, we did not find any statistically significant link between the share of the largest private owner and corporate governance.

How does the government's ownership affect corporate governance? We found a hump-shaped association between the government's share and corporate governance in Russia, though this effect disappears once we use lagged regressors. The share after which corporate governance starts deteriorating is around 30%. In Ukraine, government ownership seems to have no effect, while in Kyrgyzstan it only has an effect on transparency and disclosure. The latter effect has a U-shape (rather than a hump-shape), with the point of minimum around 50-80%.

Different types of large private shareholders can have a different effect on corporate governance. To capture these possible differences, we additionally run the same set of regressions, but treating the managers' share and the largest outside shareholder's share separately.

We found no link between the managers' share and corporate governance in Russia. In Ukraine the effect of the managers' ownership is similar to the effect of the largest private owner's share that we obtained without distinguishing between managers and outside blockholders, i.e. hump-shaped with the point of maximum around 50%. In Kyrgyzstan, in contrast, relationship between managerial ownership and corporate governance is U-shaped (rather than hump-shaped). However, this effect disappears once we use lagged regressors (Table 8c).

The largest outsider's share is generally negatively associated with corporate governance in Russia, though the effect seems non-linear concave. It becomes insignificant when we use lagged regressors. In contrast, Ukrainian firms exhibit no statistically significant relationship between the largest outsider's share and corporate governance. We found some evidence of a negative concave effect of the largest outsider's share on corporate governance in Kyrgyzstan, though the effect disappears when we use lagged regressors (Table 8c).

Let us summarize the results on the links between the ownership structure and corporate governance. In Russia, private blockholders seem to have the main impact on corporate governance. The effect is non-linear concave: the best corporate governance is observed when blockholder accumulates almost controlling stake and it deteriorates with further ownership concentration. In Ukrainian firms, the effect differs between the two types of private blockholders: outside blockholders do not seem to matter, while the managerial ownership has a hump-shaped effect on corporate governance, with corporate governance improving until the share reaches 50% and deteriorating afterwards. In Kyrgyzstan, the effects of the two types of the largest private owners seem weak. Greater aggregate share of small shareholders is associated with better corporate governance practices in Russia and Ukraine.

The link between ownership and corporate governance is not well understood by economists. On the one hand, higher ownership concentration creates incentives for the principal owner increase firm value, which may induce him to practice good governance. On the other hand, greater accumulation of control allows ignoring the rights of minority shareholders. Another possible reason why higher ownership concentration may lead to worse corporate governance is that the two may be substitutes: a large enough stake of a controlling shareholder signals his commitment to the shareholder value maximization, implying less need for formal corporate governance mechanisms. The combination of these (and possibly other) factors may potentially lead to a non-monotonic link between ownership concentration and corporate governance.

At the same time, it is difficult to say why the relationship between ownership and corporate governance is so different across the countries. The differences may be related to the differences in the legal framework and institutional environment in these countries; analyzing effects of these factors is a subject for future research.

To further address the endogeneity problem, we regress changes in corporate governance on changes in ownership and need for outside funds. Tables 9a-9c show the results of the regressions for all three countries. We obtain very few statistically significant results here. The problem here is that the variation in the data is very small as corporate governance and ownership as well as other firm characteristics have changed very little during the year. In Russia, an increase in the largest outsider's

share is associated with a decrease in the quality of corporate governance in some specifications. This is consistent with the already mentioned negative impact of large outside blockholders in Russia. The need for loan is insignificant everywhere, except the positive effect on *TDI* in Kyrgyzstan. The results do not change qualitatively if we use *funds\_need* instead.

## 5.2. Effect of corporate governance on investment

In the previous subsection we did not find any link between the need for outside funds and corporate governance. In this subsection we test whether better corporate governance leads to more actual outside investment. The common argument why it should be the case is that good corporate governance lowers the cost of outside funds for a firm.

To construct our investment variable we use the answer to the question about actual last year investment sources, asked in 2006. Hence, answers to this question refer to 2005. Variable *invest\_sources* takes value 0 if the firm did not do any investments last year, 1 if the investments were made only from the internal funds, and 2 if outside funds were attracted for investments. Table 10 provides statistics on the investment strategies of firms in the three countries. Lowest investment rates are observed in Kyrgyzstan. Among investing firms the majority of firms invest only from internal sources. Almost a third of companies in Russia attract some outside investment (mostly bank loans), the quarter of firms do so in Ukraine and only 14% - in Kyrgyzstan.

We regress the investment variable on corporate governance measures, controlling for ownership, and other variables measured in 2005. The results of the multinomial logit regressions are presented in Tables 10a-10c in the appendix. The coefficients at various corporate governance measures turned out to be insignificant for all three countries<sup>11</sup>. Unsurprisingly, the need for outside funds (*loan\_need*) positively affects the probability of outside investment: the effect is particularly statistically significant in Russia and Ukraine. The ownership variables turned out insignificant in Ukraine and Kyrgyzstan, but not in Russia. In Russia, government ownership has a statistically significant U-shaped effect on outside investment, with the point of minimum around 50%. Given that very few companies in the sample have government shares above 50%, the effect is negative in our sample, albeit non-linear. Another interesting observation is that the combined share of all small (<5%) shareholders is negatively associated with outside investment in Russia.

The effect of corporate governance on outside investment could be blurred due to the fact that our sample contains a lot of firms that did not actually have plans to attract outside finance. For such firms we should not observe any link between corporate governance and outside investment simply because they do not need outside investment. To circumvent this problem, we run the above regressions only for the firms that had plans to attract outside investment in 2005. All corporate governance

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<sup>11</sup> It is not obvious how one should model investment decisions of firms. Multinomial logit is one possibility. Another possibility is the Heckman selection model which implies that a firm first decides whether to invest and then chooses investment sources. One can also ignore the selection problem (in particular for Russia where the share of non-investing firms is small) and estimate binomial probit for the probability to use outside investments. We have estimated all these models and the results were robust across specifications: the effect of corporate governance on outside investment is insignificant in all three countries. We have also estimated the regressions only for open joint stock companies but the results didn't change.

indicators remained statistically insignificant, except the marginally significant positive coefficient at transparency and disclosure variable in Russia (not reported).

It might be the case that the relationship between corporate governance and investment is more pronounced for listed firms, as they are presumably more exposed to capital markets. However, restricting ourselves to only listed firms leaves us with very few observations for each country.

Finally, we checked whether better corporate governance is associated with the lower cost of capital by regressing the maximum rate at which a firm agrees to borrow from a bank on corporate governance indicators. We did not find any statistically significant effect (not reported).

To summarize the results on the link between corporate governance and investment, in contrast to what the theory would predict and a number of empirical paper find, we did not establish any link between corporate governance and either need for outside finance or actual outside investment in our samples. We put forward two explanations for such result: poor development of financial markets and weak legal environment, especially weak legal enforcement.

The former directly impedes raising funds by making the cost of outside finance high even for firms with good corporate governance. The latter undermines the credibility of corporate governance mechanisms and also makes transparent firms vulnerable to expropriation by private raiders and the state. Thus, for most firms, it does not pay to practice good corporate governance even if they have a need for outside finance. Our explanation is consistent with the recent empirical findings of Doidge et al (2007), who established that country characteristics, such legal institutions and the level of economic and financial development, affect firms' incentives for better governance.

### **5.3. Corporate governance and the market for corporate control**

Hostile takeovers may lead to changes in corporate governance in two ways. First, there are direct ex-post effects of a change in control: new owners may change corporate governance practices in the firm (though it is not a priori clear in which direction). Second, there is an ex-ante effect of a threat of a takeover on the current management's/controlling shareholder's incentives to practice good corporate governance. This ex-ante effect is also unclear a priori. On the one hand, a takeover threat may induce the incumbent to improve corporate governance, thereby raising the value of the company and making selling to a raider a less attractive alternative for current shareholders (Guriev et al (2004)). On the other hand, a takeover threat may provoke a defensive tactics of decreasing transparency and concentrating control mechanisms in the hands of the principal owner/manager (Bebchuk (1999)).

We focus on the ex-ante effects of hostile takeovers. Though we asked firms to provide information on actually occurred hostile takeovers, there are two problems associated with these data. First, if the management of a firm was changed between the two rounds of the survey (which should normally happen in the case of a hostile takeover), the second round respondent is likely to differ from the first round one. So, he may have an incentive to present the takeover as a friendly one, or simply conceal the fact of the takeover (we have very few cases of reported hostile takeovers in our data). He may also be reluctant to report truthfully new corporate governance practices in the firm in case they are worse than the past ones. Second, even if the information is reported truthfully in both rounds of the survey, a takeover may imply

a substantial overhaul of the company, which makes any short run comparisons of corporate governance practices meaningless.

We asked questions about current takeover threats, failed takeover attempts in the last two years and cases of greenmail in the last two years. The dummy variables are respectively *threat*, *attempt* and *greenmail*. They take value 1 if the answer to the corresponding question was “yes”, and 0 if the answer was “no”. Unfortunately, due to restrictions on the questionnaire size, we did not ask these questions in Ukraine, so the analysis of this section is confined to Kyrgyzstan and Russia.

We run two types of regressions. First, we check whether past takeover threats, attempts and greenmail cases lead to an improvement of corporate governance. Second, we check whether an improvement in corporate governance results in a lower likelihood of a takeover threat.

Tables 11a-11c and 12a-12c show the regression results. Overall we do not find an evidence of any relationship between the market for corporate control and corporate governance, except the positive statistically significant at 1% effect of greenmail on improvements in transparency and disclosure in Kyrgyzstan. The latter effect is consistent with the discipline hypothesis of the market for corporate control.

Due to a small number of observations, the results in Tables 12a-12c should be interpreted with caution. We think, however, that one result deserves attention: profitability in 2005 is negatively correlated with the change in takeover threats in Kyrgyzstan, and positively – in Russia. Both effects are statistically significant in most specifications. This difference together with the greenmail effect in Kyrgyzstan allows us to make a cautious conclusion that the market for corporate control may work rather differently in the two countries. Anecdotal evidence from Russia suggests that firms that raiders acquire are often not the badly governed ones but those that have attractive assets insufficiently protected against illegal or pseudo-legal takeover schemes. High profitability may indicate higher attractiveness of the assets and, hence, be correlated with takeover threats. While we know very little about hostile takeovers in Kyrgyzstan, the results suggest a different picture of the market for corporate control there. The finding that badly managed firms (i.e. with low profitability) are more likely to face threats, and that greenmail makes controlling owners improve corporate governance, indicates that the Kyrgyz market for corporate control provides some discipline and is targeted towards less efficient firms.

In general, however, we found almost no link between corporate governance in takeovers in the three countries. Absence of such link may be explained by high ownership concentration, underdeveloped capital markets and weak legal environment. Controlling shareholders having stakes above 50% are effectively immune to a hostile acquisition through stock purchases, which reduces incentives to treat minority shareholders well. Moreover, underdeveloped capital markets make financing acquisitions more difficult. Finally, weak legal environment gave rise to a variety of “grey” and “black” takeover schemes, based on illegal or pseudo-legal means. Good corporate governance may be of little help to prevent such takeovers.

## 6. CONCLUSION

In this work we have analyzed the interrelations between ownership structures, corporate governance and investment in three transition economies: Russia, Ukraine and Kyrgyzstan. Our analysis was devoted to companies that have little or no exposure to public financial markets. We have found that Ukrainian companies appear to have the best corporate governance practices, while Russian companies – the worst.

Ownership structure turned out to be an important determinant of corporate governance in Russia and Ukraine. At the same time, the effects of ownership concentration appeared to be non-linear and even non-monotonic. Contrary to what the theory predicts and a number of empirical papers have found, neither the need for outside finance nor the actual outside investment have any relationship to corporate governance in any of the three countries. Thus, ownership concentrations rather than the need for outside finance seem to affect corporate governance choices of firms. The market for corporate control was found to be ineffective in providing incentives for good governance.

Our results suggest that strengthening law enforcement and promoting the development of financial markets are crucial for unleashing the benefits of good corporate governance practices in the three countries.

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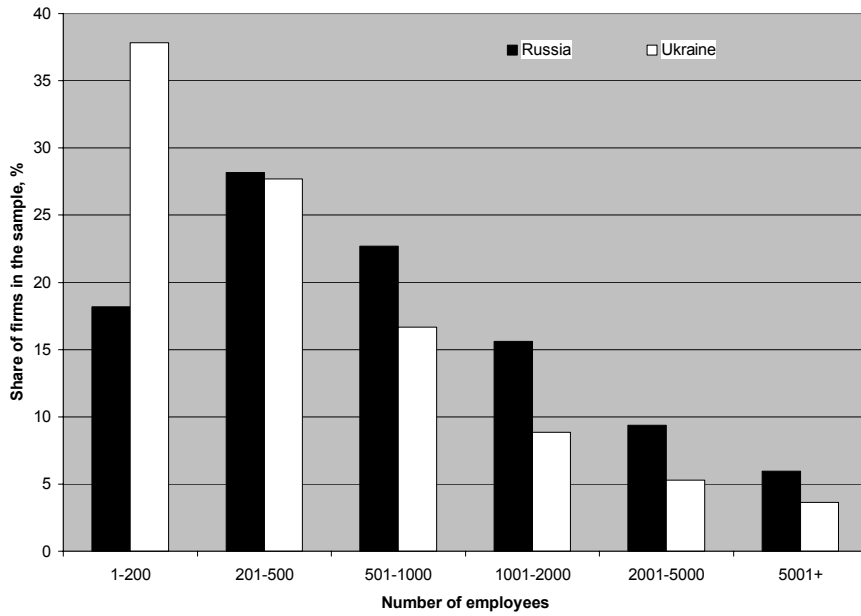
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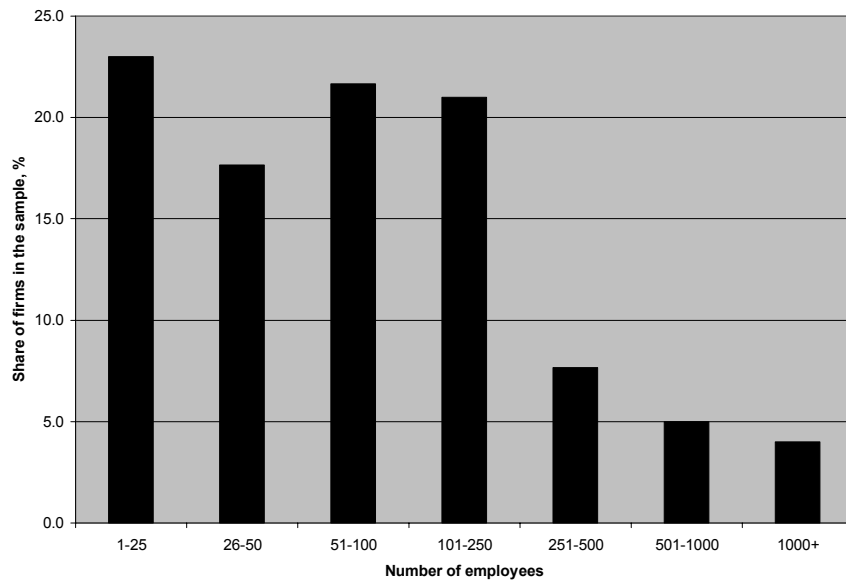
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## APPENDIX

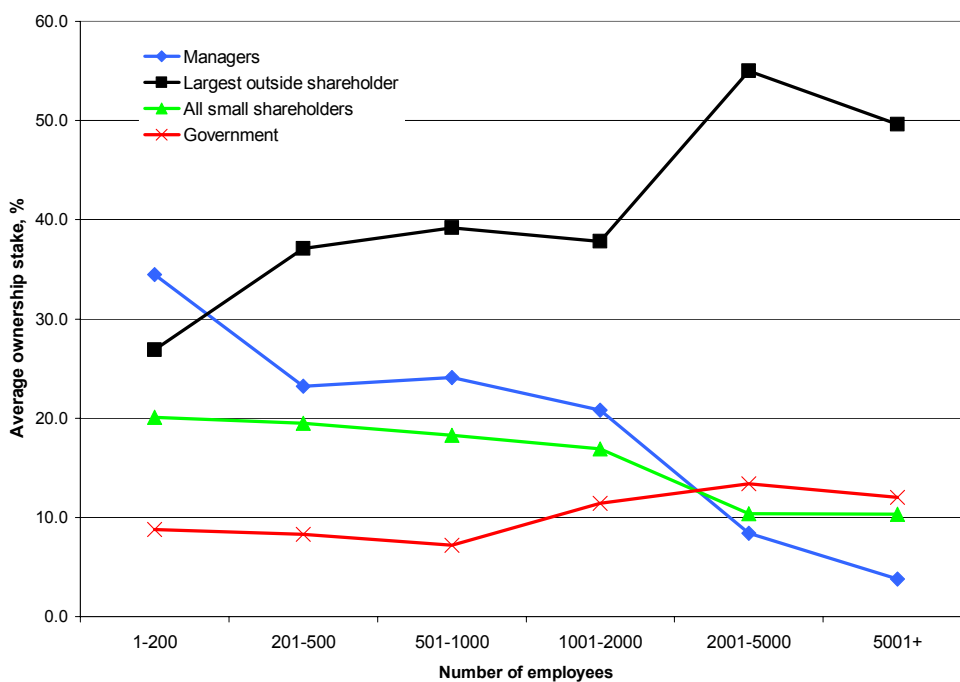
**Figure 1a. Sample structure of Russian and Ukrainian firms by size in 2006**



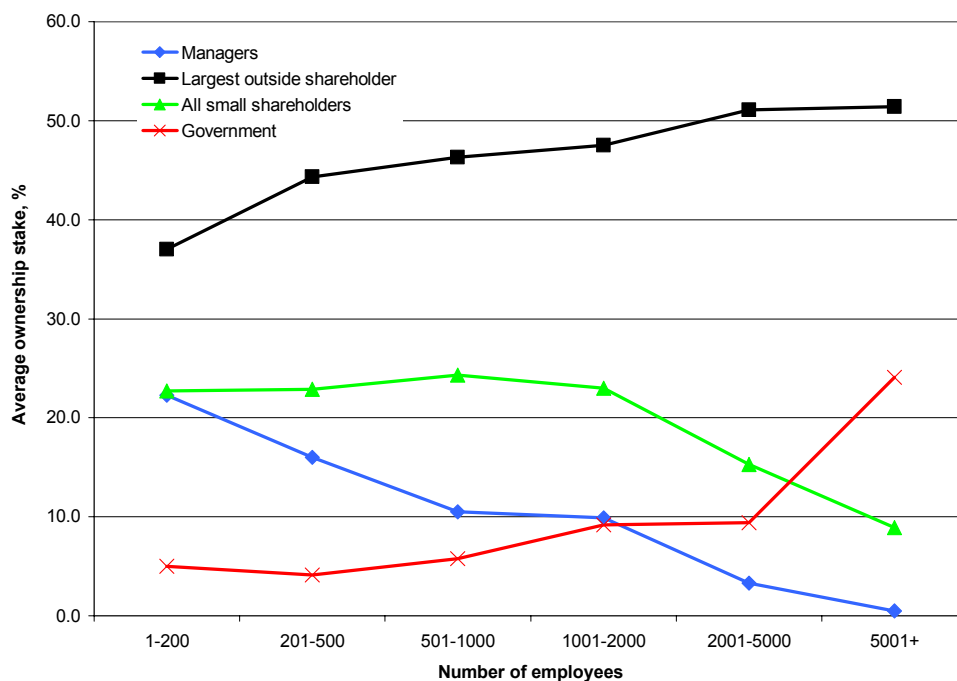
**Figure 1b. Sample structure of Kyrgyz firms by size in 2006**



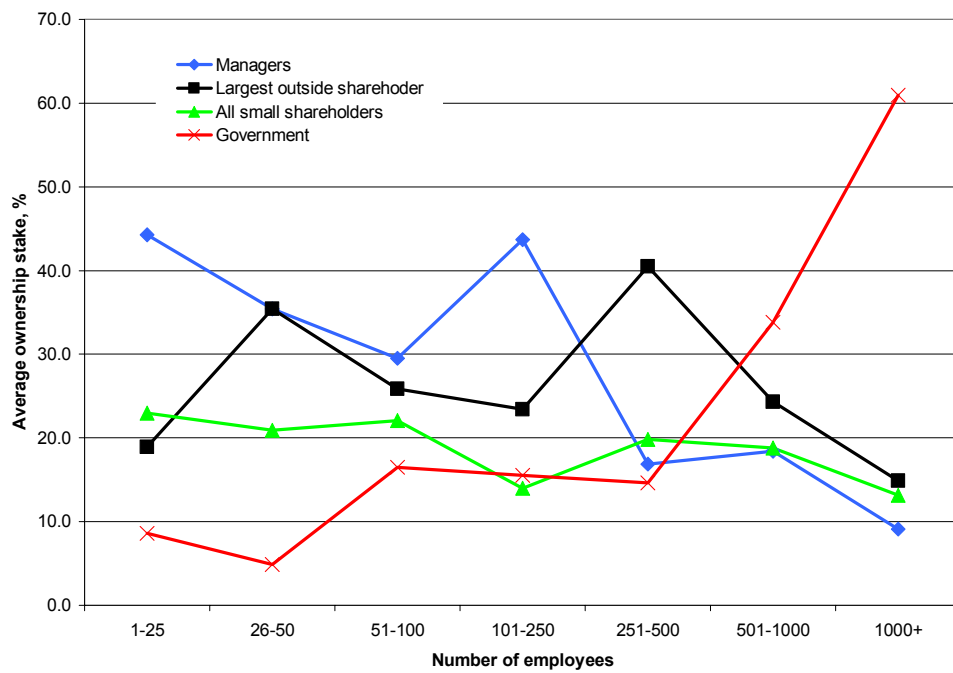
**Figure 2a. Ownership structure and firm size in 2006, Russia**



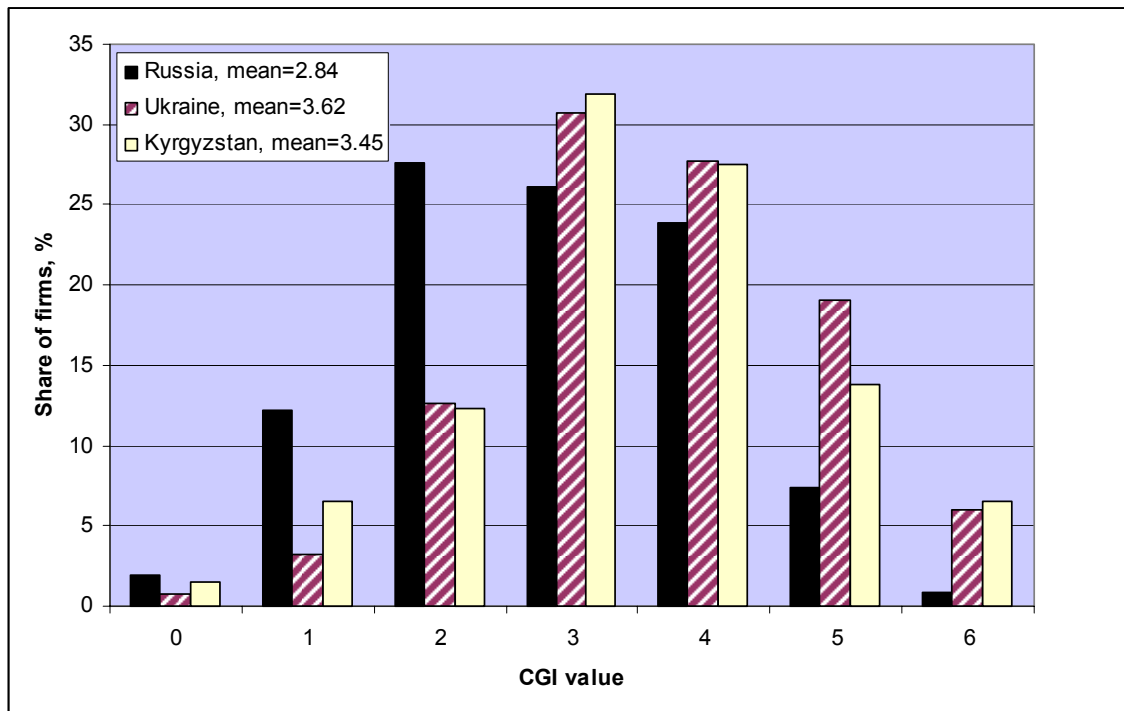
**Figure 2b. Ownership structure and firm size in 2006, Ukraine**



**Figure 2c. Ownership structure and firm size in 2006, Kyrgyzstan**

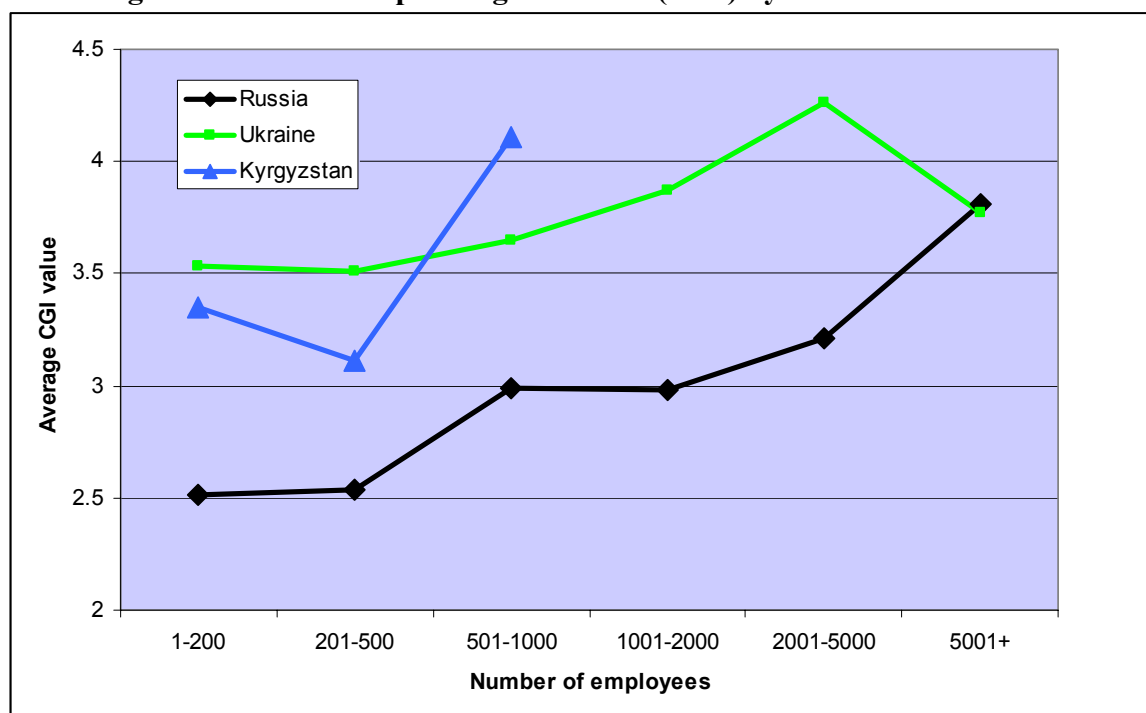


**Figure 3. Index of corporate governance (CGI) in 2006, histograms and sample means.**



**Note:** CGI is computed on the basis of six questions highlighted in bold in Table 7. For each firm, a value of 1 was assigned to an answer if it was “yes” and 0 if it was “no”. The value of CGI for each firm was obtained by adding up the answers to all six questions. CGI takes values from 0 to 6. *Only firms that have a board of directors* were included in this graph.

**Figure 4. Index of corporate governance (CGI) by firm size in 2006**



Note: Only firms that have a board of directors were included in this graph.

**Table 1. Firms' characteristics in 2006 (figures were similar in 2005)**

Legal form	As a percentage of firms for which the data were available		
	Russia	Ukraine	Kyrgyzstan
Open joint-stock company (OAO)	74	69	66
Closed joint-stock company (ZAO)	24	31	11
Other	2	0	23
Number of companies	981	1103	306
Is your company a part of a business group?	As a percentage of respondents who answered this question		
	Russia	Ukraine	Kyrgyzstan
Yes	31	18	11
No	69	82	89
Number of companies answered	981	780	306
Is the company listed on a stock exchange?	As a percentage of respondents who answered this question		
	Russia	Ukraine	Kyrgyzstan
Yes	7	14	9
No	93	86	91
Number of companies answered	569	710	286

**Table 2a. Ownership structure in 2005 and 2006**

<b>What actual percentage of shares in your firm do you think is owned by:</b>	<b>Russia</b>		<b>Ukraine</b>		<b>Kyrgyzstan</b>	
	<b>2005</b>	<b>2006</b>	<b>2005</b>	<b>2006</b>	<b>2005</b>	<b>2006</b>
Largest blockholder:	59	61	61	61	66	67
Management	22	23	16	16	36	34
Largest outside (non-state) shareholder	36	38	42	42	26	26
Government	8	9	6	6	12	15
All small (below 5%) shareholders	21	18	23	22	21	20
Number of companies answered	566-619	595-621	549	587	242	254

**Table 2b. Identity of the largest owner in 2006**

<b>What is the type of the largest outside shareholder in your company?</b>	<b>As a percentage of respondents who answered this questionnaire</b>		
	<b>Russia</b>	<b>Ukraine</b>	<b>Kyrgyzstan</b>
Domestic individual	42	34	55
Domestic legal entity	56	48	25
Foreign individual	1	4	8
Foreign legal entity	4	16	12
Number of companies answered	588	551	215

**Table 3. Respondents' perception of the goals of corporate governance in 2006 (figures were similar in 2005)**

<b>Which goals in your opinion corporate governance serves achieving in your company?</b>	<b>As a percentage of respondents who answered this question</b>		
	<b>Russia</b>	<b>Ukraine</b>	<b>Kyrgyzstan</b>
Raising the effectiveness of the decision making process	66	66	62
Facilitating access to domestic and international capital markets	10	10	32
Raising company's reputation	44	25	51
Prevention and (or) resolution of corporate conflicts	14	11	16
Conducting business in compliance with the law	41	42	38
Other	2	1	2
Corporate governance does not serve achieving any goals in our company	8	8	11
Number of companies answered	672	693	199

**Table 4. Respondents' perception of the most sensitive problems of corporate governance in their country in 2006 (figures were similar in 2005)**

<b>Which corporate governance problems do you think are currently the most sensitive in Russian industry?</b>	<b>As a percentage of respondents who answered this question</b>		
	<b>Russia</b>	<b>Ukraine</b>	<b>Kyrgyzstan</b>
weak protection of small shareholders	37	30	41
weak protection of large shareholders	10	4	17
insufficient control over managers' operation	19	4	16
failure by companies to meet information disclosure requirements	9	2	9
inadequate competence of the members of the board of directors	14	3	15
inadequate protection of creditor rights	8	6	10
inadequacy of current legislation (laws on companies, on bankruptcies, etc.)	39	58	48
weakness of the judicial system in settling corporate disputes	25	14	26
other corporate governance problems	6	9	8
main problems of Russian/Ukrainian/Kyrgyz industry go beyond corporate governance	39	35	9
<b>Number of companies answered</b>	<b>664</b>	<b>666</b>	<b>190</b>

**Table 5. Corporate governance practices of companies**

Corporate governance practices (shareholder rights and board structure)	Percentage of “yes” answers in the sample of respondents who answered the corresponding question					
	Russia		Ukraine		Kyrgyzstan	
	2005	2006	2005	2006	2005	2006
<b>Do you have a shareholders department?</b>	40	35	36	34	17	23
<b>Do you supply agenda of general shareholders meeting to all of your shareholders?</b>	88	80	96	96	88	77
<b>Is your shareholders’ register maintained by an independent registrar?</b>	79	74	90	90	69	63
<b>Are there independent directors on the board of directors of your company?</b>	46	43	56	55	27	25
<b>Are there representatives of minority shareholders on the board of directors?</b>	29	24	61	60	49	43
Are there formal committees (audit, remuneration, nomination) on your board of directors?	9	7	16	18	5	6
<b>Do you use international accounting standards (US GAAP/IAS)?</b>	9	9	31	30	49	61
Are your annual reports audited by an independent auditor?	93	91	95	99	71	75
Number of companies answered	562-720	654-721	667-915	534-859	252-291	281-298

Note: Questions highlighted in bold were used in the creation of the Corporate Governance Index (CGI). For the questions concerning board practices, calculations were made on the sample of firms that have a board directors.



**Table 6. Provisions in the company law in three countries**

	<b>Russia</b>	<b>Ukraine</b>	<b>Kyrgyzstan</b>
Shareholders department	Not mandatory	NA	Not mandatory
Provision of an agenda of general shareholders meeting to all shareholders	Mandatory		Mandatory
Independent registrar	In companies with more than 50 shareholders register should be maintained by independent registrar	NA	In all open joint stock companies register should be maintained by independent registrar
Presence of the board	Not mandatory for the companies with less than 50 shareholders	NA	Not mandatory
Independent directors	Not mandatory; Law on JSC contains definition of independent director	NA	Not mandatory; Law on JSC doesn't contain definition of independent director
Representatives of minority shareholders on the board of directors	Cumulative voting for board members	NA	No cumulative voting
Formal committees (audit, remuneration, nomination) on the board of directors	Not mandatory	NA	Not mandatory
International accounting standards (US GAAP/IAS)	Not mandatory	NA	Not mandatory
Annual reports audited by an independent auditor	Not mandatory	Public companies are obliged to publicly disclose annual financial statements audited by an independent auditor.	Some companies are obliged by law to have yearly auditing by an independent auditor

Source: laws of respective countries

**Table 7a. The determinants of corporate governance in Russia, OLS, 2006 regressors**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	CGI 2006			SPI 2006				TDI 2006				
Largest non-state owner share	-0.694**		1.675*		-0.608***		1.735**		-0.201		0.076	
Largest non-state owner share squared			-2.035**				-2.028***				-0.236	
Management owner share		-0.211		0.828		-0.175		0.935		-0.246		-0.132
Management owner share squared				-0.880				-1.032				-0.141
Outside owner share		-0.522		1.276		-0.524**		0.903		-0.129		-0.194
Outside owner share squared				-1.668**				-1.310**				0.072
State ownership share	-1.326***	-1.146***	1.525	1.559	-1.202***	-1.071***	1.655**	1.774**	-0.373	-0.383	0.466	0.462
State ownership share squared			-2.701**	-2.690**			-2.731***	-2.910***			-1.012	-1.080
Minority owners combined share	0.689*	0.903**	0.794**	0.926**	0.638**	0.786***	0.715***	0.755***	-0.219	-0.218	-0.232	-0.268
Loan needed	0.327**	0.335***	0.210	0.207	0.199*	0.205**	0.078	0.083	-0.064	-0.058	-0.092	-0.079
Group member	0.123	0.139	0.125	0.170	-0.045	-0.009	-0.044	0.011	0.152	0.113	0.143	0.102
Empl 201-500	-0.186	-0.186	-0.269	-0.239	-0.064	-0.056	-0.140	-0.109	-0.015	-0.021	-0.029	-0.032
Empl 501-1000	0.370*	0.363*	0.347*	0.362*	0.219	0.217	0.197	0.216	0.176	0.177	0.177	0.183
Empl 1000-2000	0.242	0.263	0.233	0.258	0.387**	0.406**	0.371**	0.391**	-0.028	-0.038	-0.033	-0.038
Empl 2000-5000	0.789***	0.803***	0.775***	0.804***	0.652***	0.672***	0.636***	0.664***	-0.068	-0.082	-0.074	-0.090
Empl >5000	0.899**	0.801**	0.918***	0.840**	0.716**	0.685**	0.732***	0.712***	0.223	0.214	0.216	0.206
OAO	0.737***	0.795***	0.592***	0.614***	0.514***	0.567***	0.364***	0.395***	0.068	0.068	0.028	0.036
Listed	0.179	0.216	0.062	0.098	0.046	0.052	-0.072	-0.049	0.067	0.073	0.053	0.068
Industry fixed effects	+	+	+	+	+	+	+	+	+	+	+	+
Constant	2.148***	1.967***	1.749***	1.692***	1.839***	1.695***	1.462***	1.497***	1.804***	1.819***	1.813***	1.893***
Observations	389	387	389	387	397	395	397	395	311	309	311	309
R-squared	0.24	0.23	0.27	0.26	0.22	0.21	0.27	0.26	0.06	0.06	0.07	0.07

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

**Table 7b. The determinants of corporate governance in Ukraine, OLS, 2006 regressors**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	CGI 2006			SPI 2006				TDI 2006				
Largest non-state owner share	0.314		1.173		0.078		1.076**		0.384**		0.212	
Largest non-state owner share squared			-0.826				-0.937**				0.157	
Management owner share		0.357		1.698*		0.136		1.079*		0.312		0.386
Management owner share squared				-1.675*				-1.109*				-0.151
Outside owner share		0.351		0.057		0.059		0.206		0.452**		0.116
Outside owner share squared				0.353				-0.098				0.348
State ownership share	0.204	0.256	0.758	1.041	-0.322	-0.316	0.867	0.961	0.290	0.333	-0.304	-0.197
State ownership share squared			-0.540	-0.900			-1.310	-1.505			0.698	0.625
Minority owners combined share	0.835**	0.877***	0.867***	0.805**	0.467**	0.465**	0.519**	0.451*	0.477**	0.519***	0.468**	0.495**
Loan needed	-0.016	-0.021	-0.033	-0.032	0.042	0.045	0.026	0.031	-0.022	-0.033	-0.021	-0.029
Group member	0.192	0.195	0.194	0.210	-0.033	-0.024	-0.033	-0.015	0.166	0.149	0.167	0.154
Empl 201-500	-0.015	-0.015	-0.028	-0.022	-0.022	-0.021	-0.045	-0.037	0.030	0.029	0.041	0.039
Empl 501-1000	0.205	0.214	0.211	0.231	0.187	0.197	0.187	0.204	0.104	0.097	0.108	0.102
Empl 1000-2000	0.283	0.287	0.295	0.272	0.238	0.243	0.247	0.237	-0.125	-0.132	-0.120	-0.134
Empl 2000-5000	0.348	0.366	0.354	0.364	0.326	0.343	0.326	0.334	0.191	0.186	0.207	0.191
Empl >5000	0.469	0.482	0.449	0.435	0.154	0.173	0.047	0.064	0.415*	0.401*	0.467*	0.450
OAO	0.523***	0.522***	0.498***	0.519***	0.213**	0.216**	0.182*	0.202**	0.198**	0.184*	0.202**	0.196**
Listed	0.327*	0.322*	0.320*	0.305*	0.213*	0.209*	0.199*	0.188	0.005	0.005	0.010	0.009
Industry fixed effects	+	+	+	+	+	+	+	+	+	+	+	+
Constant	2.980***	2.930***	2.791***	2.907***	2.582***	2.573***	2.336***	2.477***	1.746***	1.705***	1.792***	1.772***
Observations	335	335	335	335	354	354	354	354	328	328	328	328
R-squared	0.12	0.12	0.12	0.13	0.11	0.11	0.13	0.13	0.09	0.10	0.10	0.10

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

**Table 7c. The determinants of corporate governance in Kyrgyzstan, OLS, 2006 regressors**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	CGI 2006			SPI 2006			TDI 2006					
Largest non-state owner share	0.299		0.501		0.237		0.002		-1.065**		-0.992	
Largest non-state owner share squared			-0.179				0.260				0.038	
Management owner share		-1.146		-4.269***		-0.481		-2.632**		-1.609***		-2.548**
Management owner share squared				3.998***				2.796**				1.233
Outside owner share		-0.652		1.492		-0.062		1.383		-1.497**		0.179
Outside owner share squared				-2.621**				-1.754*				-1.965*
State ownership share	-0.621	-1.673**	-0.849	-0.552	-0.667	-1.087*	-1.639	-1.218	-1.901***	-2.447***	-4.295***	-4.490***
State ownership share squared			0.339	-1.214			1.193	0.311			3.112***	2.737***
Minority owners combined share	1.426	0.424	1.449	0.443	1.181*	0.784	1.202*	0.801	-0.505	-0.998	-0.383	-0.974
Loan needed	0.046	0.000	0.047	0.060	-0.051	-0.088	-0.050	-0.046	0.078	0.095	0.063	0.063
Group member	-0.095	-0.063	-0.097	-0.259	0.021	0.040	0.039	-0.078	0.223	0.256	0.290	0.257
Log empl	0.189*	0.197*	0.190*	0.193*	0.109	0.113	0.111	0.108	0.192***	0.189***	0.188***	0.173**
OAO	1.181***	1.188***	1.167***	1.187***	1.100***	1.118***	1.075***	1.095***	0.869***	0.846***	0.881***	0.873***
Listed	0.882**	0.715*	0.884**	0.487	0.434*	0.325	0.438*	0.182	0.350	0.303	0.364	0.229
Constant	1.017	2.086**	0.978	2.121**	0.777	1.210**	0.832	1.271**	1.434***	1.991***	1.401**	2.027***
Observations	112	112	112	112	116	116	116	116	178	178	178	178
R-squared	0.32	0.33	0.32	0.39	0.32	0.33	0.33	0.39	0.23	0.24	0.26	0.29

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

**Table 8a. The determinants of corporate governance in Russia, OLS, lagged (2005) regressors**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	CGI 2006			SPI 2006			TDI 2006					
Largest non-state owner share	-0.281		1.647		-0.366		1.531*		-0.641***		-0.700	
Largest non-state owner share squared			-1.764*				-1.741**				0.053	
Management owner share		-0.109		0.935		-0.036		0.767		-0.383		0.009
Management owner share squared				-1.102				-0.834				-0.472
Outside owner share		-0.282		0.562		-0.455*		0.288		-0.549**		-0.504
Outside owner share squared				-0.764				-0.683				-0.024
State ownership share	-0.706	-0.691	1.041	1.124	-0.749*	-0.724*	0.673	0.759	-0.811**	-0.709*	-1.060	-0.828
State ownership share squared			-1.679	-1.907			-1.303	-1.554			0.309	0.183
Minority owners combined share	0.589	0.660	0.596	0.619	0.507*	0.573*	0.519*	0.541*	-0.709**	-0.635**	-0.706**	-0.661**
Loan needed	0.189	0.176	0.151	0.153	-0.012	-0.027	-0.047	-0.046	-0.057	-0.043	-0.055	-0.045
Group member	-0.217	-0.202	-0.182	-0.173	-0.261*	-0.208	-0.229	-0.186	0.093	0.151	0.090	0.154
Empl 201-500	0.021	0.026	0.011	0.029	0.081	0.087	0.072	0.090	0.080	0.046	0.082	0.050
Empl 501-1000	0.714***	0.713***	0.753***	0.774***	0.537***	0.534***	0.572***	0.582***	0.455**	0.432**	0.450**	0.439**
Empl 1000-2000	0.831***	0.866***	0.863***	0.909***	0.898***	0.923***	0.928***	0.958***	0.189	0.115	0.187	0.122
Empl 2000-5000	1.455***	1.470***	1.494***	1.515***	1.284***	1.310***	1.322***	1.347***	-0.177	-0.190	-0.176	-0.184
Empl >5000	1.605***	1.631***	1.588***	1.637***	1.362***	1.417***	1.356***	1.421***	0.152	0.105	0.158	0.128
OAO	0.604***	0.607***	0.463**	0.481**	0.434***	0.466***	0.301**	0.363**	0.049	0.154	0.059	0.141
Listed	0.183	0.176	0.160	0.185	-0.141	-0.142	-0.160	-0.135	0.359	0.341	0.360	0.347
Industry fixed effects	+	+	+	+	+	+	+	+	+	+	+	+
Constant	2.630***	2.592***	2.271***	2.447***	2.432***	2.345***	2.070***	2.219***	1.586***	1.384**	1.588***	1.366**
Observations	250	248	250	248	252	250	252	250	209	207	209	207
R-squared	0.27	0.27	0.29	0.29	0.29	0.30	0.31	0.32	0.14	0.14	0.14	0.15

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

**Table 8b. The determinants of corporate governance in Ukraine, OLS, lagged (2005) regressors**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	CGI 2006			SPI 2006			TDI 2006					
Largest non-state owner share	-0.437		0.610		-0.202		0.937		-0.017		-0.516	
Largest non-state owner share squared			-1.023				-1.101**				0.506	
Management owner share		0.229		1.735*		0.302		1.292**		0.075		0.074
Management owner share squared				-1.906**				-1.209*				-0.032
Outside owner share		-0.330		0.157		-0.226		0.231		-0.026		-0.410
Outside owner share squared				-0.512				-0.461				0.429
State ownership share	-0.050	0.146	0.331	0.675	-0.364	-0.277	0.982	1.159	-0.012	0.005	0.317	0.403
State ownership share squared			-0.298	-0.578			-1.499	-1.730			-0.483	-0.517
Minority owners combined share	0.764**	0.879**	0.843**	0.871**	0.591***	0.623***	0.695***	0.657***	-0.049	-0.044	-0.063	-0.055
Loan needed	0.015	0.030	0.022	0.035	0.003	0.014	0.012	0.024	0.010	0.014	0.009	0.011
Group member	0.077	0.157	0.087	0.161	-0.156	-0.067	-0.149	-0.070	0.126	0.142	0.119	0.135
Empl 201-500	0.002	0.014	0.004	0.008	0.040	0.052	0.040	0.045	0.042	0.041	0.033	0.039
Empl 501-1000	0.280	0.332	0.302	0.350	0.174	0.220	0.201	0.237	0.257*	0.264*	0.246*	0.262*
Empl 1000-2000	0.765***	0.814***	0.763***	0.805***	0.516***	0.564***	0.526***	0.570***	-0.106	-0.100	-0.103	-0.091
Empl 2000-5000	0.288	0.365	0.284	0.379	0.413*	0.494**	0.391*	0.467**	0.013	0.027	-0.021	0.009
Empl >5000	-0.490	-0.371	-0.553	-0.390	-0.398	-0.314	-0.528	-0.408	0.615**	0.625**	0.621**	0.635**
OAO	0.308*	0.353**	0.265	0.298*	0.115	0.142	0.052	0.085	0.111	0.115	0.127	0.132
Listed	0.194	0.234	0.194	0.224	0.030	0.065	0.026	0.060	0.004	0.009	0.013	0.012
Industry fixed effects	+	+	+	+	+	+	+	+	+	+	+	+
Constant	3.199***	3.022***	2.926***	2.903***	2.641***	2.561***	2.335***	2.422***	1.858***	1.842***	1.977***	1.926***
Observations	261	261	261	261	275	275	275	275	232	232	232	232
R-squared	0.15	0.16	0.16	0.17	0.16	0.18	0.18	0.20	0.10	0.10	0.10	0.10

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

**Table 8c. The determinants of corporate governance in Kyrgyzstan, OLS, lagged (2005) regressors**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	CGI 2006			SPI 2006			TDI 2006					
Largest non-state owner share	0.238		2.083		0.448		1.830		-0.043		0.102	
Largest non-state owner share squared			-1.569				-1.175				-0.132	
Management owner share		-0.471		-1.205		-0.096		-0.549		-0.560		-0.954
Management owner share squared				1.277				0.698				0.322
Outside owner share		-0.608		2.030		-0.174		1.036		-0.604		-1.136
Outside owner share squared				-2.854				-1.327				0.535
State ownership share	-0.428	-1.177	-0.335	-1.031	-0.396	-0.923	-0.475	-1.164	-0.481	-0.982	-2.855**	-3.506***
State ownership share squared			0.480	0.211			0.534	0.448			2.825**	2.827**
Minority owners combined share	-0.544	-1.231	-0.265	-0.835	0.065	-0.440	0.278	-0.264	-0.429	-0.910	-0.346	-0.891
Loan needed	0.007	0.002	0.029	0.042	0.052	0.044	0.065	0.052	0.211	0.207	0.170	0.171
Group member	-0.331	-0.371	-0.350	-0.388	-0.121	-0.137	-0.136	-0.150	-0.352	-0.386	-0.307	-0.333
Log empl	0.056	0.068	0.046	0.058	0.043	0.047	0.036	0.044	0.114*	0.116*	0.120*	0.124*
OAO	1.169***	1.168***	1.123***	1.143***	1.071***	1.083***	1.032***	1.067***	0.782***	0.785***	0.792***	0.816***
Listed	1.544***	1.587***	1.546***	1.626***	0.904***	0.926***	0.907***	0.942***	0.642***	0.664***	0.620***	0.632***
Constant	2.048**	2.681***	1.624*	2.343***	1.074	1.549**	0.760	1.422**	0.973	1.457**	0.942	1.553**
Observations	98	98	98	98	103	103	103	103	164	164	164	164
R-squared	0.30	0.30	0.31	0.32	0.26	0.26	0.27	0.26	0.16	0.16	0.17	0.18

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

**Table 9a. The determinants of changes in corporate governance in Russia, OLS, 2005 regressors**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	CGI 2006 – CGI 2005			SPI 2006 - SPI 2005				TDI 2006 - TDI 2005				
Largest non-state owner share	-0.220		-0.702		-0.377		-0.703**		-0.590		-0.543	
Largest non-state owner share change			-				-0.719**				0.229	
Management owner share		-0.250		-0.521		-0.290		-0.564**		0.072		-0.134
Management owner share change				-0.470				-0.556*				-0.544
Outside owner share		-0.114		-0.499		-0.339		-0.661**		-0.577*		-0.590
Outside owner share change				-0.773*				-0.556*				0.025
State ownership share	-0.204	-0.190	-0.241	-0.160	-0.264	-0.263	-0.202	-0.210	-0.480	-0.203	-0.592	-0.443
State ownership share change			0.829	0.819			0.980*	1.060*			0.053	0.079
Minority owners combined share	-0.345	-0.324	-0.898**	-0.733	-0.319	-0.297	-0.765**	-0.726**	-0.460	-0.222	-0.422	-0.374
Minority owners share change			-0.218	-0.069			-0.360	-0.307			-0.117	-0.259
Loan needed	-0.085	-0.073	-0.117	-0.088	-0.073	-0.069	-0.106	-0.105	-0.254*	-0.258*	-0.249	-0.273*
Group member	-0.317*	-0.334*	-0.264	-0.253	-0.297*	-0.297*	-0.295*	-0.309*	-0.066	0.113	-0.126	0.031
Empl 201-500	0.125	0.113	0.142	0.134	0.083	0.074	0.116	0.104	-0.070	-0.139	-0.024	-0.090
Empl 501-1000	0.221	0.215	0.260	0.263	0.177	0.171	0.219	0.217	0.092	-0.025	0.164	0.091
Empl 1000-2000	0.087	0.067	0.257	0.262	0.293	0.278	0.388**	0.388*	0.088	-0.037	0.267	0.113
Empl 2000-5000	0.546	0.529	0.689*	0.670*	0.346	0.335	0.453	0.436	-0.135	-0.154	-0.008	-0.061
Empl >5000	0.769*	0.722*	0.779**	0.626	0.398	0.381	0.437	0.394	-0.480	-0.509	-0.270	-0.358
OAO	0.379**	0.382**	0.313*	0.355*	0.230*	0.254*	0.146	0.193	0.086	0.370*	0.160	0.412*
Listed	-0.340	-0.331	-0.567	-0.573	-0.135	-0.147	-0.349	-0.368	-0.074	-0.146	0.233	0.089
Industry fixed effects	+	+	+	+	+	+	+	+	+	+	+	+
Constant	-0.615	-0.617	-0.169	-0.257	-0.036	-0.060	0.287	0.266	-0.011	-0.466	-0.342	-0.645
Observations	261	259	235	232	268	266	242	239	160	158	143	141
R-squared	0.08	0.08	0.14	0.13	0.07	0.07	0.14	0.13	0.12	0.17	0.13	0.18

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%



**Table 9b. The determinants of changes in corporate governance in Ukraine, OLS, 2005 regressors**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	CGI 2006 – CGI 2005				SPI 2006 - SPI 2005				TDI 2006 - TDI 2005			
Largest non-state owner share	-0.346		-0.002		0.099		0.308		-0.285		-0.077	
Largest non-state owner share change			0.426				0.214				0.364	
Management owner share		-0.036		0.180		0.376		0.551*		-0.427*		-0.249
Management owner share change				0.466				0.216				0.039
Outside owner share		-0.481*		-0.316		-0.051		0.084		-0.278		-0.016
Outside owner share change				0.159				0.120				0.422
State ownership share	0.316	0.268	0.646	0.482	0.361	0.326	0.620**	0.542*	-0.416	-0.465	-0.125	-0.145
State ownership share change			0.608	0.428			0.366	0.245			0.883	0.872
Minority owners combined share	0.299	0.242	0.498	0.306	0.359*	0.317*	0.455	0.354	-0.091	-0.125	-0.036	-0.042
Minority owners share change			0.181	0.029			0.001	-0.087			0.004	0.014
Loan needed	0.115	0.125	0.117	0.128	0.077	0.088	0.067	0.087	0.021	0.015	0.056	0.039
Group member	-0.148	-0.094	-0.381	-0.320	0.016	0.089	-0.106	-0.015	-0.550***	-0.587***	-0.564***	-0.581***
Empl 201-500	-0.212	-0.213	-0.195	-0.196	0.008	0.001	0.036	0.026	0.024	0.035	-0.005	0.036
Empl 501-1000	-0.128	-0.118	-0.064	-0.039	-0.070	-0.060	-0.048	-0.030	0.301**	0.292**	0.328**	0.328**
Empl 1000-2000	-0.105	-0.068	0.021	0.072	0.082	0.114	0.211	0.257	-0.441*	-0.448*	-0.520**	-0.515**
Empl 2000-5000	0.257	0.302	0.108	0.100	0.003	0.060	-0.023	0.032	0.114	0.081	0.106	0.160
Empl >5000	-0.493	-0.469	-0.840	-0.786	-0.579**	-0.539**	-0.765***	-0.711**	0.728**	0.714**	0.660**	0.660**
OAO	0.333*	0.313	0.362*	0.349*	0.002	0.019	0.016	0.003	0.158	0.165	0.177	0.175
Listed	0.534**	0.548**	0.717***	0.713***	0.105	0.122	0.218	0.229	0.105	0.106	0.106	0.118
Industry fixed effects	+	+	+	+	+	+	+	+	+	+	+	+
Constant	0.014	0.060	-0.280	-0.127	-0.326	-0.300	-0.374	-0.326	0.153	0.195	0.033	0.059
Observations	259	259	209	209	277	277	225	225	215	215	200	200
R-squared	0.10	0.11	0.12	0.13	0.08	0.10	0.10	0.12	0.15	0.16	0.17	0.18

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

**Table 9c. The determinants of changes in corporate governance in Kyrgyzstan, OLS, 2005 regressors**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	CGI 2006 – CGI 2005				SPI 2006 - SPI 2005				TDI 2006 - TDI 2005			
Largest non-state owner share	-0.222		1.303		-0.120		0.592		0.151		0.245	
Largest non-state owner share change			0.020				0.008				0.001	
Management owner share		0.107		-0.206		-0.348		-0.059		-0.204		-0.702
Management owner share change				-0.015				-0.004				-0.006
Outside owner share		0.131		0.019		-0.278		0.077		-0.636		-0.818
Outside owner share change				-0.008				0.001				-0.002
State ownership share	-0.776	-0.480	0.447	-0.756	-0.795	-0.974	-0.268	-0.781	-0.310	-0.814	0.192	-0.766
State ownership share change			0.009	-0.018			-0.002	-0.011			0.009	0.003
Minority owners combined share	-1.312	-1.027	0.426	-0.818	-1.062**	-1.250**	-0.121	-0.656	0.082	-0.360	0.502	-0.444
Minority owners share change			0.022*	-0.002			0.013	0.004			0.007	0.001
Loan needed	0.281	0.279	0.359	0.296	0.227	0.226	0.264	0.234	0.404**	0.410**	0.459**	0.439**
Group member	-0.972**	-0.957**	-0.897*	-0.965*	-0.772*	-0.797*	-0.730	-0.748	-0.288	-0.219	-0.336	-0.225
Log empl	0.130	0.123	0.195*	0.198*	0.089	0.087	0.133*	0.141*	0.039	0.060	0.013	0.022
OA0	-0.102	-0.080	-0.412	-0.439	0.216	0.226	0.013	-0.013	0.151	0.115	0.112	0.115
Listed	0.244	0.255	0.143	0.047	-0.035	-0.038	-0.059	-0.115	-0.333	-0.363	-0.421	-0.459*
Constant	-0.075	-0.356	-1.559	-0.236	-0.220	-0.025	-0.928	-0.393	-0.578	-0.184	-0.708	0.177
Observations	81	81	78	78	86	86	83	83	150	150	139	139
R-squared	0.14	0.14	0.20	0.21	0.19	0.19	0.26	0.26	0.06	0.07	0.08	0.10

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

**Table 10. Internal and outside investments in three countries in 2005**

Percent of firms having:	Russia	Ukraine	Kyrgyzstan
No investments	13.9	28.4	48.3
Only internal investments	55.2	47.7	37.9
Outside investments	30.9	23.9	13.8
Number of observations	776	698	269

**Table 10a. The determinants of investment sources in Russia, multinomial logit, lagged (2005) regressors**

	(1)		(2)	
	Only internal inv.	Outside inv.	Only internal inv.	Outside inv.
CGI	0.003	-0.003		
SPI			0.024	-0.024
Management owner share	0.275	-0.271	0.325	-0.322
Management owner share squared	-0.421	0.417	-0.485	0.481
Outside owner share	-0.296	0.298	-0.344	0.345
Outside owner share squared	0.441	-0.441	0.486	-0.486
State ownership share	2.143***	-2.142***	2.148***	-2.147***
State ownership share squared	-2.294***	2.293***	-2.319***	2.318***
Minority owners combined share	0.401**	-0.401**	0.372**	-0.372**
Loan needed	-0.183***	0.184***	-0.172**	0.172**
Profitable	-0.062	0.062	-0.075	0.075
Group member	-0.066	0.067	-0.069	0.069
Empl 201-500	-0.146	0.146	-0.109	0.110
Empl 501-1000	0.024	-0.023	0.049	-0.048
Empl 1000-2000	-0.282**	0.283**	-0.262**	0.263**
Empl 2000-5000	-0.108	0.116	-0.113	0.121
Empl >5000	-0.654***	0.663	-0.647***	0.655
OAO	-0.013	0.013	-0.018	0.018
Listed	-0.021	0.021	-0.029	0.029
Industry fixed effects	+	+	+	+
Constant	0.784**	-0.778**	0.742**	-0.736**
Observations	279	279	283	283

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

Base category in multinomial logit: firms that didn't invest.

**Table 10b. The determinants of investment sources in Ukraine, multinomial logit, lagged (2005) regressors**

	(1)		(2)		(3)	
	Only internal inv.	Outside inv.	Only internal inv.	Outside inv.	Only internal inv.	Outside inv.
CGI	-0.040	0.013				
SPI			-0.004	-0.020		
TDI					-0.001	0.011
Management owner share	0.382	0.019	0.115	0.281	-0.039	0.121
Management owner share squared	-0.232	0.129	0.092	-0.203	0.056	-0.068
Outside owner share	-0.249	0.319	-0.133	0.164	-0.261	0.319
Outside owner share squared	0.324	-0.191	0.185	-0.028	0.168	-0.188
State ownership share	1.334**	-0.793	1.375**	-0.922	1.094	-1.016
State ownership share squared	-1.446*	0.859	-1.433*	0.914	-0.964	0.879
Minority owners combined share	0.148	-0.125	0.069	-0.038	0.211	-0.209
Loan needed	-0.266***	0.272***	-0.262***	0.273***	-0.256***	0.261***
Profitable	-0.035	0.124*	0.003	0.079	-0.047	0.067
Group member	0.104	-0.022	0.092	-0.038	0.059	-0.050
Empl 201-500	-0.076	0.113	-0.097	0.114	-0.106	0.109
Empl 501-1000	0.021	0.137	-0.003	0.143	-0.083	0.113
Empl 1000-2000	0.132	0.029	0.065	0.066	0.030	-0.008
Empl 2000-5000	0.006	0.086	-0.044	0.132	-0.068	0.085
Empl >5000	1.784***	0.989	1.677***	1.052	0.451*	0.199
OAO	0.038	0.033	0.027	0.022	-0.034	0.033
Listed	0.099	0.126	0.099	0.130	0.303**	0.321
Industry fixed effects	+	+	+	+	+	+
Constant	0.510** (0.248)	-0.626*** (0.234)	0.378 (0.259)	-0.490** (0.245)	0.443* (0.257)	-0.500** (0.254)
Observations	256	256	264	264	247	247

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%  
Base category in multinomial logit: firms that didn't invest.

**Table 10c. The determinants of investment sources in Kyrgyzstan, multinomial logit, lagged (2005) regressors**

	(1)		(2)		(3)	
	Only internal inv.	Outside inv.	Only internal inv.	Outside inv.	Only internal inv.	Outside inv.
CGI	0.031	0.001				
SPI			0.022	-0.045		
TDI					0.018	0.003
Management owner share	-1.184	-0.129	-1.159	-0.181	-0.393	-0.226
Management owner share squared	1.324*	-0.098	1.252	-0.013	0.298	0.435
Outside owner share	-0.534	-0.262	-0.498	-0.269	-0.212	0.185
Outside owner share squared	0.372	0.243	0.282	0.300	0.124	-0.016
State ownership share	-0.627	-0.637*	-0.313	-0.600*	0.111	-0.286
State ownership share squared	0.778	0.569	0.121	0.509	-0.130	0.339
Minority owners combined share	-0.489	-0.030	-0.510	0.015	-0.429	0.176
Loan needed	0.144	0.096*	0.135	0.108*	0.021	0.156**
Profitable	0.185	0.015	0.176	0.026	0.043	0.013
Group member	-0.170	-0.167**	-0.156	-0.107	-0.208	0.009
Log empl	-0.026	0.042**	-0.023	0.051**	0.008	0.068***
OAO	-0.013	-0.161***	-0.015	-0.152**	-0.031	-0.155**
Listed	-0.376*	0.106**	-0.338*	0.119**	-0.392**	0.071
Constant	0.203	-0.116	0.269	-0.098	0.158	-0.558*
Observations	104	104	107	107	148	148

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%  
Base category in multinomial logit: firms that didn't invest.

**Table 11a. Effect of takeover threats on changes in corporate governance in Russia, OLS, 2005 regressors**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	CGI 2006 – CGI 2005				SPI 2006 - SPI 2005				TDI 2006 - TDI 2005			
Takeover threat 2005	0.539**	0.533*	0.406	0.384	0.335	0.342	0.188	0.226	0.040	0.039	0.148	-0.022
Takeover attempt 2006	-0.211	-0.219	-0.194	-0.227	-0.072	-0.063	-0.049	-0.086	0.197	0.211	0.189	0.212
Greenmail 2006	-0.032	-0.010	-0.037	0.019	-0.110	-0.130	-0.128	-0.185	0.037	-0.077	-0.089	-0.228
Largest non-state owner share	-0.101		-0.220		-0.060		-0.113		-0.897**		-0.911*	
Largest non-state owner share change			-0.473				-0.327				0.617	
Management owner share		-0.074		0.013		0.054		-0.005		-0.257		-0.317
Management owner share change				-0.536				-0.681*				-0.554
Outside owner share		0.057		-0.005		-0.089		-0.138		-0.939**		-1.036**
Outside owner share change				0.095				0.094				0.423
State ownership share	-0.498	-0.431	-0.204	-0.094	-0.308	-0.291	0.019	-0.006	-0.612	-0.498	-0.505	-0.532
State ownership share change			1.015	1.489			1.280	1.709*			0.794	0.787
Minority owners combined share	-0.239	-0.161	-0.410	-0.196	-0.152	-0.113	-0.316	-0.269	-0.945*	-0.629	-1.040*	-0.836
Minority owners share change			0.099	0.358			-0.353	-0.292			-0.542	-0.525
Loan needed	0.118	0.120	0.005	0.052	0.044	0.044	-0.043	-0.007	-0.234	-0.230	-0.298	-0.318
Group member	-0.170	-0.178	-0.186	-0.236	-0.299	-0.277	-0.394**	-0.458**	-0.008	0.082	-0.225	-0.132
Empl 201-500	-0.041	-0.047	-0.137	-0.133	0.022	0.017	-0.024	-0.029	-0.054	-0.156	-0.053	-0.136
Empl 501-1000	0.103	0.104	0.120	0.092	0.245	0.240	0.274	0.254	0.214	0.096	0.308	0.170
Empl 1000-2000	-0.103	-0.102	-0.062	-0.054	0.267	0.265	0.287	0.270	0.002	-0.078	0.116	-0.021
Empl 2000-5000	1.170**	1.159**	1.072**	1.087**	0.871**	0.889**	0.830**	0.874**	-0.120	-0.040	0.187	0.148
Empl >5000	0.721*	0.686*	0.794**	0.794*	0.489*	0.508*	0.558**	0.694**	0.008	0.019	0.551	0.583
OAO	0.359	0.359	0.188	0.240	0.334*	0.368*	0.224	0.290	-0.223	0.079	-0.216	0.064
Listed	0.018	0.050	-0.101	-0.223	0.101	0.096	-0.066	-0.160	-0.511	-0.507	-0.183	-0.509
Constant	-0.241	-0.314	0.123	-0.089	-0.393	-0.451	-0.130	-0.181	0.963*	0.595	0.963	0.804
Observations	142	141	131	129	146	145	135	133	95	94	88	87
R-squared	0.11	0.11	0.16	0.14	0.09	0.10	0.15	0.16	0.13	0.15	0.20	0.21

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

**Table 11b. Effect of takeover threats on changes in corporate governance in Kyrgyzstan, OLS, 2005 regressors**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	CGI 2006 – CGI 2005			SPI 2006 - SPI 2005			TDI 2006 - TDI 2005					
Takeover threat 2005	-0.503	-0.440	-0.383	-0.667	-0.038	-0.059	-0.016	-0.107	-0.483	-0.475	-0.446	-0.650*
Takeover attempt 2006	-0.412	-0.399	-0.561	-0.595*	-0.210	-0.215	-0.309	-0.320	-0.443	-0.415	-0.420	-0.365
Greenmail 2006	-0.138	-0.040	-0.045	-0.012	-0.348	-0.315	-0.286	-0.315	0.833***	0.989***	0.975***	1.162***
Largest non-state owner share	0.007		1.843		0.303		1.161		0.078		0.654	
Largest non-state owner share change			0.025*				0.012				0.005	
Management owner share		0.727		0.039		0.078		0.378		-0.472		-1.522
Management owner share change				-0.018				-0.002				-0.010
Outside owner share		0.106		-0.303		0.064		0.467		-0.915		-1.728
Outside owner share change				-0.009				0.001				-0.007
State ownership share	-0.723	-0.444	0.790	-1.165	-0.579	-0.765	0.097	-0.554	-0.377	-1.095	0.660	-1.575
State ownership share change			0.010	-0.026			0.002	-0.009			0.012	-0.002
Minority owners combined share			0.023*	-0.008			0.013	0.003			0.009	-0.006
Minority owners share change	-0.958	-0.565	0.856	-0.809	-0.718	-0.889*	0.281	-0.356	-0.068	-0.727	0.600	-1.630
Loan needed	0.425	0.471	0.478	0.406	0.381*	0.383*	0.399*	0.343	0.376*	0.376*	0.467**	0.424*
Group member	-1.401***	-1.283**	-1.167*	-1.152*	-1.040*	-1.041*	-0.931	-0.925	0.080	0.137	-0.018	0.137
Log empl	0.275*	0.331**	0.320**	0.419***	0.152*	0.154	0.183*	0.199*	0.046	0.068	0.002	0.003
OAO	0.089	-0.062	-0.288	-0.481	0.366	0.344	0.149	0.137	0.046	0.007	-0.041	-0.016
Listed	0.065	-0.007	-0.085	-0.273	-0.136	-0.136	-0.186	-0.244	-0.225	-0.262	-0.345	-0.390
Constant	-1.134	-1.680*	-2.661	-1.087	-1.057*	-0.868	-1.797*	-1.172	-0.432	0.168	-0.853	1.292
Observations	65	65	63	63	67	67	65	65	122	122	113	113
R-squared	0.20	0.22	0.27	0.30	0.28	0.27	0.33	0.32	0.06	0.08	0.09	0.11

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

**Table 12a. Effect of changes in corporate governance on changes in takeover threats in Russia, OLS, 2005 regressors**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	<b>Change in presence of takeover threat from 2005 to 2006</b>											
CGI change	0.071			0.016			-0.040			-0.170		
SPI change		-0.082			-0.080			-0.285			-0.298	
TDI change			0.374			0.435			-6.545***			-5.930***
Largest non-state owner share	-0.993	-0.521	-0.685				-1.256	-0.881	29.571			
Largest non-state owner share change							0.093	-0.040	115.326			
Management owner share				-0.395	-0.146	-1.993**				0.664	1.028	41.344
Management owner share change										3.653*	2.846*	45.602
Outside owner share				1.521	1.867**	1.011				3.711**	3.828**	37.303***
Outside owner share change										2.642	2.358	86.127
State ownership share	-0.354	-0.052		1.275	1.484		0.223	0.481		4.401**	4.235**	
State ownership share change							3.453	4.292		3.911*	3.617	
Minority owners combined share	-0.585	-0.366	-1.331	1.079	1.191	-0.604	-2.019**	-1.974*	-3.164	1.965	1.504	45.562
Minority owners share change							-4.710***	-4.867***	-44.384	-3.149*	-3.356*	2.490***
Profitable	0.938**	0.959**		0.926**	1.080***		0.604	0.707		1.017**	1.584**	
Group member	0.536	0.478	0.857	0.418	0.332	0.387	0.545	0.480	-9.803***	0.919*	0.648	5.436***
Empl 201-500	0.390	0.340	-0.203	0.175	0.157	-0.090	0.133	0.175	-48.353	-0.186	-0.217	
Empl 501-1000	0.749	0.726	-0.366	0.921	0.955	0.197	0.990	1.130	-12.228	1.276	1.339**	-15.301***
Empl 1000-2000	-0.261	-0.248		-0.167	-0.085		0.141	0.272		0.286	0.410	
Empl 2000-5000		0.101			0.091			0.694			0.389	
Empl >5000	-0.929	-0.705		-1.690	-1.452		-0.595	-0.485				
OAO	-0.718*	-0.610*	-0.751	-0.676*	-0.613	-0.710	-1.441***	-1.280***	-28.743	-2.154***	-1.851***	-13.693***
Listed	1.400**	1.175**		2.232***	2.012***		1.192*	1.032*		3.574***	2.777***	
Constant	-1.523*	-1.867**	0.076	-3.157***	-3.554***	-0.686	-0.798	-1.307	-11.406	-4.948***	-5.469***	-32.333***
Observations	127	138	33	126	137	32	117	128	30	105	116	23

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%



**Table 12b. Effect of changes in corporate governance on changes in takeover threats in Kyrgyzstan, OLS, 2005 regressors**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	<b>Change in presence of takeover threat from 2005 to 2006</b>											
CGI change	-0.121			-0.126			-0.048			-0.095		
SPI change		-0.250			-0.264			-0.192			-0.299	
TDI change			0.082			0.107			0.183			0.168
Largest non-state owner share	-1.520	-0.772	-0.977				-5.006**	-3.267	-2.943**			
Largest non-state owner share change							-0.041	-0.027	-0.024			
Management owner share				-1.485	-1.687	-1.278				-3.428	-2.988	-2.075
Management owner share change										-0.010	-0.004	-0.008
Outside owner share				-1.019	-0.635	-0.181				-3.299	-2.113	-1.305
Outside owner share change										-0.013	-0.003	-0.008
State ownership share	-0.588	-0.531	-0.674	-0.667	-1.018	-0.676	-4.842**	-4.314*	-3.312**	-4.060	-4.165	-2.510
State ownership share change							-0.048**	-0.042*	-0.034**	-0.029	-0.027	-0.021
Minority owners combined share	-0.880	-0.401	-0.256	-0.550	-0.494	-0.025	-3.586*	-2.536	-2.654*	-2.627	-2.242	-1.587
Minority owners share change							-0.198**	-0.121*	-0.041**	-0.146	-0.095	-0.026
Profitable	-1.039**	-0.991**	-0.807***	-0.989**	-0.894**	-0.739**	-1.131**	-1.013**	-0.772**	-1.128**	-0.920*	-0.728*
Group member	-0.389	-0.592	0.001	-0.493	-0.682	-0.103	-0.338	-0.506	-0.066	-0.358	-0.545	-0.291
Log empl	0.215	0.090	-0.066	0.129	0.017	-0.129	0.364*	0.154	0.032	0.218	0.095	-0.016
OAO			0.657			0.893*			0.885*			0.883*
Constant	-0.514	-0.267	-0.427	-0.166	0.435	-0.464	2.163	2.066	0.970	1.848	1.905	0.284
Observations	55	56	120	55	56	120	54	55	111	54	55	111

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%