Oligarchs, institutional change, and firm valuation: Russian evidence

by

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Abstract

The Russian equity market with its poorly functioning institutions has been plagued by the agency problem between the controlling shareholder and minority shareholders. We explore how the political regime change from Yeltsin to Putin has changed the valuation of oligarch-controlled firms relative to other firms. We expect that the reduction in political connectedness and the empowering of the state vis-à-vis the oligarchs have implications for the agency conflicts between oligarchs and minority shareholders. We find that during the Yeltsin era oligarch-run firms have significantly lower valuations than other firms, whereas during the Putin regime such firms have significantly higher valuations than other domestic firms. The results suggest that the value from oligarchs' high incentives did not accrue to minority shareholders before the oligarchs' influence on the government had declined.

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Key words: oligarchs; political connections; cross-listing; investor protection.

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Abstract

The Russian equity market with its poorly functioning institutions has been plagued by the agency problem between the controlling shareholder and minority shareholders. We explore how the political regime change from Yeltsin to Putin has changed the valuation of oligarch-controlled firms relative to other firms. We expect that the reduction in political connectedness and the empowering of the state vis-à-vis the oligarchs have implications for the agency conflicts between oligarchs and minority shareholders. We find that during the Yeltsin era oligarch-run firms have significantly lower valuations than other firms, whereas during the Putin regime such firms have significantly higher valuations than other domestic firms. The results suggest that the value from oligarchs' high incentives did not accrue to minority shareholders before the oligarchs' influence on the government had declined.

1. Introduction

Russian firms have experienced significant changes in their corporate governance structures since the collapse of the Soviet Union in 1992. The voucher privatization program enabled shareholdings by outsiders, managers as well as employees (e.g., Boycko et al., 1995). The privatization process, including the subsequent loans-for-shares auctions, gave rise to the so-called oligarchs with an influence over the Russian economy (Guriev and Rachinsky, 2005; Shleifer and Treisman, 2005). While it appears theoretically rather clear that private ownership concentration is needed to achieve efficient restructuring in former state-controlled firms (e.g., Shleifer and Vishny, 1997), authors disagree on the costs and benefits of the oligarchs in the Russian economy. Those emphasizing the positive role of oligarchs in Russia's economic recovery include Boone and Rodionov (2002), Aslund (2004), Guriev and Rachinsky (2005), and Shleifer and Treisman (2005), whereas those who view oligarchs as having weakened Russia's economy include Stiglitz (2002), and Goldman (2004). We try to contribute to this literature by asking the question: *How do changes in the political and legal regime affect the relative performance of oligarch-controlled firms compared with other firms in Russia*?

We are interested in the question of how the nature of the oligarchic capitalism has changed over time in Russia. In the 1990s, the oligarchs became known for their asset stripping and other ways of expropriating minority shareholders (e.g., Stiglitz, 2005). However, more recently oligarchs have become more minority shareholder friendly and have been associated with higher firm valuations than comparable firms (Boone and

Rodionov, 2002; Guriev and Rachinsky, 2005). We explore the evolving role of the oligarchs in Russian capitalism and provide some explanations for the relative performance of oligarch and comparable firms.

We investigate the relation between firm-level corporate governance variables, changes in the political and legal regime, and firm valuation during the period 1998 to 2003. We focus on the period after the Russian financial crisis in August 1998, for which data is available to us. To investigate how the firm-level corporate governance variables interact with the political and legal changes, we separate between the periods under Yeltsin's and Putin's control. The amendment of the Joint-Stock Company law, which generally gives minority shareholders some improved rights, also occurred under the early phase of the Putin's power in the Kremlin. We are particularly interested to see whether the valuation consequences of the oligarch-controlled, cross-listed firms, and ownership concentration are different under these two regimes. To our knowledge, this is the first time-series cross-sectional analysis of the firm-level governance variables focusing on the differences in these two regimes.

Using a sample of 117 Russian listed firms, we find that oligarch-controlled firms underperform compared to firms with other types of controlling shareholders during Yeltsin's period in power, but that such oligarch-controlled firms are associated with higher firm valuations during the Putin administration. The results on the performance of the oligarch-controlled firms are also consistent with the view that private owners with large incentives need tighter laws in order to opt for strategies to maximize shareholder value as opposed to the extraction of private benefits. We also find that an increase in the concentration of ownership rights by the largest shareholder is associated

with higher firm valuations. Firms that opted for cross-listings in more shareholder friendly regimes have been able to increase firm valuations during the Yeltsin era but not afterwards. These results suggest that the firm-level and legal-regime variables can complement each other.

The results support the idea that the high economic incentives by the oligarchs through their large cash-flow stakes did not lead to higher valuations when the institutions were poor in Russia in the 1990s. The preferential treatment of oligarchs by the Kremlin in the 1990s in combination with the weak laws and law enforcement made extraction of private benefits an attractive option for the oligarchs as compared to value creation. The higher separation between the Kremlin and oligarchs during the Putin era seems to have transformed the oligarchs into advocates of shareholder value. Perhaps most importantly, this paper highlights the importance of the interaction between political conditions and corporate governance mechanisms.

The paper proceeds as follows. Section 2 presents hypotheses. Section 3 presents the sample, and descriptive statistics on corporate governance characteristics. Section 4 discusses regression results. Section 5 concludes the paper.

2. The valuation of oligarch firms under different levels of political involvement: hypothesis development

After the oligarchs had built up their ownership stakes in listed firms, they in theory had large incentives to restructure their firms (Boycko et al., 1995). For political reasons, ownership in listed firms rapidly became concentrated in the hands of oligarchs behind financial industrial groups after the privatization. However, the initial conditions after the collapse of the USSR with very weak rule of law, made expropriation of the firms a relatively attractive alternative to building value in the firms in the 1990s. Capital flight was also common as the emerging oligarchs chose to invest in the booming US stock market (Stiglitz, 2002).

The empirical studies covering the 1990s generally show that privately-controlled firm perform worse or about as good as firms still controlled by the state (Bevan et al., 2001; Kutznetsov and Muravyev, 2001), and that concentrated ownership can reduce firm performance (Filatotchev et al., 2001). It is also rather clear that there were few initiatives by the emerging oligarchs after mid-1990s to lobby for improved rule of law. Instead, as Sonin (2003) notes, the rich may favor weak laws and subversion of institutions. The 1990s in Russia was characterized by expropriation of minority shareholders in the form of asset stripping (Shleifer and Treisman, 2005). On the other hand, Guriev and Rachinsky (2005) and Boone and Rodionov (2002) argue that the Russian oligarchs have played an important role in Russian capitalism and suggest that oligarchs can be more efficient than other controlling domestic owners because of (1) lower separation between ownership and control, (2) better access to capital, (3) better

control of hold up problems, and (4) better protection against the "predatory" state. In addition, the oligarchs often brought with them new management that replaced so called red directors (e.g., Aslund, 2004). Guriev and Rachinsky (2005) find that the productivity growth in 2002 was higher in oligarch-controlled firms relative to other firms with private domestic owners and state owners in control. Next, we will develop hypotheses by discussing how the valuation of oligarch-controlled firms may change as the political and legal environment changed with the transition from the Yeltsin era to the Putin era.

How did the Yeltsin regime affect the relative valuation of oligarch-controlled firms compared to other privately-controlled firms? Given the initially weak institutions after the privatization, the concentration of control in the hands of few oligarchs led to expropriation of minority shareholders on large scale (Glaeser et al., 2003).[1] During the Yeltsin era, the oligarchs and big business were closely connected, and some oligarchs even became part of the government (Shleifer and Treisman, 2005). The oligarchs got large private benefits of control from colluding with politicians. Oligarchs also blocked attempts to modernize the legal system and gained from such subversion of institutions (Sonin, 2003). Hellman (1998) described the oligarchs' behavior during the 1990s as "winners take all". Taken together, we *hypothesize* that during the Yeltsin administration the weak rule of law and tight relation between the oligarchy and politicians lead to expropriation of minority shareholders which will be reflected in a market valuation that is lower than that of other private owners.

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[1] E.g. Glaeser et al. (2003) discuss various actions through which the winners from the political transaction gained control over the state's assets, and succeeded in subverting the institutions of the state to further their political and economical influence. These include using the influence over Parliament and courts to dilute minority shareholders with legal impunity, making it possible to consolidate holdings, as well as firm acquisitions by the help of controlled banks.

How did the Putin era change the valuation of oligarch-controlled firms relative to other privately-controlled firms? Putin wanted to strengthen the power of the state vis-à-vis other institutions and the oligarchy (Thompson, 2004). Putin worked to strengthen the law enforcement, including the police force, and the rule of law in general. Putin also made an oral agreement with the oligarchs that as long as they stay out of politics, they will not be deprived their rights to their acquired property. The Khodorkovsky imprisonment was an example of what could happen if an oligarch had political ambitions (Hoffman, 2003). As Stiglitz (2002) note, the oligarchs did not start to lobby for the rule of law before they had seen their influence on the government decline. An important step towards improved investor protection was the new law on joint-stock companies that came into effect in August 2002. Another initiative in the right direction was the corporate governance code issued in 2003. In sum, we *expect* that the higher separation between the oligarchs and the Kremlin together with the improved rule of law is reflected in higher market valuations of oligarch-controlled firms relative to firms with other types of private controlling shareholders.

In section 4, we test these hypotheses empirically.

3. Data

3.1 Sample

We focus on the time period after the financial crisis that affected Russia in 1998. As a starting point, we select all firms in the UBS Brunswick Russian Equity guides

(UBS guides) for the six-year period 1998 to 2003. The UBS guides primarily include Russian firms traded on Russian exchanges but also a few Russian firms traded only in the U.S. All our accounting-based data come from the UBS guides. Table 1 describes the construction of the sample.

Information on ownership structures come from two sources: UBS guides and Skrin.ru. We drop firms that are fully controlled by a single owner or group of owners. From the UBS guide 1999/2000 we collect ownership information reflecting the situation at year-end 1998. Lacking data on ownership for year-end 1999 and 2000, we gather ownership data for these year from Skrin.ru. Ownership data for year-end 2001, 2002, and 2003 come from UBS guides labeled 2002/03, 2003/04, and 2004/05, respectively.

Data on market valuations come from two sources: UBS guides and Thomson One Banker. Valuation data that measures the corporate governance characteristics in 1998 are those market capitalizations (based on mid prices August 1, 1999) that are published in the "capital structure" section in the UBS guide 1999/00. To get valuation measures for reflecting years 1999 and 2000, we use year-end valuation data from Thomson One Banker for these years. Valuation data measuring corporate governance characteristics for years 2001, 2002, amd 2003 come from UBS guides that report market capitalizations at July 26 2002, August 1 2003, and August 2004, respectively. Finally, our sample containing ownership data consists of 438 firm-year observations (Basic sample). As a result of the sample and variable selection, we end up with 117 firms and 327 firm-years for the sample that facilitates empirical analysis (sample used in the regressions). The main reason we lose observations in the latter sample is due to the limited coverage of market valuation data in the Thomson One Banker database.

3.2 Variable descriptions

The constructions of the variables are shown in Table 2. We measure valuation as market capitalization (ordinary share price times the number of outsanding shares) divided by the book value of shareholders equity. Market capitalizations as well as book values come from various editions of the Brunswick UBS Warburg Russian Equity Guides. For the years 1999 and 2000 these guides lack valuation data, so we use year-end market-to-book ratios from the Thomson ONE Banker database. To reduce the impact of extreme values, we winsorize valuation ratios at the 5th and 95th percentiles by setting extreme values to the 5th and 95th percentile values, respectively (but consider also alternative thresholds in section 4.3). In the robustness section, we also discuss results using the firm value / sales ratio and a simplification of Tobin's q as our valuation measure.

As our starting point for information on ownership structures, we use immediate ownership data published in the UBS equity guides and on Skrin.ru. We trace the ultimate owners of the listed firms in the sample using the immediate owner data we have for all the 438 firm-year observations. We deal with unlisted firms in the following way. First, if an unlisted firm controls the sample firm, we use the lists of state holding companies and oligarch holding companies provided by the UBS equity guides and the Guriev and Rachinksy (2005) list, respectively, and report the type of the ultimate owner. If it is not mentioned on those lists, we call the ultimate owner "other private". We aim at reporting year-end ownership data. Whenever there are block trades mentioned in the "Business overview" section in the UBS equity guides, we take into account the block

trades and adjust the changes to year-end figures. We also use a secondary source typically from the Internet to verify the timing of the change in control.

Having traced the ultimate owner, we assign the fraction of cash-flow rights to this ultimate controlling shareholder. Voting rights can exceed cash-flow rights primarily due to the use of pyramiding or due to differences in voting rights attached to different share classes. The variable for cash-flow ownership may overstate the amount of incentives because we have not been able to identify the ultimate owner in some cases. However, the owners behind unlisted firms are typically individuals with a controlling stake rather than dispersed owners (La Porta et al., 1999), and therefore the cash-flow incentives by the ultimate owner should be significant.

Sometimes the state directly controls the firm, sometimes it controls it trough the state-controlled holding company. We check the owners behind the unlisted state firms from UBS guides. We sum ownership stakes by the federal government and regional government.

If the firm's controlling shareholder is not the state and it has at least 20% of ownership or votes, we check if the private controlling shareholder is either directly an oligarch or a holding company controlled by an oligarch or oligarchs, and if so, we classify the firm as oligarch-controlled that year. The information on private oligarchs come primarily from Guriev and Rachinsky (2005), "Moscov Group of Seven" (1996), and Barnes (2003). The oligarch ranking in Gurviev and Rachinsky (2005), as they note, is generally consistent with many other rankings for Yeltsin's second period and Putin's

first term.[2] We assume that the ultimate owners behind the oligarch holding companies have been the same during the period studied.

If the firm's controlling shareholder is neither an oligarch nor the state, we use Internet sources to check the country of incorporation of the owner. Foreign owners are typically foreign multinationals. We do not trace the ultimate owner of the foreign owner but keep it as a separate owner type because foreign owners may perform their own governance role. If the firm has a controlling shareholder with at least 20% of ownership or votes and it is neither a foreign owner, a state or an oligarchs-controlled firm, we classify it as controlled by an "other private" owner. If the firm does not have any controlling shareholder with at least 20 % of votes, we classify it as widely held. These widely held firms are very few.

We separate between the Yeltsin and Putin era by analyzing the effects of the corporate governance variables during these two separate regimes. Yeltsin was in power of the Kremlin during the years 1991-1999. On new years eve 1999, President Boris Yeltsin announced his resignation. By separating the periods under President Yeltsin and Putin, we are able to explore, in particular, whether the valuation of oligarch-controlled firms has changed during these two power regimes. According to the Economist (2004) "much of what Mr Putin did in his first term was aimed at dismantling Mr Yeltsin's legacy". Vladimir Putin took office after the election of March 2000. During Putin's power in the Kremlin, the new Law on Joint-Stock companies also came into effect in year 2002 . In April 2002, the Federal Securities Commission (FSC) prepared a corporate governance code.

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[2] To be included in their list of the 22 largest Russian oligarchs, it is required that total annual sales revenues controlled by a particular group of shareholders are above $700 million or the total employment controlled by the group is above 20,000 people.

To measure the effect of cross-listings as a governance mechanism on the valuation of the firm, we contruct a dummy variable equal to one if the firm has cross-listed its shares in an other country.[3] We include all types of cross-listings in this variable such as Reg S, 144a, OTC, and Exchange listings. The Rule 144a private placements programs do not require the firm to follow USGAAP and SEC rules, whereas the Level 1 ADRs trade as OTC issues with limited liquidity and require only limited SEC disclosure and no USGAAP compliance (Doidge et al., 2004). In contrast, the Level 2 and 3 ADRs listings require SEC disclosure and requires the firm to follow the exchange's own listing rules. The cross-listings are either American Depository Receipts (ADRs) or depository receipts issued in Europe. Nevertheless, since the depository receipts generally require improved disclosure quality from the firms and in some instances give minority shareholders some improved rights (depending on the level of the cross-listing), we expect a positive relation between cross-listings and firm valuations. In the robustness section, we discuss the effect of different levels of cross-listings separately.

We control for firm-specific and industry characteristics using several variables. Sales growth is used to measure growth opportunities. The variable is measured as the growth in revenues from the previous year. Leverage is defined as long-term debt / total assets. Firm size is measured as the logarithm of sales. We also control for industry effects by including dummy variables for industries and for year-specific effects by including year dummies where appropriate.

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[3] Coffee (1999) and Stultz (1999) were among the first to suggest that foreign listings may function as a corporate governance mechanism, preventing managers from taking excessive private benefits. Through a foreign listing, the firm may become subject to more stringent regulatory rules, the investors may acquire the ability to exercise more effective legal actions such as class actions, and the exchange itself may commit the firm to more extensive and transparent reporting (Coffee, 1999). Besides Doidge et al. (2004), also e.g. Reese and Weisbach (2002) and Mitton (2002) provide evidence supporting the hypothesis of such bonding / legal bonding through ADRs.

3.3 Descriptive statistics

Table 3 shows that the fraction of oligarch-run firms equals almost 23,5 % (77 / 327). The valuations were significantly lower in oligarch firms than in nonoligarch firms during the Yeltsin period, whereas this difference is reversed during the Putin period. Oligarch-controlled firms are significantly larger, have higher growth levels and ownership concentration. Oligarch-run firms have also significantly lower debt levels during the earlier paeriod but approximately similar debt levels during the latter period. The frequency of cross-listings is about the same in oligarch and and nonoligarch firms.

Table 4 presents descriptive statistics on controlling owners and cross-listings for the sample firms over the period 1998-2003. Panel A shows that the most common type of controlling owner is still the state which is in control, on average, in more than half of the sample firms. The fraction of listed companies controlled by oligarchs have increased from 8 % in 1999 to 34% in 2003. By comparison, Guriev and Rachinsky (2005) show that oligarchs in 2003 controlled about 40% of sales in their large sample study covering also unlisted firms. In year 1998, the fraction of oligarch-controlled firms was 13 %. Thus, the fraction of oligarch-controlled firm have increased after the financial crisis in which a few of the oligarchs that dominated Yeltsin's Russia took a hit (Guriev and Rachinsky, 2005). Oligarchs appear to have taken over assets from the state in subsequent privatization deals and from other private owners.

Panel B of Table 4 displays the mean fraction of ownership rights held by the controlling shareholder over the studied years. The ownership rights held by the controlling shareholder have somewhat increased over the sample period, namely from

38 % to 54 %. Panel B also shows that ownership concentration is higher in oligarch-controlled firms as compared to firms with other types of controlling shareholders. For example in year 2003, the mean fraction of ownership rights controlled by oligarchs was about 65 %, whereas the corresponding figure for other firms was 48 %. For comparison, Guriev and Rachinsky (2005) report that oligarchs control 79 % whereas other owners control 74 % of the shares in their large sample study containing unlisted and listed firms. Panel C of Table 4 also shows that many firms introduced cross-listings of their shares in year 1999: the fraction of firms with cross-listings was 25 % in 1998 and 41% in 1999.

4. Regression results

4.1 Model

Our main interest concerns the relation between the type of controlling shareholder and firm valuation for the whole period 1998-2003, and their interaction between the different policy and legal regimes. The main model is a pooled OLS with industry and year dummy variables. We control for heteroscedasticity in all models. Alternative model specifications are discussed in the robustness section. We estimate the following regression model:

Firm valuation = α_0 + β_1 (Control type) + β_2 (Ownership) + β_3 (Cross-listing) + β_4 (Control variables) + β_5 (Year dummies) + β_6 (Industry dummies) + ϵ,　　　　(1)

where

Firm valuation = market-to-book value;

Control type = we distinguish between control types: Oligarch, State, Other private, Foreign, and Widely held;

Ownership = the ownership rights held by the controlling shareholder;

Cross-listing = binary variable that equals one when the firm has cross-listed its shares abroad;

Control variables = annual sales growth, log(sales), total debt by total assets;

Year dummies = 1 for each year of our studied period;

Industry dummies = 1 for the industry class in our sample.

4.2 Regression results

In this section, we present the main regression results. The main question we ask is how the valuation of oligarch-controlled firms is affected by the political and legal regime. First, we present the results of the relative valuation of oligarch-controlled firms during the Yeltsin regime. Second, we estimate the same regression models during the Putin administration. Thirdly, we run regressions for all years on a pooled sample. Results from robustness tests are discussed in Section 4.3.

In Panel A of Table 5, we show that oligarch-controlled firms have lower valuations than firms with other types of controlling shareholders during the Yeltin era (column 1). The coefficient for the oligarch dummy equals –0.518 (significant at the 5% level) and implies that the valuation of oligarch-run firms is about 60 % lower than the valuation of firms with other types of large owners (oligarch coefficient (0.52) divided by the average

valuation of nonoligarch firms without widely held firms (0.86)). In column 2 of Panel A, we show that the valuation of oligarch-controlled firms is 0.243 lower than firms with other domestic private controlling shareholders taken as the reference group. Thus, the results for the Yeltsin period (1998-1999) support the hypothesis discussed in section 2 stating that powerful oligarchs under weak rule of law and high political involvement by the oligarchs reduce the valuations of such firms relative other firms with generally higher separation between ownership and control. The lower valuations of oligarch firms points to the agency problems between the oligarch and minority shareholders during the Yeltsin administration.

Panel B of Table 5 show the valuation of oligarch-controlled firms during the Putin administration. Oligarch-controlled firms' valuations are significantly higher (at the 1% significance level) than those of firms with other domestic private and state owners (column 4). The coefficient for the dummy variable for oligarch control implies an increase in valuations by 0.58 relative to valuations of firms with comparable other private controlling shareholders (column 4). Hence, the relative valuation of oligarch-controlled firms has significantly improved over time as the rule of law and especially the enforcement of laws have improved. The results also favor the hypothesis in section 2 stating that the decreasing involvement of big business in Kremlin polititics should make the oligarchs focus more on value creation as opposed to lobbying for weak laws that would give them private benefits of control. The results in Panels A and B of Table 5 indicate that the minority shareholders did not benefit from the high incentives by the oligarchs before Putin increased the power of the state vis-à-vis the oligarchs.[4]

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[4]Related cross-sectional evidence is found by Maury (2006) who shows that active family owners are associated with higher firm valuations only when shareholder protection is of above median quality in

Panels C of table 5 also shows that the valuation of oligarch firms is significantly different between the two political regimes. The coefficient for the interaction between oligarch control and the Putin era dummy variables is equal to about 0.64 (columns 5 and 6 of Table 5) and is statistically significant at the 1 % level. The valuation difference is plausibly driven by the agency problem between the oligarch and minority shareholders. Thus, the valuation impact of oligarch control is significantly different between the Yeltsin II and Putin I periods. In addition, panel C of Table 5 shows that the valuation consequence of cross-listings is significantly different between the two political regimes. One plausible explanation for the higher valuation of cross-listed firms during the earlier period but not the later period has to do with the general improvement in corporate governance practices in Russian firms over time, which may reduce the value of cross listings.

Panels A through C of Table 5 also show that the valuations of foreign-controlled firms are higher than firms with other types of owners during the Yeltsin era, and higher valuations than other private and state controlled firms but almost equal to oligarch-controlled firms during the Putin era. The coefficient equals about 0.90 for the whole period and is significant at the 1 % level (column 6 of Panel C). Thus, the results suggest that firms have benefited from foreign control possibly due to better access to capital and a general interest in value creation as opposed to private benefits of control.

Table 5 also shows that the fraction of cash-flow rights held by the controlling shareholder (measuring the incentives) is positively related to firm valuation in line with the Jensen and Meckling (1976) condition. The coefficient for the variable Ownership for

Western Europe. La Porta et al. (2002) show that firm valuations are higher in countries with better shareholder protection that constrain minority shareholder expropriation by controlling shareholders.

the full sample equals 0.006 (column 6 in Panel C). The results on the cash-flow ownership variable compared to the *type* of controlling shareholder indicate that the owner types such as oligarchs (with all their attributes) are key to understanding the relation between big business and the political and legal regime. Note also that Table 3 showed an general increase in the fraction of ownership rights held by the controlling shareholder over time. Due to the fact that we control for year effects in the regressions, the results on incentives should not merely measure the general increase in stock prices over time on the Russian market.

The impact of cross-listings and firm valuations is also shown in Table 5. Prior research suggests that that firms can opt for a more shareholder friendly legal regime by cross-listing its shares on markets which offer better shareholder protection (La Porta et al., 2000), and that such cross-listings should have a more positive effect on firm valuations the lower the shareholder protection is in the country of incorporation (Doidge et al., 2004). The coefficient for any cross-listing abroad is positive and significant during the Yeltsin era (Panel A), but negative although insignificant for the Putin era (Panel B). The results of cross-listings are supportive of the argument that firms can use firm level methods to compensate for an otherwise weak legal regime that characterized Russia especially during the 1990s. However, the benefits of cross-listing seem to diminish during the Putin era when the domestic rule of law improved.

The control variables that are positively related to firm valuation are sales growth and leverage (Table 5). The positive effect of sales growth is expected (though not significantly so during in the Putin era). The strongly positive effect of leverage on firm valuation is similar to the results on leverage in Black et al. (2005), and suggest that firms

with higher leverage practice better corporate governance as reflected by the higher valuation. Firm size measured by the logarithm of sales is insignificantly related to valuation.

4.3 Robustness tests

In this section, we discuss the robustness of the results with respect to a number of alternative variable and model specifications. Table 6 displays results from some of the robustness tests we have performed. In Panel A, the coefficient for the oligarch control dummy is displayed for samples of firms using different reporting practices, alternative valuation measures, a subsample of oligarch firms that stay in the sample the full period, and industry checks. In Panel B of Table 6, we show coefficients for different levels of cross-listings.

First, how sensitive are the results to the accounting method used to report the shareholders equity that is the denominator in the market-to-book measure? Using Russian Statutory Accounts, fixed-asset revaluations are credited directly to shareholders' funds, meaning that there can be significant increase in reported equity at each revaluation (Brunswick UBS Russian Equity Guides, 2003/04). We consider firm observations reported using international accounts (IAS or USGAAP) and Russian Statutory Accounts (RSA) in separate regression models. Rows 1 and 2 of Table 6 show the main regression models from Table 5 for IAS/USGAAP and RSA reporting, respectively. In Row 1 of Table 6, we estimate the Yeltsin versus Putin period for firms reporting only according to IAS/USGAAP. For this reduced sample specification, the

results are in line with those showed for all accounting methods, namely that oligarchs outperform other owner types under Putin's rule but not under Yeltsin's rule. In sum, the results when the sample is split according to the accounting method support the main results discussed in section 4.2.

Second, we explore the robustness of the results with respect to alternative valuation measure measures.[5] First, we use the firm value (market capitalization + (total assets – shareholders equity) divided by sales as an alternative dependent variable. The results in Row 3 of Table 4 show that the valuations of oligarchs-controlled firms are higher during the Putin's administration but not under the prior period. The coefficient for the cash-flow ownership variable (not displayed in the table) is positive although not statistically significant. Second, we use a proxy for the Tobin's q measure defined as the market value of the firm (measured as the market value of equity plus the book value of debt) divided by the book value of total assets. The results displayed in row 4 of Table 6 are similar to those using the market-to-book measure in Table 5. Taken together, the sign patterns for the variables ownership and oligarchs are generally the same using market-to-book, Tobin's q, and the firm value–to-sales measures of valuation.

Third, one concern with the results of the changes in the valuation of oligarch-run firms is that the pattern arises due to, for example, the exit of "old" oligarchs and entrance of "new" oligarchs and therefore the results will not reflect only the impact of the institutional setting on the valuation of oligarch-run firms under the different policy regimes. We address this concern by analyzing a sample, in which we include oligarch-run firms that are included in the first and last year of the sample period, and exclude

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[5] To reduce the impact of extreme values, we winsorize these valuation ratios at the 5th and 95th percentiles by setting extreme values to the 5th and 95th percentile values, respectively.

other oligarch firms (which reduces the sample by 52 firm-years). The results using this sample are displayed on row 5 in Table 6. The oligarch coefficients are similar to those reported in Table 5 and indicate that the political and legal institutions drive the valuation impact of oligarch control.

Fourth, in Panel B of Table 6, we consider the impact of different levels of cross-listings on the market-to-book valuation. Rows 7 and 8 show that the positive effect of cross-listings is mainly driven by cross-listings of the type OTC or Exchange trading, and most strongly for level 1 (OTC trading) which is the most common type of cross-listing in the sample, rather by cross-listings of the type Reg S or 144a. Thus, the results give some support to the argument that firms that have opted for a stricter cross-listing enjoy higher valuations.

Fifth, we also control for the impact of the employee and management holdings that largely resulted from the design of the voucher privatization in the firms by adding a variable measuring the aggregate ownership rights held by the employees and managers as reported by Brunswick UBS Equity Guides. Although not reported in a table, the coefficient for aggregated employee and management ownership is positive but insignificant. So, employee ownership does not seem to significantly affect valuations or alter the impact of other corporate governance variables.

Sixth, to test the sensitivity of the results to the method of dealing with influential observations, we re-estimate the main regression models using two common approaches, namely dropping market-to-book values over 6 and winsorizing valuations at the 1st and 99th percentiles, respectively, and find similar results to those reported in Table 5. Moreover, we estimate the main regressions models dropping observations with

valuations in the 5th and 95th percentiles as well as with valuations in the 1st and 99th percentiles, respectively, and the results hold. Therefore, the results are robust to the influence of (and treatment of) extreme values.

Seventh, we also explored to what extent the results are driven by the rise in the valuations of firms in oil and related industries that are oligarch-controlled. The results displayed in row 6 of Table 6 show that the results for the valuation of oligarch firms obtained in Table 5 is similar when firms operating in the oil and gas industries are excluded.

Finally, we perform a number of additional robustness tests. First, we re-estimate the regressions in Table 5 using the random effects model and industry fixed effects correcting for clustering at the firm level. The results using these specifications that are very similar to those reported in Table 5. Second, we test for multicollinearity in the main models in Table 5 by calculating variance inflation factors (VIFs). The VIF values are below 3.88 and not significant. Thus, multicollinearity is not a problem in the models. Lastly, we re-estimate the models in Table 5 using errors-in-variables models to control for potential measurement errors in the variable ownership and find that the models tolerate a 10% measurement error in that variable. Hence, the ownership variable appears to be rather robust with respect to measurement errors.

5. Conclusion

In this paper, we explore the relative valuation of oligarch-controlled firms as compared to firms with other types of domestic private controlling owners and compared

to any other controlling owners on a sample of listed Russian firms during the period 1998-2003. We focus on the question if and how the valuation of oligarch-controlled firms differ between the Yeltsin and the Putin era. Our main hypothesis is that the valuation of oligarch firms is lower during the Yeltsin era due to collusion between big business and politics that was characteristic of this period, whereas we expect the relative valuation of oligarch firms to have increased during the Putin period due to higher separation between oligarchs and the state as well as due to improved rule of law during this regime. Thus, our research approach is meant to uncover the valuation effect of the decreasing agency problem between the controlling oligarch owner and minority shareholders during the institutional transition in post-communist Russia.

We find that oligarch-controlled firms are significantly lower valued than firms with other types of controlling shareholders during the Yeltsin era, whereas oligarch-controlled firms are significantly higher valued during the Putin era. These results suggest that the expropriation of minority shareholders during the Yeltsin era was significantly reduced during the Putin era due to improved rule of law and due to lower political involvement by business tycoons. Thus, while the cash-flow incentives of oligarch-run firms have been rather high during the sample period, the valuation benefits did not arise before the improvements in rule of law. In addition, we find that foreign-controlled-firms, and higher cash-flow rights in general are associated with higher valuations. Moreover, we find that cross-listed firms have higher valuation during the Yeltsin period but not during the Putin era.

The results in this paper are consistent with the idea of state capture and subversion of institutions by oligarchs during the Yeltsin regime, and consistent with the idea of

value creation with lower political connectedness by oligarchs and improved rule of law (Hellman, 1998; and Glaeser and Shleifer, 2004, respectively). The results also suggest that the lobby for the rule of law did not happen before the influence by the oligarchs on the government weakened consistent with Stiglitz (2002). This paper has demonstrated how the institutions affect the value creation in firms by analyzing the evolution of the behavior of powerful oligarchs.

References

Aslund, Anders, 2004. The misguided blame game. Transition Newsletter, 14/15, 25-26.

Barnes, Andrew, 2003. Russia's New Business Groups and State Power. Post-Soviet Affairs 19, 154-186.

Bevan, Alan, Estrin, Saul, Kutznetsov, Boris, Schaffer, Mark E., Angelucci, Manuella, Fennema, Julian A., Mangiarotti Giovanni, 2001. The determinants of privatized enterprise performance in Russia. William Davidson Institute Working Paper 452.

Black, Bernard S., Love, Inessa, Rachinsky, Andrei, 2005. Corporate governance and firms' market values: Time series evidence from Russia. European Corporate Governance Institute, November.

Boone, Peter, Rodionov, Denis, 2002. Rent seeking in Russia and the CIS. Brunswick UBS Warburg.

Boycko, Maxim, Shleifer, Andrei, Vishny, Robert, 1995. Privatizing Russia. Cambridge and London: MIT Press,

Coffee, John C., 1999. The future as history: the prospects for global convergence in corporate governance and its implications. Northwestern University Law Review 93, 641-708.

Doidge, Craig, Karolyi, G. Andrew, Stulz, René M., 2004. Why are foreign firms listed in the U.S. worth more? Journal of Financial Economics 71, 205-238.

The Economist, 2004. "Having it both ways." May 20.

Fama, Eugene F., Jensen, Michael C., 1983. Separation of ownership and control. Journal of Law and Economics 26, 301– 325.

Filatotchev, Igor, Kapelyushnikov, Rostislav, Dyomina, Natalia, Aukutsionek, Sergey 2001. The effects of ownership concentration on investment and performance in privatized firms in Russia. Managerial and Decision Economics 22, 299-313.

Glaeser, Edward, Scheinkman, Jose, Shleifer, Andrei, 2003. The injustice of inequality. Journal of Monetary Economics 50, 199-222.

Goldman, Marshall, 2004. The Rule of Outlaws is Over, Transition Newsletter. 14/15, 23-25.

Guriev, Sergei, Rachinsky, Andrei, 2005. The role of oligarchs in Russian capitalism. Journal of Economic Perspectives 19, 131-50.

Hellman, Joel S., 1998. Winners take all: the politics of partial reform. World Politics 50, 203-234.

Hoffman, David E., 2003. The Oligarchs. New York, Public Affairs.

Jensen, Michael C., Meckling, William H., 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of Financial Economics 3, 305-360.

Kuznetsov, Pavel, Muravyev, Alexander, 2001. Ownership structure and firm performance in Russia. Economics Education and Research Consortium Working paper series, 01/10.

La Porta, Rafael, Lopez-de-Silanes, Florencio, Shleifer, Andrei, 1999. Corporate ownership around the world. Journal of Finance 54, 471-517.

La Porta, Rafael, Lopez-de-Silanes, Florencio, Shleifer, Andrei, Vishny, Robert W., 2000. Investor protection and corporate governance. Journal of Financial Economics 58, 3-27.

La Porta, Rafael, Lopez-de-Silanes, Florencio, Shleifer, Andrei, Vishny, Robert W., 2002. Investor protection and corporate valuation. Journal of Finance 57, 1147–1170.

Maury, Benjamin, 2006. Family ownership and firm performance: Empirical evidence from Western European corporations. Journal of Corporate Finance 12, 321-341.

Mitton, Todd, 2002. A cross-firm analysis of the impact of corporate governance on the East Asian financial crisis. Journal of Financial Economics 64, 215-241.

 "Moscow's Group of Seven", 1996. Financial Times. November 1, p. 17.

Reese, William A., Weisbach, Michael S., 2002. Protection of minority shareholder interest, cross-listings in the United States, and subsequent equity offerings. Journal of Financial Economics 66, 65-104.

Shleifer, Andrei, Vishny, Robert W., 1997. A survey of corporate governance. Journal of Finance 52, 737–783.

Shleifer, Andrei, Treisman, Daniel, 2005. A Normal Country after Communism. Journal of Economic Perspectives, 19, 151-74.

Sonin, Konstantin, 2003. Why the rich may favor poor protection of property rights. Journal of Comparative Economics 31, 715-731.

Stiglitz, Joseph, 2002. Globalisation and its discontents. New York, W.W. Norton.

Stultz, René M., 1999. Globalization, corporate finance, and the cost of capital. Journal of Applied Corporate Finance 12, 8-25.

Thompson, William, 2004. Putin and the "Oligarchs": A two-sided commitment problem. Chatham House Briefing Note.

Table 1. Construction of the sample

	Panel A: Construction of the basic sample with ownership data
505	Firm years covered by the UBS Brunswick Guides (UBS guides) 1998-2003.
-65	Ownership information incomplete to calculate ownership by largest individual shareholder in UBS guides or Skrin.ru.
-2	Firm fully controlled by one or two owners
438	Basic sample with ownership data for descriptive analysis (Table 4)
	Panel B: Construction of sample for empirical analysis
438	Basic sample
-37	Accounting data missing to calculate control variables
-74	Stock price data missing in Thomson ONE Banker to calculate firm valuation measures
327	Sample for empirical analysis with ownership and valuation data covering 117 different firms over the period 1998-2003.

Table 2. Definition of variables
Descriptions of the main variables used in the analyses.

	Variable	Description
1	Market / Book value	(Ordinary shares price times number of outstanding shares) / shareholders equity. *Source:* Brunswick UBS Warburg Russian Equity Guides 1999/00, 2002/03, 2003/04, 2004/05, and Thomson One Banker Financials (year-end 1999 and 2000).
2	Tobin's q	((Ordinary shares price times number of outstanding shares) + (Total assets – shareholders equity)) / Total assets. *Source:* see above.
3	Firm value / Sales	((Ordinary shares price times number of outstanding shares) + (Total assets – shareholders equity)) / Sales. *Source:* see above.
4	Oligarch	Equals one if a firm in a particular year is controlled by an oligarch or an holding company controlled by an oligarch with at least 20 % of the votes and zero otherwise. *Source:* Guriev and Rachinsky (2005), Barnes (2003), "Moscow Group of Seven" (1996), Brunswick UBS Warburg Russian Equity Guides, and Skrin.ru (years 1999 and 2000).
5	Nonoligarch private ownership	Equals one if a firm in a particular year is controlled by a private shareholder with at least 20 % of the votes who is not an oligarch and zero otherwise. *Sources:* see Ownership and Oligarch definitions.
6	State ownership	Equals one if the state if the controlling shareholder with at least 20% of the votes and zero otherwise.
7	Foreign ownership	Equals 1 if a foreign shareholder controls the firms with at least 20 % of the votes and zero otherwise.
8	Widely held	Equal one if the firm do not have a controlling shareholder with at least 20 % of the votes and zero otherwise. *Source:* Brunswick UBS Warburg Russian Equity Guides and Skrin.ru (years 1999 and 2000)
9	Cross-listing	Equals one if the firm has cross-listed its shares that year and zero otherwise. *Source:* Bank of New York, Deutsche Bank, Brunswick UBS Warburg.
10	Ownership	Cash flow rights held by the ultimate controlling shareholder with at least 20 % of the votes. Source: Direct ownership data from Brunswick UBS Warburg Russian Equity Guides and Skrin.ru (years 1999 and 2000), ultimate ownership data calculated using method in La Porta et al. 1999.
11	Log (Sales)	The natural logarithm of sales. *Source:* Brunswick UBS Warburg Russian Equity Guides.
12	Leverage	Long-term debt / total assets. *Source:* Brunswick UBS Warburg Russian Equity Guides.
13	Industry dummies	Industries are Auto, Consumer, Metals, Telecom, Power, Oil & Gas, and other. *Source:* Brunswick UBS Warburg Russian Equity Guides.

Table 3: Summary statistics

This table presents means, standard deviations, and tests of differences in means between oligarch-controlled and nonoligarch-controlled listed firms during President Yeltsin's second term and President Putin's first term. The sample consists of 327 firm-year observations form 117 Russian listed firms during 1998-2003. The variables are (1) Market-to-book ratio, ordinary share price times number of shares divided by shareholders equity; (2) Sales growth, the percentage change in sales year-on-year ; (3) Sales, the sales in million USD; (4) Leverage, Long-term debt divided by total assets; (5) Ownership, the fraction of cash-flow rights held by the firm's controlling shareholder; and (6) Cross-listing, equals 1 if the firm has cross-listed its shares abroad, and 0 otherwise. *, **, *** denote significance at the 10, 5, and 1 percent levels, respectively.

	[a]				[b]				[c]				Diff. in Means			
	Full sample				Yeltsin II				Putin I							
	(1)		(2)		(3)		(4)		(5)		(6)		(3)-(4)		(5)-(6)	
	Olig.		Nonolig		Olig.		Nonolig.		Olig.		Nonolig.					
Variable	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Diff.	t-stat	Diff.	t-stat
Market-to-Book	1.31	1.03	1.00	0.98	0.46	0.58	0.85	0.91	1.49	1.02	1.08	1.01	-0.39	-1.50	0.41	2.75***
Sales growth	0.25	0.48	0.03	0.36	0.01	0.77	-0.32	0.27	0.30	0.39	0.23	0.25	0.33	2.97***	0.07	1.64
Sales (M USD)	2058	2329	1384	3672	1776	1190	1143	2800	2115	2501	1515	4070	633	0.80	600	1.10
Leverage	0.07	0.08	0.08	0.12	0.04	0.05	0.07	0.12	0.07	0.08	0.09	0.12	-0.03	-0.87	-0.02	-0.99
Ownership	61.39	21.63	38.49	18.71	49.82	17.29	32.81	15.83	63.74	21.77	41.58	19.46	17.01	3.58***	22.16	7.45***
Cross-listing	0.45	0.50	0.42	0.50	0.31	0.48	0.32	0.47	0.48	0.50	0.48	0.50	-0.01	-0.08	0.00	0.04
Firm years	77		250		13		88		64		162					

Table 4. Descriptive statistics on ownership structures and cross-listings

This table displays the fraction of firms controlled by various owner types, the ownership rights by the controlling shareholder, and the fraction of firms with cross-listings for various fiscal years. The basic sample consists of 427 firm-year observations for Russian listed firms during 1998-2003. The variables are (1) Oligarch, equals 1 if a firm in a particular year is controlled by an oligarch or an holding company controlled by an oligarch with at least 20 % of the votes, and 0 otherwise; (2) Other private, equals 1 if a firm in a particular year is controlled by a private shareholder with at least 20 % of the votes who is not an oligarch, and 1 otherwise; (3) State, equals one if the state if the controlling shareholder with at least 20% of the votes and zero otherwise; (4) Foreign , equals 1 if a foreign shareholder controls the firms with at least 20 % of the votes, and 0 otherwise; (5) Widely held, equals 1 if the firm do not have a controlling shareholder with at least 20 % of the votes, and 0 otherwise; (6) Ownership, the fraction of cash-flow rights held by the firm's controlling shareholder; and (7) Cross-listing, equals 1 if the firm has cross-listed its shares abroad, and 0 otherwise.

Panel A.		Yeltsin II		Putin I			
		1998	1999	2000	2001	2002	2003
Panel A. Fraction of firms by controlling owner type							
Oligarch		0.13	0.08	0.11	0.24	0.30	0.34
Other private		0.23	0.13	0.13	0.11	0.06	0.16
State		0.48	0.63	0.63	0.56	0.58	0.46
Foreign		0.08	0.03	0.03	0.07	0.05	0.03
Widely held		0.08	0.13	0.10	0.01	0.02	0.00
Panel B. Ownership concentration by type							
Ownership conc.		37.93	38.58	39.81	46.95	48.84	53.76
Own. conc. in oligarch firms		49.70	62.64	60.03	64.3	62.96	64.8
Own. conc. in non oligarch firms		35.97	36.18	36.98	40.14	42.06	48.00
Panel C. Cross-listing by owner type							
Cross-listing		0.25	0.41	0.43	0.50	0.50	0.36
Cross-listing in oligarch firms		0.27	0.60	0.57	0.47	0.45	0.43
Cross-listing in non-oligarch firms		0.25	0.39	0.41	0.51	0.52	0.32

Table 5. Regressions of valuation on oligarch control, ownership structure and cross-listing under different political regimes

The table presents coefficient estimates and t-values (in parenthesis) from regressions of firm valuation on corporate governance variables for a sample of 117 listed Russian firms for the period 1998-2003. Panel A covers the last two years of President Yeltsin's second term 1998-1999, whereas Panel B covers President Putin's first term period for years 2000-2003, and Panel C covers the whole period. The dependent variable is the Market-to-book ratio calculated as the (ordinary shares price times number of outstanding shares) / shareholders equity. The independent variables are (1) Oligarch, equals 1 if a firm in a particular year is controlled by an oligarch or an holding company controlled by an oligarch with at least 20 % of the votes, and 0 otherwise; (2) State, equals one if the state if the controlling shareholder with at least 20% of the votes and zero otherwise; (3) Foreign , equals 1 if a foreign shareholder controls the firms with at least 20 % of the votes, and 0 otherwise; (4) Putin, equals 1 for firm-years covering the Putin era, and 0 otherwise; (5) Oligarch X Putin, an interaction variable between the Oligarch dummy and the Putin regime dummy; (6) Widely held, equals 1 if the firm do not have a controlling shareholder with at least 20 % of the votes, and 0 otherwise; (7) Oligarch X Putin, an interaction variable between the Oligarch dummy and the Putin regime dummy; (8) Cross-listing, equals 1 if the firm has cross-listed its shares abroad, and 0 otherwise; (9) Cross-listing X Putin, an interaction variable between the Cross-listing dummy and the Putin regime dummy; (10) Ownership, the fraction of cash-flow rights held by the firm's controlling shareholder; (11) Leverage, Long-term debt divided by total assets; (12) Sales growth, the percentage change in sales year-on-year; (13) Log(sales), the logarithm of sales in million USD; (14) Industry dummies; and (15) Year dummies.

	Yeltsin II Panel A		Putin I Panel B		Full sample Panel C	
	(1)	(2)	(3)	(4)	(5)	(6)
Constant	0.378	0.253	1.075	1.305	0.808	0.824
	(0.86)	(0.57)	(2.45)**	(2.82)***	(2.64)***	(2.55)**
Oligarch controlling shareholder	-0.518	-0.243	0.609	0.579	-0.175	-0.075
	(-2.40)**	(-0.97)	(4.37)***	(3.24)***	(-0.99)	(-0.36)
State controlling shareholder		0.149		-0.154		-0.015
		(0.61)		(-0.73)		(-0.09)
Foreign controlling shareholder		1.078		0.693		0.897
		(3.56)***		(2.40)**		(3.92)***
Oligarch X Putin I					0.651	0.644
					(3.37)***	(3.29)***
Putin I					0.323	0.443
					(1.65)	(2.36)**
Widely held firms	-0.138	0.157	0.695	0.909	0.046	0.267
	(-0.36)	(0.40)	(2.33)**	(2.74)***	(0.19)	(1.03)
Cross-listing	0.425	0.424	-0.048	-0.042	0.412	0.433
	(2.98)***	(3.21)***	(-0.46)	(-0.40)	(2.61)***	(2.84)***
Cross-listing X Putin I					-0.440	-0.456
					(-2.38)**	(-2.51)**
Ownership	0.009	0.009	0.007	0.006	0.006	0.006
	(1.38)	(1.47)	(2.38)**	(1.93)*	(2.11)**	(1.98)**
Leverage	1.156	1.466	3.817	3.801	3.084	3.066
	(1.54)	(2.29)**	(6.20)***	(6.47)***	(6.03)***	(6.20)***
Growth	0.517	0.411	0.251	0.164	0.354	0.264

	(2.65)***	(2.30)**	(1.12)	(0.80)	(2.19)**	(1.75)*
Log (sales)	0.012	-0.026	-0.035	-0.043	-0.045	-0.063
	(0.14)	(-0.29)	(-0.70)	(-0.85)	(-1.04)	(-1.45)
Industry dummies	Included	Included	Included	Included	Included	Included
Year dummies	Included	Included	Included	Included	Included	Included
Observations	101	101	226	226	327	327
R2	0.49	0.56	0.51	0.53	0.49	0.52

*, **, *** Significant at the 10, 5, and 1 percent levels, respectively.

Table 6. Alternative specifications

The table presents coefficient estimates and t-values (in parenthesis) from regressions of market/book value on corporate governance variables for a sample of 117 listed Russian firms for the period 1998-2003. The table displays coefficients for the oligarch dummy (Panel A) and for the cross-listing dummy (Panel B) for regression models in Table 5 using alternative samples, variable definitions, and levels of cross-listings. Models (1) and (2) show the coefficients for the oligarch dummy as compared to all other types of owners, whereas models (3)-(4) show the oligarch dummy compared to other domestic private owners. Panel A shows coefficients for the oligarch dummy for firms reporting according to international accounting rule (Row 1) and firms reporting according to RSA (Row 2). Row 3 shows the coefficients of the oligarch dummy using Firm value / sales as the dependent variable. Row 4 shows the coefficients of the oligarch dummy using Tobin's q (defined as Firm value / total assets) as the dependent variable. Row 5 shows the oligarch coefficients for a reduced sample of oligarch firms that are present the whole studied period. Row 6 shows the oligarch dummies for a sample of firms excluding oil and gas industries. In Panel B, the cross-listing dummy is split into REGs or 144a (Row 7) and OTC or Exchange (Row 8). In Rows 9-11, the cross-listing dummy in Table 5 is split into REGs or 144a, OTC, and Exchange, respectively.

		(1)	(2)	(3)	(4)
		Yeltsin II	Putin I	Yeltsin II	Putin I
	Panel A. Coefficients for Oligarch dummy				
1	Firms with international accounts	-0.614	0.489	0.554	0.374
		(-2.02)**	(2.74)***	(0.98)	(1.13)
2	Firms with RSA reporting	-0.127	0.662	-0.185	0.722
		(-0.35)	(2.10)**	(-0.48)	(2.27)**
3	Dependent variable: Firm value / Sales	-0.180	0.238	-0.445	0.078
		(-0.63)	(2.12)**	(-1.37)	(0.48)
4	Dependent variable: Tobin's q	-0.185	0.371	-0.101	0.318
		(-1.61)	(5.27)***	(-0.76)	(3.62)***
5	Same oligarchs whole period	-0.500	0.664	-0.151	0.580
		(-1.92)*	(3.90)***	(-0.52)	(2.79)***
6	Without oil and gas industry	-0.659	0.622	-0.021	0.634
		(-2.97)***	(3.59)***	(-0.07)	(3.26)***
	Panel B: Coefficients for relevant cross-listing dummies				
7	Cross-listing of type REGs or 144a	-0.225	0.033	-0.187	0.022
		(-0.79)	(0.20)	(-0.68)	(0.13)
8	Cross-listing of type OTC or Exchange	0.566	-0.095	0.555	-0.080
		(3.52)***	(-0.88)	(3.58)***	(-0.75)
9	Cross-listing of type OTC	0.636	-0.116	0.651	-0.093
		(3.65)***	(-1.08)	(3.73)***	(-0.87)
10	Cross-listing of type Exchange	0.181	0.119	0.022	0.049
		(0.40)	(0.54)	(0.07)	(0.23)
11	Cross-listing of type REGs or 144a	-0.243	0.051	-0.210	0.034
		(-0.82)	(0.30)	(-0.74)	(0.19)

*, **, *** Significant at the 10, 5, and 1 percent levels, respectively