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Economics of Corporate Form: Why Do Russian Firms Prefer to Be Closed Companies?*

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Abstract: In Russia, an overwhelming number of joint-stock companies (JSCs) choose to become closed companies despite the fact that this corporate form strays far from the primary nature of stock companies. Using the results of a Japan-Russia joint enterprise survey conducted in 2005, we examine a variety of factors as to why Russian stock companies select to become closed companies. Our empirical results suggest the following four factors encouraging many of Russian firms to be closed JSCs: (a) a widespread insider-dominating corporate ownership structure emerging as a result of the mass-privatization policy; (b) a strong orientation among managers toward closed corporate organization due to the underdeveloped capital and managerial markets; (c) slumping needs for corporate finance; and (d) insufficient financial support from local financial institutions. The empirical relationship between corporate form and ownership structure exists, even if we assume the endogeneity of the two elements.

JEL classification numbers: D23, G34, K22, L22, P31

Key words: corporate form, corporate governance, organizational choice, Russia

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1. Introduction

One of the most distinguishing features of the Russian corporate sector is the preponderance of "closed joint-stock companies" over "open joint-stock companies," both of which are statutory legal corporate forms defined in the Federal Law on Joint-Stock Companies (hereinafter, the Law on JSCs). According to the Supreme Arbitration Court, as of July 1, 2001, compared with as many as 370,000 closed JSCs, there were only 60,000 open JSCs in Russia (Shapkina, 2002). Regarding large-scale companies that require raising funds from outside sources, the number of open JSCs exceeds that of closed JSCs, the latter number still being fairly significant. In fact, a survey conducted in 2003 by the Federal State Statistics Service found that, of the 32,266 JSCs surveyed, excluding micro and small enterprises, 19,407 were open companies, and the remaining 12,859 were closed companies (Rosstat, 2004). In other words, four in every ten medium-sized and large Russian corporations were operating under a governance mechanism that put rigorous restrictions on the liquidity of their own shares.

In many developed countries, JSCs are allowed to achieve "virtual" organizational closedness by, for instance, making a special resolution in their general shareholders' meeting so as to ban, in principle, the transfer of their shares to third party or adding a provision to this effect in their corporation charter.[1] In contrast, in Russia, closed JSCs exist as a legal form of incorporation for business organizations. Furthermore, Russia has an extremely unique legal framework that clearly differentiates between closed and open JSCs in terms of the mode of securities issuance, the required levels of minimum capital, the restrictions on the number of shareholders, and disclosure obligations.

Inspired by the economic theory on internal organization that has been developed from classical suggestions made by Coase (1937), a large number of empirical studies have been conducted with regard to the determinants of organizational choice and the relationship between organizational form and behavior, including corporate performance (Brickley and Dark, 1987; Phillips-Patrick, 1991; Weir, 1996; Harhhoff, Stahl, and Woywode, 1998; Regan and Tzeng, 1999; Brooks, 2002; Deli and Varma, 2002; Arruñada, González-Díaz, and Fernández, 2004). Surprisingly, though, except for a valuable case study by Karpoff and Rice (1989), there has been little empirical

[1] For example, in Japan, stock companies intending to make it mandatory for their shareholders to seek their approval for the transfer of their shares must provide a provision to that effect in their corporate charter in accordance with Article 107 of the Company Law, and companies with such a provision are generally called "closed companies."

work investigating organizational choices by JSCs as well as their possible impacts on corporate behavior and performance. Thus, the corporate forms of Russian JSCs are a very important research subject to be explored from the viewpoint of organizational and financial economics.

Furthermore, this topic has great significance for understanding the Russian economic system, which is now experiencing a large-scale institutional transformation towards a capitalist market economy. As long as the primary nature of a stock company can be defined as a modern democratic mechanism for raising funds from the general public, an open company, which guarantees free share transferability, is the basic form of joint-stock company. In this sense, a closed JSC is one that distances itself from the fundamental purpose of a modern corporation. As previously described, still in Russia, the reality is that not only small corporations but also large enterprises are formed as closed JSCs across the country. It is quite possible that the high degree of orientation towards organizational closedness in the Russian business sector is inseparably linked to its poor corporate governance practices and its investment behavior, which remains inactive regardless of a significant economic recovery in recent years. Therefore, particular attention should also be given to research on the corporate forms of Russian firms in the context of the economics of transition and the Russian economic studies. Nevertheless, there have been only a handful of economic studies touching on this topic, including that by Dolgopyatova (1995), and virtually no detailed research has been conducted on this aspect.

An attempt is made in this paper to deal with this significant but yet-to-be explored problem on the basis of a large-scale questionnaire enterprise survey conducted from February to June 2005 in the framework of a Japan-Russia joint research project launched by Hitotsubashi University and State University – Higher School of Economics. In this survey, the top management personnel of 822 manufacturing and communications companies located in the 64 federal regions were interviewed in person.[2] The companies covered by our survey are all stock companies, and the average number of employees per company is 1,884 (Standard deviation: 5,570; Median: 465). As for their corporate form, open and closed JSCs account for 67.3% (553 firms) and 32.7% (269 firms) of the 822 surveyed firms, respectively, and this composition corresponds closely to the results of the aforementioned corporate survey by the Russian statistical office. Furthermore,

[2] 94.8% of those interviewed in our survey were presidents and vice-presidents. The remaining respondents were board chairmen (1.6%) and middle-class managers responsible for corporate governance matters (3.6%).

looking at our surveyed firms by region and by industrial sector, it is confirmed that they provide an ideal sample group representing Russian medium-sized and large JSCs.[3]

Relying upon the results of our joint survey, we examine a variety of factors as to why Russian stock companies select to become closed JSCs. The remainder of the paper is organized as follows. The next section looks at the legal framework regulating the corporate forms of the Russian JSCs as well as its significance in the context of organizational strategy. Section 3 considers theoretical mechanisms of corporate-form choice by Russian JSCs. Section 4 presents our empirical evidences. Section 5 concludes the paper.

2. Corporate Forms of Joint-Stock Companies in Russia: Institutional Framework and Its Significance for Organizational Strategy

First, in this section, the institutional diversity of open and closed JSCs is discussed, and the significance of each of these two corporate forms is then clarified in terms of organizational strategies and how the managers interviewed in this survey perceive the main factors determining the reasons that their firms chose their current legal form of incorporation.

An investor who intends to establish a stock company in Russia must choose to make it either an open JSC or a closed JSC, as required by the provisions of the Russian corporate law,[4] which provides for statutory distinctions between these two types of corporate forms in the following six areas: (a) share transferability; (b) method for issuing securities; (c) required minimum capitalization; (d) number of shareholders; (e) government funding; and (f) disclosure obligations.

Firstly, a shareholder of an open JSC may freely transfer its shares to any third party other than another shareholder of the company or the company itself, while, on the other hand, a shareholder of a closed JSC must sell its shares first to another shareholder of the company or the company itself due to the right of preferential

[3] For more details of the joint enterprise survey and the main characteristics of the surveyed firms, see Dolgopyatova and Iwasaki (2006). Using the same dataset, we also examined the structure and determinants of board of directors, executive bodies and audit system as well as the impact of corporate governance on firm survival in Russia. See Iwasaki (2008, 2009, 2013a, 2013b) and Iwasaki (2013c), respectively.

[4] These provisions refer to the Civil Code, Part I, Chapter 4, Articles 96 to 104, and to the Law on JSCs. This section was written taking into account the laws and regulations that were effective in Russia during the period of the enterprise survey used as the base material for this empirical study.

purchase given to them. Specifically, a shareholder of a closed JSC who intends to transfer its shares to a third party must, at its own cost, notify all other shareholders of the company and its executives in writing concerning the selling price of the shares by the selling shareholder, as well as other terms and conditions included in an agreement between the selling shareholder and the purchasing third party, in order to confirm whether any of the other shareholders of the company or the company itself wishes to execute its right of preferential purchase. This obligation enables a closed JSC and its shareholders to detect in advance every action by any shareholder to transfer its shares to a third party and to effectively prevent the stock drain to outside parties by bearing necessary costs to purchase these shares.

Secondly, unlike open JSCs, whose shares issued at the time of formation may be allocated to their promoters and to the general public (i.e., establishment with outside offering), closed JSCs are required to issue their shares only to their promoters and the other investors specified in advance. Even after incorporation, closed JSCs are not allowed to offer new shares to the general public, although they may issue corporate bonds other than convertible bonds on the securities market as a means of raising funds from outside sources.

Thirdly, the minimum capitalization (share capital) for open JSCs needs to be at least 1,000 times the statutory minimum wage at the time of their registration, while, on the other hand, closed JSCs are required to secure only 100 times the statutory minimum wage. For example, the effective statutory minimum wage for the period from January to August 2005 was 720 rubles (about USD25) monthly.[5] Therefore, there is a difference of 648,000 rubles (about USD23,000) between these two legal forms of JSCs established during this period with respect to their minimum share capital required by the Law on JSCs, which is not a trivial difference for small and venture businesses seeking to be incorporated.

Fourthly, closed JSCs may not have more than 50 shareholders, and, if the number of their shareholders exceeds this limit, they must, within a period of one year, reduce it to 50 or less, turn it into an open JSC, or be dissolved. However, this regulation does not apply to closed companies established by the end of 1995 before the enforcement of the current law on JSCs. In addition, the August 1996 presidential decree, in which closed JSCs with more than 25% of their shares owned by the government were ordered to become open JSCs, was not a very strong legally binding instrument since no effective penalties or sanctions were imposed on those violating

[5] Refer to Article 1 of the amended Federal Law on Minimum Wages of December 29, 2004.

the decree (Iwasaki, 2003, 2007a). As a result, there are still a large number of closed JSCs with 50 or more shareholders, and many of them are former state-owned enterprises and ex-municipal companies that were privatized in the process of the mass-privatization policy launched in the early 1990s as well as the affiliates of private firms and brand new companies that came into being in those days.

Fifthly, no state authorities, including local governments, can be the founder of a JSC in principle. In addition, even when a stock company is exceptionally established by a government or state organization using a company separation package in which the newly established joint-company inherits the assets of the government or state organization, that newly established company must be an open JSC. However, this regulation does not apply to cases in which a stock company is established by a government or state agency as a result of its separation from a privatized firm. This is one of the reasons that there are still many closed JSCs with their shares held by the state.

Lastly, open JSCs are obliged to disclose information, such as annual business reports, financial statements, asset securities reports, and other materials required by statute or requested by the Federal Financial Markets Service (FFMS) and other government authorities, while, on the other hand, closed JSCs are not subject to such disclosure requirements, except in cases where they issue bonds and other securities using the schemes and prices specified by the financial authorities.

Meanwhile, as pointed out by Emery, Lewellen, and Mauer (1988) and Gordon and Mackie-Mason (1994), tax distortion can have a significant impact on the decision-making process for investors and enterprises concerning organizational choices. In Russia, however, there are no differences in the applicable tax provisions between open and closed JSCs, and both of these corporate forms are regulated by the principle of equal taxation with respect to corporate ownership, investors, and capital sources.[6] There are no provisions set out in the Federal Law on Bankruptcy, the Corporate Governance Code, or any other legislation that could seriously affect the choice of the corporate form by a JSC.

The results of the joint enterprise survey, in which corporate executives were asked how they perceived the significance of the aforesaid legal framework in the context of their organizational strategies, as well as the most important reason for them

[6] Refer to Article 3 of Part I of the Tax Code. Although it is not reported in Article 3, it is widely recognized that the principle of equal taxation is construed to be applied to both open and closed JSCs (Abrosimov et al., 2005). In fact, in Russia, joint-stock companies are treated equally to limited companies and other types in terms of taxation.

to keep their company in the current corporate form, revealed that many of the respondents recognized that the choice between an open and a closed JSC had a considerable impact on its corporate strategies. Of 793 firms that provided valid responses to the survey, 602 (75.9%) replied that their corporate-form choice would or might affect their business growth, far more than the 191 (24.1%) that answered that there was no connection between these two factors. The difference between the group of open JSCs and the group of closed JSCs covered in the survey regarding the proportion of firms that confirmed a connection between their organizational choice and their business development is statistically significant at the 10% level (χ^2=3.209, p=0.073) but quite small (77.8% vs. 72.0%). In addition, of the above 602 firms that said that their performance was influenced by their corporate form, 518 (86.0%) perceived such an influence to be positive for their business growth, much greater than the 84 firms (14.0%) that regarded it as negative. The difference between the group of open JSCs and the group of closed JSCs regarding the proportion of firms that positively perceived such an influence on their performance was very small (85.7% vs. 86.7%) and not statistically significant (χ^2=0.098, p=0.754). Hence, a great number of corporate executives see an inseparable relationship between their organizational choice and business activities regardless of the difference in the corporate form of their companies.

Table 1 shows the results of answers from corporate managers as to a question about the comparative advantages of each of the two corporate form options. Of the enterprises that admitted the organizational superiority of open JSCs to closed JSCs, 395 firms (68.3%) answered that open JSCs were better than closed JSCs in building a reliable relationship with investors and partners or in raising funds from outside financial sources, reflecting their current focus of attention, and this number is greater than the number of firms that replied that the organizational benefits of open JSCs lay in the flexibility of share transfers. A substantial and statistically significant difference can be observed between the open and closed JSCs in the breakdown of their answers to this question. Compared with the respondents of open JSCs, those of the closed JSCs pay more attention to the aspect that open JSCs enjoy good fundraising capabilities. At the same time, however, there are many managers of closed JSCs who do not see any advantage in the corporate form of open JSCs. As for closed JSCs, most executives, regardless of whether they are working for closed or open JSCs, agree that closed companies can more effectively defend their organizations from outsiders, including the state, than open companies. There is no remarkable difference between the two company groups in the breakdown of their answers to the above question.

Table 2 indicates the answers of our respondents to the question of what was the most important reason for their companies having the current corporate form. Compared with 11.8%, who identified it as related to legal restrictions concerning the number of shareholders and the minimum required capital, 75.5% replied that it was because of the mass-privatization policy in the early 1990s or because of a management decision made on their own or by their shareholders. The result that 54.4% of the open JSCs answered they had become open JSCs due to the mass-privatization policy is quite understandable in the historical context that the Federal Government had strongly urged soon-to-be-privatized enterprises to select becoming open JSCs by facilitating a swap between privatization vouchers distributed to the general public free of charge and the shares of state-owned and municipal enterprises. On the other hand, in consideration of the fact that managers and worker collectives are still the dominant shareholders in many Russian firms and in light of the introverted mentality of these insider shareholders, it also makes sense that they favor a closed company as a result of their decision-making on their organizational strategy under the given uncertain social environment typical of a transition period.

3. The Mechanism of Organizational Choice by Russian Firms

In Russia, the growing trend toward a market economy and its integration into the global economy are forcing domestic firms to tackle the issue of optimal adaptation to ever-changing business environments. Hence, it is not uncommon for Russian corporations to make a major change in their company profile, including their form of incorporation.[7] For instance, companies much more frequently change from limited to joint-stock stature and vice versa than they do in Western countries. Needless to say, changes from an open JSC to a closed JSC and the reverse, which can only take place by amending a company charter through a special resolution at a general shareholders' meeting and then officially registering such an amendment, take place all the time (Tikhomirov, 2001).

Although the law on JSCs stipulates that the amendment of a company charter must be made through a special resolution, which is passed by a majority of at least three-fourths of the votes cast by the shareholders with voting shares in attendance,

[7] In fact, experts at the Levada Center Social Research Institution (the former USSR All-Soviet Public Opinion Poll Center) who assisted with our enterprise survey, basing their opinion on their own experience, predicted that only about 200 of 500 firms would retain their company profile almost unchanged for a period of 5 years after being surveyed.

this provision is not a serious obstacle to such amendments because, in many Russian companies, a small number of shareholders own a significant share of the total; that is, for the top management and major shareholders of Russian stock companies, the issue of whether their firms should be open or closed JSCs is just an "operational" variable even after their establishment.

The discussion in the previous section highlights the difference between open and closed JSCs as a corporate form option available in Russia and the significance of these two corporate forms from the viewpoint of organizational strategies as well as the impact of the mass-privatization policy on the decision-making process of stock companies about whether they should be open or closed JSCs. Based on these facts uncovered by our enterprise survey, this section theoretically considers the organizational choice mechanism of Russian corporations.

According to the economic theory of the organization and the firm advocated and developed by Alchian and Demsetz (1972), Jensen and Meckling (1976), Mayers and Smith (1981), Fama and Jensen (1983a, b), Williamson (1996), Milgrom and Roberts (1992), and others, the differences in the institutional setting between an open and closed JSC would affect the incentives and decision-making process of corporate managers and shareholders through the following three mechanisms, which have a significant influence on their choices of corporate form.

The first mechanism is the asset effect of restrictions on share transfer; that is, any restrictions imposed on a closed company on the transfer of its shares will undermine the liquidity and value of such shares as financial commodities. Furthermore, as explained in Section 2, a shareholder of a closed JSC intending to transfer its shares to a third party must bear all the costs needed to confirm if any of the other shareholders in the closed JSC or the company itself wishes to execute its right of preferential purchase. Therefore, those who invest money purely to gain a return on their investment (i.e., portfolio investors) will buy the shares of open JSCs, rather than those of closed JSCs, *ceteris paribus*. Based on the same logic, corporate executives would prefer to have the corporate form of an open company from the viewpoint of issuing securities to raise funds from outside sources, since a closed company must pay for all the marginal capital costs equal to the transaction costs for the transfer of its own shares to a third party and the cost of a low liquidity premium on its own shares and closed JSCs are placed at a disadvantage over open JSCs due to the ban on issuing any convertible bonds. In addition, as indicated in **Table 1**, a firm's choice of adopting the open company as its corporate form will increase the transparency of its management, making it easier for the firm to receive loans from banks and other financial institutions. Considering the above, the higher a firm's fundraising demand, the more likely it is to be an open JSC.

The second mechanism is the governance effect of share transfer restrictions. Strict restrictions imposed on a closed JSC on the transfer of its shares significantly decrease the possibility of a change in its internal control or ownership that may be made due to an "exit" from the company of its shares sold, tender offer, proxy fight, and bankruptcy, posing a serious impediment to the reshuffling of a management body that has failed to come up with effective corporate discipline and to achieve the expected performance. Therefore, from the standpoint of which corporate form has a relatively better corporate governance mechanism, outside shareholders are more inclined to invest in open JSCs, while, on the other hand, corporate managers who wish to retain their managerial discretion to behave in an opportunistic way or wish to avoid the risk of outsiders attempting a hostile takeover bid choose to establish and keep their firms as closed stock companies.

The third mechanism suggested in organizational economics is the information effect of state disclosure regulation. The disclosure obligation imposed only on open JSCs by the state produces the effect of alleviating the information asymmetry between executives and investors in favor of the latter, causing more outside shareholders to invest in open JSCs, which have a better governance system than closed JSCs, and more managers to operate their firms as closed companies.

In addition to the above three mechanisms, focus also needs to be given to the widespread existence of business groups (i.e., financial-industrial groups or holding companies) as a factor having a significant impact on the organizational choices between open and closed JSCs in Russia. In fact, our survey revealed that 35.7% of the manufacturing companies (268 of 751 firms) and 77.5% of the communications companies (55 of 71 firms) were controlled by certain business groups through shareholding. Hence, the following hypothesis may be proposed: as the fourth mechanism, a company's participation in a business group is effective in protecting it from outside threats, such as state intervention or hostile takeover bits, due to the political influence exerted by the business group the company belongs to and the cross-shareholding relationship within member firms.[8] As a result, the organizational

[8] In fact, according to our survey results, one in five managers of the group firms regards effective protection from hostile acquisition as the greatest advantage of being members of holding companies or other business groups, and this factor accounts for 13.3% in the all multiple answers (two items at a maximum) following "stronger position in the domestic market" (32.2%) and "better access to invested funds and easier introduction of new

advantages of a closed JSC as an “institutional defense barrier” become trivial for group companies. Furthermore, it is not desirable for business groups to place restrictions that are too strict on the transfer of their shares from the viewpoint of ensuring effective inter-group asset management. Therefore, the growing trend for Russian companies to take part in a financial-industrial group or a holding company is expected to increase the possibility of member firms being operated as open JSCs. However, with the hierarchy within such business groups expanding, enterprises in the lower echelons are more likely to be established by their upper companies as the wholly owned subsidiaries or dummy firms for account-rigging or tax evasion purposes, and these enterprises are usually closed companies bound by less strict disclosure obligations. Consequently, the organizational scale of a business group is thought to be positively correlated with the proportion of closed JSCs in the member firms of that group.

Lastly, as explained above, considering the background of Russia’s privatization policy and its legal restrictions on state investment, privatized companies and companies separated from state-owned or municipal companies are more likely to choose to operate as open JSCs compared to enterprises newly established by private capital after the fall of the communist regime; that is, the impact of past policies on company start-ups may have a historical path-dependent effect on organizational choices. In summary, Russian stock companies branch away either to open JSCs or to closed JSCs through the interaction of the aforementioned five mechanisms.

4. Empirical Assessment

In this section, we empirically test the theoretical mechanism of making a corporate-form choice as well as its impact and statistical significance of choosing each alternative. We estimate our organizational choice models by probit methods using a discrete variable, in which closed JSCs take a value of 1 (versus 0), as the dependent variable (*CLOCOM*) as well as adapting the following independent variables: (a) ownership variables representing the influence of outside shareholders and managers over organizational strategies, (b) variables concerning the constraints affecting capital demand and supply of the company; (c) variables regarding the linkage between a company with a business group and the organizational scale of that group; (d) variables concerning the impact of past policies on company start-ups; and (e) other control variables. The probit model taking *CLOCOM* as a dependent

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technologies” (31.0%).

variable assumes that:

$$\Pr[CLOCOM = 1] = \Phi(x\beta) = \int_{-\infty}^{x\beta} \frac{1}{\sqrt{2\pi}} e^{-t^2/2} dt ,$$

where x is a vector of independent variables including a constant term, β is a parameter vector, and Φ (.) indicate the standard normal distribution function. The log of the likelihood function for the model is given by:

$$\log L = \sum CLOCOM_i * \log[\Phi(x_i\beta)] + \sum (1 - CLOCOM_i) * \log[1 - \Phi(x_i\beta)].$$

We estimate β using maximum likelihood.

The variables of outside ownership utilized in our estimation are: the 6-point-scale ownership share of outside shareholders excluding domestic individuals (*OWNOUT*) and that of the state (*OWNSTA*) and private shareholders (*OWNPRI*), each of which is further classified into the federal government (*OWNFED*), regional and local governments (*OWNREG*), commercial banks (*OWNBAN*), investment funds and other financial institutions (*OWNFIN*), non-financial corporate shareholders (*OWNCOR*), and foreign investors (*OWNFOR*). As for managers, a large management shareholder dummy (*MANSHA*) is adapted, in which, if a manager or group of managers is a major shareholder of his or her own company, that company takes a value of 1.

The variables used as proxies of company's capital demand are a securities-issuing planning dummy (*SECPLA*) in which, if the company has a plan to issue securities in Russia in the near future, it takes a value of 1, if the company has a plan to issue shares and bonds in foreign financial markets, where more stringent rules than in Russia are enforced with respect to organizational management and disclosure, it takes a value of 2, and, if neither of these two conditions applies, it takes a value of 0, and a relationship-banking dummy (*RELBAN*) for companies with a long-term credit relationship with a certain commercial bank. On the other hand, as a proxy for representing the constraints affecting the capital procurement of a company, the number of financial institutions per 1,000 non-financial corporations in a federal district where the company is located (*NUMFIN*) is introduced. *NUMFIN* is used because, except in a few big cities, local commercial banks and investment firms play a critical role in the field of investment financing and financial consulting services for the corporate sector, and the development of these local financial institutions is an overriding factor affecting the fundraising abilities of local companies.

The variables for the relationship between a company and a business group the company belongs to are a group firm dummy (*GROFIR*) that takes a value of 1 if the company is a member of a certain holding company or other business group by owning stocks, as well as a core corporation dummy (*GROCOR*) and an affiliate firm dummy (*GROAFF*), both of which reflect the characteristics of the company's group membership. The organizational size of the business group is represented by the natural logarithm of the total number of its member firms (*GROSIZ*).

The impact of past policies on company start-ups is assessed using two dummy variables from the standpoint of the importance of the mass-privatization policy and the statutory regulations on investments by state agencies. Namely, *PRICOM* takes a value of 1, if the company is a privatized firm of a former state-owned or ex-municipal enterprise. *SPIOFF* captures firms that span off from state-owned enterprises or privatized companies.[9] The control variables include the natural logarithm of the total number of employees representing the company size (*COMSIZ*) and a series of industrial dummy variables to control industrial effects.

In accordance with our theoretical considerations in Section 3, we expect that the ownership by outside shareholders represented in *OWNOUT* and other variables restrains companies from being closed JSCs; in other words, outsider ownership is negatively correlated with the choice of a closed JSC. The sign of *MANSHA* cannot be specified at this stage, as it varies depending on which element is more powerful, the marginal assessment value of own shares by a manager or a group of managers, or the additional benefits the manager obtains by operating a closed company. All of the three variables concerning capital demand and supply are expected to be negative. The three dummy variables representing a company's participation in a business group would be negatively correlated with the company's choice of the corporate form of a closed JSC, whereas *GROSIZ* would have a positive sign. *PRICOM* and *SPIOFF*, both of which reflect the impact of past policies on company start-ups, would be negative. *COMSIZ* are also expected to be negative; this is because the larger the size of a company is, the more shareholders and the more capital the company has, and the requirements to choose the corporate form of an open JSC are gradually fulfilled.

Table 3 compares open and closed JSCs using the above independent variables. Open JSCs, regardless of their type, have a higher average outside ownership than closed JSCs, and the difference between the two forms of incorporation in this regard is significant at the 1% level, except for foreign ownership. In contrast, the percentage of companies with large management shareholders in all samples of closed JSCs is 15% higher than that of open JSCs, and the difference between them is statistically significant at the 1% level. Furthermore, the differences between open

[9] Hence, newly established private firms after the collapse of the Soviet Union are treated as the reference in our estimation.

and closed JSCs in the proportion of companies having a long-term credit relationship with a certain commercial bank, the proportion of privatized firms, and the average number of employees are also statistically significant and consistent with our theoretical hypotheses. The remaining variables need to be reexamined using a regression analysis technique, since their statistical significance was not detected by simply comparing the descriptive statistics.

The basic sample for our estimation consists of 557 observations, excluding all stock companies that have already issued securities in the past (Sample I). In order to validate the robustness of the estimation results, a supplementary estimation is performed using the following three cases: Sample II, which is made up of the firms included in Sample I excluding all communications firms; Sample III, which excludes firms whose number of employees exceeds the mean of the number of employees of the closed JSCs plus/minus 1 standard deviation from the basic sample set; and Sample IV, which consists of firms with a stable ownership structure that did not see any changes in major shareholders from 2001 to 2004. An estimation using the former two cases focuses on the estimation bias arising from the characteristics of newly emerged telecommunication businesses and those of mega corporations. On the other hand, the estimation using sample IV deals with the possible endogeneity relating to corporate forms and ownership structures. Furthermore, as an alternative way to cope with the endogeneity problem, we also conduct a two-stage estimation[10] by introducing the following four variables as instruments: a dummy variable of shareholding by an incumbent CEO (or president) (*CEOSHA*), a dummy variable which takes a value of 1 if there is a shareholder or a shareholder group who substantially controls corporate management (*DOMSHA*), the age level of the CEO or company president (*CEOAGE*), and a three-point-scale assessment on the intensity of competition with domestic firms in a product market (*COMDOM*).[11] The White estimator of heteroskedasticity-consistent standard errors is used for various statistical tests.

The following is the basic equation for our regression, and the marks in parentheses stand for the expected signs:

[10] The two-stage procedure would be to estimate the reduced forms for ownership variables by probit or ordered probit maximum likelihood and estimate the corporate-form choice model by probit after substituting predicted values for ownership variables.

[11] The correlation coefficients for *CLOCOM* and each of the newly introduced 4 variables range between -0.032 and 0.019, and are statistically insignificant.

Pr[*CLOCOM*=1] = *F*(*constant*, *OUTOWN*(-), *MANSHA*(?), *SECPLA*(-), *RELBAN*(-), *NUMFIN*(-), *GROFIR*(-), *GROSIZ*(+), *PRICOM*(-), *SPIOFF*(-), *COMSIZ*(-), *industrial dummies*)

Table 4 shows the estimation results.[12] The coefficients of the independent variables represent their marginal effects. The marginal effect in the probit model is computed as:

$$\frac{\partial E[CLOCOM_i]}{\partial x} = \Phi(x_i\beta)\beta\,.$$[13]

Except for the variables representing ownership by financial institutions including commercial banks and foreign ownership, all of the explanatory variables for Model (A) through Model (D) estimated using the basic sample have the predicted signs with high statistical significance.[14] The presence of outside shareholders diminishes the probability that an investment-target firm will become a closed JSC. Another interesting aspect is that the marginal effect of state involvement is much stronger than the influence of private owners. The impact of capital demand and the development of local financial institutions also reduce the probability of the emergence of closed JSCs. Companies linked with a business group through ownership tend to choose to become open JSCs. However, the larger a business group becomes, the higher the number of closed companies that are included among its member firms. Privatized firms, as well as JSCs span off from state-owned or municipal enterprises or from privatized companies, are more likely to be open companies. In addition, as the size of a company grows, the likelihood of the company operating as a closed JSC significantly decreases.

On the other hand, the result that a large management shareholder dummy (*MANSHA*) is significant and positive gives a special characteristic to the Russian economy. This implies that Russian managers place far more importance on

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[12] The correlation coefficients for the independent variables used in each model are well below a threshold of 0.70 for possible multicollinearity in all combinations (Lind et al., 2004).

[13] The marginal effect for a binary independent variable (say *D*) would be Pr[*CLOCOM*=1| $\bar{x}_{(D)}$, *D*=1] - Pr[*CLOCOM*=1| $\bar{x}_{(D)}$, *D*=0], where $\bar{x}_{(D)}$ denotes the means of all the other variables in the model.

[14] The non-significance of ownership by financial institutions and foreign ownership is consistent with the statements pointed out by many researchers pertaining to the passive attitude of commercial banks and investment funds as institutional investors, the weak presence of foreign shareholders, and the widespread share purchases by managers and their affiliates through offshore companies (Iwasaki, 2007b).

maintaining effective control of their company than on obtaining capital gains by having stock in their companies. In other words, they have a strong desire to prevent outsiders from participating in their management activities even at the cost of a somewhat reduced value and lowered transferability of their own shares. Furthermore, this result clearly demonstrates that the most attractive reason for Russian managers to operate their firms as closed JSCs is the variety of fringe benefits they obtain by doing so. Although 14 years have passed since the systemic transformation to a market economy, it is highly probable that many corporate executives still hold on to such perceptions under the conditions of the developed capital and managerial markets in the Russian economy.

It is logical that *SECPLA* for Model (E) and that for Model (F) are a little less significant than those for the other models, since the sample set does not include any communications companies, which represent the emerging industry in Russia, and largest corporations that have substantial financial needs and are highly motivated to raise equity capital. It is not surprising that the *GROFIR* and *GROSIZ* for Model (G) are insignificant, considering that an impressive 46.4% of the surveyed firms (110 of 237) that experience a substantial change in their ownership structure from 2001 to 2004 concentrate on group firms. What is more important, from the viewpoint of the statistical robustness of the estimation results, is that the explanatory power and significance of the ownership variables in Model (G) are almost the same level as those of the estimates for Model (A). In addition, the result of two-stage probit estimation of Model (H) also strongly suggests that there is an empirical relation between the corporate form and the ownership structure even if we assume that both of them are determined endogenously.

5. Conclusion

In Russia, an overwhelming number of JSCs choose to become closed companies despite the fact that this corporate form strays far from the primary nature of stock companies, that is, raising funds from a wide variety of sources in a modern and democratic manner. This trend is equally obvious for medium-sized and large enterprises in the manufacturing and communications sectors. In this paper, we attempted to conduct theoretical and empirical examinations on this quite interesting organizational behavior using the results of a large-scale enterprise survey we conducted in the 64 federal regions in the first half of 2005.

Our estimation results reported in the previous section strongly support the theoretical hypothesis stated in Section 3; that is, the five organizational choice-mechanisms, including the asset effect and governance effect arising from share transfer restrictions, are effectively functioning in the real world. In other words, there are four primary influential factors encouraging many of Russian firms to be closed JSCs: (a) a widespread insider-dominating corporate ownership structure emerging as a result of the mass-privatization policy; (b) a strong orientation among managers toward closed corporate organization due to the underdeveloped capital and managerial markets; (c) slumping needs for corporate finance; and (d) insufficient financial support from local financial institutions. The empirical relationship between corporate form and ownership structure exists, even if we assume the endogeneity of the two elements.

The fact that the above four factors still have a significant impact on the behavioral patterns of Russian corporations even after well over a decade since the collapse of the Soviet Union reminds us of the difficult and time-consuming transition process from a centrally planned to a market-based economic system.

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Table 1: Comparative advantages of open and closed JSCs over an alternative corporate form.

	All companies		Open JSCs		Closed JSCs [a]	
	No. of affirmative respondents	Share (%)	No. of affirmative respondents	Share (%)	No. of affirmative respondents	Share (%)
(a) Advantages of open JSCs over closed JSCs [b]						
Company transparency can be emphasized to business partners and investors.	235	31.2	202	38.3	33	14.6
Corporate governance can be improved.	85	11.3	60	11.4	25	11.1
Better access to financial markets and increased ability to attract potential investors	160	21.2	97	18.4	63	27.9
Shareholders may sell stocks freely.	96	12.7	67	12.7	29	12.8
Others	2	0.3	2	0.4	0	0.0
There is no comparative advantage.	175	23.2	99	18.8	76	33.6
Total	753	100.0	527	100.0	226	100.0
(b) Advantages of closed JSCs over open JSCs [c]						
Managers can effectively control companies.	60	8.4	30	6.5	30	12.0
Very strict regulations imposed by the state on open joint-stock companies can be avoided.	131	18.3	92	19.8	39	15.6
The transfer of stock to outsiders can be prevented, and companies are protected from hostile takeover.	350	49.0	218	47.0	132	52.8
Even a small-scale enterprise could be set up as joint-stock company.	43	6.0	29	6.3	14	5.6
Others	0	0.0	0	0.0	0	0.0
There is no comparative advantage.	130	18.2	95	20.5	35	14.0
Total	714	100.0	464	100.0	250	100.0

Notes : [a] Including workers' joint-stock companies (people's enterprises). For details on workers' joint-stock companies, see Iwasaki (2003, pp. 525-527

[b] Test for the equality of the composition of the responding firms by corporate form that gave a positive answer to each item χ^2=51.079 (p =0.000).

[c] Test for the equality of the composition of the responding firms by corporate form that gave a positive answer to each item χ^2=12.480 (p =0.014).

Source : The joint enterprise survey.

Table 2: Most important reason for being in the current corporate form.

	All companies		Open JSCs		Closed JSCs [a b]	
	No. of affirmative respondents	Share (%)	No. of affirmative respondents	Share (%)	No. of affirmative respondents	Share (%)
Legal restrictions on the number of shareholders, minimum required capitalization (minimum share capital)	93	11.8	58	10.8	35	13.7
Mass-privatization policy for state-owned enterprises	349	44.1	291	54.4	58	22.7
Judgment by the managers and shareholders	248	31.4	133	24.9	115	44.9
Lack of consensus among managers and shareholders	7	0.9	3	0.6	4	1.6
Time and cost of changing the corporate form	21	2.7	10	1.9	11	4.3
Others	73	9.2	40	7.5	33	12.9
Total	791	100.0	535	100.0	256	100.0

Notes : [a] Including workers' joint-stock companies (people's enterprises).

[b] Test for the equality of the composition of the responding firms by corporate form that gave a positive answer to each item: $\chi^2 = 74.240$ ($p = 0.000$).

Source : The joint enterprise survey.

Table 3: Comparison between open and closed joint-stock companies regarding the ownership structure, capital demand, relationship with business groups, and impact of past policies on company start-ups.

	Open JSCs	Closed JSCs [a]
Outsider ownership share [b c]	2.20	1.17 ***
State ownership share	0.66	0.12 ***
Federal government agencies	0.49	0.09 ***
Regional and local government agencies	0.23	0.05 ***
Private ownership share [c]	1.71	1.04 ***
Commercial banks	0.19	0.07 ***
Investment funds and other financial institutions	0.31	0.09 ***
Non-financial corporations	1.06	0.69 ***
Foreign investors	0.37	0.31
Proportion of firms with a large managerial shareholder (shareholder group)	0.43	0.58 †††
Proportion of firms planning to issue securities in the near future	0.12	0.08
Proportion of firms with a long-term credit relationship with a certain commercial bank	0.85	0.76 †††
Proportion of member companies of a business group	0.41	0.36
Proportion of core corporations of a business group	0.05	0.06
Proportion of affiliated companies of a business group	0.35	0.31
Total number of member companies of a business group that a company belongs to	25.71	22.26
Proportion of former state-owned or ex-municipal privatized firms	0.78	0.51 †††
Proportion of firms that separated from a state or privatized company	0.09	0.11
Average number of employees	2414.77	794.19 ***

Notes : [a] ***: The difference of the means in comparison with open JSCs is significant at the 1% level according to the t- test (the Welch test was performed instead of the t -test when the null-hypothesis that the two samples have the same population variance was rejected by F -test for homoscedasticity); †††: The difference of the proportions in comparison with open JSCs is significant at the 1% level according to the χ^2 test.

[b] "Ownership share" as used herein means an ownership share rated on the following 6-point scale: 0: 0%; 1: 10.0% or less; 2: 10.1 to 25.0%; 3: 25.1 to 50.0%; 4: 50.1 to 75.0%; 5: 75.1 to 100.0%.

[c] Excluding ownership by domestic individual shareholders.

Source : Author's estimation based on the results of the joint enterprise survey.

Table 4: Probit regression analysis of the corporate-form choice model.

Dependent variable	*CLOCOM*							
Sample constraints [a]	I	I	I	I	II	III	IV	I
Model	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H) [b]
OWNOUT	-0.055 ***			-0.056 ***	-0.058 ***	-0.058 ***	-0.050 ***	-0.169 **
	(0.01)			(0.01)	(0.01)	(0.01)	(0.01)	(0.07)
OWNSTA		-0.120 ***						
		(0.03)						
OWNFED			-0.106 ***					
			(0.03)					
OWNREG			-0.143 ***					
			(0.04)					
OWNPRI		-0.041 ***						
		(0.01)						
OWNBAN			-0.023					
			(0.05)					
OWNFIN			-0.071					
			(0.04)					
OWNCOR			-0.057 ***					
			(0.01)					
OWNFOR			0.019					
			(0.03)					
MANSHA	0.100 **	0.093 **	0.099 **	0.102 **	0.104 **	0.105 **	0.110 **	0.210 *
	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.05)	(0.05)	(0.11)
SECPLA	-0.131 *	-0.124 *	-0.129 *	-0.133 **	-0.113	-0.116	-0.175 *	-0.124 **
	(0.07)	(0.07)	(0.07)	(0.07)	(0.08)	(0.08)	(0.10)	(0.06)
RELBAN	-0.148 **	-0.153 **	-0.146 **	-0.149 **	-0.138 **	-0.158 **	-0.134 *	-0.143 **
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.07)	(0.07)
NUMFIN	-0.188 ***	-0.191 ***	-0.194 ***	-0.192 ***	-0.164 **	-0.185 ***	-0.142 *	-0.146 **
	(0.06)	(0.07)	(0.07)	(0.06)	(0.07)	(0.07)	(0.08)	(0.07)
GROFIR	-0.217 **	-0.216 **	-0.209 **		-0.179 *	-0.253 ***	-0.169	-0.225 **
	(0.10)	(0.09)	(0.09)		(0.10)	(0.09)	(0.14)	(0.09)
GROCOR				-0.232 ***				
				(0.08)				
GROAFF				-0.196 **				
				(0.10)				
GROSIZ	0.098 **	0.088 *	0.085 *	0.094 **	0.084 *	0.115 **	0.067	0.122 **
	(0.05)	(0.05)	(0.04)	(0.05)	(0.05)	(0.05)	(0.07)	(0.05)
PRICOM	-0.390 ***	-0.383 ***	-0.403 ***	-0.394 ***	-0.376 ***	-0.388 ***	-0.423 ***	-0.392 ***
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.07)	(0.06)
SPIOFF	-0.173 ***	-0.162 **	-0.166 ***	-0.178 ***	-0.160 ***	-0.168 **	-0.200 ***	-0.180 ***
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.07)	(0.07)	(0.06)
COMSIZ	-0.062 **	-0.058 **	-0.060 **	-0.064 **	-0.049 *	-0.070 **	-0.068 **	-0.037
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Industrial dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	557	555	555	557	525	534	389	527
Pseudo R^2	0.19	0.20	0.21	0.19	0.16	0.19	0.17	0.17
Log likelihood	-295.70	-290.69	-286.06	-295.44	-283.83	-284.18	-211.91	-282.43
Wald test (χ^2)	110.30 ***	117.36 ***	128.31 ***	111.63 ***	89.25 ***	111.8 ***	78.96 ***	107.60 ***

Notes : [a] I: basic sample (available observations without firms that already issued securities in the past); II: excluding communications firms from the basic sample; III: excluding those with the total number of employees exceeding the mean of number of employees of closed JSCs (794.19 person) plus/minus 1 standard deviation (3,149.14) from the basic sample; IV: excluding those that experienced a change in the major shareholders from 2001 to 2004 from the basic sample.

[b] The two-stage probit estimation assuming the endogeneity between corporate form and ownership structure

[c] The coefficients represent marginal effects. White's heteroskedasticity-consistent standard errors are shown in parentheses. ***: significant at the 1% level; **: at the 5% level; *: at the 10% level

Source : Author's estimation. See Appendix for the definition, descriptive statistics, and data source of variables used in models.

Appendix: Definition, descriptive statistics, and data source of variables used for empirical analysis.

Variable name	Definition	Descriptive statistics			
		Mean	S.D.	Min.	Max.
CLOCOM	Closed JSC dummy	0.33	0.47	0	1
OWNOUT	Outsider ownership share [a]	1.87	2.14	0	5
OWNSTA	State ownership share	0.37	1.02	0	5
OWNFED	Ownership share by federal government agencies	0.23	0.82	0	5
OWNREG	Ownership share by regional and local government agencies	0.17	0.70	0	5
OWNPRI	Private ownership share	1.26	1.90	0	5
OWNBAN	Ownership share by commercial banks	0.11	0.50	0	5
OWNFIN	Ownership share by investment funds and other financial institutions	0.16	0.68	0	5
OWNCOR	Ownership share by non-financial corporate shareholders	0.88	1.65	0	5
OWNFOR	Ownership share by foreign investors	0.22	0.88	0	5
MANSHA	Large managerial shareholder dummy	0.51	0.50	0	1
SECPLA	Securities issuance planning dummy	0.06	0.29	0	2
RELBAN	Relationship-banking dummy	0.82	0.39	0	1
NUMFIN	Number of financial institutions per 1000 firms in the location	1.19	0.31	0.54	2.18
GROFIR	Business group participation dummy	0.33	0.47	0	1
GROCOR	Core business group member dummy	0.05	0.22	0	1
GROAFF	Business group affiliation dummy	0.28	0.45	0	1
GROSIZ	Natural logarithm of the total number of member firms of a business group	0.68	1.13	0	6.40
PRICOM	Dummy for former state-owned or ex-municipal privatized companies	0.69	0.46	0	1
SPIOFF	Dummy for firms separated from state-owned or privatized companies	0.10	0.30	0	1
COMSIZ	Natural logarithm of the total number of employees	6.16	0.93	4.66	9.42
CEOSHA	Dummy of shareholding by incumbent CEO (or company president)	0.63	0.48	0	1
DOMSHA	Dummy of a shareholder/shareholder group dominating corporate management	0.87	0.33	0	1
CEOAGE	Age level of incumbent CEO (or company president) [b]	2.43	0.91	0	5
COMDOM	Intensity of competition with domestic firms in product market [c]	1.50	0.69	0	2

Notes: [a] "Ownership share," as used herein, means an ownership share rated on the following 6-point scale: 0: 0%; 1: 10.0% or less; 2: 10.1 to 25.0%; 3: 25.1 to 50.0%; 4: 50.1 to 75.0%; 5: 75.1 to 100.0%.

[b] Age level is rated on the following 6-point scale: 0: 30 years old or less; 1: 31-40 years old; 2: 41-50 years old; 3: 51-60 years old; 4: 61-70 years old; 5: 71 years old or more.

[c] The intensity of competition is rated on the following 3-point scale: 0: no competition; 1: not very competitive; 2: very competitiv

Data source: NUMFIN was calculated by the author based on Rosstat (2005) and the Central Bank of the Russian Federation (2005). Other variables are based on the results of the Japan-Russia joint enterprise survey conducted in 2005.