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Federal state shareholdings in Russian companies: Origin, forms and consequences for enterprise performance

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Alexander Muravyev

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All opinions expressed are those of the author and do not necessarily reflect the views of the Bank of Finland.

Alexander Muravyev*

Federal state shareholdings in Russian companies: Origin, forms and consequences for enterprise performance

Abstract

This paper studies the impact of federal state shareholdings on the performance of Russian companies. It differs from most similar studies in two respects. Firstly, it focuses on mixed ownership companies rather than conventional state enterprises. Secondly, it distinguishes between several types of federal state shareholdings, namely elected blocks, residual blocks (which may be held by two bodies with different functions – the Ministry for State Property and the Russian Fund for Federal Property) and golden shares. The paper describes the origin of federal state shareholdings and discusses their possible implications for company performance. Econometric analysis shows that companies with state ownership generally perform worse than the average firm in terms of labour productivity and profitability. However, there are remarkable differences in the performance of companies with different types of state shareholdings. Companies with residual blocks held by the Property Fund are the worst performers, followed by companies with residual blocks held by the Ministry for State Property. Companies with elected shareholdings as well as with golden shares do not differ from the average enterprises in the respective industries. These differences in performance are explained by the different degrees of control the federal state has over enterprises with various types of shareholdings – greater control is associated with better performance. The paper concludes that the government should avoid keeping equity stakes in companies unless there is a good reason to retain them. If the state wants to keep an ownership stake in a company, reliable control structures must be created. Finally, the issue of golden shares in strategically important companies seems to be a reasonable alternative to retaining some control over them through equity ownership.

Key words: Corporate governance, state ownership, firm performance, Russia

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Tiivistelmä

Tässä tutkimuksessa selvitetään valtion omistuksen vaikutusta yritysten toimintaan Venäjällä. Tutkimus eroaa aikaisemmista kahdella tapaa. Ensimmäinen se keskittyy yrityksiin, joista valtio omistaa osan, ei kokonaan valtion omistamiin yrityksiin. Toiseksi tutkimuksessa erotellaan valtion erilaiset omistusmuodot: pysyvät omistukset, yksityistämistä jäljelle jääneet omistukset tai ns. golden share -osuudet. Lisäksi yksityistämistä jäljelle jääneitä omistuksia voi olla sekä valtionomaisuuden ministeriössä (Ministry for State Property) että federaation omaisuusrahastossa (Russian Fund for Federal Property). Tutkimuksessa kuvataan, kuinka erilaiset omistusosuudet ovat syntyneet ja kuinka ne voivat vaikuttaa yritysten toimintaan. Tutkimuksen ekonometrisessä osassa havaitaan, että yrityksissä, joista valtio omistaa osan, on yleensä heikompi työn tuottavuus ja pienemmät voitot. On kuitenkin huomattava, että valtion erilaiset omistusmuodot vaikuttavat yritysten toimintaan eri tavoin. Huonoiten menestyvät yritykset, joissa valtion omistus on jäänyt jäljelle yksityistämisprosessista ja sitä hallinnoi omaisuusrahasto. Myös ministeriön hallinnoimat, yksityistämistä jäljelle jääneet omistukset heikentävät yritysten toimintaa. Muunlaiset valtion omistusmuodot eivät näytä vaikuttavan yritysten toimintaan negatiivisesti. Johtopäätös on, että valtion ei pitäisi säilyttää omistuksia yrityksissä, ellei siihen ole pätevää syytä. Jos valtio omistaa yrityksiä, on omistuksille muodostettava luotettava valvontajärjestelmä.

Asiasanat: Corporate governance, valtionomistus, yritysten tehokkuus, Venäjä

1 Introduction

Russia is famous for the unprecedented scale and speed of its privatisation programme that within a couple of years transformed the overwhelming majority of state enterprises into privately owned companies. By 1995, the public sector in this formerly command economy was reduced dramatically and produced less than half of Russia's GDP. In subsequent years, the state sector continued to shrink due to further, though less dramatic, privatisation efforts. However, even after a decade of privatisation it remains very large. At the federal level alone the state remains the sole owner of over 9,700 enterprises and keeps ownership stakes in about 4,000 companies. In addition, the state is the owner of more than 34,000 organisations such as hospitals, universities and the like (IET, 2002). These figures would be even higher if enterprises and organisations belonging to the state on the regional level were considered.

Despite a high incidence of state ownership, there is little systematic evidence on its consequences for the performance of enterprises and the Russian economy in general. This issue is particularly interesting in view of the recent criticism of Russian privatisation, which is regarded by many observers and scholars as having been detrimental rather than beneficial for enterprise restructuring and improved performance. There is extensive evidence, mostly anecdotal, that Russian privatisation indeed went wrong. For example, Black et al. (2000) show that soon after the privatisation of profitable oil extraction enterprises was completed, many of them suddenly turned into loss-making firms. This criticism even gave rise to suggestions of nationalisation and possible re-privatisation (see e.g., Stiglitz, 1999 and Nellis, 1999). However, the question of whether continued state ownership would be better remains unanswered. Another related issue concerns corporate governance mechanisms for enterprises with state participation. These enterprises may differ with respect to the size of the government stakes, the rationale for their retention in state ownership as well as the state structures that dominate decision-making about asset management. How do these differences affect enterprise performance? These questions are particularly important given the fact that in recent years the Russian government has been trying to shape its policy in the field of managing state assets.

This paper belongs to the strand of literature investigating the impact of state ownership on enterprise performance. It is distinct from most similar papers in two respects. Firstly, the focus of the paper is on Russian *companies* with federal state ownership, typically partial, rather than conventional state-owned enterprises. Secondly, by explicitly recognising diversity among companies with state ownership, it goes beyond a simple comparison of the performance of these firms with that of private companies. The primary goal of this paper is to evaluate the impact of *different types of government shareholdings* on company performance.

The paper is organised as follows. First, it focuses on the evolution of federal state shareholdings in Russian firms from the early 1990s onwards. Second, it outlines differences among various types of state shareholdings and discusses their possible implications for company performance. Then the paper proceeds with econometric analysis of the impact of various types of state shareholdings on company performance.

2 The origin of companies with mixed ownership in Russia

The origin of companies with mixed ownership in the Russian economy is closely related to the process of privatising large and medium-sized enterprises that was launched in 1992. Although Russian privatisation is described elsewhere¹, a brief account of the main steps and major agents which administered the process is crucial for understanding the origin, structure and likely impact of federal state shareholdings on company performance. This brief account of Russian privatisation is divided into two sections describing developments during the mass privatisation period and afterwards. The principal source for this review comprises various regulations on Russian privatisation, but most references to them are deliberately omitted in the text to make the exposition shorter.

2.1 The period of mass privatisation

In 1990, privatisation was already considered as the cornerstone of economic policy in Russia and an initial law on privatisation and other major regulations in the area were being gradually created. The real opportunity came with the collapse of the USSR in December 1991 when the Russian Federation became the owner of the all-union property that was located on its territory. By that time the country had already established its major privatisation agency – the State Committee for Managing State Property, also known as GKI – whose main responsibility was to exercise the rights of the state as owner of enterprises.

State Committee for Managing State Property

The State Committee for Managing State Property (GKI) was established in 1990 to exercise the ownership rights in enterprises that belonged to the Russian Federation. In 1997 it was transformed into the Ministry of State Property (MGI). Since 1997 the main task of the Ministry has been ensuring a single governmental policy in privatisation and managing state property as well as coordinating activities of other federal organs of the executive branch in the field of managing and disposing of state property.

Supervision of the privatisation process was the main task of GKI in 1992-1994. In particular, it was responsible for approving enterprise privatisation plans and was a founder of joint-stock companies in which the enterprises offered for privatisation were transformed. Until recently, GKI received a fraction of revenues from privatisation sales. However, it did not administer the process of selling state assets.

Most operations of GKI were conducted in regions through its regional branches. In all but a few regions, however, GKI did not create its own offices but rather endowed regional committees for managing state property (which were created by and subordinated to the regional governments) with the rights of its regional branches. The regional committees were thus under the bilateral supervision of the regional governments and the GKI central office and administered the privatisation of both federal and regional state enterprises.

¹ See e.g. Boycko et al. (1995).

In early 1992 the state divided all state-owned assets into three categories: federal property, regional property and municipal property. The municipal property category primarily encompassed small enterprises belonging to the trade and service sectors while medium-sized and large enterprises were classified as either federal or regional property.

In parallel, the government classified all enterprises regardless of whether they were in federal, regional or municipal ownership into four categories: those subject to compulsory privatisation, enterprises that could be privatised only with the special permission of the government or GKI (in the latter case, the decision to privatise had to be approved by branch ministries), firms that could be privatised with the permission of regional authorities, and firms that were exempted from privatisation. The assets that were exempted from privatisation in 1992-1994 (military facilities, atomic reactors, rail transport, etc.) remained largely under the control of the old branch ministries, usually having been their founding organs, in the form of non-corporatised state enterprises. The firms whose privatisation required the approval of regional authorities were in regional ownership and embraced those necessary for local infrastructure, including local transport facilities, sewage treatment, pharmacies, etc. The enterprises that could be privatised with the permission of the federal government or GKI were firms in the energy and financial sectors, as well as firms with a charter capital exceeding one billion RUR (as of January 1992), irrespective of their sector affiliation.

The latter category of state assets – enterprises that could be included in the privatisation process at the discretion of the Russian government or GKI – gave rise to most federal state shareholdings that exist today. In cases when the Russian government or GKI elected to include discretionary firms in the privatisation process, they could still decide (and they typically did) to withhold a controlling block of 25, 38 or 51% of the firm's shares from transfer. If the government or GKI did not make a decision to retain a block of shares in a discretionary enterprise when approving its privatisation, all its shares had to be sold within a four-month period after corporatisation². The initial period of retaining these shares in state ownership was three years, but the state reserved the right to prolong it. Hereafter, these blocks will be referred to as *elected shareholdings*.

Some of these shareholdings were abandoned by the government quite soon through the creation of state holding companies to which the blocks were transferred. This was particularly true for the oil, gas, coal and telecommunication sectors. Whether such transfers should be regarded as privatisation is a disputable issue; however, since the blocks were exempted from direct ownership by the state, they are not considered below.

Another way to retain a certain degree of control over the enterprises that were considered as strategically important but were nevertheless offered for privatisation was the issuance of a *golden share* in favour of the state³. It was assigned as an ordinary share (giving its owner all the rights provided for owners of ordinary shares, including the right to receive dividends and the right to vote at shareholder meetings) with a number of additional rights. In particular, the holder of the golden share was endowed with the right of veto on a range of important matters, including changes in the corporate charter, major transactions with company assets, and the reorganisation and liquidation of the company. As a rule, the golden share was issued for a period of three years, but the government reserved the right to extend this period. Decisions about issuing golden shares were to be made at the time of privatisation of each firm. The state committed itself not to retain an elected block and a golden share in the same enterprise, though it could substitute an elected block with a golden share.

² This norm was not strictly followed, however.

³ A golden share could never be issued in favour of or otherwise acquired by a private person.

Last but not least, many of today's federal state shareholdings are the blocks that were intended for sale, but have not been sold by the state. Hereafter they will be called *residual shareholdings*. Their origin is as follows. The privatisation of enterprises that participated in the mass privatisation programme presupposed several consequent steps. After the corporatisation of enterprises their shares (except for those reserved in state ownership – elected shareholdings) were transferred to the Russian Fund for Federal Property (RFFI) – a special financial organisation established by the state in 1992 to conduct sales of assets. In the course of privatisation, RFFI first allocated shares to enterprise insiders, then sold them at voucher auctions and finally through investment tenders or cash auctions in accordance with enterprise privatisation plans.

Russian Fund for Federal Property

The Russian Fund for Federal Property (RFFI) was established to act as the seller of property of enterprises offered for privatisation as well as of shares of such enterprises. It has been the only organisation empowered to conduct such sales on behalf of the federal government. At present, the Fund is functioning as a specialised financial organisation under the Russian government, while not being part of it. Since 1998 the Fund has also been empowered to sell military property – assets that were at the disposal of the Defence Ministry. Since 2001 the Fund has also acted as the seller of confiscated property.

Besides conducting the sale of enterprise shares, RFFI has the responsibility to temporarily possess them and exercise during this period the power of the Russian Federation as owner at shareholder meetings. It also receives dividends, collects privatisation revenues and transfers them in accordance with pre-specified proportions. The Fund may also act as founder of joint-stock companies and purchase shares of companies (except for those created in the privatisation process – it is banned from purchasing shares in privatised firms).

In regions, the Fund operates through its own branches as well as (on the basis of special agreements) through regional funds for state property, which are subordinated to regional authorities. The fund and its branches are partially financed through privatisation proceedings, of which they receive a certain fraction.

As Russian privatisation experience tells, employees of enterprises that were offered for privatisation typically obtained 40 to 56% of shares depending on their choice of privatisation method⁴. Voucher auctions typically involved 29% of shares and 15 to 31% of company shares were to be sold through investment tenders or cash auctions. These sales were administered by RFFI. The quick sale of these blocks was apparently in the spirit of the privatisation process. Thus, the post-voucher privatisation programme directly obliged the regional property funds to divest their holdings by January 1995. But, as noted by Radygin and Malginov (2001), this regulation was often violated. One commonly cited reason for that is the absence of interested buyers. But it may well be the case that it was not the

⁴ The calculation goes as follows. Most large and medium-sized enterprises were privatised according to two out of three options allowed by the privatisation regulations. Under Option 1, employees received 25% of the shares for free, managers could buy 5% and 10% could go to an employee privatisation fund, which together amounted to 40%. Under Option 2, employees acquired 51% of the shares for cash or vouchers and could buy an additional 5% through an employee privatisation fund. Option 3 was used very seldom and basically resulted in employee ownership close to 50%.

failure to find buyers that prevented sale. Since complete privatisation led to the closure of the property funds, they had strong incentives to retain shares as justification for their own existence. As noted by Pistor and Turkewitz (1996), regional property funds or even regional branches of GKI often decided to retain blocks of shares or issue golden shares in companies subject to privatisation, thus violating basic regulations on privatisation.

Thus, apart from a huge number of enterprises and organisations fully owned by the state, by the end of mass privatisation the Russian state on the federal level kept:

- elected shareholdings in companies considered as strategically important, retained on the basis of GKI or government decisions and held by GKI;
- residual shareholdings which had not been sold or otherwise transferred, typically in the hands of RFFI and its regional branches;
- golden shares in companies considered as strategically important.

The administration of Russian privatisation makes it very difficult to assess the number and the size of these shareholdings by the end of mass privatisation (July 1994). The task is easier with respect to elected shareholdings. Radygin and Malginov (2001), who summarize relevant statistics for the entire period 1993-2000, report that in 1993-94 the state (on all levels, including regions) made decisions to reserve shareholdings in 1,935 companies (about 8% of all enterprises offered for privatisation) and golden shares in 996 enterprises (4%). Little is known about the number of residual shareholdings kept by RFFI. This is because shares were typically transferred to regional property funds and there were no comprehensive statistics on the aggregate number of such shareholdings. As noted by Pistor and Turkewitz (1996), the Federal Fund in Moscow was not capable of monitoring their activities and did not even have access to data on post-voucher privatisations conducted by them.

2.2 Developments after mass privatisation

Since 1995, several parallel processes have affected the incidence of federal state shareholdings in the Russian economy. The state continued its policy of privatisation, though at a much slower pace. It concerned enterprises exempted from the mass privatisation programme and companies with government participation in the form of both elected and residual shareholdings. Since 1995, the government made decisions to keep either a golden share or a block in many enterprises that were offered for privatisation. The share of firms privatised in this way was much higher than during the mass privatisation period.

As already noted, the government planned to keep most elected shareholdings in state ownership during three years. Within this period they could not be sold without a special decision by the government or GKI. However, the government did not commit itself to selling the elected blocks whose term of retention had expired. Neither did it always transfer them to RFFI, which administered the sale process. Therefore, with respect to the elected shareholdings, a variety of options were possible. They might still be kept by GKI either as elected or residual shareholdings (depending on whether the initial term of their retention was extended or not), could be held by RFFI as residual shareholdings ready for

sale or could be sold or disposed of otherwise, like in the notorious loans-for-shares scheme⁵.

By autumn 1995 the deadline for retaining shares was approaching for many of these blocks and their fate had to be determined. This was particularly acute due to the beginning of the so-called money privatisation, through which the government wanted to raise revenues to cover its budget deficit. The government started to compile a list of strategically important enterprises whose shares were to be exempted from sales. By September 1995 a list of 2,799 such firms was approved. It was subsequently enlarged in 1996 and 1997 to embrace about 3,000 enterprises. In 1997 a second law on privatisation was enacted which envisaged no time limits for retaining shareholdings of strategic enterprises in state ownership. All state blocks that had the status of elected shareholdings by mid-1997 retained it on a permanent basis, unless the state decided to change it.

In 1998, when the government was desperately looking for additional revenues, the list was cut dramatically to embrace only 697 companies. Over 2,000 blocks that had lost the status of elected holdings automatically became residual holdings ready for sale. But the financial crisis that broke out in August 1998 buried any hopes for their privatisation. Most of the blocks that were elected in 1995-1997 are still kept in state ownership (as residual blocks). As for the list of elected holdings, it was reconsidered several times since 1998 and by mid-2000 contained 723 companies.

After the completion of the mass privatisation programme, the state also had to decide on the future of golden shares that it reserved in strategic enterprises. In most cases the period of retaining these shares was extended. Similarly to the elected shareholdings, the 1997 law on privatisation eliminated the temporary status of golden shares. They could be retained for as long as the government wished, unless the decision to cancel was made. But in some cases the term of retention of golden shares expired before August 1997 and was not extended in time. As a result, the state ended up with a share that lost its special rights and was transformed into an ordinary one. The ridiculous situation with the federal government having just one ordinary share in a company proved to be difficult to escape from. The share could not be liquidated (as it was a part of the company charter capital) and could hardly be sold to anyone except for the issuing company⁶.

Another development that occurred after mass privatisation was a transfer of shares from the federal government to regional governments. This process particularly concerned residual shareholdings that remained at the disposal of RFFI. It started in early 1996 when the approaching presidential elections forced the federal government to look for support from the regional authorities. In most cases the transfer of shares served as compensation for federal government debt to the regions (Radygin and Malginov, 2001).

⁵ The loans-for-shares privatisation scheme is described elsewhere. See, e.g., Lieberman and Veimetra (1996).

⁶ The 1997 law on privatisation significantly changed the legal status of the golden share. One of the changes was that since 1997 the state could reserve a "special right" to participate in managing companies instead of using the golden share. This special right was not associated with any share issued by the company. However, even now the term golden share and special right are used interchangeably.

2.3 The structure of federal government shareholdings in Russian companies by 2001

The above account of the privatisation process makes it possible to distinguish among five types of government shareholdings (or participation in companies):

- elected blocks of shares kept by MGI (former GKI)⁷;
- residual shareholdings kept by MGI (formerly elected blocks which lost their status and were not transferred to RFFI);
- residual shareholdings held by RFFI;
- golden shares held by MGI;
- single ordinary shares (former golden ones) kept either by MGI or by RFFI⁸.

There are no comprehensive data on the incidence of shareholdings belonging to these groups. According to MGI, by August 2001 the federal state had equity stakes (blocks of shares) in 3,949 enterprises, of which 88 had 100% state ownership, 625 had 50-99%, 1,393 had 25-50%, and 1,843 had less than 25% of their shares owned by the state (IET, 2002). In addition, it possessed golden shares in 542 companies (some of them were among the above-mentioned 3,949 companies with state blocks).

These figures (reported by MGI) embraced all ownership stakes held by the federal government regardless of whether they were kept by MGI or RFFI. Available data from RFFI tell us that in 2001 RFFI kept 2,400 blocks of shares, of which about one third were represented by blocks below 10%, one third – by blocks between 10 and 25%, and the remaining – by stakes exceeding 25%. In 55 companies RFFI had a 100% share⁹.

As for the shares held by MGI, the only publicly available information comes from the list of strategically important companies, which, as mentioned above, included about 723 firms in 2000. There is no general information about residual blocks held by the Ministry. Neither can it be accurately inferred from the above-reported figures. The main problem is that the reported information concerns the number of companies, not blocks, and there are many companies in which various types of state shareholdings co-exist, e.g. a residual block of RFFI neighbours on an elected block of MGI¹⁰.

⁷ There may be several companies in which elected blocks are held by RFFI. Apparently, this may have happened when the government first allowed the sale of a certain block, transferred it to RFFI but then decided to retain it.

⁸ It is worth noting that this classification does not perfectly comply with the Russian regulations that have distinguished among elected shareholdings (*zakreplionnye pakety*), residual ones (*podlezhashchie prodazhe*) and golden shares (*zlotye aktsii*).

⁹ Interview with a deputy head of RFFI V. Fatikov (Izvestia, 12 February 2002).

¹⁰ There is some anecdotal evidence that representatives from these bodies voted differently at shareholder meetings. This resulted in suggestions by MGI to deprive RFFI of its right to manage residual shareholdings (AK&M, 27 October 2000).

3 Federal government approach to managing state shareholdings

From the very start of privatisation, the presence of government shareholdings in companies raised the question of whether and how the state should participate in the corporate governance of these firms. It was particularly acute for elected shareholdings, which, as was claimed, were retained to protect essential interests of the state. The respective regulations started to emerge already in 1992.

3.1 General approach

The principal mechanism that developed in these regulations was the appointment of representatives of the state to supervise companies with state participation as well as the appointment of directors to corporate boards. These representatives could be public officials (appointed on the basis of decisions made by the President, government, GKI or RFFI) or other persons (acting on the basis of special contracts concluded with GKI or RFFI).

These regulations were intended to provide a tough control structure for state representatives, who had to disclose their voting intentions and were required to obtain prior approval from the state for a number of important decisions concerning companies. But the legislation suffered from ambiguity, as was often the case during the 1990s. For example, the state bodies responsible for making appointments were simply listed and there were no mechanisms to solve potential disputes between them. Many loopholes were being gradually eliminated, but the most important changes (e.g., clarification of the procedure for appointing representatives and using shareholder rights in general) were introduced only in 1999-2000.

Most representatives of the state were government officials. By 1999, for example, less than one percent of state representatives in companies were not public servants¹¹. The major obstacle to appointing other agents was ambiguity about sources of finance to provide them with remuneration for the relevant activity. As for the appointment of public servants, it proved to bring ambiguous results for several reasons. Firstly, either these representatives had insufficient work experience in the activity area of the companies or had no such experience at all. Secondly, each representative was typically supposed to supervise several companies, often in different regions and sectors. This job had to be done alongside his/her regular duties at MGI or other state bodies. Thirdly, there was little interest on the part of the representatives, as they were directly banned from receiving any remuneration for their activity¹². Furthermore, the supervision of the activity of state representatives

¹¹ See The Concept for the Management of State Property and Privatisation in the Russian Federation, adopted by the Russian government in September 1999.

¹² Surprisingly, however, the Minister for State Property admitted that there was a queue of government officials from regional administrations, the Ministry of Agriculture and Food, the Ministry for Economy and the Ministry of Taxation wishing to be appointed as representatives of the state in certain companies (Interview with F. Gazizullin, Minister of State Property, Gazeta.ru, 23 February 2000). The reasons for this enthusiasm are unclear and probably have to do with opportunities for personal enrichment among the representatives. As the Minister explained, "our

on the part of the government was rather weak. Perhaps the most obvious manifestation of the passive (or self-interested) behaviour of the representatives can be seen in the numerous cases of dilution of state shareholdings through new issues of shares that received approval from the representatives.

Another mechanism through which the government tried to improve the corporate governance of companies with state ownership was the transfer of shares to so-called trust management. It required a special agreement between the state and a legal or natural person that specified the rights and remuneration of the trustee. The principal advantage was an opportunity to appoint trust managers on a competitive basis and to provide them with monetary incentives. On the other hand, these contracts created a wide leeway for trustee opportunism. Perhaps this was the main reason why this mechanism has existed only in the form of pilot projects.

The discussion of the role of representatives would be incomplete without mentioning the involvement of the regional authorities. Radygin and Malginov (2001) note that in 70% of cases the representation of the government interests is entrusted to local officers. Data from RFFI show even more remarkable figures: out of more than 2000 representatives, only about 300 come from central ministries (Izvestia, 12 February 2002). These figures may be interpreted as indicating a difference between residual and elected blocks: the former are more likely to be managed by representatives from regions rather than the centre. It is not unlikely, therefore, that regional governments interfere in the decision-making process in companies with federal state ownership in order to pursue their own agenda. This is particularly easy if control over representatives on the part of the federal state structures is minimal (as was the case with the RFFI Moscow office in the 1990s).

3.2 Managing various types of state shareholdings

3.2.1 Elected shareholdings

Elected shareholdings were the most closely supervised by the federal government from the early 1990s onwards. This should not come as a surprise – if the retention of these blocks was motivated by the importance of the respective enterprises, the government had to commit itself to an activist ownership stance. However, as was shown, the level of involvement in managing these firms was hardly too high, at least until the late 1990s. For most of the time since 1992, the major distinct feature of these blocks was that they could not be sold without a special decision of the government, i.e. before changing their status to residual blocks ready for sale¹³. This emphasises the long-term commitment of the state to keep these shareholdings. As already noted, these blocks are held by MGI with only a few possible exceptions.

task is to direct their energy into the right channel", thus admitting that their efforts were directed to other purposes.

¹³ Since February 2001, however, privatisation of any block of shares remaining in state ownership has to be approved by the government.

3.2.2 Residual shareholdings

Residual shareholdings embrace assets that the government has offered for sale or decided to divest in the foreseeable future. It means that the state has renounced its interests in keeping them as a part of its portfolio. Since these assets are likely to be retained on a temporary basis, the amount of resources that the state is ready to spend on managing them (involvement of the state in enterprise activity) is likely to be smaller compared to the elected blocks. The passive stance of the state with respect to these blocks may also stem from the fact that many of them are too small to let the state affect corporate decision-making in any significant way (e.g., to appoint a director to the board).

a) RFFI residual shareholdings. The major feature of these blocks is that their voting power was originally restricted by privatisation regulations to 20% of votes. Whether RFFI had 30 or 50% of voting shares, it could have only 20% of the votes at the shareholder meeting. In August 1997, the second law on privatisation eased this restriction by permitting the Fund to have 25% + 1 share as voting shares. The restriction was finally removed in August 2000, when the Fund received the right to vote with the full number of possible votes.

b) MGI residual shareholdings. They were not subject to much regulation. In particular, there were no restrictions on the voting power of these blocks and no special procedures for managing them. Importantly, these blocks evolved from elected shareholdings, mostly in 1998, when the government cut the number of the latter by about 75%.

3.2.3 Golden shares

Until 1997, the holder of a golden share had only a number of the vetoing rights that could be exercised by a representative of the state. Since August 1997, the power of the government vis-à-vis companies with golden shares was extended. The government received the right to designate one member to the board of directors and one to the auditing commission of the company, without the approval of the general meeting of shareholders, and to request the convening of extraordinary meetings of shareholders. The state was also endowed with all the rights possessed by holders of two percent blocks of shares (e.g., the right to put forward suggestions for the agenda of shareholder meetings)¹⁴. In contrast to companies in which the government had a block of shares, only public servants could represent the federal state in companies with golden shares.

It would be inappropriate not to mention important changes that occurred in the field of managing state shareholdings since March 2000. Firstly, not only elected, but also residual shareholdings were explicitly subjected to regulation¹⁵. Secondly, a procedure for selecting and appointing representatives of the state was specified. The selection of candidates and formulation of the position of the state with respect to companies was given to

¹⁴ These provisions are confirmed in the third law on privatisation enacted in 2002.

¹⁵ The difference between elected and residual shareholdings disappeared with the enactment of the third law on privatisation in 2002. The new law introduced the concept of strategic companies instead of elected shareholdings. The list of these companies and any decisions concerning their privatisation are to be approved by the president. Thus, the new law distinguishes between different enterprises, not between different blocks of shares. However, by summer 2002 the list of strategic companies was not yet ready.

the branch ministries, which submitted their proposals to the MGI. MGI, in turn, appointed state representatives and co-ordinated their activity. For 167 companies the functions of the Ministry are to be exercised by the government¹⁶. Importantly, RFFI is supposed to follow the same procedures as the Ministry. However, state blocks of the same company held by different bodies were not merged. This can still lead to contradictory policies pursued by the two bodies with respect to the same companies, which has regularly occurred in the past.

4 Possible implications for company performance

There are several issues to take into account when studying the impact of state shareholdings on company performance in Russia. The first one is related to the *role of the state as owner* of productive assets, especially in companies with mixed ownership. What could we expect from the state as one of the owners of companies? The second refers to the *status of shareholdings* under Russian law as well as differences between the two state bodies responsible for managing these shareholdings. MGI and RFFI may have different incentives, power and degrees of freedom in managing shares. The third issue that has to be tackled in empirical analysis relates to the *selection problem*. Are companies with federal state ownership randomly distributed across "good" and "bad" firms? If they were initially (pre-privatisation) bad firms, one can hardly learn anything about the role of state shareholdings by comparing the results of these companies with those of privately owned firms. The performance of companies, whether it is good or bad, may just reflect the fact that these companies have always been respectively good or bad.

4.1 The role of state ownership

Most of the contemporary economic literature views public ownership as detrimental for enterprise efficiency and performance. Efficiency losses are attributed to the lack of incentives that arises due to information asymmetries and incomplete contracting problems. Zinnes et al. (2001) point out two lines of arguments explaining the inefficiency of state ownership. The managerial view that was advocated by Vickers and Yarrow (1990) assumes that the state is unable to perfectly monitor enterprise managers. The threat of takeover or bankruptcy, which instils discipline in privately owned firms, is also non-existent in state-owned enterprises. The political view underlines the risk of political interference, which forces managers to re-orient from profit maximisation to other goals such as employment maximisation (see e.g., Shleifer and Vishny, 1994, 1996).

It is much less clear to what extent the evils of state ownership are typical in companies in which the state owns a fraction of shares. There seems to have been little research in this area. On the one hand, these companies face greater discipline, as they may go bankrupt or even become a takeover target. As private owners have a genuine interest in company profit maximisation, the internal monitoring system may be more efficient than in the case of fully state-owned enterprises. The risk of political interference may also be

¹⁶ These companies are not necessarily those with elected shareholdings. For example, RFFI has shares in 32 of these 167 companies and in three of them it is the only organ that keeps state shares.

weaker because the state does not simply have enough power to interfere. Especially when the state ownership is small enough can we expect that the companies behave more like fully privately owned firms.

One important aspect of state ownership is the opportunity for bailouts of poorly performing firms by the government. The prospect of a bailout may even make it easier for firms with state ownership to raise external funds, e.g., in the form of bank credits, because these investments are considered as being to some extent protected by the state. But this creates adverse incentives for the firms not to care about efficiency and performance because they will be rescued in any case. It is likely that the probability of a bailout is higher for firms with a larger stake owned by the state.

Even if state ownership brings in a number of problems, there is no guarantee that privatised (not originally private) companies in the transition countries perform better. Many argue that it is exactly what happened in Russia. Privatisation, as is often claimed, transferred state assets to economic agents whose primary goal was to grab and disappear. This paper is not a proper place to go deeper into the investigation of possible reasons for such behaviour. Most often, the giveaway nature of Russian privatisation as well poor protection of property rights are put forward as likely explanations. On the empirical side, there is some prior evidence that the role of the state is not always negative in Russia. For example, Perevalov et al. (2000) question the importance of private ownership by showing that the performance of companies wholly owned by the state scarcely differed from that of privatised firms with little or no residual state ownership. One of the findings of Kuznetsov and Muravyev (2001) shows that state ownership puts some restraints on the rent-seeking behaviour of private shareholders in Russian companies. Anecdotal evidence on the same issue is even more extensive (see e.g., Black et al., 2000).

4.2 Status and management of state shareholdings

As shown before, different types of government shareholdings are associated with different degrees of government involvement in managing companies, which is particularly obvious when elected and residual blocks are compared. The question arises whether or not the greater involvement of the state is positive for the performance of firms. On the one hand, little interference by the state may be beneficial, as companies are likely to be run as purely private firms pursuing higher efficiency and profits. On the other hand, it creates a discrepancy between control rights and cash flow rights for managers and private shareholders. Having all the control, but just a fraction of the profits (which must be shared with the state), managers are more inclined to behave opportunistically, e.g. to extract the private benefits of control. In other words, the corporate governance problem becomes more severe if the state cedes all the control rights to the managers and private shareholders. In contrast, greater involvement by the state can result in smaller room for opportunistic behaviour by managers (even though the monitoring of managers by the state is likely to be imperfect), but can bring about a distortion of the company objective function¹⁷. This discussion implies that one cannot accurately predict which of the two – elected blocks (presumably with better control by the state) or residual shareholdings (with limited involvement by the state) – is better for enterprise performance.

¹⁷ The role of the state in monitoring managers may be particularly important if the state is the only large shareholder in a company.

In turn, residual shareholdings are kept by two governing bodies – MGI and RFFI. Should we expect any difference in the performance of companies with MGI and RFFI residual blocks? The major difference between these types of blocks is that RFFI is more restricted in voting with its blocks and we face the problem already discussed of whether tighter control is better for company performance. The differences in the degree of control between MGI and RFFI may also stem from their own status. A ministry and a financial organisation (even though it operates under the Russian government) are likely to have different degrees of power. This may be particularly important given that most shareholdings are managed by regional officers, who also report to regional governments. MGI has presumably more power than RFFI in any disputes with regional authorities¹⁸. Moreover, the origin of many MGI and RFFI blocks is different. While MGI residual blocks come from formerly elected shareholdings, RFFI keeps shareholdings that have not been sold.

Where RFFI seems to have an advantage over MGI is in a better link between the amount of financial resources RFFI receives (to the extent they come from privatisation revenues) and its efforts to manage and privatise companies. In other words, RFFI has better financial incentives and can benefit from maximising the value of its shareholdings and their subsequent sale¹⁹.

Golden shares provide the state with no operating control over companies, but with a range of vetoing rights. Moreover, the government can designate its representative to the board of directors. The difference between a golden share and a block of shares, let's say of 25%, is that the state as the owner of the golden share is not a claimant on company profit. Therefore, in contrast to the situation in which the government has a block of shares and plays a passive role in corporate governance, the presence of golden shares does not create incentives for other shareholders to expropriate the state. Thus, under a passive approach on the part of the state, golden shares may be better than blocks of shares in the hands of the state. When the state takes a more active stance, companies with golden shares may be more protected from its excessive interference. Still, the presence of golden shares (as well as state shareholdings in general) may create a disincentive for potential investors in equity since there is a risk that their policies (e.g., restructuring programmes) will be blocked by the government.

¹⁸ The role of regional authorities in managing companies with federal state ownership remains unclear. On the one hand, they presumably have high incentives (perhaps higher than the federal government) to interfere in enterprise affairs if things go wrong. For example, they need to maintain social stability that could be threatened in case of enterprise closure. They are also interested in the good performance of firms because the latter are important taxpayers. On the other hand, there is a dangerous discrepancy between the cash flow rights and control rights of regional governments, because they are not residual claimants on company profit. Moreover, regional governments may impose various non-economic goals on firms such as retaining low levels of unemployment.

¹⁹ Although MGI also received a part of privatisation revenues until recently, a direct link between MGI policies on managing companies and MGI revenues did not exist simply because some of the MGI blocks were exempted from sale and, more importantly, MGI did not administer the process of sale.

4.3 Selection problems

Although the first section of this paper provided a detailed account of the origin of state shareholdings in privatised companies, there remains a difficult question of what sort of firms they were before privatisation. Even with respect to elected shareholdings, there are different views. Radygin and Malginov (2001) state that elected shareholdings were concentrated primarily in enterprises and industries that were subject to a particularly severe decline during the transition period. On the other hand, the same authors claim that the pre-privatisation performance of enterprises (the share of loss-making firms within the group) whose shares were elected by the state was better than the performance of the average firm. As argued by Chubais et al. (1999), who were the top officers administering privatisation in 1991-1994, decisions concerning privatisation were often a result of a bargaining process between GKI, which wanted to sell more, and branch ministries, which wanted to retain more assets in state ownership. With respect to RFFI blocks, the question seems to have no satisfactory answer at all. The proportion of blocks that raised no interest among potential investors and of blocks that were kept by RFFI for other reasons (e.g., to justify its own existence or, possibly, to extract rents from the companies) is unknown.

5 State shareholdings and company performance: Econometric analysis

This section investigates the impact of federal state shareholdings on the performance of Russian companies. It is based on a database covering companies with federal state ownership, which was obtained from the Ministry of State Property in early 2001. A description of the database is reported in the Appendix. Since there is limited information on the number of state shareholdings of different status as well as their distribution across companies of different size and industry affiliation, it makes sense to start with descriptive statistics for government shareholdings.

5.1 Federal government shareholdings in Russia: Basic descriptive statistics

Table 1 provides information on the distribution of various types of government shareholdings across major sectors of the economy²⁰. First, the table shows that most companies with government participation belong to industry, other significant sectors being R&D, services, as well as transport and communications. As for the average size of the government blocks of shares, it exceeds 30%. In the R&D and trade sectors the average is higher and approaches 36% and 41% correspondingly. In the other sectors the share of the state is below average, with the lowest figures in agriculture and construction.

²⁰ Hereafter descriptive statistics will be shown for enterprises with known codes of sector affiliation only. Enterprises with golden shares will also be excluded.

On average, the Ministry holds over 17% and RFFI holds about 13% of the shares in the sampled companies. In all sectors but agriculture, the size of the MGI shareholdings exceeds that of RFFI. Particularly significant fractions of shares are kept by MGI in the trade and R&D sectors. Most blocks held by the Ministry are residual. Their average size is close to 10%, while the average for elected blocks is about 7%. However, there are two sectors – namely transport and communications as well as trade, where MGI elected blocks are larger on average than MGI residual blocks. The average size of the Ministry shareholdings in agriculture is small and there are no MGI elected blocks at all in this sector. As for RFFI residual blocks, their size does not vary across sectors as much as the size of MGI shareholdings. RFFI blocks are particularly large in companies belonging to agriculture, trade and industry. Finally, the size of various types of state shareholdings in industrial companies is very close to the average across all sectors.

Table 1. Distribution of various types of state shareholdings across major sectors

	<i>Industry</i>	<i>Agricult.</i>	<i>Transp. & communic.</i>	<i>Construct.</i>	<i>Trade</i>	<i>Services</i>	<i>R&D & other</i>	<i>All</i>
<i>All state blocks</i>	29.87	21.12	29.44	27.13	40.88	29.06	35.68	30.36
<i>All MGI blocks</i>	16.14	1.98	16.94	15.70	24.29	17.36	23.06	17.29
<i>MGI elected blocks</i>	6.38	0.00	9.01	4.40	17.43	5.11	11.23	7.14
<i>MGI residual blocks</i>	9.76	1.98	7.93	11.30	6.87	12.25	11.82	10.15
<i>RFFI residual blocks</i>	13.72	19.13	12.50	11.43	16.59	11.70	12.62	13.07
<i>Number of firms</i>	1437	30	271	448	116	352	386	3055

Table 2 shows the number and percentage of firms having state shareholdings of various status and size²¹. The size of most shareholdings falls in the range between 0 and 50%; only in 19% of companies does the state have a larger stake. There are remarkable differences between MGI and RFFI shareholdings. First, most MGI shareholdings (61%) fall in the range between 25 to 50%, while almost two thirds of RFFI blocks are smaller than 25% of shares. As for MGI shareholdings, elected blocks tend to be larger than residual ones. Elected blocks are above 25% in 85% of cases, while residual blocks exceed 25% only in 66% of cases.

Table 2. Number of firms having state shareholdings of various status and size

	<i>All</i>		<i>0-25%</i>		<i>25-50%</i>		<i>50-100%</i>	
	<i>No of firms</i>	<i>Percentage</i>	<i>No of firms</i>	<i>Percentage</i>	<i>No of firms</i>	<i>Percentage</i>	<i>No of firms</i>	<i>Percentage</i>
<i>All state blocks</i>	3055	100	1257	41.1%	1206	39.5%	592	19.4%
<i>All MGI blocks</i>	1673	100	381	22.8%	1018	60.8%	274	16.4%
<i>MGI elected blocks</i>	653	100	95	14.5%	428	65.5%	130	19.9%
<i>MGI residual blocks</i>	1115	100	376	33.7%	600	53.8%	139	12.5%
<i>RFFI residual blocks</i>	1660	100	1076	64.8%	381	23.0%	203	12.2%

²¹ Three ownership categories are distinguished – blocks in the range from 0 to 25%, 25 to 50% and over 50%. The reason is the following: blocks below 25% give the state a very limited influence on corporate decision-making and certainly no blocking power (unless the state has a golden share). Blocks in the second range typically imply no operating control, but provide the state with blocking power. The last category may imply operating control of the state over companies.

Table 3 provides information on the distribution of various types of shareholdings across company size as measured by employment in 2000²². The total number of observations is about half of the original sample, since employment data are missing for many firms. Small firms are defined as those having fewer than 200 employees, medium-sized from 200 to 1,000 employees and large firms – above 1,000 employees. The table shows that government shareholdings are larger in smaller firms. However, there is a clear differentiation between MGI and RFFI blocks. In small firms, the size of RFFI shareholdings is 2.5 times higher than that of MGI. In contrast, the size of MGI blocks in larger firms is larger than the size of RFFI blocks. In particular, the share of MGI elected blocks is the largest in big companies.

Table 3. Distribution of government shareholdings by their status and company size

	<i>Small</i>	<i>Medium</i>	<i>Large</i>	<i>All</i>
<i>All state blocks</i>	36.20	31.21	30.56	32.50
<i>All MGI blocks</i>	10.64	17.73	20.16	16.27
<i>MGI elected blocks</i>	3.74	8.17	12.58	8.00
<i>MGI residual blocks</i>	6.90	9.57	7.58	8.28
<i>RFFI residual blocks</i>	25.56	13.47	10.40	16.23
<i>Total</i>	481	741	420	1642

As for the golden shares, they are present in 84 small companies, 109 medium-sized and 59 large ones and are mostly concentrated in industry and transport and communication.

5.2 Sample

To reveal the impact of state ownership on company performance, the MGI database was matched with the Alba and Gnosis datasets, which contain financial and employment data. These databases are the best source of financial information about the firms and are compiled from Goskomstat data. However, the financial information in these databases is available primarily for industrial firms. For that reason, enterprises belonging to other sectors are left out of the analysis. This should not introduce a serious bias, as industry is the most representative sector with respect to various types of government shareholding. As was shown before, the distribution of government stakes in industrial companies is very close to that in the entire population of companies with state ownership. Another reason is that it can be beneficial to concentrate on a relatively homogenous sector where performance measures presumably have lower variation than across the entire economy.

Since we are interested in comparing the performance of companies with federal state ownership and enterprises without federal state ownership, the sample was extended to include all other firms from the Gnosis and Alba datasets that belong to industry and have no federal state ownership²³. Importantly, the sample was restricted to those firms that

²² Employment data are taken from the Alba dataset.

²³ Most firms that were added are fully privately owned businesses, but some have regional and municipal ownership as reported in the Alba database. It distinguishes among 25 categories of ownership, mostly mixed ownership forms (e.g., Russian ownership with a share of foreign ownership), but the stakes are never reported. It is worth noting that ownership information from

existed by 1993. This was done in order to exclude (or, at least, to significantly reduce the number of) enterprises that were originally created as private businesses during the period of transition. It is obvious that these start-ups do not provide a suitable framework for analysing the effect of *continued state ownership*, as they might have access to better technology, management skills etc. from their very foundation.

5.3 Econometric model

The impact of federal state ownership on enterprise performance is estimated using the following econometric model:

$$Perf_i = a + b_1 \cdot Perf_lag_i + \sum_{j=2}^m b_j \cdot Ownership_{ij} + b_{m+1} \cdot Monopoly_i + b_{m+2} \cdot Size_i + \sum_{j=m+3}^n b_j \cdot Industry_{ij}$$

where

- $Perf_i$ is a measure of company performance,
- $Perf_lag_i$ is a lagged value of company performance,
- $Ownership_i$ is a vector of variables describing state ownership,
- $Monopoly_i$ is a binary variable that equals to unity if a firm is subject to control by the Ministry for Antimonopoly Policy and zero otherwise,
- $Size_i$ is a measure of company size (logarithm of employment in 1993),
- $Industry_i$ is a vector of dummy variables for sub-sectors within industry.

The concept of enterprise performance allows many interpretations. In applied studies it is common to associate improvements in firm performance with increased profitability, higher efficiency and increased output. In developed market economies it is also common to use Tobin's Q as a proxy for expected long-run firm performance.

It is generally difficult to find a reliable indicator of firm performance in the transition economy of Russia. The major issue is the inappropriate measurement of capital stock, which makes it problematic to use return on equity or estimate total factor productivity. There are also problems in measuring output (due to the presence of barter, which was widespread until quite recently) and employment (due to part-time employment or non-paid vacations for employees in Russian firms). Perhaps the biggest concern is profit, if measured net of taxes since in Russia taxes are often viewed as endogenous rather than parametric.

Another specific issue concerns the applicability of the standard measures of performance (which are typically applied to private firms) to companies with state ownership. It may be the case that state-owned enterprises operate to achieve not only profit, but also other goals, like providing essential services or employment in a particular region. In fact, in many countries the state is engaged in business activity exactly for such purposes and not for the sake of profit maximisation. However, it may be argued that the concern about the inappropriateness of traditional measures of firm performance is less relevant for the sampled enterprises with partial ownership by the Russian state. First, they are companies rather than state-owned enterprises and are therefore subject to market pressures such as the threat of bankruptcy and possibly takeovers. Hence, they have to have efficiency and

the Alba dataset is largely consistent with that from the Ministry database: most firms from the latter are marked as firms with mixed ownership (private and federal state ownership).

profit maximisation among their priorities. Secondly, the state has already denounced its interest in retaining ownership in most of these companies (most blocks are residual, not elected). Hence, they are not expected to produce some public goods or services that the free market would fail to deliver²⁴. In general, therefore, the standard criteria of economic performance are applicable to the sampled firms with state ownership.

Finally, there is the issue of data availability. For the majority of industrial companies, the Alba and Gnosis datasets provide information about sales volume, taxable profit and employment. Other financial data are available for a much smaller number of firms. Due to data availability problems and the above discussion concerning performance measures, subsequent analysis is based on two performance measures – labour productivity (logarithm of the ratio of sales to employment) and profitability (the ratio of taxable profit to sales revenues) in the year 2000 – the last year with available data²⁵. These measures are obviously imperfect. For example, labour productivity is likely to vary significantly due to different capital intensity across sub-sectors. However, this problem can be addressed by using a rich set of dummy variables for sub-sectors.

Lagged performance is used to correct regression results for possible endogeneity of state ownership and its particular types. The endogeneity issue as applied to state ownership is not clear-cut, as shown before. The inclusion of lagged values of performance makes it possible to control for the performance of enterprises at the start of transition, when virtually all of them were state-owned, and therefore should reveal the true role of state ownership.

Lagged values of dependent variables are constructed using company financial reports and employment data from 1993. The use of data from this particular year is not uncontroversial. The best solution would be to use pre-privatisation performance data, for example from 1991, when all firms had the same ownership structure fully belonging to the state. However, several problems emerge with such an approach. The first and most obvious one is the availability of data that are rather fragmented for earlier periods. For example, many enterprises changed their codes in the state registry and cannot be identified. In addition, earlier data are less reliable, as many enterprises underwent reorganisation – some units were separated and some were added. Another issue refers to pricing. During Soviet times the prices that enterprises charged were determined by the state rather than the market. In 1992 the state liberalised prices on most commodities, but continued price regulation in several sectors, gradually abandoning it in subsequent years. Therefore, later data are more reliable as there is less chance of price controls being present. However, the use of later data for computing lagged performance brings the risk that they no longer show initial conditions of enterprises but rather incorporate the effect of privatisation that took off in 1993. Therefore, the use of data from 1993 should be considered as a compromise solution. It is assumed that by this time most enterprises were allowed to charge market prices for their products and changes in the ownership structure of some enterprises due to their privatisation in late 1992 and 1993 did not yet have much effect on their performance.

For continuous variables entering regression equations, outliers were dealt with by winsorising the upper and lower 2.5% of the sample. Winsorising is a robust procedure that

²⁴ Elected shareholdings may be an exception in this respect. If they are indeed retained in order to guarantee the provision of some public goods or to provide employment in a particular region, the respective enterprises may have a greater chance of failing according to standard criteria of economic efficiency and performance.

²⁵ This reduces the sample to 4,467 industrial firms, of which 698 have a state block or a golden share. In particular, there are 303 companies with an MGI block (208 with MGI residual and 105 with MGI elected), 419 companies with RFFI shareholdings and 65 companies with golden shares.

identifies observations in the upper and lower tails and assigns the value of the cut-off defining the tail to the observations with extreme values instead of removing them.²⁶

The regression equations include a rich set of dummy variables for sub-sectors within industry. Eighteen industries are distinguished: 1) power generation, 2) fuel, 3) ferrous metallurgy, 4) non-ferrous metallurgy, 5) chemical, 6) petrochemical, 7) machinery, 8) forestry and pulp and paper, 9) stone and clay, 10) glass, 11) light, 12) food processing, 13) microbiology, 14) flour-grinding, 15) medical equipment, 16) printing and two special categories for enterprises that do not fit any of the above – 17) other industrial enterprises and 18) headquarters of holding companies. Machinery is the largest group among the 18 mentioned and is used as a base category in all regressions.

Several specifications have been used to capture the overall impact of federal state ownership as well as shareholdings of different types and size. The analysis starts with a simple specification where the vector of ownership variables is represented by just one variable – a dummy for any form of state participation in a company and ends up with specification where continuous variables for MGI elected, MGI residual and RFFI residual shareholdings are used.

5.4 Estimation results

Regression results for the first specification, where ownership data are represented by a dummy variable for state participation (in any form, including golden shares) in a company and labour productivity and profitability are used as dependent variables are reported in Table 4 in the Appendix. They show that the performance of companies in 2000 is positively and statistically significantly correlated with their performance in 1993. In fact, lagged performance is the single most important explanatory variable in both regressions (with t-statistics exceeding 31 and 11 respectively). There is a negative and statistically significant impact of federal state ownership on company performance. In companies where the state has a stake, labour productivity is only 75% compared to other firms in the same industries. Profitability is in turn 5% lower (in absolute terms) relative to enterprises without state participation. It is worth noting that the coefficients on the state ownership dummy become a little bit larger (in absolute value) – indicating worse performance by firms with government ownership – when lagged performance variables are removed from the regressions²⁷. Control variables such as size, a monopoly dummy and industry are statistically significant. In particular, performance turns out to be better in smaller and monopolistic firms. The latter result is consistent with the microeconomic theory predicting that monopolies can earn supernormal profits unless they are subject to regulation.

The second specification with a continuous variable for federal state ownership and a dummy for golden shares shows a negative and statistically significant impact of state shareholdings on firm performance (see Table 5 in the Appendix). An increase of the state share in company equity by 10% causes an almost 6.5% drop in labour productivity. The same increase in the state share makes profitability drop by 1.2% (in absolute terms). The

²⁶ Regressions were also done with the whole sample without winsorising. The results were almost identical.

²⁷ This result is confirmed in other specifications. It implies that the firms in which the state has an interest were indeed performing slightly worse than others even in 1993, but this difference in initial conditions in 1993 cannot fully explain the poor performance of companies with state participation in 2000. Therefore, worse performance in 2000 is likely to stem from state ownership.

coefficient on the golden share variable is negative, but statistically insignificant in both cases.

The third specification introduces a distinction between two types of state shareholdings – those kept by MGI and those held by RFFI. It turns out that the impact of these two types of shareholdings on company performance is different (see Table 6 in the Appendix). A general result is that blocks held by RFFI worsen company performance significantly while MGI shareholdings have a much weaker negative impact, if they affect performance at all. The presence of the golden share has no effect on company performance.

The fourth specification introduces a distinction between elected and residual shareholdings kept by MGI (see Table 7 in the Appendix). It turns out that elected shareholdings have no negative impact on either labour productivity or profitability. Residual shareholdings held by MGI have a negative impact on labour productivity and no statistically significant impact on profitability. RFFI shareholdings have a negative and statistically significant impact on both labour productivity and profitability. Importantly, in the regression with labour productivity, the coefficients on MGI and RFFI residual shareholdings are statistically different. Similar to previous regressions, the golden share does not have any effect on either labour productivity or profitability.

6 Summary of findings and implications

These results can be summarized in the following way. In general, the performance of companies in which the state has any ownership stake is significantly worse relative to companies without state participation. This negative effect of state ownership does not appear to be a consequence of the concentration of initially bad firms in the hands of the state during the privatisation process (selection of better firms for privatisation). Therefore, state ownership is detrimental to company performance.

There are remarkable differences in the performance of companies with different types of state shareholdings, which have to be explained. Regression analysis indicates that companies with federal state shareholdings kept by MGI perform better than companies with state blocks in the hands of RFFI. A more detailed analysis shows that the performance of companies with RFFI residual blocks is the worst compared to the performance of companies with MGI elected and MGI residual shareholdings. It is worth noting that companies with RFFI shares fail on standard measures of performance such as labour productivity and profitability despite the fact that they are more likely to be "normal" commercially-oriented firms which, in contrast to "strategically important enterprises" with elected shareholdings, are not supposed to attain any goals besides profit maximisation.

To explain the failure of RFFI one must take a closer look at what is special about its shareholdings. One of the commonly cited reasons for the failure of RFFI companies, namely that the Fund was left with a large number of blocks which had not been sold due to the lack of buyers (blocks in bad companies), is not supported by this study. It also shows that the somewhat better financial incentives that RFFI has relative to MGI are of no help in improving enterprise performance. Hence, the lack of control over enterprises with federal state ownership seems to be the major explanation. This argument is particularly valid for RFFI shareholdings, since their voting power was restricted for many years and most of them were de facto at the disposal of regional authorities.

The view that control matters is also supported by the comparison of MGI elected and residual blocks. Econometric analysis indicates that the former are better in terms of their

impact on labour productivity. As was shown in the descriptive part of the paper, the major difference between the two categories is the degree of control over respective firms. Otherwise these two groups of shareholdings are relatively similar. In particular, their size is not much different and they have the same origin.

A more general conclusion from this analysis is that in Russia the distortion of the objective functions of firms due to state interference is not as dangerous as the lack of control over the companies and deficient monitoring of managers in particular. This highlights the importance of improvements in the field of corporate governance in Russia, which has been documented in much previous research.

Another important result emerging from this study is that the golden share generally has no detrimental impact on company performance. It is therefore a less dangerous instrument to protect the interests of the state through retaining some degree of control over companies compared to keeping blocks of their shares.

Several policy implications may be drawn from this analysis. First, the government should avoid keeping equity stakes in companies unless there is a good reason to retain them. Privatisation of most blocks remaining in state ownership is therefore recommended. Second, if the government wants to keep an ownership stake in a company, greater control on the part of the state is better for the improved performance of firms. This means that control structures must be improved. In turn, the need for reliable control over companies implies that state shareholdings in the same company should not be split between different ministries or agencies, which is often the case in Russia. Finally, the issuing of golden shares in important companies is a reasonable alternative to retaining some control over them through equity ownership.

Appendix

Database description

The database is represented by several files and contains the company name, address, government ownership stake (and types of government shareholdings) as well as information about representatives of the state in corporate boards. In addition, there is information about the transfer of state shareholdings from the Ministry to the Property Fund or other entities. Importantly, the database contains no financial or employment information about the firms. Neither does the database contain enterprise identification codes such as okpos (enterprise codes in the state registry) and okonkhs (codes of branch affiliation). The total number of enterprises in the database is 3,798.

The database was processed in the following way. Firstly, the blocks of shares were classified into three categories – elected blocks held by MGI, residual blocks held by MGI and residual blocks held by the Property Fund. In the original database they were called "elected", "residual and held by the Ministry" and "subject to sale" respectively. The blocks from the latest category are classified as being held by RFFI, as in almost all cases they are also marked as having been transferred to RFFI. The consistency of this classification was checked for about 5% of the companies with the help of the Federal Commission on the Capital Market database (containing company ownership information) and proved to be correct.

Secondly, enterprise codes in the state registry (okpo) and their codes of branch affiliation (okonkh) were obtained from the Gnosis and Alba datasets as well as from the Retan database²⁸. The codes were necessary in order to obtain key financials of the enterprises, primarily from the Alba dataset. Identification of the codes required a case-by-case search on the basis of enterprise name and address.

Companies were grouped according to their branch affiliation (distinguished on the basis of the first figure in their five-digit okonkh codes) – industry, agriculture, transport and communications, construction, trade, other (mostly industrial) services and an aggregate category which includes such sectors as research institutes, health care, education, housing and communal services.

²⁸ Database of registrars, issuers, transfer-agents and nominal owners – www.retan.ru.

Table 4. The impact of federal state participation on company performance: regressions with state participation dummy

	log(labour productivity)			profitability		
	Coef.	t	P>t	Coef.	t	P>t
Lagged dependent variable	.5015415	31.23	0.000	.1574786	11.43	0.000
state ownership dummy	-.2687565	-9.14	0.000	-.0504704	-6.29	0.000
monopolist	.0837894	2.58	0.010	.0209176	2.84	0.004
size	-.0664346	-6.39	0.000	-.005501	-2.16	0.031
power utilities	.3114507	5.12	0.000	-.0165007	-1.15	0.251
fuel	.2687484	4.95	0.000	.0077852	0.45	0.652
ferrous metallurgy	.1244996	2.25	0.024	-.0033266	-0.26	0.792
non-ferrous metallurgy	.4016381	4.04	0.000	-.0357912	-1.22	0.224
chemical	.2179393	3.64	0.000	-.0076841	-0.55	0.583
petrochemical	.1113024	1.64	0.100	-.012686	-0.72	0.469
forestry, pulp and paper	-.038371	-1.00	0.319	-.0363818	-3.81	0.000
stone and clay	-.0900499	-2.68	0.007	-.0225055	-2.70	0.007
glass	-.0505081	-0.82	0.410	.0595551	2.69	0.007
light	-.3218753	-7.49	0.000	-.0193976	-1.91	0.056
food processing	.1541397	4.55	0.000	-.0128663	-2.02	0.043
microbiology	-.0447108	-0.29	0.773	-.0406955	-1.21	0.227
flour-grinding	.0321316	0.44	0.662	.0090409	0.78	0.436
medical	.4682731	6.31	0.000	.1076085	6.59	0.000
printing	.3582315	4.73	0.000	.0672907	4.39	0.000
non-classified	-.2771853	-2.58	0.010	.1174121	3.70	0.000
holding companies	.0595962	0.11	0.911	-.2705122	-2.64	0.008
cons	1.409224	9.54	0.000	.0773683	4.12	0.000
Number of obs	4467			4094		
F(21, 4445)	168.36			15.84		
Prob > F	0.0000			0.0000		
R-squared	0.4527			0.0840		

Table 5. The impact of federal state participation on company performance: regressions with continuous state ownership variable and golden share dummy

	log(labour productivity)			profitability		
	Coef.	t	P>t	Coef.	t	P>t
lagged dependent variable	.5065315	31.39	0.000	.1597224	11.52	0.000
state ownership stake	-.0062411	-7.25	0.000	-.0012004	-4.81	0.000
golden share dummy	-.0977913	-1.22	0.222	-.0191886	-0.84	0.401
monopolist	.086447	2.66	0.008	.0212379	2.87	0.004
size	-.0708181	-6.80	0.000	-.0063121	-2.48	0.013
power utilities	.3193383	5.23	0.000	-.0137582	-0.96	0.338
fuel	.2771189	5.05	0.000	.0106489	0.61	0.539
ferrous metallurgy	.1096777	2.01	0.045	-.0057896	-0.46	0.646
non-ferrous metallurgy	.374039	3.73	0.000	-.0396016	-1.35	0.179
chemical	.2087248	3.47	0.001	-.0087641	-0.62	0.535
petrochemical	.112222	1.63	0.102	-.0120809	-0.70	0.487
forestry, pulp and paper	-.0372429	-0.97	0.334	-.0364277	-3.84	0.000
stone and clay	-.089389	-2.65	0.008	-.0215814	-2.57	0.010
glass	-.0461047	-0.73	0.468	.0606148	2.73	0.006
light	-.3168931	-7.28	0.000	-.0182716	-1.76	0.078
food processing	.1583098	4.66	0.000	-.0109051	-1.71	0.087
microbiology	-.0243364	-0.15	0.879	-.0358346	-1.07	0.286
flour-grinding	.0145771	0.20	0.843	.0081238	0.70	0.482
medical	.4255332	5.90	0.000	.0996842	6.35	0.000
printing	.3747119	4.98	0.000	.0705619	4.57	0.000
non-classified	-.2630902	-2.46	0.014	.1210104	3.78	0.000
holding companies	.0321657	0.06	0.950	-.2769503	-2.52	0.012
cons	1.380022	9.26	0.000	.0788789	4.21	0.000
Number of obs	4467			4094		
F(22, 4444)	158.47			14.62		
Prob > F	0.0000			0.0000		
R-squared	0.4488			0.0796		

Table 6. The impact of federal state participation on company performance: regressions with continuous variables for MGI and RFFI shareholdings and golden share dummy

	log(labour productivity)			profitability		
	Coef.	t	P>t	Coef.	t	P>t
lagged dependent variable	.5038484	31.24	0.000	.1554252	11.10	0.000
MGI stake	-.0022408	-1.85	0.064	-.0003756	-1.27	0.203
RFFI stake	-.0100341	-8.05	0.000	-.0020233	-4.93	0.000
golden share dummy	-.0659767	-0.82	0.410	-.0137052	-0.60	0.550
monopolist	.0841144	2.58	0.010	.0204848	2.76	0.006
size	-.0730476	-7.00	0.000	-.0066488	-2.62	0.009
power utilities	.3264502	5.37	0.000	-.013256	-0.93	0.352
fuel	.2663398	4.82	0.000	.0072919	0.42	0.676
ferrous metallurgy	.1167416	2.13	0.034	-.0046504	-0.37	0.714
non-ferrous metallurgy	.3825973	3.77	0.000	-.0382519	-1.28	0.200
chemical	.2206562	3.68	0.000	-.0066083	-0.47	0.639
petrochemical	.1198052	1.75	0.081	-.0107533	-0.62	0.536
forestry, pulp and paper	-.0227164	-0.59	0.556	-.0336328	-3.58	0.000
stone and clay	-.0883846	-2.62	0.009	-.0217176	-2.59	0.010
glass	-.0321625	-0.51	0.610	.0614669	2.77	0.006
light	-.3093695	-7.12	0.000	-.0166944	-1.62	0.106
food processing	.1538379	4.55	0.000	-.0124893	-1.96	0.050
microbiology	-.0628622	-0.38	0.701	-.0495588	-1.44	0.150
flour-grinding	-.0036504	-0.05	0.961	.0031754	0.28	0.782
medical	.4189853	5.87	0.000	.0983562	6.28	0.000
printing	.3849256	5.02	0.000	.0734396	4.63	0.000
non-classified	-.2735182	-2.51	0.012	.1195301	3.80	0.000
holding companies	.0415551	0.09	0.932	-.2755417	-2.48	0.013
cons	1.416531	9.50	0.000	.0823188	4.40	0.000
Number of obs	4467			4094		
F(23, 4443)	153.11			14.37		
Prob > F	0.0000			0.0000		
R-squared	0.4518			0.0842		

Table 7. The impact of federal state participation on company performance: regressions with continuous variables for MGI elected, MGI and RFFI residual shareholdings and golden share dummy

	log(labour productivity)			profitability		
	Coef.	t	P>t	Coef.	t	P>t
lagged dependent variable	.5027467	31.22	0.000	.1554884	11.08	0.000
MGI stake (elected)	.0011721	0.71	0.481	-.0004007	-0.99	0.325
MGI stake (residual)	-.0048592	-2.88	0.004	-.0003576	-0.88	0.381
RFFI stake	-.0101006	-8.10	0.000	-.0020231	-4.93	0.000
golden share dummy	-.0606263	-0.76	0.450	-.0137465	-0.60	0.548
monopolist	.08211	2.52	0.012	.0204951	2.76	0.006
size	-.0732039	-7.02	0.000	-.0066462	-2.62	0.009
power utilities	.326366	5.37	0.000	-.0132438	-0.93	0.353
fuel	.2698648	4.91	0.000	.0072845	0.42	0.677
ferrous metallurgy	.1157732	2.11	0.035	-.0046397	-0.37	0.714
non-ferrous metallurgy	.3847285	3.82	0.000	-.0382623	-1.28	0.200
chemical	.2205109	3.68	0.000	-.0066042	-0.47	0.639
petrochemical	.121054	1.76	0.078	-.0107619	-0.62	0.536
forestry, pulp and paper	-.0241486	-0.63	0.531	-.0336238	-3.57	0.000
stone and clay	-.0878529	-2.61	0.009	-.0217192	-2.59	0.010
glass	-.0336613	-0.53	0.594	.0614756	2.77	0.006
light	-.3104738	-7.14	0.000	-.0166853	-1.62	0.106
food processing	.1509518	4.46	0.000	-.0124578	-1.94	0.052
microbiology	-.027837	-0.17	0.864	-.0498608	-1.45	0.146
flour-grinding	-.0013369	-0.02	0.985	.0031696	0.28	0.782
medical	.4188158	5.91	0.000	.0983644	6.28	0.000
printing	.3849626	5.03	0.000	.0734305	4.63	0.000
non-classified	-.2675332	-2.50	0.013	.1194958	3.80	0.000
holding companies	.028705	0.06	0.952	-.275404	-2.48	0.013
cons	1.42828	9.59	0.000	.0822748	4.39	0.000
Number of obs	4467			4094		
F(24, 4442)	147.31			13.79		
Prob > F	0.0000			0.0000		
R-squared	0.4528			0.0842		

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