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**HOLDING COMPANY GROUPS
AND MODELS OF CORPORATE
GOVERNANCE IN RUSSIA**

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Holding company groups constitute an important segment of Russian business. The rise of holding company groups in Russia, on the one hand, mirrors the history of business groups over the course of industrial restructuring and modernization in developing countries, especially those in transition. On the other hand, the agency problem in complex organizations such as holding company groups can be very acute. Most Russian owners choose to organize their business so that management is not separated from ownership. Given a weak institutional environment, the preferred tool for solving the agency problem is the “do it yourself” option, which seems to be more costly within a holding company group.

This paper explores various hypotheses on what mechanisms serve to discipline executive management in enterprises that are members of holding company groups, using the data from a sample survey conducted as part of the joint research project “Corporate Governance and Integration Processes in the Russian Economy,” carried out by the Higher School of Economics and Hitotsubashi University in 2004–2007.

The evidence supports the hypotheses that (i) the ultimate owners manage many enterprises in business groups as would the owners of the company; (ii) internal mechanisms of corporate governance play an important role if management is separated from ownership; (iii) however, the internal instruments of corporate governance develop more in companies in which the state plays an important role as owner or as regulator; (iv) relational contracting can also explain the discipline of executive management in holding company groups.

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Авдашева С.Б. Холдинги и модель корпоративного управления в России: Препринт WP13/2007/18. — М.: Изд. дом ГУ ВШЭ, 2007. — 40 с. (на англ. яз.).

Холдинги занимают важное место в российской экономике. С одной стороны, их развитие соответствует международному опыту: объединения сыграли значительную роль в реструктуризации и модернизации промышленных предприятий в странах с догоняющим развитием, в первую очередь — в странах с переходной экономикой. С другой стороны, развитие холдингов ставит вопрос о том, каким образом решается агентская проблема в столь сложных организационных структурах. Большинство собственников в России стремятся организовать бизнес таким образом, чтобы непосредственно участвовать в управлении: в слабой институциональной среде это позволяет решать агентскую проблему. В то же время вариант «сделай сам» для холдингов сопряжен с более высокими затратами.

В статье рассматриваются альтернативные гипотезы о возможных способах поддержания дисциплины исполнительного менеджмента на входящих в холдинг предприятиях на основе данных выборочного обследования, собранных в рамках совместного российско-японского проекта «Корпоративное управление и интеграционные процессы в российской экономике» ГУ ВШЭ и университета Хитотsubashi (Токио, Япония) 2004–2007 гг.

Данные выборочного обследования подтверждают гипотезы о том, что (i) конечные собственники многих входящих в холдинг акционерных обществ управляют ими так же, как собственники независимых компаний; (ii) в том случае, когда собственность отделена от управления, в компаниях повышается роль внутренних инструментов корпоративного управления; (iii) в то же время внутренние инструменты корпоративного управления развиваются более успешно в тех компаниях, где важную роль играет государство — в качестве собственника или регулятора; (iv) отношенческие контракты также могут объяснить поддержание дисциплины исполнительного менеджмента в холдингах.

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1. Business groups and corporate governance in Russian companies: the problem¹

Contemporary studies pay considerable attention to Russian holding company groups (HCGs) as a form of concentration of capital and assets and at the same time, as a way to restructure companies. The largest HCGs control almost half of their industry in Russia [Guriev, Rachinsky, 2005] and the great majority of companies listed on stock exchanges [Boone, Rodionov, 2002]. After the period of acquisition of undervalued assets or their takeover via the use of various informal instruments during the 1990s, in recent years HCGs have been making substantial efforts to restructure their constituent companies [Radygin, 2004]. “Oligarchs” are not only the largest shareholders, but also more efficient owners as compared to the owners of non-affiliated enterprises [Guriev, Rachinsky, 2005].

Different types of incentives underlie the formation of HCGs [see Dolgopiatova (ed.). 2003]. Vertical mergers (for instance, in metallurgy) solve the problem of opportunism and hold-up [Klein, Crawford, Alchian, 1978]. Horizontal mergers are explained in some cases by economies of scale and scope (for instance, in the food and textile industries), in others - by the gains in market power (the cement industry is an example). The opportunities to buy underestimated assets during transformational decline were also important. Finally, some large companies were created as HCGs on the state’s initiative (for instance, vertically-integrated fuel companies, and companies in the aircraft industry recently).

Regardless of the incentive to merge, an important adaptation of the assets that were created under socialism took place in the HCGs. Many Russian HCGs are the points where assets (such as capital) meet entrepreneurial ability, which is an important resource. In this respect it is easy to note the similarities between HCGs in Russia and in many other developing and tran-

¹ This paper is based on the results of the Joint Research Project on Corporate Governance and Integration Processes in the Russian Economy, carried out by the Institute for Industrial and Market Studies, State University-Higher School of Economics (SU-HSE) and the Institute of Economic Research, Hitotsubashi University. The author is grateful to Tatiana Dolgopiatova, Ichiro Iwasaki, Victoria Golikova, Konstantin Sonin, Fumikazu Sugiura and Andrei Yakovlev as well as Bruno Dallago, John Litwack and other participants in the 9th EACES conference in Brighton, UK in September 2006 for their comments and suggestions. The author is also grateful to the HSE Scientific Foundation (project 06-01-0063) for financial support, Jeffrey Lokshin for professional editing and Olga Uvarova and Leonid Levin (Institute for Industrial and Market Studies) for research assistance.

sition countries in Asia and Latin America. In these countries, relatively stable business groups comprise a large part of the national economy [Khanna, Yafeh, 2005]. Business groups often support the upgrading of privatized companies that are entering world markets. Diversified business groups promotes the performance of affiliated enterprises including that with substantial state shareholding by facilitating government monitoring, exploitation of network and scope economies as well as scale economies for scarce managerial talent and better risk management [Abegaz, 2005]. Since the adaptation of Soviet assets is the most important process in Russian industries undergoing transition in the medium-run, HCGs are an important phenomenon in the analysis of corporate governance and restructuring in the Russian industries.

However, in a certain sense, the rapid development of HCGs contradicts common knowledge about the prominent features of the Russian national model of corporate governance. One would expect that HCGs are by definition based on the separation of ownership and management. However, recent surveys demonstrate that this is not the case in most Russian companies. Given a weak institutional environment the most successful way of resolving agency problems in a typical Russian company is the “do it yourself” option. That is why many executive managers of privatized joint-stock companies (JSCs) became the controlling owners, and new owners of companies became executive managers (in reality, if not formally) or employ CEOs so closely affiliated that the agency problem can be considered to be absent. Therefore, an important problem in the study of transition in Russia is explaining the model of corporate governance in Russian HCGs. Thus, it is necessary to understand what specific tools are used to prevent losses from the agency problem in Russian HCGs.

At least five competing hypotheses are possible:

- (i) there is no agency problem in Russian HCGs, since they are not companies at all. The formation of HCGs is a completely artificial process motivated by political considerations.

If the JSCs in the group are organized into an hierarchical system, then

- (ii) the principal-agent problem is solved by the convergence of ownership and management, as is traditional for Russia. HCGs have the same system of corporate control as do independent (autonomous) enterprises. This means that management is not separated from ownership: the ultimate owners manage the enterprises in the HCG themselves. If this is true, we cannot easily explain why owners choose to organize companies into holding companies, in which both the explicit costs and opportunity costs of management are greater. Only the discipline of executive management can be explained in this case.

If HCGs are organized as hierarchies, but management is separated from the ownership, then

- (iii) the principal-agent problem is solved by the development of internal corporate governance systems (boards, independent directors, internal audit units etc.). This should be extremely important in the Russian context of weak external instruments to uphold the discipline of executive management;
- (iv) the principal-agent problem is solved by the owner having additional bargaining power (for instance, if the dominant owner is the state);
- (v) the executive management in HCGs is disciplined by the benefits of joining the group. For instance, HCGs can be supported by relational-type contracts between an owner (who is an outsider not participating in management) and an executive manager. In this case, the outside owner does not need to spend resources to control executive management. Discipline within the group of enterprises is upheld by mutual interests.

The goal of this paper is to verify these competing hypotheses using an extensive interview survey conducted in 2005. The sample consisted of 822 large and medium-size JSCs in the industrial and telecommunications sectors. The data provides evidence on the organization of corporate governance within the HCGs. The questionnaire contained a number of questions concerning basic information about enterprises (industry, employment, legal form, relationship to HCGs), the structure of ownership (including type of owners), corporate governance (information on the structure, role and functioning of corporate governance bodies) as well as questions about the economic performance of the enterprises (changes in sales during the preceding four years, changes in employment, specific upgrades implemented over the last few years). Members of HCGs were also asked questions concerning the organization of the group, decision-making in the group, how the enterprises’ executive management viewed the impact of HCGs on the competitiveness and performance of the subsidiaries, etc. The survey was focused on groups based on shareholding, as opposed to informal links. Therefore, HCGs are analyzed as hierarchical structures, and not as hybrid organizations. For a detailed description of the survey, see [Dolgopyatova, Iwasaki, 2006].

Survey data by industry on the percentage of enterprises that are members of HCGs and their share in the overall employment in the relevant industry are presented on Fig. 1. Communications, fuel and electric power, iron and steel and non-ferrous metals lead in the percentage of industry employment that the HCGs account for, while the textile industry and construction materials are comparative outsiders. By comparing the percentage of enterprises

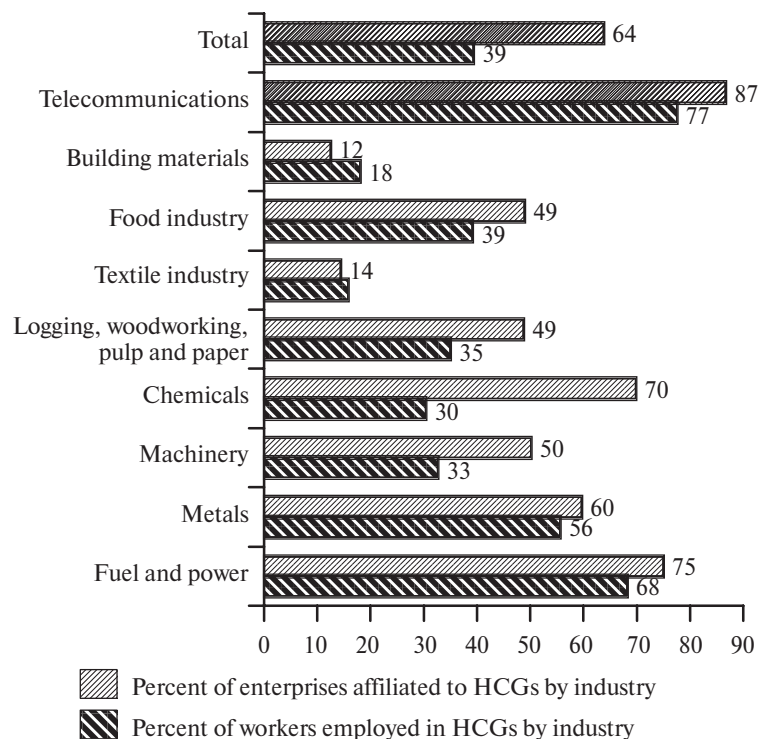


Figure 1: Share of HCGs in number of companies and in employment, %

that are members of HCGs and the percentage of employment in their industries that they represent, we see that the larger companies are involved in group membership. Of 323 JSCs that identified themselves as affiliated to a HCG, 44 respondents declared themselves to be parent companies; the others are subsidiaries. Almost 1/3 of the subsidiary companies in the sample are in regulated industries (generation and transmission of electric power and telecommunications). The share of JSCs affiliated to HCGs is very close to alternative estimates of the role of business groups in Russia [see, for instance, Guriev and Rachinsky, 2005].

Although HCGs are of most interest as a form of ownership reallocation following privatization, not all the enterprises in the sample joined the groups after privatization and liberalization. In the fuel and power industries the biggest groups emerged before 1992. In all other industries, most of the groups were founded after privatization. Mergers intensified during the economic

recovery after 1999; the highest number of deals for the sample was observed in 2002. During this year 50 enterprises, or slightly less than 1/6 of the whole sub-sample of affiliated companies, joined their groups.

About half of the HCGs are horizontal (they include enterprises in the same industry), slightly more than 1/4 are vertical (they contain producers along the same technological chain), and about 1/5 are conglomerate. Most groups include numerous auxiliary units as separate legal entities in addition to the basic production facilities; half of the groups include trade enterprises, about 1/5 include banks and/or financial/insurance companies.

The paper is organized as follows. The second section is devoted to an analysis of corporate governance in Russian HCGs, based on the results of the sample survey. The main objective is to discuss the demand for corporate governance in the HCGs and the specifics of corporate governance in the relations between the parent company and the subsidiary(ies). Hypotheses (i) – (iv) are discussed in this section. The third section contains an analysis of what affiliated JSCs might gain from their membership in HCGs, and hypothesis (v) is checked. Section 4 concludes.

2. Corporate governance in Russian HCGs

To consider the different hypotheses, it is necessary to first investigate the patterns of ownership and corporate governance in HCGs. We will compare the corporate governance and the convergence of ownership and management in companies that are either affiliated or non-affiliated with an HCG, as well as the role of internal corporate governance instruments such as the board of directors and shareholder meetings. Specific interest will be paid to a comparison of corporate governance in companies in regulated (energy and telecommunications) industries and non-regulated industries. The differences between these two groups of companies are important for the analysis: the state can uphold the discipline of executive management in companies in the regulated industries via a broad range of auxiliary mechanisms. We will also investigate the patterns of decision-making in HCGs, to determine the degree to which decision-making is centralized and the role played by networking with stakeholders.

Before discussing the various alternative hypotheses, it is necessary to analyze the allocation of responsibilities and the decision-making process within the HCGs. The goal here is to make sure that coordination and decision-making within the groups broadly complies with a hierarchical system, which gives rise to the agency problem. If, according to the classification of the new

institutional economics [Williamson, 1985], coordination within HCGs is more of a hybrid of contracts between both legally and economically independent units, then the stability of these companies should be analyzed solely in the framework of relational contracting, and not in the framework of corporate governance and corporate control.

2.1. Decision-making in the holding company groups: centralization or networking with stakeholders?

During the last decade, an abundance of organizational forms in Russian industries gave birth to a variety of opinions about the mechanisms of decision-making in Russian HCGs. Some authors believe that both strategic and operative decisions in the groups are extremely centralized [Insiders, outsiders..., 2005], but others think that strategic and operative decisions are divided between parent companies and subsidiaries in a more advanced way [Radygin, 2004]. Finally, there is evidence that authority is divided between parent companies and subsidiaries in a rather irregular fashion: the parent company controls financial decisions (both strategic and operational, along the traditional lines of this division), while subsidiaries control production decisions [Avdasheva, 2005] (see Box 1 for details). However, all the studies agree that HCGs are a specific type of firm, and not a network of enterprises that are equal partners.

Box 1. Allocation of responsibilities between parent companies and subsidiaries in Russian HCGs: results of the in-depth interviews

Interesting results on the allocation of responsibilities within Russian HCGs were obtained on the base of in-depth interviews conducted as part of the project “Structural changes in the Russian industries” [see Yasin (ed.), 2004 for details]. There were 30 respondents, representing both affiliated and non-affiliated enterprises. All the respondents were CEOs of their firms: 14 were general directors, 11 were deputy directors. The companies were mostly established in the Soviet period and then privatized (60% were open JSCs and 30% were closed JSCs); 37% of the respondents were in the light industry, 30% were in the food industry, and 33% were in the machine building industry. As mentioned above, interviews were conducted mostly in medium-size companies: 13 of the companies had 100 to 500 employees, 12 had 501 to 1000 employees, and only 5 had more than

1000 employees. The typical firm in the sample is characterized by relatively stable financial performance, while there were some firms in bankruptcy, including those which were under external management at the moment of the interview. Most of the firms demonstrated a huge increase of output since 1998. Of the 30 firms included in the interview, 16 were part of various HCGs, outsider owners of the enterprises. Only one respondent said that his enterprise was part of a business group which had no share ownership, but which actually performed the functions of executive management.

One of the findings was that responsibilities were allocated so that the parent company was the marketing center of the group, and all marketing and financial decisions were centralized; the affiliated enterprise was a production facility only, but enjoyed significant autonomy in production decisions, labor management, etc. The following quotations from the interview are typical:

“Key decisions are made at the enterprise level, the business group was formed only for marketing” [this respondent was the general director of a machine building enterprise with 300 employees]. The strong opinion expressed by the respondent, that marketing decisions are of secondary importance to him, is crucial here.

“The holding controls all the finances, buys all the inputs for production, provides us with the technologies, including all the documentation... We supply the final products in exchange for that” [this respondent was the general director of a machine building firm with 1800 employees].

“The enterprise is freed from unusual and unnecessary decisions. The parent company performs the functions of the Soviet Glavk [industrial planning body under socialism]. We don’t care about what and how much to produce... The holding company supplies the raw materials, sells our products, and takes care of all the accounting, taxes and finances. The director shouldn’t think about taxes, wages etc... The holding is a buffer that saves us from the market...” [this respondent was the general director of a machine building enterprise with 1100 employees].

“[The parent company] deals with the marketing for the most part. I do not care any more to whom to sell the product or at what price” [the respondent was the general director of a food processing enterprise with 430 employees].

The results of the interview brings us to the conclusion that, firstly, decision-making in the HCGs has changed significantly,

and yet, secondly, the main trend of these changes is not to modify the decision-making process at the enterprise level, but to strip the enterprises of all marketing decisions; the enterprises then become pure production facilities. It is symptomatic that the CEOs of the enterprises stress the use of Soviet-type planning inside the HCGs as the main advantage of this form of organization. The conclusion is that “holding companies are a very Soviet form of capitalism,” and this important explanation of the rise of this organizational form in Russian industries was also suggested by Clarke [Clarke, 2004].

The level of centralization of decision-making in HCGs needs to be assessed, in order to verify the hypotheses on the corporate governance of HCGs given above. A high degree of centralization of decision-making would mean that ownership and management are not separated, and thus the agency problem is resolved. If the parent company concentrates all the important decisions at the level of headquarters (or, as is typical for Russian JSCs, at the level of a small group of beneficiaries), there is no specific agency problem in the HCGs other than the “usual” agency problem faced by all big companies. However, if the CEOs of affiliated companies enjoy substantial autonomy, then the agency problem between parent and subsidiary intensifies and specific instruments are needed to resolve it.

The results obtained from the survey (Fig. 2) are ambiguous as to whether decision-making is centralized or decentralized. The modes of strategic and operative decision-making seem to be different. However, the degree of centralization of decision-making does not seem to be very high. Strategic decisions are centralized in only 40% of the groups, while operative decisions are centralized in only 5%.

The level at which strategic decisions are made is statistically dependent on whether large owners take part in management: if they do, most decisions are coordinated within the groups. This pattern, as we have mentioned above, is typical of smaller enterprises for which the costs of centralized decision-making are lower.

The degree of centralization of strategic decision-making is positively related to the size of the HCG: the larger the number of enterprises in the group, the higher the role of the parent company (the owners of the group) in decision-making. For instance, in HCGs with less than four members (50 respondents), strategic decisions are made at the group level in 26.5% of all cases, and in groups consisting of more than 30 members (35 respondents), the group (the parent company) makes strategic decisions for 60% of the enterprises.

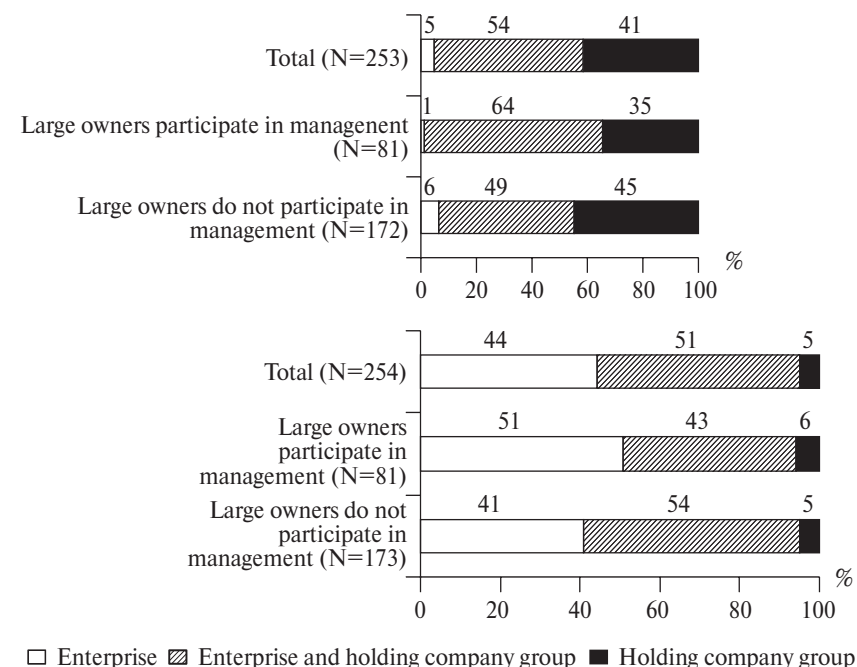


Figure 2: Centralization of strategic and operative decision-making in the subsidiaries of holding company groups

One of the interesting findings is the impact of HCGs on the time horizon of strategic planning. The CEOs of affiliated JSCs, according to the respondents, apply longer time horizons than non-affiliated JSCs of the same size. For instance, the majority of non-affiliated enterprises with more than 1000 employees create strategic plans for a period of less than 3 years, but the majority of affiliated enterprises of the same size have strategic plans for more than 3 years. This greater time horizon of affiliated JSCs is evidence that such enterprises are engaged in the larger business.

The participation of stakeholders in the planning and governance of the enterprises is important for analyzing the process of decision-making. Networking and relational rents from networking are traditionally seen as an important source of advantages for business groups, especially in Korea, Taiwan, India, Malaysia [see Khanna, Yafeh, 2005 for a survey]. The high importance of network forms of cooperation, which may have been inherited from the Soviet period in some cases, is also often attributed to Russian enterprises.

The influence of networks on decision-making, management and performance in enterprises was evaluated either positively or very negatively. According to the first point of view, contacts with stakeholders infer relational rents in the networks of traditional suppliers and customers [Moers, 2000], while according to the second point of view, supporting relationships in traditional networks is the alternative to a market-oriented restructuring [Gaddy, Ickes, 1998].

Networking and the participation of the stakeholders in the corporate governance of HCGs would provide an additional possible explanation for the stability of this organizational form. Gains from networking would be additional gains to specific HCGs, which would support relational-type contracts between group members. The importance of networking during the Soviet period is one additional reason to identify its role in the HCGs. However, our findings do not strongly support this theory (see Table 1).

Table 1. Enterprises coordinating strategic decisions with outside stakeholders (%)

	Affiliated JSCs			Non-affiliated JSCs
	In regulated industries (N=79-82)	In non-regulated industries (N=97-100)	Overall	
Federal authorities	39	14	22	10
Regional authorities	50	27	34	23
Labor collective	46	30	35	27
Banks (not group members)	22	17	19	12
Suppliers and customers (not group members)	20	20	20	13
Members of a HCG	29	32	31	-

Although group member companies more often coordinate their strategic decisions with different types of stakeholders, this coordination is quite modest. A large part of the respondents (69% of independent enterprises and 57% of group member companies) reported that they do not coordinate their strategic decisions with outside stakeholders.

Even this modest difference between affiliated and non-affiliated companies can be easily explained, both by the size of the companies and by the specifics of regulated industries. Firstly, the importance of stakeholders and the scale of networking generally increase with the size of company and the specificity of deals, and HCGs are substantially larger than non-affiliated enterprises. Secondly, companies in regulated industries (where affiliated JSCs

prevail) are involved in more intensive networking in order to bargain over regulated tariffs, investment plans that need to be approved by regulatory bodies and/or parliament, etc. As can be seen from Table 1, federal and regional authorities are important stakeholders for JSCs in regulated industries both as regulators and as representatives of the state as shareholder.

In conclusion, the hypothesis of a more active involvement of affiliated groups in networks is not confirmed by the data of the survey. Horizontal coordination between firms is implemented by less than 1/3 of HCG members. The survey shows that it is a hierarchical coordination that prevails in Russian HCGs, despite the affiliated companies' retention of certain degree of autonomy in decision-making. Consequently, the specific tools for resolving the agency problem lie in the relations between the parent company and the subsidiaries. In the next subsection we will consider the model of corporate governance in Russian HCGs in order to determine whether internal corporate governance mechanisms efficiently discipline executive management in the affiliated companies.

2.2. Corporate governance in HCGs: the state's presence matters

In analyzing the structure of ownership and corporate governance in Russian HCGs, we would expect that the groups advanced further than typical independent companies in the developments taking place in the Russian corporate sector today. Privatization, a high level of concentration and the rise of corporate governance tools marked with specific national features went somewhat further in the groups than in independent JSCs. Corporate integration is the main vehicle of reorganization in the Russian economy, and for this reason the ultimate owners of companies affiliated to HCGs should be more active in this restructuring as well.

The survey data confirm these expectations. The overwhelming majority of enterprises, excluding those in the fuel, electric power and communications industries, are controlled by private owners. The high level of state ownership in the fuel, electric power and communications industries increases the overall rate of public control over the sample to 45% (measured by employment). Foreign investors are much rarely important shareholders than Russian owners (the chemical industry is an exception in this respect, because foreigners are owners of a single large enterprise in the sample).

In terms of patterns of control, group member JSCs, particularly subsidiaries, are distinctly different from independent companies (Table 2). A large part of group member companies are under unilateral control. This control is largely based on shareholding: 2/3 of independent enterprises mentioned

that they had a shareholder or a group of shareholders with a controlling stake, but almost 4/5 of group member companies already had such owners. The less frequent presence of an owner with a blocking package and a controlling stake is an additional indicator of the higher concentration of control in subsidiaries. In contrast, parent companies of HCGs more often have an owner with a controlling stake, along with a different owner holding a blocking package.

Companies that are affiliated with groups, especially subsidiaries, demonstrate a lower level of convergence of ownership and management than do independent companies. Large owners participate in the day-to-day supervision of subsidiaries as managers, and the CEO is a shareholder in an independent joint-stock company half as frequently as in non-affiliated company. Both indications of the indivisibility of management and control (large owners taking part in management, and whether or not the CEO is a shareholder) are present in half of the surveyed independent enterprises and in only one fourth of HCG subsidiaries.

Table 2: Ownership and management in JSCs depending on their affiliation with HCGs (% of respondents)

Indicators	Not affiliated(1)	Affiliated (2)	In HCGs		Differences significant at the 5%-level
			Parent (3)	Subsidiaries (4)	
A controlling owner or a controlling group of owners is present	85,2 (461)	90,7 (311)	90,7 (43)	90,7 (268)	Between (1) and (2)
An owner (consolidated group of owners) of a controlling stake (50%+1 share) is present	66,3 (460)	78,1 (297)	66,7 (42)	80,0 (255)	Between (1) and (4)
Apart from the owner of a controlling stake, an owner of a blocking package is present	32,7 (294)	27,2 (224)	50,0 (28)	24,0 (196)	Between (1), (3) and (4)
Large shareholders act as enterprise managers	56,2 (473)	35,0 (309)	53,5 (43)	32,0 (266)	Between (1), (3) and (4)
The CEO (chairman of the board of directors) holds enterprise shares	70,2 (477)	50,7 (304)	68,3 (41)	47,9 (263)	Between (1), (3) and (4)

Note: The number of respondents is given in brackets. The significance of difference is estimated using Tamhane T2 test.

Concentrated external ownership is often associated with a stronger reliance on internal instruments of corporate governance. The average share of

managers on the boards of directors in affiliated companies is 32%, which notably differs from the 54% in non-affiliated companies. The share of external owners on the boards is much higher in affiliated companies, especially in subsidiaries (47% of the board members in subsidiaries, 28% in parent companies and 24% in non-affiliated companies). Finally, the presence of independent directors is found twice as frequently on the boards of group member companies (27% as opposed to 14%). Respondents representing group member JSCs more frequently report that shareholder meetings play an important role in decision-making (58% in subsidiaries in contrast to 45-46% in parent and non-affiliated companies). The same is true for the board of directors: 71% of companies in HCGs considered this to be extremely important, in contrast to 63% in non-affiliated companies.

Using corporate control instruments that are important when ownership is separated from management implies a strong reliance both on the market of control and the market of managers. At the enterprise level, this reliance must be reflected in a higher frequency of change of owners, top managers (including CEOs) and members of the boards of directors. During 2001-2004, when the process of corporate integration was experiencing its most intensive period, every third enterprise belonging to a HCG changed its owner, while the proportion for non-affiliated enterprises was only one fourth. The processes of redistribution and concentration of equity stakes are interrelated. In the sub-group of enterprises which had an owner of a controlling stake, the main owner changed even more often. The more frequent turnover of executive and supervisory bodies (the CEO and the board of directors) in joint stock companies is also related to changes in ownership. The turnover of CEOs was also higher in affiliated companies: 49% of the CEOs in affiliated companies changed, in contrast to 32% in non-affiliated companies.

Internal and external instruments of corporate governance should be more important for affiliated JSCs than for non-affiliated JSCs, in which, as Table 2 shows, ownership and management are more frequently not separated. At the same time, we cannot fully reject hypothesis (ii), which states that the agency problem in HCGs is solved in the same way as in non-affiliated JSCs: by the convergence of management and ownership. CEOs own shares and controlling shareholders act as managers in, at the very least, a substantial part of HCG subsidiaries.

In sum, the ownership structure of group companies does not substantially differ from that of independent enterprises. However, this is not completely true for the patterns of corporate control. It seems that the development of corporate governance in HCGs is more advanced than in non-affiliated companies. Therefore, hypothesis (iii) should not be rejected, either. However, it should

be mentioned that this general conclusion will slightly change if we consider the sub-samples of affiliated companies, as they are very heterogeneous.

Hypothesis (iv) was that a corporate governance system is successful if it is supported by auxiliary instruments that can be used to discipline executive management. The authority of the state as a regulator and/or owner should provide additional support for corporate governance.

The state at the level of federal and/or regional authorities is a shareholder (major or minor) in many, though not all, JSCs in regulated industries. To compare: in non-regulated industries only every 10th JSC affiliated to an HCG has shares belonging to the federal authorities and every 16th has shares belonging to regional authorities or to municipalities. In regulated industries, federal authorities are a shareholder in about 40% of affiliated JSCs, and regional authorities or municipalities are shareholders in about 20% of affiliated JSCs.

The survey data show significant differences in the board of directors and its role in the corporate governance of companies in regulated and non-regulated industries. In affiliated JSCs in regulated industries, the composition of the board complies with “good corporate governance standards” better than in non-regulated industries (Table 3).

While the executive management in regulated industries is represented in the same proportion of JSCs, this group’s share of board seats is significantly lower. Worker representatives (who are mostly passive on Russian boards) are almost unrepresented in the regulated industries. It is important to mention the significantly higher ratio of boards in regulated industries which include independent directors.

Important conclusions can be drawn from the comparison of the composition of boards in different types of affiliated JSCs. Groups of shareholders in affiliated JSCs that have no additional control rights, such as the representatives of executive authorities and independent directors, are more often represented in regulated industries, but their shares are generally not higher (at least not significantly higher) in comparison to non-regulated industries. Apparently, this can be considered to be evidence that the very presence of the state among shareholders supports property rights for all the groups of owners. The state serves as a guarantee for non-controlling outside owners to influence corporate governance through their seats on the board.

In principal, this difference in the composition of boards could be explained by the fact that standards of good corporate governance in regulated industries are not applied, but rather imitated [Yakovlev, 2004] under pressure from the state. However the respondents themselves highly appreciated the influence of corporate governance instruments (including shareholder meetings and board

Table 3. Boards of directors in JSCs affiliated to an HCG in regulated and non-regulated industries

	Share of the boards where given group is represented, % of respondents ^a			Share of the given group in the board (only for the boards where given group is represented), % ^a		
	Non-regulated industries (N=195)	Regulated industries (N=88)	Overall affiliated companies (N=283)	Non-regulated industries	Regulated industries	Overall affiliated companies
Number of board members	6.8***	8.0***	7.2			
Managers of JSC	83.1	76.1	80.9	42.9***	31.3***	39.5
Workers, representatives of trade unions	12.8**	3.4**	9.9	29.1	18.8	28.0
State authorities	14.9**	33.0**	20.5	31.4	41.1	37.3
Large outside shareholders	74.9	75.0	74.9	60.1	57.4	59.3
Small outside shareholders	9.7***	27.3***	15.2	18.6***	31.2***	25.7
Independent directors	19.0***	43.2***	26.5	43.0***	28.5***	35.7

^a The significance of differences was estimated as follows: the F-statistic was used for the number of board members, χ^2 was used for the presence or absence of the given group on the board, and the Kruskal-Wallis test was used for the share of the given group among the board members. *** the difference is statistically significant at the 1% level; ** at the 5% level.

of directors) most of all in regulated industries. Among the CEOs of affiliated JSCs in regulated industries, 67% assessed the role of shareholder meetings as high in contrast to 56% of CEOs in non-regulated industries and 46% in non-affiliated enterprises. The same is true for the board of directors: 86% of respondents in affiliated JSCs in regulated industries agree that it has a strong influence on decision-making in the enterprise, in contrast to 65% in affiliated JSCs in non-regulated industries and 63% in non-affiliated JSCs.

Regular dividend payments are additional evidence that affiliated JSCs in regulated industries try to follow good standards of corporate governance. During the three years before the survey was conducted, even fewer affiliated JSCs in non-regulated industries paid dividends (29%) than non-affiliated JSCs did (40%). In regulated industries, two thirds of JSCs paid dividends during this period.

The assumption that the state as shareholder has a positive impact on the effectiveness of corporate governance is indirectly confirmed by the respond-

ents' assessment of the concentration of ownership. In non-regulated industries, 68% respondents see the current ratio of concentration as optimal for the companies, 12% see an increase of concentration necessary and only 8% believe that a lowering of concentration is possible. The opinions in regulated industries are different: about half of the respondents consider the concentration ratio to be optimal, but at the same time 30% of the respondents think a decrease of concentration could be useful (9% believe that an increase of concentration is necessary). It seems that the respondents in affiliated JSCs in regulated industries do not consider the agency problem to be so acute.

In conclusion, the survey data is insufficient to reject any of the hypotheses(ii) – (iv) on the vehicles for ensuring the discipline of executive management in affiliated JSCs. About 1/3 of HCGs members apply a model of corporate control in which management is not separated from ownership, and this fact confirms hypothesis (ii). Affiliated JSCs evidently surpass the non-affiliated enterprises in the development of corporate governance, and this does not allow us to reject hypothesis (iii). In their turn, JSCs in regulated industries outperformed those in non-regulated industries in following good corporate governance standards. Support of property rights by the state as a shareholder and/or regulator weakens the incentives both for ownership concentration and for the owner participating in management. Therefore, hypothesis (iv) on the additional instruments that allow the owner to discipline executive management in affiliated JSCs cannot be rejected.

3. Gains from affiliation to an HCG: an additional discipline device?

Although we stressed above that vertical, as opposed to horizontal, hierarchical coordination prevails inside HCGs, we have also seen that affiliated JSCs retain substantial autonomy in the group. This is why the agency problem exists, and it can not be resolved by corporate governance instruments only including direct control over executive management. Efficient corporate governance assumes that the elements of incentive contracts are also present. These elements should be even more important in Russian HCGs, if we keep in mind that the majority of affiliated enterprises, especially in non-regulated industries, have had the experience of functioning as an independent business. In this context, the directors of affiliated enterprises themselves should be interested in participating in the group to ensure the stability of the HCG.

For a potentially independent enterprise in a stable HCG, the expected profit from participating in the group should exceed the expected profit from

functioning outside the group. Using the data of the survey, we cannot test whether this condition is satisfied in HCGs. However, we can demonstrate how enterprises assess their gains from membership in a HCG and the impact that business groups have on the modernization and performance of JSCs.

3.1. Directors of the affiliated companies on gains from HCG membership

The gains from being affiliated to an HCG can be assessed by two indicators: which party initiated affiliation to the group and what benefits the enterprise obtained from operating as a member of the group. The key role in initiating the affiliation of an enterprise was played by the owners of the parent company (as stated by more than 40% of the respondents). However, in a third of all cases the initiative came from the private owners of other companies as well. This gives the impression that in the Russian industry, the number of “friendly” takeovers is comparable with that of “hostile” takeovers. The role of state bodies as initiators of corporate integration is relatively modest, and it was practically negligible for mergers after 1999 in non-regulated industries.

The benefits to enterprises from belonging to an HCG are related mainly to better adjustment to the market, better market positions and access to capital investment, and not to the gains that arise from enjoying special relationships with various levels of public administration (Fig. 3). More than half of the respondents said that they benefited from better marketing of their products. Almost the same part mentioned gains related to capital investment and the introduction of new technologies. Ranking third in importance is protection from hostile takeovers, and only the fourth is an improvement in bargaining position with authorities (mentioned by approximately every fifth enterprise).

The benefits gained by enterprises are industry-specific: better marketing was most often mentioned by food companies, and protection from hostile takeovers was reported by companies in fuel, electric power and building materials. Companies in the two latter industries also noted essential gains in their bargaining position with both federal and regional authorities. Finally, gains from access to international markets were mentioned more often by enterprises in the logging, woodworking and pulp and paper industry and in the chemical and petrochemical industry.

Consequently, the majority of HCGs that were particularly active in taking over enterprises after 1999 were driven by private initiative, and the intra-group gains of their member firms are due to the typical sources of competitive edge in emerging markets. In the next section we will consider whether the

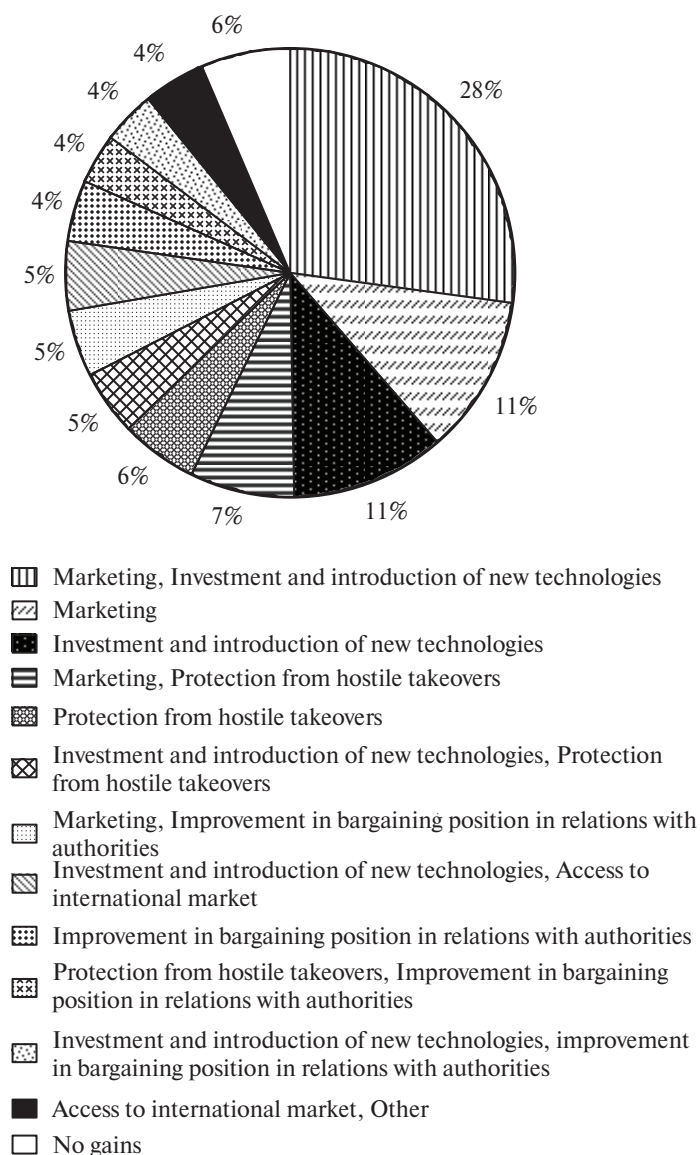


Figure 3: Gains from joining an HCG, % of respondents (in clockwise order)

level of modernization and other performance indicators of affiliated companies confirm the general enthusiasm of the enterprises' management for becoming affiliated to a HCG.

One possible source of additional gains that may stimulate executive management to follow the group's strategy is internal financing. This could be important, especially in view of Russia's extremely imperfect financial markets. Until now, evidence on internal financial markets in Russian HCG has been controversial. Earlier studies [Perotti, Gelfer, 2001] confirmed the hypothesis about their existence, but later studies did not [Shumilov, Volchkova, 2005].

According to our survey, in companies affiliated to groups, the second and third most important financial sources for investment are shared by bank borrowings and group funds (15-20%). About 1/3 of the respondents reported that they do not use group funds for financing their investment. The size of this share differs significantly depending on industry. The highest share of such enterprises is in electric power (about 60%) and in building materials (50%), and it is lower in chemicals and petrochemicals (22%) and in the textile industry (17%). At the same time about 1/4 of the affiliated JSCs consider internal financial markets to be important, with shares in overall investments more than 20%.

Therefore, hypothesis (v) cannot be rejected on the basis of the survey data. This hypothesis dealt with the gains enterprises enjoy from participating in groups that support the discipline of executive management. Directors of privatized (independent) JSCs, which typically were also among the most important shareholders, were ready to waive unilateral control rights in exchange for better economic performance.

3.2. Strategies of enterprises in HCGs for restructuring and modernization

The impact of the HCG on the performance of its affiliated JSCs can be estimated by two approaches that have already been applied in the literature devoted to Russian groups. The first one is to show how membership in an HCGs influences the probability of the enterprise to adopt restructuring/modernization strategies. The second approach is to reveal the influence of the HCG on performance, either in terms of profitability or in terms of how efficiently resources are used.

According to both approaches, affiliated companies in Russian industries outperformed non-affiliated companies. In almost all areas of restructuring of production and marketing, affiliated enterprises are more active than non-affiliated enterprises [Yasin, 2004]. According to [Dolgopiatova, 2005], during

the four-year period from 1999 to 2002 affiliated JSCs invested *ceteris paribus* twice more than non-affiliated JSCs. Frye [Frye, 2004, 2005] also found that membership in a HCG increases the probability of implementing an investment project. Guriev and Rachinsky [Guriev, Rachinsky, 2005] found that enterprises affiliated to the ‘oligarchic’ groups were more successful in increasing total factor productivity (TFP) in the beginning of the century.

The proportion of enterprises that applied different approaches to modernization during the period from 2001 to 2004 are compared on Fig.4. The purpose of this comparison is to demonstrate the interrelation of the subjective assessments of the gains of HCGs membership by the respondents, on one hand, and actual modernization strategies, on the other. This comparison can also be used to identify the specific features of restructuring/modernization inside HCGs. In order to make the comparison precise, we divide the whole sample of affiliated JSCs into distinct sub-samples: JSCs that entered a HCG before 2001, whose directors did not mention they received advantages in marketing, innovations and/or access to world markets (affiliated JSC-1); JSCs that entered a HCG before 2001, whose CEO noted these advantages (affiliated JSC-2); and JSCs that joined a HCG after 2001 (affiliated JSC-3).

This classification pursues two objectives: first, to reveal whether affiliated JSC-1 had any advantages over affiliated JSC-2 (are the subjective assessments and actual modernization activities interrelated?) and, second, to determine the distinction between affiliated JSCs-2 and affiliated JSCs in order to reveal (at least partly) the cause-and-effect relationship. The comparative advantages of the affiliated JSCs can be explained in two competing ways: first, that HCGs ensure a market-oriented restructuring of member enterprises and promote their modernization, and, second, that HCGs acquire better companies, which had begun modernization as independent businesses. These options are not mutually exclusive, as can be seen from Fig.4: both affiliated JSCs-2 and affiliated JSC-3 are more active than non-affiliated companies, and affiliated companies infer no marketing advantages from group membership.

In assessing the impact of groups on the modernization of enterprises, it is not only ‘activity’ that matters. The differences in the models of modernization are extremely important. We delineate the possible models of modernization activities *ex-post* on the basis of the respondents’ answers using the principal components analysis. Results are presented in Table 4.

Fortunately, the results can be interpreted consistently. The first model shows attempts to improve competitiveness by moving into the high quality/high price market segment. Both R&D and ISO certification promote product upgrading in the first instance. New products and new technologies (model 2) could represent efforts to change the relevant market. The third

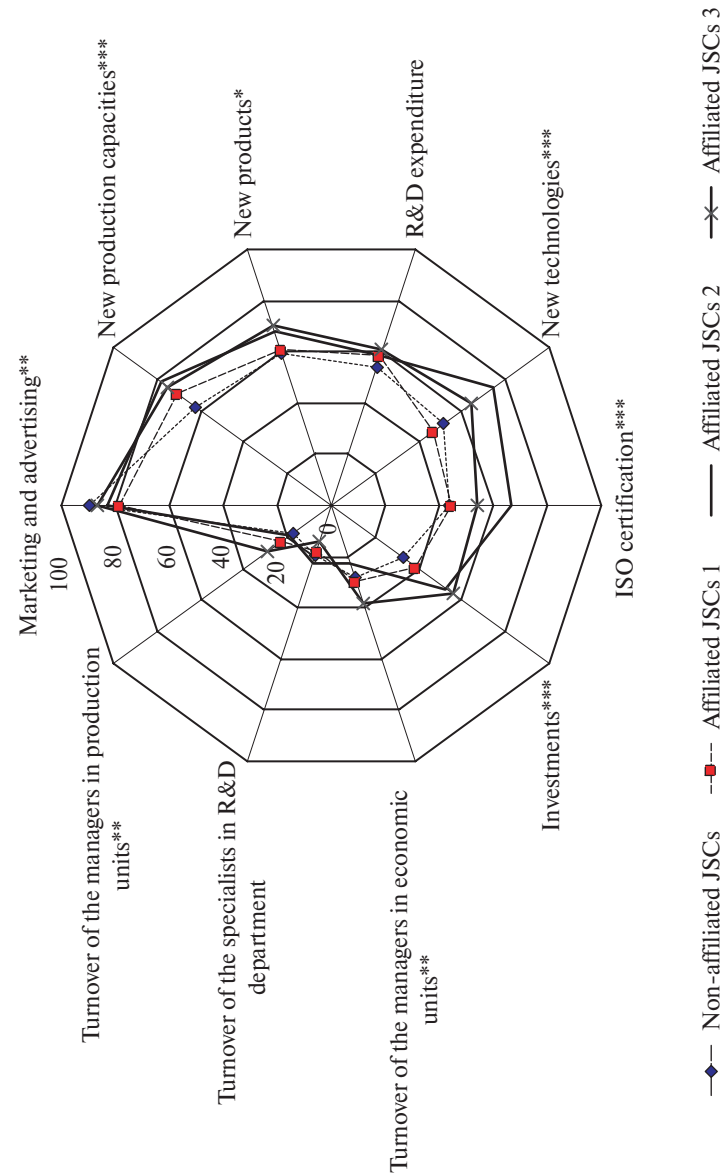


Figure 4: Innovation strategies in the affiliated and non-affiliated enterprises, % of respondents. Using the 2 statistic.

*** the differences are statistically significant at the 1% level, ** at the 5% level; * at the 10% level

Table 4. Factor loadings for indicators of modernization
(four main components)

Actions of restructuring/ modernization	Models of modernization ^a			
	1 «high-price segment»	2 «new markets»	3 «turnover of managers»	4 «pure expansion»
Turnover of the specialists in R&D units	-0,831		0,137	
R&D expenditure	0,815	0,143		0,110
ISO certification	0,522	0,293		
New products		0,806		
New technologies	0,146	0,711		0,210
Marketing and advertising expenditure	0,186	0,505		
Turnover of the managers of economic units			0,860	
Turnover of the managers of production units			0,839	
Investment project	0,164			0,856
New production facilities		0,326		0,753

^a Only factor loadings exceeding 0.1 are indicated. Varimax rotation with Kaiser normalization was applied.

and fourth models of modernization represent the turnover of management in order to improve performance and achieve a ‘pure increase of output’ that causes new the introduction of new production facilities and allows the implementation of investment project. It is quite difficult, if at all possible, to rank the different models. It is only possible to note that models 1-3 are applied by enterprises that are definitely not satisfied with the market competitiveness of their products. In contrast, the fourth strategy can be followed by companies that are generally satisfied with the products they produce. Accordingly, the fourth strategy seems to be the shallowest one. Identification of these models allows us to answer the question: What type of modernization does membership in an HCG promote?

Regression analysis was applied to measure the association between affiliation to an HCG, on one hand, and the intensity of modernization that might be explained by one of the models given above, on the other. Apart from affiliation to an HCG, the regression analysis included explanatory variables such as industry dummies, the size of the enterprises (measured by the log of the number of employees), management/ownership convergence (equal to

1 if either the controlling owner participates in management or the director holds shares in the JSC, and 0 otherwise), export orientation (equal to 1 if the share of export in the overall turnover exceeds 10% and 0 otherwise), competition with domestic and foreign producers (equal to 1 if the respondents mentioned that the enterprise faced competition and 0 otherwise). Change of the main shareholder(s) was determined to be statistically insignificant in all specifications and therefore excluded.

The results of regression analysis are presented in Table 5. Industry and size turned out to be the most important determinants of the modernization model. Modernization activity positively depends on the size of the JSC as measured by the number of employees. Enterprises in the machine building industry are definitely more active in the first type of modernization. In the search for new markets, the telecommunications, food and (again) machine building industries are the leaders. ‘Pure expansion’ is specific to the food industry (which benefits from the continuing increase in disposable incomes in Russia), to the telecommunications industry, which enjoyed technological advances and a dramatic market increase during the period being analyzed, and to the chemical and petrochemical industry.

Affiliation to an HCG has a noticeable impact on the modernization activities given above. Enterprises from the affiliated JSC-3 group are more likely to adopt the first model of modernization, which seems to require the deepest restructuring. However, these JSCs joined their HCG exactly during the period when they undertook their modernization efforts. The impact of group affiliation seems to be ambiguous in this case; it could be the modernization that increased the probability of being merged with a group, since the parent company preferred to acquire control over the most promising assets. The same group of affiliated JSCs experienced higher turnover of managerial teams; this is to be expected after the change of the principal shareholder and overall changes to the system of management. Finally, enterprises from the affiliated JSC-2 group (since their CEO benefited from membership in a HCG) demonstrated strong comparative advantages in applying the ‘pure expansion’ strategy. However, the same is true for the enterprises from the JSC-3 group, which could have also benefited from membership in a HCG or could have been growing companies before they merged. Therefore, a positive result of becoming affiliated to a HCG could be that the group allowed the enterprises to increase sales. This conclusion corresponds perfectly to the finding of many other studies [Dolgopyatova (ed.), 2003, Yasin, 2004, Avdasheva, 2005], that the most remarkable advantage of JSCs affiliated to an HCG is an increase in demand and sales. One explanation that fits the data is that the parent company allows enterprises to expand output due to the role of HCG as an efficient

Table 5. Regression results for various modernization models^a
(coefficients and t-statistics are given in parentheses)

	1 «to high-price segment»	2 «new markets»	3 «turnover of managers»	4 «pure expansions»
Constant	-1.145*** (-4,792)	-1,037*** (-3,880)	-0,452* (-1,657)	-1,613*** (-6,084)
Energy	-0,456*** (-3,086)	-0,662*** (-4,008)	-0,020 (-0,115)	0,215 (1,310)
Fuel	-1,332*** (-4,431)	-0,668* (-1,989)	-0,586* (-1,698)	0,517 (1,549)
Metallurgy	-0,410*** (-2,422)	-0,506*** (-2,672)	-0,173 (-0,891)	0,454** (2,417)
Chemical and petrochemical	-0,058 (-0,321)	-0,131 (-0,652)	0,018 (0,089)	0,582*** (2,922)
Wood and timber	-0,964*** (-7,082)	-0,229 (-1,506)	-0,260* (-1,667)	0,267* (1,769)
Textile	-0,805*** (-5,882)	-0,080 (-0,523)	-0,215 (-1,368)	-0,014 (-0,092)
Food	-0,990*** (-10,114)	0,008 (0,070)	-0,217* (-1,935)	0,696*** (6,406)
Construction materials	-0,413*** (-3,352)	-0,030 (-0,020)	-0,135 (-0,957)	0,224 (1,640)
Telecommunications	-0,876*** (-6,169)	0,700*** (4,413)	-0,440** (-2,490)	0,607*** (3,852)
Machinery building	Dropped	Dropped	Dropped	dropped
Size (ln Employees)	0,430*** (6,204)	0,170*** (2,195)	0,239*** (3,005)	0,356*** (4,630)
Affiliated JSC-1	0,030 (0,222)	0,045 (0,298)	0,251* (1,698)	0,085 (0,559)
Affiliated JSC-2	0,110 (1,050)	-0,004 (-0,031)	0,045 (0,372)	0,481*** (4,154)
Affiliated JSC-3	0,212** (2,326)	0,054 (0,534)	0,322*** (3,077)	0,207** (2,049)
Management/ownership convergence	0,227*** (3,071)	0,159* (1,924)	-0,491*** (-5,786)	0,260*** (3,168)
Export orientation (share of export > 10%)	0,279*** (3,119)	0,100 (1,014)	-0,204** (-2,028)	0,316*** (3,248)
Competition with domestic producers	0,091 (0,816)	0,464*** (3,709)	0,201 (1,561)	-0,065 (-0,520)
Competition with foreign producers	0,196*** (2,699)	0,096 (1,188)	0,121 (1,457)	0,053 (0,661)
Adjusted R ²	0,310	0,118	0,091	0,153
Observations	659	659	659	659

*** significant at the 1% level, ** at the 5% level, * at the 10% level.

marketing center. An upgrade in the marketing system at the level of the parent company leads to a ‘pure expansion’ at the level of individual enterprises without deep changes in product quality, product mix, etc.

The advantages of affiliated JSCs are partly neutralized due to the separation of management from ownership. According to many studies on the restructuring and modernization of Russian enterprises, non-separated ownership and management promote modernization, except for the ‘pure turnover of managerial teams’ (model 3). In full accordance with many previous studies on the impact of competition on restructuring [see Avdasheva et al., 2007, for the survey], competition with both domestic and foreign producers promotes restructuring, but in quite different directions. If competition with foreign producers forces enterprises to upgrade their products, the enterprises for which the competition with domestic producers is most important try to find a niche where competition is not as strong. Export orientation, as expected, provides the same impact on modernization as competition with foreign producers. In addition, export also allows enterprises to apply a ‘pure expansion’ strategy and discourages the turnover of managerial teams.

To conclude, the positive impact of affiliation to a HCG on modernization strategies and the performance of affiliated enterprises is most evident in the expansion of the JSCs, but this affiliation does not promote deep restructuring of production and/or marketing at the level of the enterprise.

3.3. Group membership: impact on labor productivity

In addition to the information on modernization activity, the survey data can be used to determine whether the enterprises improved their efficiency in utilizing resources, as measured by labor productivity. Respondents were asked about changes in sales and employment for 2004 as compared with 2000. The combinations of answers were used to classify respondents as enterprises with increased labor productivity, decreased labor productivity, and others (see Table 6).

As Fig. 5 shows, members of HCGs outperform independent enterprises in terms of labor productivity. In the sub-sample of HCG members, the share of enterprises that improved labor productivity is higher than in the sub-sample of independent enterprises: 75% vs. 52%. It is also notable that from among enterprises in an HCG with increased labor productivity, the share of enterprises experiencing decreasing employment is substantially higher than among independent enterprises: 61% vs. 18%.

In order to additionally prove that enterprises demonstrated better performance due to their affiliation to a HCG, a binary logistic regression was



Figure 5: Changes in labor productivity (measured by real output per worker) and employment: 2000–2004 (percent of the respondents)

used to model the likelihood of an increase in labor productivity. The characteristics of industry, ownership, corporate governance and HCG affiliation as well as the history of the enterprise and its market position were included in the analysis as explanatory variables.

In spite of numerous theoretical arguments in favor of private ownership, empirical studies on Russian enterprises failed to prove the superiority of privatized companies in terms of the efficiency of resource utilization, etc. One recent example is a representative study on the impact on privatization [Brown et al., 2006]. Nevertheless, the variable for a relatively significant stake belonging to the state was included as an explanatory variable in the analysis. Although many studies have shown that foreign ownership in Russian companies (for example, [Yudaeva et al., 2003]) and good standards of corporate governance are associated with better performance, the cause-and-effect re-

Table 6. Change of labor productivity: construction of the indicator ^a

Sales in 2004 in comparison with 2000 (in real terms)									
	Increased > 2 times		2 times ≥ Increased > 1.5 times		1.5 times ≥ Increased		About the same ⁶		Decreased
	Group members	Independent	Group members	Independent	Group members	Independent	Group members	Independent	Group members
Employment in 2004 in comparison with 2001	52 4,8	43 8,0	5 0,8	17 3,5	6 0,5	4 0,9	- -	2 0,3	67 8,5
	14 3,7	29 4,4	9 0,7	28 3,8	10 0,9	10 2,5	4 0,2	- -	44 7,9
	22 7,8	39 14,0	17 2,5	43 4,1	22 4,3	11 0,6	34 3,9	7 0,7	78 15,4
	32 38,3	18 8,9	22 9,4	23 3,8	16 3,7	10 1,7	21 2,7	16 2,0	83 53,3
	15 3,5	8 1,8	13 8,9	10 0,9	5 0,3	5 1,7	8 1,8	15 1,2	48 14,9
Total	135 58,1	137 37,1	66 22,4	121 16,1	59 11,3	40 7,4	67 8,6	40 4,2	320 496
									100

^a Every cell contains data on the number of respondents with the given combination of answers and their share of employment in the total employment represented by the survey respondents, respectively (%). Shaded cells indicate combinations of changes in sales and employment: light grey signifies an increase in labor productivity, while dark grey signifies a decrease in labor productivity.

⁶ “About the same” means less than a 5% increase or decrease.

lation is not always clear. One would expect that the same regularity would be observed in the sample being analyzed in this paper. Therefore, a variable for foreign ownership and a variable for an independent director being on the board were included (the first is equal to 1 if there is a foreign owner among shareholders and 0 otherwise, and the second is equal to 1 if there is at least one independent director on the board and 0 otherwise).

A change of the controlling owner is an important factor for economic performance. There are two competing explanations for why this change could improve labor productivity. One is that ownership is reallocated to efficient owners and the new owner conducts a productivity-enhancing restructuring of the enterprise; the other is that enterprises with better performance are also the most attractive for takeovers, especially keeping in mind the well-known underestimation of privatized assets in Russia. However, there is little systematic evidence for a significant positive impact of new owners on the performance of their enterprises. In any case, a change of controlling owner is an important explanatory variable (equal to 1 if there was at least one change of the controlling owner and 0 otherwise).

To discriminate between privatized companies and new companies, we introduce a “new enterprise” variable, equal to 1 if the enterprise was established after 1992 and 0 otherwise. The meaning of this variable is connected with the difficult process of adaptation to market for privatized enterprises. Its purpose is to capture the supposedly lower efficiency of Russian enterprises privatized in the 1990s as compared to new establishments. During the period being analyzed, it is the deep transformational decline of Russian industries coinciding with the processes of privatization that explains the advantages of privatized enterprises in terms of improvement of productivity. After 1999, during the period of recovery, new enterprises should have had a lower likelihood of improving labor productivity as compared with privatized enterprises.

Almost the same should be true for producers with a high share of exports in their sales. On one hand, exporting companies have demonstrated better performance since the liberalization of 1992. On the other, they obtained fewer gains from the increase of demand during the period of economic recovery in comparison with sellers oriented to the domestic market only. That is why we would expect to see a negative dependence of the likelihood to improve labor productivity on the variable for export orientation (equal to 0 if there is no export, 1 if the share of export in sales is less than 10% and 2 if the share of export exceeds 10%).

One important variable is competition with domestic producers, equal to 1 if the respondent mentioned the presence of competition (high or low), and 0 otherwise. One seeming paradox of empirical studies on Russian en-

terprises is that competition in the domestic market (from the point of view of respondents) is not associated with an improvement in efficiency of resource utilization or higher profitability. Instead, companies which mention tough competition with domestic producers are often characterized by worse performance. Researchers sometimes explain this finding by the ambiguous influence of competition on enterprises’ modernization activities: on one hand, competition provides economic agents with higher incentives to upgrade, but on the other restricts profits and the amount of financial resources available for upgrading (imperfect financial markets under transition need to be taken into account here). However, it seems that the explanation is simpler and has to do with certain aspects of interviewing. The respondents that consider competition to be very tough are likely assessing not the intensity of competition, but rather their own competitiveness [Avdasheva et al., 2007]. “Strong competition” most likely means that the competitiveness of the enterprises themselves are low.

To identify enterprises affiliated to HCGs, several variables were used. First, respondents were divided into parent companies and subsidiaries. The possible explanations for the comparative advantages of companies in HCGs such as market-oriented restructuring, more efficient marketing, etc. are valid mostly for subsidiaries. Second, subsidiaries were divided into “incumbents” (those that became members of groups before 2000) and “new members” (those that became members of groups after 2000) in order to determine the impact of HCGs on the likelihood of an increase in labor productivity. An increase in labor productivity in enterprises that were incumbents in the group could be considered to be a conformation of the hypothesis that HCGs are more efficient owners than the owners of independent companies. If labor productivity increased in enterprises that are new members in the groups, it remains unclear whether the HCGs provide a positive impact on the competitiveness and performance of the enterprises, or parent companies choose to buy the more efficient enterprises.

Table 7 gives the sub-samples of the enterprises that did or did not increase labor productivity. An increase in labor productivity is more likely for group members, not for parent companies. In the sub-sample with increased labor productivity, the shares of both incumbents and new subsidiaries are higher. Foreign ownership and independent director(s) on the board improve the likelihood of an increase in labor productivity. The share of companies with state ownership does not differ in the two groups. There are relatively few new establishments in the sub-sample with increased productivity. Competition with domestic competitors and the share of exports in sales triggers an increase in productivity.

Table 7. Enterprises that increased or did not increase labor productivity to 2004 in comparison with 2000 ^a

Characteristics of the enterprises	Labor productivity increased	
	Yes	No
Share of enterprises that are group members, %	41,7***	31,4
Share of parent companies of the group, %	3,1*	6,0
Share of subsidiaries in the groups, %	38,6***	25,4
- including subsidiaries entering groups before 2000, %	18,6**	12,4
- including subsidiaries entering groups after 2000, %	20,0**	13,0
Share of JSCs with state ownership, blocking state (>25%)	13,1	13,0
Share of JSCs with independent directors on the board, %	20,6**	14,7
Share of JSCs with foreign ownership %	18,4***	7,5
Share of new companies (which emerged after 1992), %	9,1***	17,1
Share of JSCs in which the controlling owner changed during 2000-2004, %	29,7	25,5
Share of JSCs that mentioned competition with domestic competitors, %	87,8*	90,0
Average share of export in sales (0 means no export, 1 means that exports do not exceed 10% of sales, 2 means that exports exceed 10% of sales)	0,87 (1,15)	0,94 (1,26)

^a χ^2 and F-statistics are used for comparing frequencies and means, respectively.

*** the difference is statistically significant at the 1% level; ** at the 5% level, * at the 1% level

Regression analysis was used to differentiate between the various determinants of an increase in productivity. Binary logistic regression was applied to two samples: sample 1 includes all enterprises with an identifiable change in productivity, and sample 2 includes enterprises in the non-regulated industries only. The reason for choosing these two samples is that in regulated industries, economic performance depends greatly on regulatory decisions, but not on efforts to improve productivity. It is well known that during the period being analyzed, companies in regulated industries benefited significantly from growing demand and the increase of regulated tariffs. So we had to check the determinants explaining performance both for the whole sample and sub-sample consisting of non-regulated enterprises only.

The results of the regression (Table 8) mostly replicate the regularities that descriptive statistics had already shown. Subsidiaries in HCGs have a higher

Table 8. Determinants of the likelihood of an increase in output per worker: results of the logistic regression

Explanatory variables	Sample 1 ^a	Sample 2 ^a
Constant	1,20*** (0,33)	1,27*** (0,35)
State ownership>25%	0,03 (0,39)	0,06 (0,33)
Foreign owners	1.56*** (0,39)	1,66*** (0,49)
Independent director(s) on the board	0,59** (0,29)	0,28 (0,31)
Competition with domestic competitors	-1.21*** (0,33)	-1,25*** (0,35)
New enterprise	-0,87** (0,32)	-0,73** (0,34)
Parent company in the holding company group	-0,80 (0,53)	-0,77 (0,34)
Subsidiary entered the group before 2000	0,83** (0,33)	0,73** (0,38)
Subsidiary entered the group after 2000	1,01*** (0,31)	0,99*** (0,23)
Change(s) of the controlling owners in 2000-2004	0,44* (0,22)	0,44* (0,24)
Share of export in sales	- 0,20*** (0,01)	-0,20*** (0,01)
Industrial dummies	+	+
2 LOG Likelihood	596,81	536,61
Nagelkerke R2	0,22	0,17
Number of observations	504	434

*** statistically significant at the 1% level; ** at the 5% level, * at the 1% level

^a Sample 1 contains all the enterprises for which the direction of change in output per worker is identifiable. Sample 2 contains enterprises in the non-regulated industries only (energy and telecommunications are excluded).

probability of improving output per worker, both in regulated and non-regulated industries and for both incumbent and new group members. Most likely, this means that two effects are present: HCGs allow enterprises to sell more (as seen in section 3.2) on one hand and HCGs seek to buy better enterprises on the other. A minor difference between the results for the two sub-samples is that an indicator of corporate governance (an independent director on the board) does not provide a significant impact on the performance of enterprises outside the regulated industries.

Therefore, an increase in labor productivity is more likely if the enterprise is a subsidiary in an HCG. For enterprises that entered an HCG after 2000, it is not clear whether the groups are efficient owners or simply tried to ac-

quire better enterprises in the relevant industries. However, we can confirm the positive impact of groups on economic performance measured by labor productivity for enterprises that become affiliated with an HCG before 2000. This finding, on one hand, imbues confidence when managers of enterprises positively assess the influence of group membership on competitiveness. On the other, this finding provides evidence in favor of the hypothesis that there is a potential for relational contracting between the parent and the subsidiaries, based on the possibility for subsidiary enterprises of achieving better economic performance inside the group. It is necessary to mention, however, that higher chances of improving labor productivity are more probably not the result of deep restructuring of the enterprises, but of the “pure expansion” effect combined with a cut in employment.

4. Conclusion

Holding company groups as a specific type of business group represent a significant proportion of enterprises in Russian industries. So far, mergers have been among the most typical form of business restructuring in Russia. The main goal of this paper was to explain the paradoxical coexistence of the wide-spread evolution of HCGs as an organizational form apparently based on the separation of ownership and management, and the convergence of ownership and management in Russia’s transition economy. In this context, the main question is to determine what the reasons are for the stability and competitiveness of the HCG as an organizational form, or what main instruments are being used to solve the agency problem under separated management and ownership. Several explanations are possible, from the possibility that there is no additional agency problem because ownership and management in the Russian groups are in fact not separated, to the possibility that the agency problem is resolved using the instruments of corporate governance, including monitoring and specific types of incentive contracts with executive management. In the latter case, the main problem is to explain the effectiveness of this system of corporate governance, which seems to be not very successful in a typical Russian company.

The results of the survey demonstrate that the agency problem should exist in Russian HCGs, since a hierarchical type of coordination prevails in them. In spite of the heterogeneity of HCGs, most of them are organized as a company, and not as a nexus of independent businesses. At the same time, decision-making is not highly centralized and this is an additional source of the agency problem.

There is no simple answer to the question of what the main instrument is for solving the agency problem in Russian HCGs. To repeat, they are very heterogeneous. In some of them, ownership and management are not separated, and in this case the model of corporate governance does not differ much from a typical non-affiliated company. Convergence of management and ownership prevents potential losses from the agency problem.

At the same time, Russian HCGs apply internal mechanisms of corporate governance, a board of directors in the first instance, as controlling devices more actively than non-affiliated enterprises. However, the instruments of internal corporate governance seem to be most effective in companies in which the state has enough bargaining power (as regulator and/or owner) to protect property rights and to force JSCs to apply standards of good corporate governance.

Aside from the monitoring of executive management, there is evidence that HCGs create additional gains for the affiliated companies. This is the basis on which various forms of incentive contracting are applied to the CEOs of the member enterprises.

The results of the survey also suggest the possible explanation of the increasing competitiveness of affiliated companies. A substantial proportion of the respondents mentioned that they benefited from the mergers, because the parent company provided the enterprise with better marketing, investment opportunities, access to world markets, etc. These answers confirm the impression that the HCGs merged Soviet assets (capital) and entrepreneurial ability (a scarce resource in a transition economy).

Fig. 6 gives a rough estimation of the role different instruments play in solving the agency problem in the subsidiaries of HCGs. Of course, the possibilities are not mutually exclusive. The ranking of possible instruments to support managerial discipline is arbitrary to a great extent. However, the classification of enterprises seems to be informative. As we can see, almost every third enterprise is directly managed by the ultimate owners: the “do it yourself” option allows the agency problem between owners and executive management to be avoided. About 30% of JSCs developed an internal system of corporate governance (respondents consider shareholder meetings and the board of directors as “extremely important in decision-making”). Corporate governance bodies are especially important in the subsidiaries of HCGs in regulated industries. This could be considered to be evidence that the state supports corporate governance, and that the internal instruments of corporate governance could be most efficient under the protection of the state. Moreover, state ownership or regulation can discipline executive management even in the absence of internal corporate governance (10% of subsidiaries in the

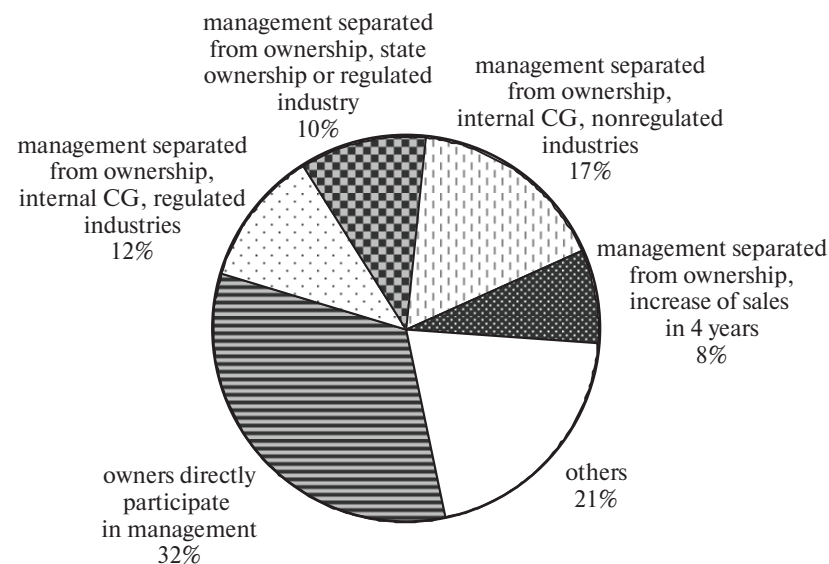


Figure 6: Approaches to solving the agency problem in Russian HCG subsidiaries (N=258)

sample fall in this group). Finally, the discipline of executive management can be guaranteed using relational contracting. There are incentives to follow the strategy set by the HCG, if the enterprise receives gains only by being a member of the group. Of course, we cannot be sure that output growth is due to efficient marketing in the group, though the hypothesis of a positive impact of the group on output growth and labor productivity has been confirmed (see section 3.3). Nevertheless, it is easier to discipline executive management given a significant increase in sales, and this is the case for management separated from ownership, representing 8% of the subsidiaries in the sample.

In conclusion, the sample survey data make the wide-spread existence of holding company groups in Russian industries less mysterious. We can explain the ways in which the agency problem is solved (or prevented) in a significant proportion of Russian HCGs. As we have seen in this context, there is no severe inconsistency between the evolution of HCGs and the Russian institutional environment being a source of serious agency problems. Moreover, evidence on the organization of corporate governance in JSCs that are HCG subsidiaries shows that the HCGs have to use specific devices to prevent losses from the agency problem.

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