

Russian State-owned Energy Companies through Principal-Agent Model

By
Svetlana Ivanova

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Supervisor: Andreas Goldthau

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ABSTRACT

The objective of this work is to understand if Russian state-owned energy companies' relationship with the Russian government can be characterized as a Principal-Agent relationship. The main criteria of the Principal-Agent Problem were drawn from the Principal-Agent Model and the Gazprom case was examined according to these criteria, assuming, as the theory suggests, that the Principal is the Government and Gazprom is the Agent. In the analyses primary sources were used. The result of the analysis shows that there is a Principal-Agent relationship between the Russian government and Gazprom, with a solved Agency conflict. Gazprom behaves in the interests of the government: the information asymmetry between the actors is limited and the government implemented the controlling systems effectively. However, interviews show that the Principal is not the government, but a group of decision-makers. The Principal-Agent Model should be complemented for the Russian case: the Principal is the group of decision-makers and both government and Gazprom are the Agents.

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INTRODUCTION

Nowadays a global energy market concerns a lot of important issues, such as energy supply and demand regulation, energy access and energy poverty, climate change. Global energy was always one of the main parts of global geopolitics situation and power distributions. But who are the game-makers in this field? Who sets the rules of the game and who are the main actors? If we consider producers of oil and gas a lot of these companies nowadays are state-owned not private. According to the U.S. Energy Information Agency national oil companies hold nearly 90% of all worldwide crude oil reserves. The industry was nationalized almost in all producing countries (Marcel p.1). This process means the limitation of private energy companies and increased government control over the energy industry (Stevens,). In the academic literature this process called 'resource nationalism'.

Russia is one of these producing countries with the nationalized oil and gas industry. And it is one of the main players on the energy market, because it has the largest natural gas reserves, and the eighth largest oil reserves. The energy market today is interrelated, and in this market, Russia is an unpredictable player. It is not a member of OPEC, and when OPEC is recommending to keep lower price for the oil, Russia can easily ignore it. This makes the Russian case interesting to study, because on the one hand, Russia can influence the market, and on the other hand, it is difficult to predict the Russian companies' behavior, because the companies are closed and non-transparent, and they are not members of energy organizations, such as OPEC, which allows them to behave as they want without any agreements.

Government control influences the national energy companies behavior a lot. Moreover, according to the literature (Marcel 2006, Stevens 2008), national energy companies were organized as a government's tool to control natural resources. However,

natural energy companies have their own business- interest, which can contradicts government's interest.

This phenomenon can be explained by the Principal-Agent model. Through this Model the relationship between the government and the national energy company can be analyzed. The Principal-Agent Model describes the relationship between two actors, when one actor, which is the Principal, hires another actor, which is the Agent, to do this work (Eisenhardt 1989).

The Principal-Agent Model was broadly used to understand national energy companies (David G. Victor 2012, Stevens N, Hartley 2007). This literature characterized the relationship between the government and the national energy company through the Principal-Agent Model. However, it was not applied to Russian national energy companies. That is why it is interesting to **examine: Is there a Principal-Agent Problem between the Russian government and Gazprom.**

This thesis adopts a qualitative study on national energy companies, based on the case of the Russian national gas and oil company Gazprom. The criteria of Principal-Agent Problem will be extracted from the theory. Using these criteria the relationship between the Russian government and Gazprom will be examined whether this relationship can be characterized as a Principal-Agent Problem. The results of analyses will be compared with the results of the interview.

First, the literature review help to build up the analytical framework, and give the understanding of national energy companies as actors on energy market, difference from private energy companies, the relationship with the government. However, not a lot of

literature was written on Russian companies in the field of analyzing their behavior and relationship with the government. Another problem is that very often these studies based on open published information, and the difference between published information and the real situation is huge in Russia. In addition, for foreign research it is difficult to understand the Russian context and mentality issues. Moreover, information is even more closed for foreign research. On the other hand, Russian research did not work in this field a lot.

Since the difference between published information and real situation can be different in Russia, and Gazprom, is not transparent, I decided to use interviews for the purposes of research. In my study the primary sources will take an important role because of the limitations of published information, and doubting of its reliability. The interviews gave me more complete understanding of the relationship between Gazprom and the government, then primary sources. And this data was highly significant for the analyses.

In order to prevent bias in interviews, I decided, to take an interview from different sources: the top-management of Gazprom, the energy expert from another government-owned energy company, the energy expert from consulting companies the academics who work in energy field. Taking the interviews from both top and middle management gave me an opportunity to see both sides on the same question. Because of the closed corporate culture, top manager can give only “official” information, according to the published information and no extra information. I hoped that middle level manager can give first of all the view on the question from his level, from the level of operationalization. However, the risk that the managers from both levels will give me only “official” information was high, that is why I decided to talk also with consultancy in energy sector, with academics who work in energy field, and the representative of other state-owned energy company. Comparing the

information from all sides will give more reliable data. My expectations were right, that talking with the representatives from the different sides was useful. Mostly, they did not contradict each other, which make the data more reliable.

However, I learned from the interviews that Gazprom is a top-down driven highly hierarchical organization. That is why top management is chosen as the level of analyses in the following analyses.

To organize the meetings with Gazprom's management I used my personal contacts from the previous job, because without it the Gazprom's managers would not give me the interview. The common feeling from the interviews with Gazprom's managers was their discredit to foreign university research. However, they answered the questions openly, because I used personal connections to arrange the meeting.

In the first chapter in order to have broader understanding of national energy companies and the Principal-Agent Problem, the literature on the National Oil Companies and the Principal-Agent Problem will be reviewed. In the second chapter, the relationship between the Russian government and Gazprom will be examined whether this relationship can be characterized as a Principal-Agent Problem. In the third chapter, the Principal-Agent Model will be complemented for the case of Gazprom.

CHAPTER 1.THEORETICAL ANA ANALYTICAL FRAMEWORK

In order to provide a broader understanding of the Principal-Agent Model and its application on national energy companies, the literature will be reviewed. The review of the literature will consist of three parts: the review of literature on national oil companies, the review of literature on the Principal-Agent Model and how the Model was used to analyse NOCs, the review of literature on Russian energy companies, particularly Gazprom.

1.1 National energy companies – defining the actor.

In order to provide a broader understanding of the behavior of the state-owned energy companies behavior the literature will be reviewed. In the academic literature the research worked a lot on understanding national oil companies, (NOCs). Since both oil and gas are non-renewable natural resources with similar roles on the market, and the principles of establishing these companies are similar for the purposes of this thesis, the literature on NOCs will be used to understand the behavior of state-owned energy companies.

This review found that the literature on NOCs can be divided into two groups: those who look at NOCs effectiveness; and those who focus on understanding the nature of NOCs. Since the purpose of this paper is not to analyse the effectiveness of state-owned companies, but to understand their behavior, this literature review will be based on the works of the second group of authors. Paul Stevens (2008) analysed why and how NOCs were established, Jean-Francois Seznes (2011), studied NOCs in comparison with IOCs (international oil companies) and the most important work for my purposes was written by Valerie Marcel (2006), who explored NOCs in the Middle East assuming that each NOC is

different and going in depth into each case-company. In this literature review mine main objectives will be to understand: why NOCs were organized, the objectives of NOCs, features of the decision-making process of NOCs on the strategic issues, such as, development and investment.

1.1.1 Why NOCs were organized

NOCs were established as a tool of the government to control natural resources (Marcel 2006, p.33). Stevens (2008) identifies an increased tendency to control the economy by the government after World War II. He explains it by the new ideas between the economists, such as the Keynesian legacy and the Soviet Union's planned economy, which says that the government should influence the economy in order to prevent market failure (Stevens 2008, p. 6). At that moment, according to Stevens, the economists saw the way to solve the problem of the market failure as a government regulation through taxes and subsidies, price controls and, and in the end, government ownership (Stevens 2008, p. 7). He argues that government understood that non-renewable resources are needed in the long-term period for the domestic customers, not only for export (Stevens 2008, p. 7). That was another driver of nationalizing an oil and gas industry in order to control the use of resources. At the same time society, according to Stevens, agreed with the idea of nationalization, because the citizens think that they have rights to have benefits from natural resources, consider the natural resources as national wealth, correspondingly "their" wealth, and the private energy companies in their notion do not share the profits enough (Stevens 2008, p. 6). Stevens identifies the same feeling in the society in Russia, when the privatization period was considered as unfair process and it created oil oligarchs (Stevens 2008, p. 7). Another author, Valerie Marcel, (2006) found a pragmatic explanation of nationalization oil industry in the Middle East. She concluded that, for instance, Iran needed foreign investment when the oil was just found in 1907 to invest into factories and technologies, to prepare the professional

stuff , but later they could run the oil business by themselves, and at this point they nationalized the industry (Marcel 2006, p.35).

1.1.2 The objectives of NOCs

NOCs became not only the instrument to control natural resources production and export, but the instrument of employment and social policies (Pirog 2007, p.11). Proving this point Valerie Marcel said that initially NOCs were established as instrument of government policy (Marcel 2006, p.33). Robert Pirog (2007) presented the list of NOC purposes:

- The NOCs help to redistribute the natural resources wealth among the people, the citizens. This can be implemented through subsidies, employment policies, social programs.
- The NOCs provide additional job places for the domestic market.
- The NOCs help to reach economic development. In many countries the oil and gas industry is the largest sector in economy.
- The NOCs very often subsidize the other industries in the economy.
- The NOCs are used by the government in geopolitics interests, building strategic relationships through oil export. (Pirog 2007,p. 11)

1.1.3 Features of the decision-making process of NOCs on strategic issues, such as: investment and development

The fact that the government is the owner of the NOC obviously should influence decision-making process in the NOCs. It was identified above that through NOCs governments develop the government policy in a sense of employment, social policy, and development of other sectors of economy (Marcel 2006 p.33; Stevens 2008, p.7). According to Valerie Marcel in this process when the government wants to control natural resources,

correspondingly the government starts to make decisions on production rates, export, and the revenues for the state (Marcel 2006, p.38). In the two examples of making decisions on strategic issues, such as development and investment, it is clear that the government and the NOC can have different positions.

Development

The NOCs' management is likely to keep the development slow, because they are thinking in a long-period of using resources, and in contrast, the government needs to fulfill the budget, and implement the policies as soon as possible (Marcel 2006, p.44). Proving this idea Valerie Marcel argues that NOCs are thinking of the "long-term prosperity of their country" (Marcel 2006, p.44). To avoid overproducing NOCs are trying to control the management of reservoir, and the development level as a whole. As a result NOCs are trying to keep the development of resources careful and slow. But this strategy is not always supported with the government. The government usually needs to fulfill the budget, that is why it is even against the slow development. But at the same time, as Valerie Marcel highlighted, it is easier to control NOCs than IOCs. However the government is limited to control NOCs' operationalization because of the knowledge gap (Marcel 2006, p.44).

Investment

Investment is another important issue, where the government and the NOCs' opinions are different. NOCs need investment into the industry, but the government is very often against foreign investment and after the taxes the NOCs do not have enough finance to reinvest into the production. Valerie Marcel shows the example in Kuwait, where the NOC could not get foreign investment because the parliament voted against. (Marcel 2006, p.39). She argues that the opinion of political leaders on the issue of investment is very different from the opinion of the NOCs' management. Seznec highlighted that the NOCs in

order to develop their business need a certain level of independence from the government to be able to make basic investments“in oil field maintenance, separation facilities, refineries or harbor development”. (Seznec 2011, p. 47)

In essence, this review of literature found that:

- The NOCs were established to access control on the resources by the government
- The government influence the decision-making process in the NOCs
- The interests of the NOCs and the government are different

According to these findings it can be concluded that the behavior of state owned-companies are influenced by the government, and very often their interests are in conflict, which leads to the Principal-Agent Model.

1.2 Agency theory

1.2.1 The Principal-Agent Model

The Agency theory describes an agency relationship, in which one party, which is the principal, delegates work to another, the agent, who is supposed to do this work (Eisenhardt 1989). The agency theory arises from the work of Adolf Augustus Berle and Gardiner Coit Means “The Modern Corporation and Private Property” in 1932. Berle and Means identify new phenomena in United States: they argue that the organizations, which have ownership of other companies, were separated from their control. And at the same time the interests of the owners are different from the interests of the company’s managers (Berle& Means 1932). Through the years the theory was developed and applied to different fields such as political science, economics, and organizational theory.

In the literature the ‘agency relationship’ in the Principal Agent Model is described in a different way. One view on the relationship, commonly used in sociology and political science, is the contractual relationship between buyers and sellers, when the ‘buyer’ of goods and services designed the ‘principal’, and the other member who provides the goods and services is the ‘agent’ (Ross 1973; Perrow,1986). In economics, agent relationship is viewed as a market for professional services, where the principal is the ‘patient’, and the agent is the ‘physician’ (Evans 1980). In this view there is a conflict between these two members, because they have different goals. The patient would like to be more healthy but to pay for that less. In contrast, the physician is interested to earn more money, correspondingly to set higher prices, or to prescribe more medicine or procedures than it is necessary (Evans 1980). At the same time the ‘patient’ does not have enough knowledge in this field, so the ‘patient’ has a lack of information, while the ‘physician’ is a professional in this field, which causes information asymmetry (Evans 1980).

Summarizing different views and approaches in 1989, Kathleen M. Eisenhardt identifies two main lines of theory development: the positivist agency theory and the principal-agent research. She argues that the first one identifies different contract alternatives, and the second one indicates which one is more efficient.

1.2.2 The Principal –Agent Problem

From the views on the Principal-Agent Model presented above, we can see that the principal and the agent are in situations of conflict, which is called the principal-agent problem(Ross 1973; Perrow,1986). This situation of conflict makes the agent relationship specific, and less efficient(Ross 1973; Perrow,1986). In order to understand the relationship between the government and the national energy company, it is important to describe each

problem between the agent and the principal. The main characteristics of the model and the agent relationship will be used to understand the relationship between the government and the national energy company.

In order to identify the main difficulties under the agent relationship a few sources will be used: Kathleen M. Eisenhardt (1989), Barry Mithick (1980), Richard W. Waterman (1998) . The work of Kathleen M. Eisenhardt, which was mentioned above, is very significant, because she classifies previous works on this topic and identifies two approaches: which are more qualitative Positivist Agency Theory and the more mathematical Principal-Agent Model(1989). Another fundamental work on the agent theory was written by Barry Mithick. He developed the theory by applying it to the political science field (1980). And Richard W. Waterman's research is important because he tested the assumptions of the agent theory, which other researchers did not do before, and developed a critique on the theory (1998).

According to these sources in the agent relationship:

1. the goals of the principal and the agent are different;
2. information asymmetry is common;
3. it is expensive or difficult for the principal to control the agent activities
4. between the agent and the principal can be outcome-based or nature-based contract.

(Eisenhardt 1989, p.58).

In order to identify the independent variables which influence the behavior of the state-owned energy companies, each characteristic of Principal-Agent Problem will be described.

1. The goals of the principal and the agent are different.

Eisenhardt argues that Positivist Agency Theory focused on the case when the principal and the agent have different goals (Eisenhardt 1989, p.58). According to the buyers-seller model,

for instance, in the politicians-bureaucracy case, politicians (principal) and bureaucracy(agent) have different goals (Eisenhardt 1989, p.58). Politicians are interested to be reelected, and the bureaucracy wants to maximize the budget. Accordingly, politicians want to implement policies which have advantages in terms of being reelected, but they do not want to pay a lot for that. This is the point of conflict between politicians and bureaucracy goals (Eisenhardt 1989, p.58).. The Principal-Agent Model suggests that in this situation bureaucrats “are likely to shirk”, to provide the outputs with a higher prices, or with lower quality (Waterman 1998, p.176). For politicians it is difficult to verify the budget for the policy, because they have less expertise than bureaucrats; this phenomenon is called information asymmetry.

2. Information asymmetry between the principal and the agent.

Information asymmetry exists between the principal and the agent because the agent has more knowledge, expertise in the given field, than the Principal (Waterman 1998, p.178). Given the fact that the agent is self-interested, it can start to cheat using the situation of information asymmetry to cheat (Eisenhardt 1989, 61). The theory suggest, that more uncertainty between the principal and the agent, more likely that the agent will behave in self-interest, not in the interests of the principal(Waterman 1998, p.178) . And because of limited information and expertise it is difficult for the principal to interfere into the inside situation of the agent. The example of the politicians and bureaucrats, which Wood& Waterman illustrate proves this idea: “For some policies, especially those of a technical nature, bureaucracies are more knowledgeable about organizational needs then politicians are, so politicians are reluctant to intervene” (Wood & Waterman 1994, p.22-26). In the academic literature, the phenomenon of information asymmetry was described from perspective of moral hazard and adverse selection (Eisenhardt 1989, 61).

Moral hazard “refers to lack of effort on the part of the agent” (Eisenhardt 1989, 61). This is the situation, when the principal and the agent agreed on certain effort, which the agent should put, but the agent put less effort (Eisenhardt 1989, 61). The moral hazard effect can be found when the researcher works in the company, but the project is so complicated, correspondingly, the employer cannot control it. Using his privilege in information and expertise the researcher can work slower than they agreed (Eisenhardt 1989, 61).

Adverse selection “refers to misrepresentation of ability by the agent” (Eisenhardt 1989, 61). The agent’s behavior and decision-making process is caused by a desire to make a good impression on the principal. At the same time, the agent can represent certain skills, which it does not have, but their so specific, that the principal cannot check them (Eisenhardt 1989, 61).

3. It is expensive or difficult for the principal to control the agent activities.

Under the high level of uncertainty between the actors, the probability that the agent will shirk is increasing (Mitnick, 1980). In other words, “when the principal has information to verify agent behavior, the agent is more likely to behave in the interests of the principal” (Eisenhardt 1989, p.60).

Under these conditions the need to control the agent by the principal arises. One way to monitor the agent’s behavior is to implement controlling systems such as reports, budgeting systems, board of directors (Eisenhardt 1989, p.60). Another problem is risk sharing, which emerges when the principal and the agent have different “attitudes toward risk”. Under these conditions these actors would prefer different behaviors because of different risk preferences (Eisenhardt 1989, p.58).

4. The nature of contract: outcome-based contract and result-based contract

Another way to control the agent's behavior is to contract on the bases of outcome (Eisenhardt 1989, p.61). Eisenhardt shows that with the outcome-based contract the principal can set certain plan, and in this way to control the behavior of the agent. However, the practice shows that "outcomes are only partly a function of behaviors" (Eisenhardt 1989, p.61). Another problem is that outcome can be uncertain because of changing conditions, such as economic changings, technological change, increased taxes and other. Correspondingly, if outcome is not certain, the behavior based contracts are more proper (Eisenhardt 1989, p.61).

1.2.3 The Principal- Agent Model in analyzing NOCs

The Principal-Agent Model was used in the different fields, including the behavior of state-owned business structures. In this case the conflict is between politicians and the management, where the principal is the politicians and the agent is the business-structure (Hartley 2007, p.16). The study of "A Model of the Operation and Development of a National Oil Company" Peter Hartley shows why the politicians are self-interested and influence NOC's activity: "The objective of the politicians overseeing the operations of the firm take the place of shareholder wealth. The politicians do not personally receive any residual cash flow from the firm, but their objectives will include perceived benefits from having additional revenue. In addition we assume that production and pricing decision of the NOC could be part of the objective function of positions" (Hartley 2007, p.16).

Silvana Tordo in her study argues that even though the NOCs were initially organized as a tool of government to control natural resource, through the years the NOCs became a very important self-interested actors (Tordo 2011, p. 28). Tordo refers to the work by Waelde, that the NOCs became a "major actors on their own, interposed between the government per

se and, mostly foreign, oil companies”. She explained that the Principal-Agent Model was wildly applied to understand NOCs (Tordo 2011, p. 28).

David G. Victor in his work situates the NOCs within the Principal-Agent Model . He argues that there is a contract between the government and the NOC, “in which the state has authority over the NOC”. David G. Victor in his work also defined the principal and the agent in this relationship. “The state, acting as a principal, relies on its governance system to direct the NOC, serving as Agent, to fulfill state objectives or “national missions” (generating profits, securing employment etc.)”. The same results Valerie Marcel has in her work on NOCs in the Middle (Marcel 2006). Correspondingly, the information asymmetry and principal-agent problem can be found between these two actors: the government and the NOC. David G. Victor describes that “because of its day-to day expertise” the NOCs has more information (Victor 2012, p.66). He also highlighted that the NOC’s managers have their personal interest . In addition, Silvana Tordo argues that “NOCs often capitalize on the principal-agent relationship and information asymmetries between the domestic government and itself” (Tordo 2011, p. 28).

In conclusion, from the literature on the Principal-Agent Theory the criteria of Principal-Agent Problem was extracted:

Information asymmetry, controlling system, behavior-based or outcome based nature of contract.

And from Principal-Agent Model application on the NOCs, the principal and agent were identified: the government assumed to be the Principal and Gazprom assumed to be the Agent.

1.3 Gazprom in previous research

In order to understand what was already analyzed in the behavior of state-owned energy companies in Russia and particularly Gazprom the literature will be reviewed. The review found that the behavior of Gazprom was not analyzed a lot in the literature. Some studies focused on accessing Gazprom reserves and ability to fulfill its obligations under the contracts with EU (Pallard 2007, ZeynoBaran 2007). Other studies analyzed Russia's energy policy in terms of energy security (Larsson 2006, Macmillan 2008). However, little research has been published on analyzing the behavior of Russian state-owned energy companies particularly Gazprom. On this particular topic the literature can be divided into two groups: those who argue that Gazprom behavior entirely depends on the government; the second group argues that Gazprom has his own interests which cause a certain behavior. In order to present these two approaches the few sources will be used: Rosner (2006), Pami Aalto (2012), Milov (2008).

Rosner's position on the question of Gazprom's behavior is on the side of those research who argue that the Gazprom behavior entirely depends on the government. Kevin Rosner found that Vladimir Putin appointed 'his people' from KGB and St.Petersburg colleagues to a Board Directors and Management Committee, which let him to strengthen the state power in this organization (Rosner 2006, p.6) . That is why Rosner concludes that when you have to deal with Gazprom, in fact, you have to deal with Putin, who is sitting in the Kreml. Proving this idea, he provides a very illustrative quote by Putin: "The (gas) pipelines are our legacy from the Soviet Union. We intent to retain state control over the gas transportation system and over Gazprom. We are not going to divide Gazprom. The European Commission had better forget about its illusion. As far as the gas concerned, they will have to deal with the Russian state" (Rosner 2006, p.7).Correspondingly, Rosner explores that the

strategy of Gazprom and the energy policy of Russia are very close to each other and “internally consistent and complementary as much as they are manipulative and structurally distorted in external free market terms” (Rosner 2006, p.6).

In contrast, Pami Aalo states that both the Russian state influences Gazprom, and at the same time, Gazprom influences state policy (Aalo 2012, p. 145). Pami Aalo proves his point showing that on the one hand, the government increases its influence by the appointment of Miller, college of Putin from St Petersburg, and getting 50 per cent of Gazprom shares, and at the same time Gazprom got tax liability from the government. According to Pami Aalo, it shows that the relationship between Gazprom and the government are going in both directions. In addition, he indicates that the behavior of Gazprom is defined not only by state interests and corporate interests, but by private interests. He argues that private interests of Gazprom’s top management influence the company’s decision-making process. Proving his point he said that Gazprom has a lot of intermediary companies, those activities are not under government control, and the top management of Gazprom through financial frauds is getting the money(Aalo 2012, p. 145).

Both these books were written by non-Russian authors. Looking at the Russian sources it is difficult to find publications with analyses of Gazprom’s behavior. Kevin Rosner in his work (Rosner 2006) quotes former Deputy Minister Of Industry and Energy of Russian Federation Vladimir Milov. Milov published a report “Gazprom and Putin” in 2008 (Milov 2008). However, this data is highly biased considering the fact that Vladimir Milov has been an opposition politician since 2007. For example, in his report, he states that Vladimir Putin personally got money from Gazprom, that is why he let Gazprom to “highly increase price for gas for the citizens” (Milov 2008). This statement sounds very strange especially from the

former Deputy Minister Of Industry and Energy, because the prices for gas for Russia citizens are very low, and Gazprom cannot make any profits on the domestic market (Henderson 2012, p. 5).

The limitation of the research on Gazprom's behavior is very high. The Rosner's book is not actual anymore, because the data which he uses for the analyses are out-of date. Pami Aalo, on the other hand, did not provide enough data to prove the idea of "personal interests" in Gazprom, which is understandable, because it is data for corruption investigation, and obviously it is not that easy to get it. For instance , he provides an example of the intermediary company, which was used for financial frauds, the company Itera without the references, which proves this fact (Aalo 2012). And according to Russian sources, this company does not have any connections with Gazprom. Another limitation of the works is using secondary sources, because Gazprom is a very closed structure. However, using secondary sources can misrepresent the analyses and finding

CHAPTER 2. GAZPOM IN PRINCIPAL-AGENT MODEL

In the second chapter Gazprom will be situated in the Principal-Agent Model. First, Gazprom's features will be identified comparing with the NOCs, which were defined in the literature review. In the second part, according to the criteria of Principal-Agent Problem, the interrelation of Gazprom and the government will be examined.

2.1 Gazprom – defining the actor

Background information:

“Gazprom is a global energy company basically focused on geological exploration, production, transportation, storage, processing and marketing of gas and other hydrocarbons as well as electric power and heat energy production and distribution. Gazprom Group possesses the world's largest natural gas reserves. As of December 31, 2011 the Group's A+B+C1 gas reserves (Russian classification) were estimated at 35 trillion cubic meters. With 15 per cent of the global gas production, Gazprom Group is the leader among the world's oil and gas companies. The Group produced 513.2 billion cubic meters of gas in 2011”. (Source: www.gazprom.ru)

Gazprom has certain features compared with state-owned companies. According to the literature review, state-owned energy companies were established as a tool to control natural resources. Other reasons of nationalization is no need of foreign investment and expertise after the industry was already developed, and common feeling in society that they do not get any benefits from “their” national natural resources when the private company is dealing with it (Marcel 2006, Stevens 2008).

Gazprom is different from these examples from the historical prospective, because initially it was a part of Ministry of Gas Industry of Soviet Union, then it was privatized and then nationalized back (“The History of Gazprom.” The RBC-news).

During the Soviet Union Gazprom was a part of the government. In 1989 the Ministry of Gas Industry was reorganized into the government gas concern “Gazprom”. Automatically

the former minister of gas industry was appointed as the Head of newly organized Gazprom. In 1992 during economic reforms Gazprom was partially privatized ("The History of Gazprom." The RBC-news).

After Collapse of Soviet Union Gazprom in 1992 it was privatized, and then after Putin's reforms in 2001 it was nationalized again. It is true for Gazprom, that it was nationalized again in order to strengthen state control, and also society support the idea of nationalization, because the privatization period produced oil and gas oligarchs ("The History of Gazprom." The RBC-news).

Table 1:

Evolution of Gazprom: shareholder structure (%)

	2000	2001	2002	2003	2004	2005
Government	38,37	38,37	38,37	38,37	38,37	49,11
Citizens	17, 68	16,07	15,06	14,03	13,32	13,32
Russian companies (Gazprom subsidiaries)	33,64	34,06	35,07	36,10	36,81	26,07
Foreign entities	10,31	11,50	11,50	11,50	11,50	11,50
Total	100	100	100	100	100	100

Source: Rosner, viii

From 2001 until 2003 Vladimir Putin started to reform Gazprom. Initially the gas industry reform was planned in order to attract private and foreign investment. But after few Putin's conflicts with Prime Minister Vladimir Kasianov, who initiated this reform and Kasianov's following resignation, the reform's objectives were changed. Essentially, the main objective of the "changed" reform was strengthening the state power over Gazprom. According to Table 1 the government's share was 38, 37 %, in 2004 and in 2005 already 49, 11%. In 2005 the state had 50% and one share (Martyanov 2011, Komersant). This means that the government can make all final decisions in strategic questions. The process of nationalization of Gazprom was easier than, for instance, the process of nationalization of oil sector, because Gazprom did not become a real private company, because of Soviet Union's past. In contrast, Yukos oil company was private, and nationalization was more difficult, including arrest of the owner and head of Yukos Michail Chodorkovskiy.

The nation supports the idea of nationalization, because the previous process of privatization was highly corrupted and criminalized. The initial objective of privatization in Russian Federation was to increase the competitiveness of economy and building up a free market economy. However, because of poorly organized process of privatization, people's illiteracy in financial questions, the high level of corruption and criminalization, the results of privatization were weak. The stratification of society was very high to very poor people and very rich, in fact oligarchs. That is why Putin's "reform" of the energy sector was supported by majority of people.

2.2 Gazprom in the Principal-Agent Model

In this part Principal-Agent Model will be applied to Gazprom. In the relationship between the government and Gazprom the government assumed to be the Principal and Gazprom is the agent.

Analyses will be structured according to the criteria of Principal-Agent Problem, which were developed through the Principal-Agent Model: information asymmetry, controlling systems, risk sharing, nature of contract – behavior based or outcome based

2.2.1 Information asymmetry

According to the literature, information asymmetry is common in Principal- Agent behavior (Wood&Waterman1994 p.22-26) Using knowledge privilege The Agent can start to behave in its interest (Eisenhardt 1989, 61). Correspondingly, if the principle has information, then the agent is more likely to behave in the interest of the principle (Eisenhardt 1989, 61).

Gazprom, as an agent, has a knowledge privilege in production process, energy market, technologies, financial situation of the company, price-setting. However, the government has an access to that information through Board of Directors, Management Committee, Department Heads and through communication on all the levels of management.

There are 11 persons in Gazprom's Board of Directors. Seven of them are people with the background of working in the state bodies. From analyses of their biographies personal connections with Vladimir Putin can be identified; some of them worked in St. Petersburg with Vladimir Putin. Their background from the point of working in the state bodies and working with Vladimir Putin in St Petersburg Mayor Office will be presented below.

Table 2. Background of Gazprom's Board of Directors

Name	Working Experience in the state bodies	Relationship with Putin/ Personal Contact	City of born
Viktor Zubkov	Yes He has worked in the state bodies since 1992. Currently he is a First Deputy Prime Minister of the Russian Federation.	Yes In 1992 he worked as a Deputy Head of the External Relations Committee of the Saint Petersburg Mayor Office [with Vladimir Putin].	Sverdlovskaya oblast
Alexey Miller	Yes He worked in St. Petersburg Mayor's office from 1991 until 1996. In 2000 he was appointed as Deputy Energy Minister of the Russian Federation. Since 2001 he is the Chairman of the Management Committee, Gazprom.	Yes He worked from 1991 until 1996 in St. Petersburg Mayor's Office [with Vladimir Putin].	Leningrad [St. Petersburg]

AndreyAkimov	No	No	Leningrad [St. Petersburg]
Alexander Ananenko	No	No	Bashkir ASSR [Bashkir Republic]
FaritGazizullin	Yes He has worked in state bodies since 1987. From 1997 to 2000 he was the State Property Minister of the Russian Federation. From 2000 until 2004 he was Property Relations Minister of the Russian Federation.	No	Zelenodolsk, Tatar ASSR
Elena Karpel	Yes. She has worked in state bodies since 1967. From 1991 to 1992 she was the Deputy Chairman, First Deputy Chairman of the Pricing Committee of the Russian Federation Ministry of Economy. From 1992 till 1994First	No	Zelenodolsk, Tatar ASSR

	Deputy Chairman of the Russian Federation Pricing Policy Committee.		
Vladimir Mau	Yes He has worked in state bodies since 1992. Currently he is the Rector of the Russian Presidential Academy of National Economy and Public Administration.	No	Moscow
Valery Musin	No	Yes. He is Doctor of Law, Professor in Leningrad State University, Department of Law [Putin graduated from this Department]	St. Petersburg
Mikhail Sereda	No	No	Bryansk oblast [studied in St. Petersburg, worked there until 1999]
Igor Yusufov	Yes. He worked in state	No	Dagestan ASSR

	bodies since 1991. From 2001 till 2004 he was an Energy Minister of the Russian Federation.		
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(Source: www.gazprom.ru)

From these data can be concluded that 7 from 11 persons in the Board of Directors worked previously in state bodies, moreover, three of them has a direct relationship with Vladimir Putin, because they worked together with Putin in St. Petersburg.

Correspondingly, these people are most likely to represent interest of the state in Gazprom, not business interest of Gazprom. The information asymmetry is limited because these people are likely to transfer real and complete information to the government.

Analysing the biographies of members of the Board of Directors in 2006 Rosner emphasized: “Both the Board and Management Committee strongly reflect the friendships, ties, and

relationships developed by the Russian president over his own career in the KGB and those relationships forged during his tenure spent in St Petersburg, both as a student and political appointee” (Rosner 2006, p.31). Interesting to notice, that for the long period Medvedev also was a member of the Board of Directors (Rosner 2006, p.31).

According to the data on the official web-site of Gazprom, among the heads of departments fewer people with long-term work experience in state bodies and fewer people who worked with Putin, than in the Board of Directors and Management Committee. It is

logical, because these positions need people with experience, expertise and education in energy sector. However, the government solves the informational asymmetry problem by setting the advantageous motivation system.

2.2.2 Motivation system

The motivation system is very specific. Salaries and bonuses are very high, and they have this money for the devotion and obedience, but not for professionalism or good results, like usually in business structures.

In 2008 during the financial crisis the size of bonus the Board of Directors' members, and members of the Management Committee increased by 15% compared with 2007 and accounts in 994 million rubles (Gazprom's Annual Report 2008). In 2009 the size of the bonus of members of Board of Directors increased by 21 % and accounts 1.203 milliard rubles (Gazprom's Annual Report 2009). A middle salary of Gazprom's top manager is 26 million rubles per year, which is around 2 million rubles per month (around \$ 62 400) in 2009. Middle size of bonuses per each is 26 million rubles, and bonus (2nd type) is around 2 millions per year. Above that top managers have benefits and "other payments" (Gazprom's Annual Report 2009)

However, top managers' compensational package is large for loyalty and for achieving business plans. Partner of consultancy company Konsultburo Stavka, HR expert with 15 years of experience of working in Russian energy companies Nadezhda Ageeva says " In fact, top managers of Gazprom are not management in common notion of this word, but they are vicarious agent. And they are associate themselves with the state more, then with

Gazprom as a business structure. Correspondingly, top management of Gazprom is paid not for the results, but for the loyalty” (Ageeva, May 2012)

These features of motivation system let the government have loyal people in Gazprom and, correspondingly, to own necessary information without misrepresentation or delay.

Above that, the representatives of the government, usually specialists of the Ministry of Energy of Russian Federation regularly communicate with managers of Gazprom on meetings and conferences.

Gazprom’s deputy head of the Department for Relations with the Russian Federation Authorities Vladimir Shemyakin said: “Communication with the government is multilevel and incessant”. Both sides, we (Gazprom) and government initiate the meetings. Depending on the issue, which we are going to discuss, the government’ representatives or our managers prepare the agenda. Usually we communicate with Ministry of Energy of Russian Federation. Certainly, first persons are also regularly communicate on most important and strategic issue. In addition, Gazprom has offices almost in all regions of Russian Federation, where the state representatives also constantly communicate with local Gazprom office” (Shemyakin, May 2012) .

In conclusion, the information transfer between the state, as a principal, and Gazprom as an agent is well-organized, and the principal has all necessary information without misrepresentation, correspondingly, and the Gazprom is likely to behave in the interests of the state .

2.2.3 Controlling systems

According to the literature on the Principal-Agent Model the Agent is likely to shirk when the level of uncertainty between principal and agent is high (Mitnick 1980). That is why the Principal implement controlling systems such as budgeting systems, reports, board of directors (Eisenhardt 1989, p.60) If controlling systems are implemented and well-functioned, then the agent is more likely to behave in the interests of the principal (Eisenhardt 1989, p.60).

Activities of Gazprom are regulated by the law. There are few Decrees of the President of Russian Federation, and Government Decrees, which regulate reform of Gazprom, governing of the state share, selling Gazprom's share:

1. The Decree of the President of Russian Federation which regulates the reform of the natural monopolies from 28 April 1997 N 426 "About Basic provisions of structural reform in spheres of natural monopolies".
2. The Decree of the President of Russian Federation which regulates governing of the state share from 12 May 1997 N 478 "About measures for ensuring public administration on the share of the Russian company "Gazprom" fixed in a federal property".
3. The Decree of the Government of Russian Federation from 7 August 1998 N 901 "About measures for ensuring implementation of the share which is a federal property of Gazprom".
4. The Decree of the President of Russian Federation from 25 July 1998 N887 " About the government share of Gazprom"

Another Government Decree regulate the prices on gas “About government regulation prices and tariffs on gas” (N 1021 from 29 December 2000).

The federal agency, which is the Federal Tariff Service of Russian Federation, was established to control implementation of this law and carrying out. Every year they set normative (standard) acts for tariffs in certain regions, for the certain pipelines, for the citizens and for business structures.

Gazprom’s deputy head of the Department for Relations with the Russian Federation Authorities Vladimir Shemyakin also pointed out: “Activity of Gazprom is strictly regulated. There are relevant laws and bylaws” (Shemyakin, May 2012).

Under this law regulation for Gazprom it is difficult to find a loophole, in order to behave in its own interest if it contradicts the law. Certainly, for the violation of the law criminal and administrative liability threatens.

Reporting system

On the web-site of Gazprom annual and interim reports since 1998 till 2011 can be found: Annual Report, Annual Financial Report, Ecological report, financial statements according to IFRC (International Financial Reporting Standards), quarterly interim reports. Above these published documents Gazprom’s deputy head of the Department for Relations with the Russian Federation Authorities Vladimir Shemyakin described, that certain the indicators were developed and implemented in Gazprom, which allow to analyse activities and results of Gazprom” (Shemyakin, May 2012).

Boarding system and Motivation system as tools of control

Boarding system and motivation system, which were discussed in the previous section as tool to avoid information asymmetry, at the same time tools of control as well.

On the one hand, Boarding System is an instrument to organize good information transfer, on the other hand, obviously, it is a tool of control. As it was identified, 7 from 11 members of the Board of Directors with background in working in the government structures or with the personal direct relationship with Putin.

Another point, is that the managers of Gazprom are under control, because they realize that the benefits, which they get in Gazprom are higher than the risk to behave in self-interest way. There is a clear understanding between the management, that if they loose this job, there are not other options to have the same large compensation package.

Analyses shows that the government, as a principal, implemented certain tools, such as laws, reporting system, boarding system and motivation system, to control Gazprom, as an agent. The controlling systems are well-functioning that is why Gazprom is likely to behave in the interests of the government.

2.2.4 Behavior-based or Outcome- based nature of contract

The Literature suggest that the nature of contract also influence the character of the relationship between the principal and the agent. With the high level of uncertainty the behavior-based contract can be more effective. However, behavior not necessarily correlates

with the outcome (Eisenhardt 1989, p.61). In the case of Gazprom this information is closed. During the interviews I tried to investigate this question, however the I did not find the clear answer on this issue, because in practice this distinguish is very uncertain. On the one hand, Gazprom's deputy head of the Department for Relations with the Russian Federation Authorities Vladimir Shemyakin said that there are a lot of indicators, which assess the results (Shemyakin, May 2012). However Senor energy expert from state-owned energy company said that in practice it is very difficult to access the nature of the contract between the Agent and the Principal. (Interview May 2012)

In conclusion, there is no clear evidence to examine this criteria on the case of Gazprom.

CHAPTER 3. COMPLEMENTED PRINCIPAL-AGENT MODEL

From evaluating Gazprom according to the criteria extracted from the Principal-Agent Model, we got to know that there is no conflict between the Principal -the government, and the Agent – Gazprom: there is no information asymmetry, well-functioning controlling system. It can be concluded that Gazprom behaves in the interests of the government. However, according to the interviews this picture does not completely reflect reality. Data from the interviews show that the actors are not only Gazprom and the government, but the group of influential people, who make the decisions. Moreover, this group of decision-makers “hires” the Agent – Gazprom. That means that the actor, which according to the literature was identified first as a Principal, which is the government, is not the real Principal. To understand the Gazprom-Government relationship through the Principal-Agent Model, the Model should be complemented. In the case of Gazprom the Principal is a group of decision-makers, not the government as usually assumed.

The first point which I drawn from the interviews is that in the eyes of Gazprom’s managers the actor, which sets the rules and makes the decisions is not the government as such, but grouopeople. , such as Vladimir Putin, Dmitry Medvedev, Alexey Miller During the interviews with Gazprom’s managers, if you ask the representatives of Gazprom about their relationship with the government, in their answers they do not talk about the government or the Ministry of Energy, but about Vladimir Putin, Dmitriy Medvedev. Alexey Miller. Deputy head of the Department for Relations with the Russian Federation Authorities Vladimir Shemyakin said: “Alexey Borisovich [Alexey Miller], Dmitry Anatolyevich [Dmitry Medvedev, Vladimir Vladimirovich [Vladimir Putin] worked together in St.

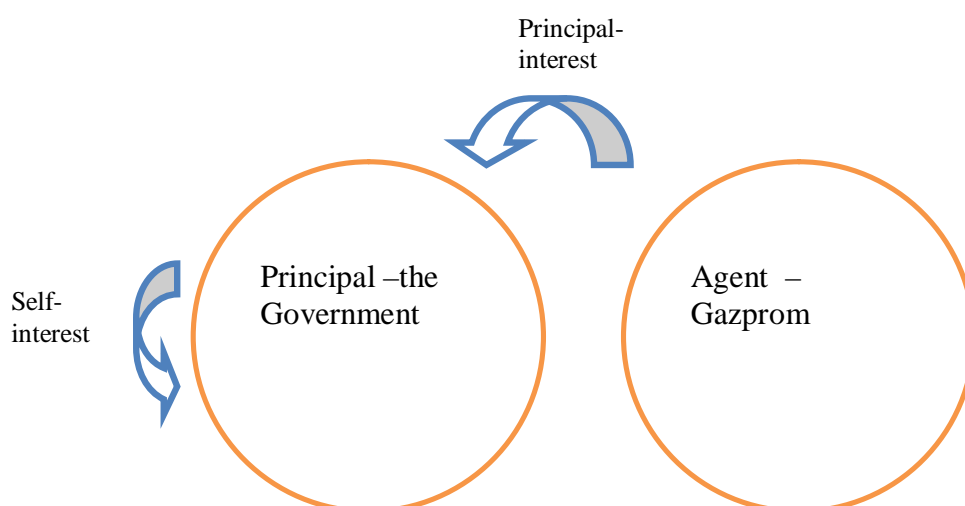
Petersburg. All the decision on the fundamental issues are made at level of personal relationships” (Shemyakin, May 2012). This quote gives a clear understanding that the Principal is this group of decision-makers.

The second point, the governing bodies were set up to meet “western expectations” and, in fact, they exist as a formality. Important documents, such as Strategy and Mission of Gazprom were published to fulfill formal rules, which an energy company or any industry should have, but in fact, they are not implemented. They do it to meet “west expectations”, in a sense of how the energy company should look like, and to show that the system of governing is “civilized”. Deputy head of the Department for Relations with the Russian Federation Authorities Vladimir Shemyakin said that shareholders gather once a year for a general shareholders meeting. But this meeting is a formality, and in real they do not participate the decision-making process. He added: “Certainly, the rituals should be observed. If you go on the web-site of company, Strategy and Mission can be found, according to the benchmarks. But in real, all decisions are made by one person. Undoubtedly, the system of interaction exists. But in real, what they said, that will be done”. In essence, this group of people makes the decisions, not the government. Senior energy expert said “Group of special interest exist, the government do not exist. This group spread between Gazprom and the government, in this way for them it is easier to govern. Gazprom for this group of interest is a tool”.

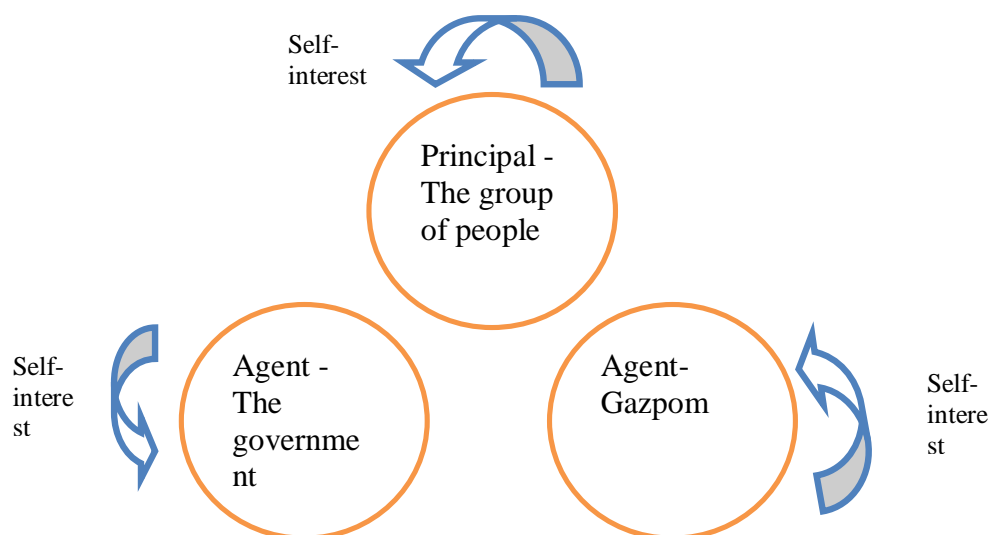
This idea leads back to the definition of Principal-Agent Model, which says that “the Agency theory describes an agency relationship, in which one party, which is the principal, delegates work to another, the agent, who is supposed to do this work”(Eisenhardt 1989). The theory suggests taking the government as a Principal and the national energy company as an

Agent. However, this assumption is wrong for Gazprom, because in this case the Principal is the group of people, not the government. This “new picture” is different from the one, which was made from Chapter 2 analyses, where, as theory suggests, the government was taken as a Principal, and Gazprom as the Agent (see Graph 1). For Gazprom the Principal- Agent Model should be complemented. In this case, as we conclude, the group of people – decision-makers is the Principal, The Gazprom is the Agent and the government is the Agent, as well (see Graph 2).

Graph 1.”Classical” Principal-Agent Model in the case of Gazprom



Graph 2. Complementated Principal-Agent Model for the Gazprom’s case



In conclusion, the classical approach of using Principal-Agent Model to understand Gazprom's case does not give a complete picture. The Principal-Agent Model should be complemented: the group of decision-makers is the Principal, and the Gazprom and the government are the Agents. Correspondingly, Principal-Agent problem is between the group of decision-makers and Gazprom.

CONCLUSION

This thesis aimed to answer the question, is there the Principal-Agent Problem between the Russian government and Russian energy company. In the thesis the criteria were drawn from the Principal-Agent Model to examine if the relationship between the government and Gazprom can be characterized as Principal-Agent Problem. The analyses shows there is a Principal –Agent relationship between this to actor with solved agency problem: there is no information asymmetry, and the Agent is under the government's control through the well-functioning control systems. However, through the interviews the other pictures were learned. The third actor, which is the group of decision-makers, was identified. This actor has characteristics of the Principal. That is why the assumption drawn from the literature review was wrong. On the case of Gazprom it was found that Principal-Agent Problem can be used for Russian case, but with complement. The assumption that the Principal is a government is wrong for the case of Gazprom. The Principal is the group of decision-makers, and the government and Gazprom are the Agents. This is the main finding of the thesis: for the countries like Russia theory should be complementing, by changing the Principal from the government to the group of decision-makers.

This is a new complemented Principal- Agent Model, which leads the research to other questions: the Principal-Agent Problem can be between the group of decision-makers and both of the Agents. Another point is that these two agents also communicate with each other, most likely they have common interest or probably they compete with each other. But this is the beginning of new analyses.

Cases similar to Gazprom where the Principal is the group of decision-makers can be also analyzed in further research using the state capture theory, which refers to influence decision-making process of legislative and executive bodies by individuals both in public and private sector in order to secure personal benefits (World Bank, EBRD). From this point of view the issues of legality and corruption should be also considered.

The analyses shows that the relationship between the Russian government and Gazprom can be considered as a Principal-Agent relationship with solved agency problem. The government solved information asymmetry, through implementing motivation system and placing people with the background in working in state bodies or with personal direct relationship with Vladimir Putin. Even though, in the Russian culture it is possible to “avoid” the law, beside the law system and controlling system the government creates the conditions where rationally it is more advantageously to follow the rules, than to behave in a personal interest.

ANNEX 1. QUESTIONNAIRE

Может ли быть ситуация, что у собственника и государства разные цели?

Can be the situation when the government and Gazprom has different goals?

Может ли Газпром действовать в своих интересах? Если это противоречит интересам государства?

Can Gazprom behave in it own interest? What if it contradicts the government's interest?

Как часто Вы встречаетесь с государством?

Кто организовывает встречи? Кто готовит вопросы?

How often do you meet with the government? Who organize the meetings? Who prepare the agenda?

Как Газпром реагирует на «политические» запросы?

How Gazprom reacts on "political" tasks?

Как устанавливается план? Задачи?

Who set the plan and goals?

Что бывает за невыполнение? Если это грозит рентабельности?

What will be if Gazprom could not make the plan? What if the plan set by the government can lead Gazprom to loose profitability? How Gazprom would react on such a plan?

Какие гарантии дает государство? Что если компании будет грозить риск банкротства?

Does the government give financial grantees?

Как государство следит за поведением Компании? Как государство следит за результатами?

How the government control the behavior of Gazprom? How the government control the results?

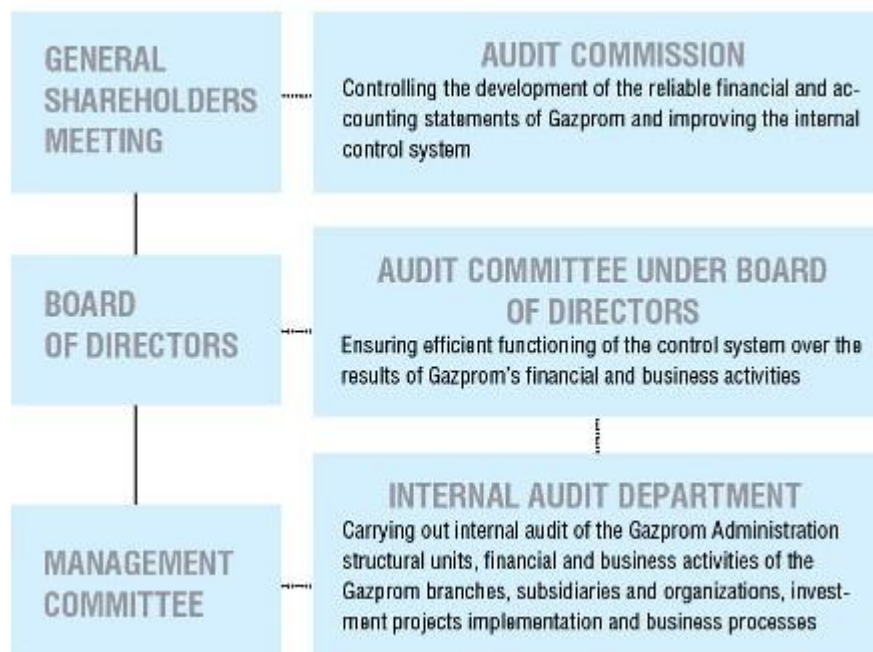
Что такое интересы Газпрома? Есть ли личный интерес? Влияет ли это на деятельность?

What are the goals of Gazprom? Is there a private interest among Gazprom's management?

Is that influence the behavior of Gazprom?

ANNEX 2. STRUCTURE OF GAZPROM'S GOVERNING BODIES AND SYSTEM OF INTERNAL CONTROL

(Source: www.gazprom.ru)



“The Audit Commission comprised of 9 members is elected by the annual General Shareholders Meeting to control Gazprom’s financial and business activities. The Audit Commission authority is outlined in the Federal Law on Joint Stock Companies as well as in Gazprom’s Articles of Association (with regard to the issues that are not covered by the Law).

The Audit Committee under the Gazprom Board of Directors is established pursuant to the resolution of the Gazprom Board of Directors. Its major task is to evaluate nominees for the

post of Gazprom's auditor, assess the audit findings as well as efficiency of Gazprom's internal control procedures and make suggestions for their improvement.

In 2010 the internal audit service of Gazprom was reorganized. As a result, the Internal Audit Department was created which operates in line with the major principles of international standards for internal audit.

Currently, the functionally centralized model of managing the internal audit system is being established in Gazprom. The advantage of this approach compared to the decentralized model (accounting that the Group is a vertically integrated company running various businesses) lies in strengthening the control over financial and business activities of Gazprom's subsidiaries. In addition, the internal audit units will be more independent of the executive management as well as an opportunity to use the integrated concept of the internal audit within the Group will become more realistic" (Source: www.gazprom.ru)

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