

**DILEMMAS OF MEDIUM-SIZE BUSINESS AS AN INDICATOR OF
RUSSIA'S ECONOMIC POLICY DIRECTION**

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ABSTRACT

Russian officials, entrepreneurs, and scholars of the Russian economy often stress the importance of the development of small and medium-size businesses for diversification of the economy and economic growth. It is believed that Russia's long-term economic success is based on the growth of medium-size businesses as much as on the success of its top corporations. To assess the situation in the medium segment of the economy, I study strategies and prospects for growth of medium-size companies in several Russian regions and their interaction with state-controlled companies and with federal and regional state bodies. The thesis features four case studies focusing on one of the most innovative and lucrative sectors of the economy – machine-building for oil and gas industry, automobile manufacturing,

metalworking, and construction. The study of medium-size (second-tier) businesses is intended to both explain decision-making in medium-size companies and contrast it with decision-making in state companies and by state authorities. The case studies are also intended to serve as a litmus test for the general direction of the Russian economy in late 2000s.

The fifteen surveyed companies and other companies featured in case studies are primarily concentrated in the Volga-Urals industrial region of Russia. The study is mostly based on a research trip to the region conducted in spring of 2008. It is based on confidential interviews with a number of business and state decision-makers in the region and on publicly available information in Russian-language business newspapers and magazines.

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INTRODUCTION

Role of the “Second-Tier” Businesses in the Russian Economy

Russian officials and scholars of Russian economy often stress the importance of the development of small and medium-size businesses for diversification of Russia’s economy away from the majors-dominated commodities extraction sector towards higher value-added and innovative sectors. They argue these sectors would constitute a strong base for the country’s long-term sustainable economic growth.¹ In reality, however, the performance of Russia’s economy and overall trends are conventionally analyzed and evaluated based on observations of some of its largest state and private corporations.² Indeed, several dozen Russian

¹ President Putin and other state officials occasionally address the issue of the development of medium-size business in Russia. Statements on the importance of the issue have been consistent from the beginning of President Putin’s first term to the last months of his second term. See, for example, <http://www.kremlin.ru/text/appears/2001/12/28753.shtml> and <http://www.kremlin.ru/text/appears2/2008/03/27/162895.shtml>. Numerous Russian and foreign organizations also actively promote the development of small and medium business in Russia. See, for example, Russian Organization *Opora* and US-based CIPE at www.opora.ru and www.cipe.ru.

² Alternatively, economists and analysts tend to focus on the size of the small business sector, and draw conclusions on Russia’s economic performance and diversification based on the overall share of small businesses in the economy. However, the ratio of large-to medium-to small business alone does not adequately describe the state of the economy and its progress towards the market.

companies active in the sector of mineral resources extraction and processing, as well as energy generation, metals, transport, telecom, armaments, and machine-building, generate the bulk of Russia's wealth and make up the lion's share of the country's GDP. With growth of global commodity prices, oil and gas exports alone constitute about 70 percent of the country's export revenues.³

Small businesses in Russia have traditionally played in the minor league. While an increase of the small businesses' share in the economy is highly desirable, it is arguably not crucial to Russia's long-term global competitiveness and domestic macroeconomic stability, particularly as long as large corporations continue to generate high profits and bear a high tax and social burden.⁴ Large business operates and is regulated at both the national and international level. Small

³ See, for example, Fiona Hill, Clifford G. Gaddy, Igor Danchenko, and Dmitry Ivanov, "Energy Security Series: The Russian Federation," The Brookings Institution, October 2006, Online at <http://www.brookings.edu/reports/2006/10russia.aspx>

While the total value of the mineral resource sector shrank with a sharp fall of commodities prices after completion of initial research phase for this paper, the mineral extraction sector's relative contribution to the Russian economy declined only marginally.

⁴ Only 2.5 percent of Russians officially earn their income through small entrepreneurial activities. Source: http://www.itogi.ru/Paper2008.nsf/Article/Itogi_2008_04_06_00_51114.html

business, in contrast, is largely subject to regulations of local and regional administrations, since its activity is usually limited to a city or even smaller areas.⁵

Medium-size business, on the other hand, is often represented by quite large “second-tier” companies operating at the regional level in Russia, across its regions, as well as abroad. Thousands of these “non-top-400” companies are successful and quite innovative and profitable.⁶ Moreover, many of them are truly market-oriented: they were established, survived, and successfully operated in a free or partially free market environment for almost two decades. The future economic success of the Russian economy lies as much with effective and market-oriented second-tier medium-size enterprises, as by its traditional large corporations and natural monopolies. The latter are only complemented with entrepreneurial activity at the

⁵ The role of small businesses is often exaggerated. See, for example, The Center for International Private Enterprise website at www.cipe.org and Russian elected President’s statements on the importance of small businesses at <http://www.fcinfo.ru/themes/basic/materials-document.asp?folder=4005&matID=173451> Internet search for the phrase “medium business” in the Russian segment of the Internet returns about 300,000 hits, while small and large businesses return about 7 and 1.6 million, respectively.

⁶ Expert Rating Agency puts together an annual rating of “400 Leading Companies” (Expert-400). All other Russian companies are considered medium or small-size. See <http://www.raexpert.ru/ratings/expert400> In this work I use the Expert definition of medium business.

local and regional levels. The economic performance and strategy of medium-sized businesses are worth studying in order to understand trends in Russia's economy.

CHAPTER I

What is a Medium Business?

With no direct connections to the federal government and largely unconstrained by the arbitrariness of regional authorities, medium businesses have become an increasingly significant and growing force in twenty-first century Russia's economy. Russian medium-size business can be best described as 'neither small nor large.' On the one hand, the medium business has not been large enough to establish a special relationship with federal and sometimes even regional governments in ways major Russian enterprises and state-affiliated companies have. On the other hand, medium business share is already too large and visible to navigate exclusively in Russia's shadow economy in ways it often did in the 1990s.⁷ Instead, medium business has established itself as a market-oriented and state-independent tier of the economy and remains such in 2008 and into 2009. Its establishment, functioning, and growth take place not so much due thanks to state institutional support or favorable economic conditions, as *in spite of* the

⁷ "Ekspert: Luchshiye materially: Srednii Bizness," *Expert*, No 3, 2007, p. 5.

development of the Russian legal system, state policies, and the overall economic environment in the country. Moreover, to be truly successful in market economy, medium business had to effectively navigate in the so-called ‘*virtual economy*’ of the 1990s, which was characterized by informal mechanisms of enterprise adaptation and survival in a barter-dominated and cash-strapped lawless environment. In later years, in the aftermath of the August 17, 1998, Russian default, it had to graduate from the virtual economy by adapting to a new, more market-like economic environment.⁸ However, the reformed, market-oriented, and often innovative medium business continues to operate under great pressure from various actors – state authorities, large corporations, and the unreformed ‘virtual’ medium businesses. In order to survive and grow, it has to continue to take into account the unwritten business rules of the game that these other larger economic and political actors create.⁹

The official Russian definition of a medium business, according to the federal law “On Development of Small and Medium Entrepreneurship in the

⁸ The term virtual economy was coined by two American economists Clifford G. Gaddy and Barry W. Ickes. See chapter 1 in Clifford G. Gaddy and Barry W. Ickes, *Russia’s Virtual Economy*, Brookings Press, 2002.

⁹ These unwritten rules include various corruption schemes, transfer pricing, unfair bidding for state contracts and allocation of resources, preferential taxation regime for state enterprises, and others.

Russian Federation,” describes it as a medium company (enterprise) that employs between 101 and 250 persons. However, this is an obsolete strictly legal definition that does not help estimate the size of the medium enterprise sector of the Russian economy. Number of employees is but one characteristic of a medium enterprise. In modern industrial and post-industrial economies there are numerous examples of medium enterprises that can be considered small by the size of their workforce, but medium-size by a number of other parameters. Other important characteristics include market capitalization, annual volume of production and turnover, scope of territorial presence, innovative and growth potential, and others. As of 2007 – the last year data was available for this project – Russia’s medium (and small) business sector created 44 percent of value in the Russian economy, which is almost as much value as large business, which creates 56 percent.¹⁰ Russia’s medium business is characterized by great dynamism: while many businesses have been shrinking and disappearing, about 7 percent of the enterprises grew at an annual rate of 70 percent between 2005 and 2007, with many growing at a rate of 100 percent or more. According to estimates by the Russian State Statistical Service (*Rosstat*) and one of the most credible Russian rating agencies, the Expert Rating Agency, in 2006 there were 14,912 large and medium enterprises in Russia that had existed for at least

¹⁰ Estimates of the Russian State Statistical Service and Expert Rating Agency.

three years and earned no less than 300 million rubles in 2006.¹¹ With the top 400 large Russian enterprises excluded, the number of remaining enterprises is 14,512.¹² These enterprises are visible in their niches of activity in the regions, yet are not very large. The ceiling of their highest value bracket is about 350 million US dollars, which roughly corresponds to the Forbes Agency's definition of a medium business.¹³

As previously noted, the Russian economy is dominated by large corporations in extractive, metallurgical, arms manufacturing, and a few other industries. Medium enterprises generate a large share of value in various other sectors of the economy. According to Rosstat, the share of medium businesses is about 80 percent of the total value created in light industry, food industry, and furniture manufacturing. Medium businesses' share in construction is about 77 percent, machine-building – 61 percent, chemical and other non-ferrous production – 82, and science and education – 73 percent. Medium business dominates the

¹¹ Roughly 12.5 million USD (average 2007 exchange rate).

¹² Expert Rating Agency's Methodology used for "Expert-400" and "Expert-Medium Business" Ratings. <http://www.raexpert.ru/ratings/expert400>

¹³ Forbes and other European and US agencies usually do not separate the 'small and medium enterprises' category into small and medium. However, they for the most part estimate the number of medium businesses, as the number of truly small businesses is huge and it fluctuates with the economy.

agricultural sector, capturing almost 100 percent. Thus, the share of medium enterprises in the Russian economy is very large compared to a number of European countries and the United States, where the ratio is skewed towards both ends of the spectrum – large and small enterprises.¹⁴

A typical medium Russian business around 1998, the time of the Asian and Russian economic crisis, was an enterprise isolated from other enterprises in its sector. It was not particularly innovative and did not develop its own brands of products and services. Moreover, it usually did not control its supply of inputs or sell its products without intermediaries. In certain sectors, for example, in machine-building, it seldom provided after-sale service and maintenance for its products. Finally, it often lacked *long-term* strategic vision, because it was mostly preoccupied with survival in the chaos of the virtual economy. By 2008, medium businesses not only grew at an unprecedented rate, but also modernized and expanded their fixed assets, developed trademarks and brand names, as well as set up distribution and service centers. Moreover, modern medium business tends to reinvest a large portion of income in growth and expansion, including into areas of research and innovation. Yet, the outlook for the long-term development of medium

¹⁴ In the US, for example, the share of medium business in the country's GDP is only about 13 percent. Large businesses' share is about 53 percent, and the remaining 33 percent is small businesses. "Expert-Medium Business" Ratings. <http://www.raexpert.ru/ratings/expert400>.

business in Russia may not be as optimistic as the 2007 data may suggest. It is unclear whether medium business will constitute the backbone of the new Russian economy and contribute to formation of a larger middle class the way it does in most Western economies. Alternatively, it could lose its share of the economy. The major challenge to the continuous success of medium business is various forms of direct and indirect state intervention.¹⁵

Hypothesis and Goals of Research

This thesis focuses on the development of medium-size (second-tier) enterprises in the Russian regions at the end of Russian President Vladimir Putin's second term in office (2007-2008) and the beginning of Dmitry Medvedev's presidency (2008-early 2009). It studies a number of enterprises, particularly their interaction with state corporations and state and regional governments. Once tracked down and systematized, their interaction is used as a *litmus test for the general direction of the Russian economy*.

¹⁵ Indirect intervention takes place via state corporations, state-affiliated, or 'state-friendly' private enterprises.

Essentially there are two general trends that characterize developments of the Russian economy. The first trend leads towards greater direct state participation in the economy. Such participation is conducted through policies of acquisition of successful medium enterprises by their larger state-affiliated and state-owned counterparts. Acquisition often results in a decrease of the degree of enterprises' independence and/or market effectiveness and efficiency of operations. The second trend is that of a transition of the Russian economy towards a more pronounced laissez-faire system. In it medium-size enterprises have space to organically grow through innovative efforts, such as development of long-term business models and strategies, introduction of new management and governance schemes, research and application of new technologies, and some others. **Behavior and interaction of various economic actors will largely determine the future role of medium enterprises in the Russian economy.** In order to determine the direction of economic development of medium business and thus observe trends of economic policy of the country as a whole, I apply the '*r-d space*' model to several case studies of medium and large enterprises.

**Competitiveness of Medium-size Business:
the ‘*r-d space*’ model**

Regardless of size, enterprises are usually evaluated exclusively by their market performance. Under normal market conditions they can succeed or fail, develop and grow, or go out of business. In respect to Russia, the term ‘market’ is hardly applicable the same way it is to other industrialized (capitalist) economies. Russian enterprises do not move towards their market success in a Russia-specific economic environment in a linear evolutionary fashion. Legacies of Soviet and early post-Soviet economic breakdown and transition remain plentiful. In this complex and largely non-transparent environment, enterprises often have to choose *a particular dimension* in which they intend to compete.

Russian enterprises operate in two major dimensions – *objective* and *subjective*. The objective dimension represents a pure market environment. Companies need to be effective and, preferably, innovative to survive market competition and thrive. The subjective dimension, in contrast, represents a non-market environment, in which success depends on enterprises’ ability to enter into special relationships with state and local authorities, as well as into various non-market arrangements with other enterprises. In other words, enterprises may choose

to operate in a favorable regime of state paternalism, by which enterprises may receive subsidies, tax offsets and arrears, government contracts, and other forms of support. In return they may pay bribes and kickbacks from awarded contracts and supported deals, sponsor social programs at all levels of government, etc. To a certain extent, this simple approach is true for every market and non-market economy. However, in Russia this is businesses' reality and an across-the-board practice. Scrutinizing Russia's enterprises' regimes of operation and their mechanisms is critical to understanding the Russian economy.

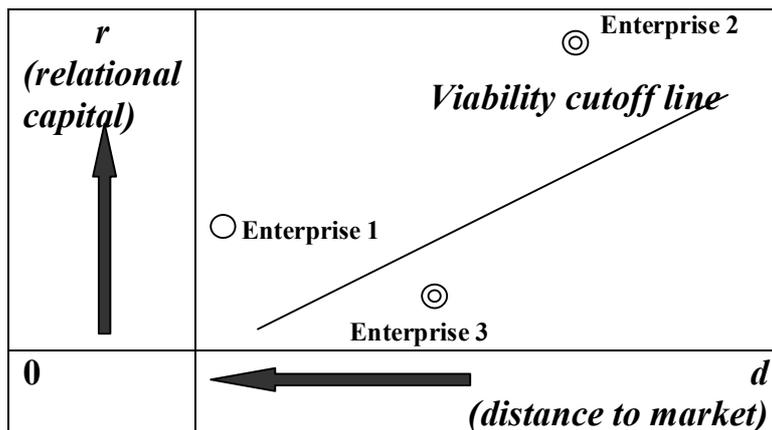
An alternative and more detailed understanding of the objective-subjective dichotomy in Russia was developed by Clifford G. Gaddy and Barry W. Ickes, who introduced a concept of *r-d space* in their works on Russia's economy of the pre- and post-1998 crisis period. Their concept is based on a particular understanding of the extent to which market and non-market, or objective and subjective forces, interact in the Russian environment and shape enterprise behavior. In their so-called 'r-d space' model, 'd' stands for a '*market distance*' dimension and 'r' stands for a '*relational capital*' dimension.¹⁶

¹⁶ See pp. 49-65 in Gaddy and Ickes, 2002.

The 'r' dimension represents enterprises' viability in terms of so-called 'relational capital', or special informal ties with political and economic elites, who in turn provide certain 'protections' to enterprises. This protection guarantees survival and even growth of enterprises by ensuring their existence and growth divorced from forces of the market... or even despite them. Indeed, many enterprises that are uncompetitive and poorly structured for market conditions can survive *only* by setting up quasi-market or non-market conditions and mechanisms. Such conditions can only be set up with the help of various authorities; in other words, with the help of these enterprises' large relational capital vis-à-vis these authorities. The larger this capital, the longer can an ineffective enterprise survive in an artificial non-market or quasi-market environment. In Gaddy and Ickes' model, 'd', or distance to market, estimates the extent to which an enterprise is expected to be viable under normal market conditions. A market economy operates by a set of globally-recognized formal principles, whereas relational capital is

always informal in its nature.¹⁷ The following Figure 1 demonstrates the basic layout of *r-d space*:¹⁸

Figure 1. *r-d space* and the viability curve



An enterprise can only survive by having some minimal ‘r’ and ‘d’. Different combinations of ‘r’ and ‘d’ can be sufficient for survival. In the figure above, Enterprise 1 has low ‘d’ and some ‘r’, while Enterprise 2 has very high ‘r’ and very high ‘d’. Enterprise 3 has a small ‘r’ and therefore much closer to the market than Enterprise 2. However, its ‘r’ is too low for survival in the Russian

¹⁷ Paradoxically, informal mechanisms can also constitute a semblance of a system. Those who know how to operate in it can be successful. For a more detailed discussion on the virtual economy and the r-d space, see http://www.brookings.edu/articles/2008/02_virtual_economy_gaddy.aspx and <http://econ.la.psu.edu/~bickes/evolution.pdf>

¹⁸ Slide courtesy of Clifford G. Gaddy. Reproduced based on Gaddy and Ickes, 2002, p. 85.

economy. Enterprises 1 and 2 have the minimal values of 'r' and 'd' to survive in the existing environment. In *r-d space* they are schematically placed above the so-called viability cutoff line. Enterprise 3 is below the viability line and cannot survive. The viability cutoff line can shift, depending on political or economic conditions. To remain above it, enterprises always have to adjust their position in *r-d space*.

The *r-d model* is critical for this study. It helps assess the real conditions under which medium businesses in Russia operate and explain the dynamics of enterprises' development. Most medium businesses usually do not have special relations with the federal government, unlike their large counterparts, and they may or may not have special relations with regional authorities and other government bodies. Therefore, they need to balance their 'r' and their 'd' to remain viable under conditions of Russia's transition economy, in which informal patronage often remains a more valuable asset than the enterprise's market competitiveness alone. Whereas all companies operate in an *r-d space*, some choose to balance the two dimensions, while others tend to gravitate towards low 'd', or normal market environment (shortest distance to normal market conditions, closest to zero in Figure 1), or towards the high 'r' (highest relational capital) that ensures that their survival through non-market arrangements in a market environment. Success of medium enterprises can be attributed to either innovations in their market behavior

(unique or innovative product or business strategy) or to administrative support from state authorities, in other words, due to their low 'd' or high 'r'. A combination of low 'd' and high 'r' is highly desirable in Russia and, arguably, across the world, but is seldom achieved in the Russian economy as the following case studies demonstrate. Once an enterprise crosses over a certain point in its 'r' and 'd' balance, it either becomes a viable market-oriented enterprise (low 'r' and low 'd') or a non-market enterprise heavily reliant on its relational capital (high 'r' and high 'd'). As the following study will demonstrate, maintaining the right balance of 'r' and 'd' and not going over an enterprise's viability curve (shifting towards great value of 'r' and great value of 'd') is a major challenge for medium market-oriented enterprises operating in a quasi-market Russian environment.

CHAPTER II

State and Private Oil Industry Equipment Manufacturers in the Volga-Urals Region (Competitiveness, Innovation, Business Strategy)

Enterprises featured in this study include fifteen “second-tier” or medium Russian businesses in Perm’, Izhevsk, Kazan’, and Nizhniy Novgorod. All surveyed companies are successful manufacturers of equipment and generators of new technology for the Russian oil and gas industry. The only exception is the famous Gorky Automobile Plant GAZ – the largest private domestic car manufacturer in the country since the state arms manufacturer Rosoboronprom took over Volzhskiy Automobile Plant (VAZ) in 2006. Some of the enterprises are old Soviet plants that were privatized in the 1990s and subsequently modernized, while most of them are new successful and growing companies established after the breakup of the USSR on the basis of bankrupt Soviet enterprises or built from scratch. Enterprises are divided into two groups: those that were visited by the author and represented in the survey and those that were not visited by the author, but were studied in order to broaden the context of the economic environment in Russian regions and *r-d space*

in particular.¹⁹ The survey sets the background for the four case studies presented in the following chapter.

Table 1. Surveyed Enterprises *

1.	OAO "Aviadvigatel", www.avid.ru
2.	GAZ Group, Gorky Automobile Plant, http://www.gaz-company.com/default.aspx
3.	ZAO "Iskra-Energetika", www.iskra-energy.ru
4.	Group of Companies «Izhdril», www.izhdril.ru
5.	OAO "Izhneftemash", www.izhneftemash.ru
6.	OAO "Krasnokamskii mashinostroitel'nyi zavod"
7.	OAO "Motovilikhinskiye zavody", www.motovilikha.perm.ru
8.	OAO Kh K "Privod", www.ngs-privod.ru
9.	JSC NIIneftepromchim (SNPCH), www.neftpx.ru
10.	AO "Novomet-Perm", www.novomet.ru
11.	LLC "Sinergiya-Lider", www.sinlid.ru
12.	OOO "NPP "SpetsOborudovaniye", www.specudm.ru
13.	ZAO "TransGazKapital"
14.	TsSMRneft', Academy of Sciences of the Republic of Tatarstan, www.csmr.ru
15.	OAO "UralSibSpetsStroy"

¹⁹ For comparative purposes I also study activities of State Corporation "Rostekhnologii" (formerly "Rosprom" and "Rosoboronexport", State Corporation "Ob'yedinennaya Aviaostroitel'naya Korporatsia" (OAK), Russian State Oil Company OAO "Rosneft", OAO "Gazprom," and, several other state corporations that are expanding their share of the Russian economy by friendly/unfriendly acquisition of other state and private companies active in various sectors of the economy. I also study some of the major Russian private corporations active in particular sectors, for example, OAO "LUKoil" Oil Company, as an example of a vertically-integrated corporation that sold non-core assets in recent years.

Table 2. Non-Surveyed Enterprises *

1.	OAo ALNAS, Almetyevsk, www.alnas.ru
2.	OOO "Borets", www.boretscompany.ru
3.	OAo "Gazprom," www.gazprom.ru
4.	OAo Korvet, Kurgan, www.korvet-jsc.ru
5.	OAo "LUKoil," www.lukoil.com
6.	State Corporation "Ob'yedinennaya Aviastroitel'naya Korporatsia" (OAK)
7.	State Corporation "Rostekhnologii"
8.	State Oil Company OAo "Rosneft," www.rosneft.ru
9.	NPO Saturn, Rybinsk, www.npo-saturn.ru
10.	OAo UMPO, Ufa, www.umpo.ru

* - enterprises are listed in alphabetical order. Some of them are coded A, B, C, etc. in the actual case studies to ensure confidentiality.

Situation in the Oil Industry Equipment Manufacturing Sector in the Post-Soviet Period

After a decade-long period of post-Soviet stagnation, the Russian oil and gas industry started to pick up in the early 2000s. Between 1999 and 2007, Russia's annual oil output almost doubled – from just over 300 million tons to about 500 million tons. Growth of production slowed almost to zero in 2007-2009. Besides high state taxation of oil companies, another major reason for the stagnation is lack of geological research, insecurity of property rights, and a generally unsettled legal environment. In the meantime, Russia continues to pump oil out of maturing fields

discovered in the Soviet Union decades ago. Even if Russia were to substantially increase geological works on its territory (which it is doing), some years will have to pass until the newly-discovered fields come fully online. Meanwhile, oil companies are desperately looking for new technologies and methods of oil recovery enhancement. As a major Soviet geologist Ivan M. Gubkin remarked, “Reserves would not fail us unless people fail.” And these days it is precisely the people’s ingenuity that sustains output levels, especially during periods of high commodity prices when exports are most profitable. As early as late 1980s, a number of global energy service companies such as Schlumberger and Halliburton entered Russia with their recovery technologies and equipment. Their Russian operations enabled oil companies to increase production and maintain it at a relatively high level into 2009.

Most Soviet oil equipment manufacturing plants were built outside of what is the Russian Federation today, for the most part in the former Soviet Republics.²⁰ By the mid-1990s, the relatively few Russia-based equipment manufacturers went bankrupt or produced obsolete and non-competitive equipment, as the high-tech foreign manufacturers took advantage of the situation by expanding their presence

²⁰ Over half of the Soviet oil equipment industry was traditionally concentrated around the country’s oldest oil province in Baku, Azerbaijan.

in Russia and the CIS, independently or via service majors and foreign oil companies. However, some of the old Soviet-era plants managed to modernize, and a number of new Russian manufacturers emerged. At present a dozen medium-size Russian companies successfully compete with their foreign counterparts and manufacture superb oil equipment as well as generate new technological methods in fields ranging from oil recovery to environmental protection, to oil transportation and refining. Most such companies have no direct affiliation with major Russian oil and gas producers or foreign oil service companies and equipment manufacturers. They are independent Russian medium enterprises that successfully grow along with the demand for equipment and services. The demand is likely to continue to grow for the foreseeable future as oil producers expand their partnerships with service structures.²¹

Some 28 medium enterprises are strong actors in the oil and gas production and service sectors. Of the 26 leading second-tier machine-building enterprises, about half manufacture exclusively for the oil and gas sector. Among them are such majors as *Novomet*, a Perm'-based submersible pump and filter designer and manufacturer; *Alnas*, an Almet'yevsk-based pump manufacturer; and a number of

²¹ See, for example, Vladimir Yudkevich, "The Russian Drilling Equipment Market Does Not Reflect the Real Needs of Buyers," *OFS Market Reporter*, Autumn 2007.

turbine, engine, and oil rig manufacturers such as *Iskra* and *Regency Group IM*, which includes the Kungur and Ishimbai machine-building plants, and several others. Most of these companies develop equipment and machinery exclusively for the key oil and gas sector of the Russian economy. These enterprises are likely to grow independently or through mergers and acquisitions in the sector. Their decision-making process, however, is not simply subject to demand in the Russian and global oil industry. To a great extent it is structured along *r-d space* lines. With expansion of new state actors in the form of large vertically-integrated oil companies (VIOCs) such as *Rosneft* and *Gazpromneft*, emergence of new ‘asset-hungry’ industrial state corporations such as *Rostekhnologii*, and growth of state and regional subsidies to loss-making obsolete state manufacturers in recent years, the *r-d model* is again relevant to the study of the development of medium enterprises in this sector. Instead of predicted growth in a liberal market environment, these companies are confronted with new challenges.²² Thus, they need to adjust to the environment and to reassess and recalibrate their *r-d models*. Luckily for them, they had to make similar choices in the late 1990s.

²² See, for example, interview with General Director of Rostekhnologii Sergei Chemezov in “Soyuz mashinostroitelei Rossii: Stavka na goskorporatsii,” *Ekonomika Prikamya – Prostranstvennoye razvitiye*, January 16, 2008, p. 16-19.

Survey of the Importance of Market and Relational Capital to Medium Businesses

First, a general case study based on the *r-d space* model was conducted. The study involved fifteen companies. The following table represents the market or relational capital orientation of the surveyed enterprises. Enterprise managers were asked to evaluate the importance of their market orientation, role of relational capital for their performance (and ‘insurance’ for their continued competitiveness and even survival, in case property rights are insecure), and about the overall state of their relations with authorities at various levels. Managers were asked to rank the importance of particular aspects of their orientation on a 1 to 10 scale. Since this information may be sensitive to the future business strategy of the surveyed enterprises, values of 5 or below were recorded for the public version of this research simply as ‘-’, and values from 5 to 10 as ‘+’. Company names were coded by letters ‘A’ through ‘O’ in the following table. Private medium enterprises are marked in bold, state-affiliated entities are in italics, and enterprises with mixed ownership are not highlighted.

Table 3. Market vs. Relational Capital (March 2008)

Company	Importance of market (low 'd')	Importance of relational capital (high 'r')	Relational capital is supplementary to market	Market is supplementary to relational capital	Relational capital with local and regional government	Relational capital with federal government	Relational capital w/ state corporations	Contributions to the social sector (informal tax)
A	+	-	+	-	-	-	+	+
B	+	-	+	-	-	-	-	-
C	+	+	-	+	+	+	+	+
D	-	+	+	+	+	+	+	+
E	+	+	+	-	+	+	+	+
F	+	+	-	+	+	-	+	+
G	+	-	+	-	-	-	-	-
H	-	+	-	+	+	+	-	+
I	+	-	+	-	+	+	+	+
J	+	-	+	-	+	-	-	-
K	+	-	+	-	+	-	+	-
L	+	-	+	-	+	+	+	+
M	-	+	-	+	+	-	+	-
N	+	-	+	+	+	+	-	+
O	+	+	-	+	+	+	+	-

The survey demonstrates mixed results. One strong observed relationship, however, is the importance of relational capital and its correlation with the type of company ownership: almost all state enterprises and enterprises with mixed ownership indicated greater importance of relational capital (high 'r') for successful operations. All private companies, on the opposite, valued their market orientation more (low 'd'), and tended to de-emphasize the significance of relational capital, despite the fact that they operate in a highly-politicized mineral resource-related industry. It is important to note that most of the surveyed medium-size enterprises contribute large "informal taxes" to supplement regional budgets (in cash or in-

kind) as a part of their social responsibility policy or as a part of their relational capital arrangements.²³ Yet, as further case studies suggest, the recorded attitudes are subject to change along with the business environment. Medium enterprises feel the urgent need to respond to a changing environment or face possible unfriendly acquisitions or even bankruptcy should they remain passive.

Four Types of Enterprises in *r-d* Space

Depending on the position in the *r-d* coordinates, four general types of enterprises can be identified.²⁴ The following Figure 2 illustrates these types: low 'd' and high 'r,' high 'd' and low 'r,' high 'd' and high 'r,' and low 'd' and low 'r.' An enterprise operating under normal market conditions would display both low 'd' and low 'r,' that is, it would be operating under market conditions without or with

²³ For a detailed discussion of the value and size of relational capital in modern Russia, see Clifford G. Gaddy and Barry W. Ickes, "The Virtual Economy Revisited: Resource Rents and the Russian Economy," The Brookings Institution, October 2005, Online at http://www.brookings.edu/~media/Files/rc/speeches/2005/1020russia_gaddy/gaddy_20051020.pdf

²⁴ Slide courtesy of Clifford G. Gaddy, The Brookings Institution. Although Figure 2 depicts the condition of the Russian economy in late 1990s, it is still applicable today. Whereas the cash/non-cash component is to a great extent irrelevant, the *r-d* space remains one of the most convenient schemes to visually depict the trends in the Russian economy.

little relational capital. However, in the modern Russian environment low ‘d’ and high ‘r’ may be most beneficial for a company whose leadership is uncertain about the direction it should proceed. Therefore, they may choose to keep all options open.

Figure 2. Four Types of Enterprises

(Assume well-defined cut-off lines between viability and non-viability in both dimensions)

<i>r</i>	Low <i>d</i>, High <i>r</i> Enterprise has both – relational capital and is competitive under normal market conditions	High <i>d</i>, high <i>r</i> Enterprise can survive only by increasing its relational capital, uncompetitive under normal market conditions
	Low <i>d</i>, Low <i>r</i> Enterprise has no or little relational capital, and can operate and develop under normal market conditions	High <i>d</i>, low <i>r</i> Enterprise has no relational capital, inefficient under market or non-market conditions
	<i>d</i>	

The *r-d space* model is appropriate for the description of the dilemmas of the oil equipment manufacturing sector in the Volga-Ural region. Since the

relational capital (r) component remains an important asset, even most independent and innovative market-oriented medium enterprises may choose a strategy of sacrificing a portion of their market orientation (smaller 'd') in order to improve their position by gaining additional relational capital (greater 'r'). Four case studies to illustrate the dynamics of medium (and large) enterprise behavior in the r - d space follow.

CHAPTER III: CASE STUDIES

Case Study I:

Enterprise A vs. Enterprise B: Competition for Higher 'r' with Equal 'd' Relations between Oil Industry Equipment Manufacturers and State Corporations: Cooperation, Integration, Competition, or Bankruptcy?

Enterprises A, B, and C are three major Russian medium enterprises that manufacture advanced equipment (submersible pumps, oil rigs, diagnostics equipment, and other) that is in high demand in oil production on Russia's depleted and geologically complex oilfields in the Urals and West Siberia provinces. Some time in 2008, enterprise B was taken over by D, one of Russia's giant pipe and

other steel products manufacturers, based in an industrial city in the Urals. As a consequence, of the three roughly equal competitors, B gained a major advantage. Its new owner, D, is controlled by a relative of one of Russian government ministers. As a result of the takeover, B gained relational capital (moved up in the 'r' dimension), while retaining its other competitive advantages (e.g., market orientation, or low 'd'). In the meantime, both enterprises A and C emerged as potential take-over objects on the radar screen of Russia's state-owned enterprises, Gazpromneft' and Rostekhnologii among others.²⁵ In order to keep up the competition, both enterprises face a tough strategic choice. They have three general options how to react to B's upward leap in the r-dimension:

- a) Start shifting resources that until mid-2008 were allocated exclusively for research and innovation (i.e., resources being spent to reduce 'd') towards relational capital (*r*). Examples of investment in relational capital include favors for political elites and participation in various social projects;
- b) Expand the enterprise by acquiring other companies (a option of mergers and acquisitions);

²⁵ Official websites www.gazprom-neft.ru and www.roe.ru . For more on Rosoboronexport, see Louis-Marie Clouet, *Rosoboronexport, Spearhead of the Russian Arms Industry*, Russia/NIS Center, Russie.Nei.Visions, No 22, Institut français des relations internationales, September 2007.

- c) Be overtaken by an unfriendly state or private conglomerate.

The second option, expansion, is unlikely because, as medium enterprises, they have limited access to large investors.²⁶ The first and the third options are more plausible given current developments in their sector. Whatever choice they make in 2009 and beyond, their market-oriented drive is likely to slow down should current state policies persist.²⁷

Figure 3. Change in Positions of Enterprises A, B, and C in the r - d space

r	Low ' d ', High ' r '	High ' r ', High ' d '
	<p>B (acquired by parent co D)</p> 	
	Low ' d ', Low ' r '	High ' d ', Low ' r '
	<p>B A, C</p> 	?
		d

Options for Enterprises A and C, Given the Upward Shift of Enterprise B in the r dimension.

²⁶ This has become a more acute issue for medium businesses since the beginning of the financial crisis in Q3 of 2008.

²⁷ Enterprises' representatives admit that these adjustments may negatively impact growth.

Competitive Advantages for Enterprise B after Joining the Pipe Conglomerate (Enterprise D) and Impact on Enterprise D

Pipe conglomerate D acquired medium enterprise B for two reasons: diversification of its business and to simply grab a hi-tech lucrative asset when the opportunity emerged. Another possible reason of a takeover could be prevention of acquisition of B by other major players: Gazpromneft, and other companies that had also expressed interest. While all private Russian oil companies sold their oil service companies as non-core assets in recent years, Rosneft and Gazpromneft in particular have, in contrast, started to consolidate them. The arguments of state oil companies are the same as those made by state officials justifying the creation of state corporations. They insist that the new Russian economy is neither a Soviet planned economy nor a form of state capitalism, and, therefore, their intentions for the acquisition of companies like B are benevolent and purely market-driven. They suggest that they intend to acquire a greater number of lucrative assets to diversify their holdings, to develop new assets, and to subsequently resell to the private sector at a profit. Their rhetoric was strengthened further by a steep economic downturn in 2009.

Thus, state and private companies have started to compete for medium-size assets. At the time, several regional competitors of D made claims to enterprise B.

Among them was a large regional oil producing company and a subdivision of another large steel consortium. D, however, made the highest bid as it is also interested in the technological base of B. D expects to have fewer technology-related requests to outside companies (subcontractors and partners) since now it can utilize the engineering center of enterprise B.²⁸ Acquisition of the medium-sized B by D has had both negative and positive impact on the former.

Positive Impact on Enterprise B: Greater Relational Capital

Having been taken over, enterprise B increased its chances to attract investments and receive loans. Whereas until 2008 enterprise B held one-on-one negotiations with lending institutions, it since has access to loans through its parent corporation D. Enterprise B will have an overall easier access to “cheaper” money not only through traditional loan mechanisms, but also through redistribution of investments within structures of conglomerate D. However, one should also compare the debt structure of enterprise B with that of its new owner. D has been a

²⁸ Pipe conglomerate D, for example, requested a USD 500 million loan as early as 2003 for modernization of (a three-layer anti-corrosive coating) production facility. With acquisition of B, it must have saved time and financial resources on its own production base upgrades.

rather heavy borrower since mid-2000s. Enterprise B, on the opposite, had a turnover of about USD 300 million in 2007, and no major debt obligations.²⁹

Another positive impact on enterprise B is a decrease of input costs. The decrease is achieved through transfer pricing for pipes and other materials, including raw materials, in the conglomerate unified under D. A new larger structure also provides opportunities for further expansion to foreign markets – in terms of sales, international cooperation, and investments (IPO, loans, access to technology, etc) for both D and B.

Finally, the most important advantage for enterprise B is a decrease of its social obligations, a factor often omitted in studies of Russian economy. D is likely to assume social responsibilities of B at the federal level as well as at the regional and local levels – in towns where B controls major manufacturing facilities. Since enterprise B will no longer be a medium-size independent enterprise, it will no longer directly play the role of a city-defining (*gradoobrazuyshchee predpriyatie*) company, a dominant company in a company town (*monogorod*). As a part of a large corporation, it will no longer be subject to requests of regional and local authorities to participate in construction of social infrastructure such as schools and

²⁹ This turned into its great advantage after the beginning of the financial crisis and the so-called credit crunch in Russia by late 2008.

roads or perform other social functions that constitute a heavy ‘informal tax’ on most Russia’s company town enterprises.³⁰ The decisions on whether or not to follow through on informal social commitments of B and to increase the relational capital (‘r’) with regional and local authorities will be made in D’s headquarters and at D’s expense.

Negative Impact on Company B

Company B increased its relational capital by moving from a rank of medium business at the CIS scale and large business at regional scale to the league of Russian industrial heavyweights. After all, large corporations like D operate by rules different from those for small and medium businesses. Moreover, their activities in modern Russia are often politicized, and, for this consideration alone, enterprise B will no longer be able to make independent market decisions. Instead, decisions impacting enterprise B would be taken considering the political position of D vis-à-vis the federal government or in D’s headquarters and in the interest of D. Whereas it remains unclear if any decision-making autonomy would remain in

³⁰ For an in-depth study of informal taxation, see Clifford G. Gaddy and Barry W. Ickes, “Resource Rents and the Russian Economy,” *Eurasian Geography and Economics*, Vol. 46, No 8, 2005, pp. 559-583.

B's office, its headquarters were moved to D headquarters and to the ultimate decision-making center of Russia – the capital city of Moscow. Relocation of the headquarters away from the production facilities and the additional political burden of decisions to be taken in the enlarged company may jeopardize the dynamic and flexible decision-making that had been the practice at enterprise B.

Moreover, enterprise B may encounter problems adapting to a changing environment and falling market despite the large resources of D that appeared to be available prior to the global crisis. D is a major pipe manufacturer, and the government of Russia (represented by state pipeline monopoly *OAO Transneft* and *OAO Gazprom*) is a major consumer of its products. Once new major pipeline construction projects in Russia are completed in the next five to ten years, state orders for new large diameter pipes may significantly decline or new projects could be postponed due to the crisis.³¹ Such developments may negatively impact turnover and income at both B and D. At the same time, D's obligations are likely to remain a major burden, along with increased competition from other Russian and foreign pipe manufacturers. D's social burden is also likely to remain high. Despite

³¹ A similar situation has already taken place between state natural monopoly "Russian Railroads" (*OAO RZD*) and a major railcar manufacturer "UralVagonZavod" (*UVZ*) in early 2009. RZD unilaterally cancelled three quarters of 2009 orders, leaving UVZ on the brink of bankruptcy within months.

restructuring and modernization, D remains a Soviet-built enterprise with a substantial social burden of its own and that imposed by informal taxes.

Finally, the D's board of directors (elected in the third quarter of 2008) is not as professional as the former one of enterprise B. The board of directors includes major financiers and strategists, who have limited knowledge about enterprise B's oil equipment and manufacturing technology. Therefore, it is likely that the board of directors will make strategic decisions without accounting for the specificity of enterprise B's technological and market niches.³² The extent of decision-making power by remaining B's management is increasingly limited.³³

Impact on Enterprises A and C

Acquisition of the medium-size enterprise B and the increase in its relational capital ('r') has had both negative and positive impact on its former medium-size competitors – enterprises A and C.

³² Russian national carrier Aeroflot came under fire from regulatory authorities for removing necessary technical specialists from its BoD, a move, that, according to Aeroflot was expected to bring fewer, but more professional managers on board at the expense of... aircraft maintenance and safety.

³³ Confidential interview with a senior manager, March 2008. Follow-up interview in December 2008.

Positive Impact

Enterprise A remains a ‘closed joint-stock company’ (*ZAO*)³⁴ and will therefore retain a simpler governance structure than enterprise B. The shorter the hierarchy in a medium-sized enterprise, the more flexible is its decision-making processes. Enterprise A’s leadership will be able to take more economic and other factors into the account in decision-making and adopt policies faster. Moreover, the directors of enterprise A are more familiar with the nuances of their operations such as logistics, manufacturing process, distribution than the new management of enterprise B.

Enterprise A can continue to concentrate its best resources in the core business area, while enterprise B has to adapt to working in several new fields – from core business of specific oil equipment manufacturing to, for example, pump manufacturing for a certain Russian car manufacturer, where B had no prior experience. Moreover, enterprise A is not burdened by a Soviet pipe plant legacy of inefficiency. Instead, it can focus on technology and cooperation with other enterprises of the sector. It is also of importance that enterprise A, as long as it

³⁴ An equivalent of LLC in the Anglo-Saxon system of laws of incorporation.

remains independent, will not be burdened by the political and social responsibilities of large businesses that companies like D carry.

Finally and most importantly, enterprises A and C may retain their independence and dynamically develop as medium businesses if the market allows for it. However, as their operations grow, it may become harder to develop without attracting the unwanted attention of unfriendly competitors and larger industrial players in their sector. Independent status remains a valuable asset for enterprises A and C. If they manage to maintain independence through the ongoing period of bankruptcies, mergers and acquisitions, buildup of state corporations, and weather the crisis, payback may be substantial.³⁵

Negative Impact

³⁵ See, for example, a point made in the previous section on decrease in state orders for pipelines that may hit D in the not-too-distant future. This may lead to another problem. When a large net loss-making enterprise takes over lucrative medium size businesses, units within a large enterprise cancel each other out. Thus, a large industrial conglomerate may have an enormous annual turnover, but, given that it incorporates both loss-making and highly-profitable assets, its net income may boil down to zero. If it is negative, a conglomerate may request state subsidies or other privileges, which are not guaranteed during the crisis, even if their relational capital is large.

Like enterprise B, enterprises A and C may face hard choices in the future. In case of an offer from a large company they would not be able to resist an unfriendly takeover. Enterprises that own large resource and production bases since Soviet times, privatization years, or the beginning of the formation of state corporations, are increasingly aggressive in mergers and acquisitions. In this sense, a takeover by D is not the worst choice for enterprise B. Many companies face more complex dilemmas, particularly if they catch the eye of such state-controlled industrial ‘dinosaurs’ as *Motovilikhinskiye Zavody* or other state companies or corporations, such as the recently incorporated Rostekhnologii. Many such companies are dominated by former security service employees who are interested in further enlargement of conglomerates, their own fortunes and, possibly, state revenues. Market considerations and operational efficiency are secondary in their business philosophy and practice.³⁶

The problem, however, is not with the former places of employment of these state managers, although their security services background is usually portrayed as a disadvantage or a handicap by foreign and liberal Russian media and some market

³⁶ See, for example, an interview with Sergei Chemezov, “Soyuz mashinostroitelei Rossii: Stavka na goskorporatsii” (Union of Machine-builders of Russia: Stakes on State Corporations), *Ekonomika Prikam’ya: Prostranstvennoye Razvitie*, March 2008, pp. 16-19.

economists. Rather, their limited understanding of problems of medium businesses – from technological process to manufacturing problems, to investments, and other issues, presents a real challenge to continuation of medium enterprise growth in the country. There are virtually no technology or economics specialists in this pool of new state managers.

Consequentially, state corporations desperately search for controlling stakes in lucrative medium enterprises, while it is unclear what they have in mind once they acquire these companies. Russian officials and state managers often discuss issues such as attraction of investments, development of new technologies (including a recent ‘buzz’ about nanotechnologies that would supposedly take Russia to a new development level), and diversification and de-monopolization of the Russian economy. Unfortunately, medium businesses usually find such slogans rather meaningless for their purposes. Medium enterprises like A and C are real actors that independently develop practical hi-tech applications. Many have already set a vision for their business plans and development strategies. Moreover, most are already competitive on the market. Therefore, they are reluctant to cede lucrative and perspective assets, and replace sound market-oriented strategies with a mere increase in relational capital. To them it implies unfriendly takeover,

renationalization, or a return to pre-2000 virtual economy practices, but not progress.

One final challenge to A and C is their missed opportunities. While B is being taken over by D, state corporations are preoccupied with consolidation of assets, and medium enterprises such as A and C try to fight off unfriendly takeovers, the market situation is dynamically changing. Companies from third countries, especially Europe, America, and China, are expanding into Russia and other formerly Russia-dominated markets. Global competition among companies is on the rise. Although Russian medium businesses like A and C are unlikely to go bankrupt, they may lose a market share they would have conquered had it not been for excessive state expansionism into the economy and pressure from officials they are forced to deal with.

Strategic Options for Enterprises A and C³⁷

Given the change in relational capital of enterprise B, enterprises A and C constantly revise their strategies and consider new strategic options. In this regard,

³⁷ This section is based on interviews and discussions with managers of enterprises A and C. Confidential interviews and discussions were held by the author in Russia in March 2008 and January 2009.

three general groups of options can be identified: operational, which include market-based business strategies; undesirable market-based strategies; and non-market options that often, but not necessarily, lead to an increase in relational capital.

Market Options

The first option suggests a continuation of pre-2008 policies disregarding changes in external environment. This option includes retention of the *Closed* Joint Stock Company legal form (ZAO); gradual expansion of services of A and C subsidiaries in the existing oil producing regions; and overall diversification of product line by the sphere of use and not necessarily by its type (for example. submersible pumps, filters, and new materials used for their production can find use in other fields). Another aspect of this option is a build-up of existing scientific potential and security and patenting of enterprise A's and C's innovations.³⁸

Second, as competitors merge with larger companies and the appetites of state corporations increase, other, possibly more urgent challenges, emerge on the

³⁸ This, companies argue, is necessary not only for the prestige of the company, but also to counter industrial espionage from countries such as China.

horizon of enterprises A and C. As the demography of Russia changes, a deficit of skilled labor is forecast to be felt in a number of fields. The oil industry and service and equipment manufacturers are no exception. The so-called 'cadre hunger' is forecasted in the medium-term (10-15 years) perspective in a number of sectors, and growing unemployment caused by the economic crisis is unlikely to dramatically relieve the shortage. Surveyed enterprises share their three-prong strategy on the cadres' issue. First, they plan to ensure that human capital does not leave their companies. Second, they stress that an essential strategic task of any hi-tech manufacturer is to train new young specialists by building relationships with universities and directly sponsoring perspective students, who could join their enterprises upon graduation. Finally, older Soviet-trained technical professionals should actively pass their fundamental knowledge and experience to younger generations that are only considering enrollment in technology schools and hard science or skilled labor-oriented professional colleges.

The third option is aggressive expansion to markets that are only beginning to open to foreign companies. Enterprise B, for example, is not yet a competitor in countries like Turkmenistan, Iran, Vietnam, and some others. There are new opportunities as these neighbors of Russia open up to foreign businesses. Moreover, new oil and gas provinces are soon to be put online in Russia's Eastern Siberia and

on the Arctic continental shelf.³⁹ Here A and C have a time advantage and insider knowledge that they are considering to exploit.

Undesirable market Options

When competitor enterprise B was acquired by D, enterprises A and C immediately decided to invest in minimization of input costs. However, limited resources invested in inputs may constrain their other expenditures, including development budgets.⁴⁰

The management of both A and C are considering entering into strategic partnerships with one of the private oil companies; but, as noted earlier, private companies are not particularly interested in acquiring non-core assets or even establishing relationships other than on short-term and contractual basis. Neither A nor C are eager to enter strategic partnerships with state-owned oil companies since that is essentially considered a form of unfriendly takeover by their management.

³⁹ According to some accounts, Russian medium-size companies have experienced difficulties competing with large Russian, American, and even Chinese (invited for political considerations) contractors in certain prospective oil regions (Surgut, Sakhalin).

⁴⁰ Inputs include both metals and other materials that have decreased in price as global demand fell due to the crisis, while other inputs, like electricity and transportation, costs that have only gone up in 2008 and 2009.

Another compromise variant includes acquisition of several small companies and service centers by A or by C. For medium-size A and C it is important *not* to become a ‘younger brother’ in an alliance as consolidation in the oil service sector continues, alongside competition.⁴¹

Non-market Options

A classic non-market Russian option is minimization or maximization of ‘informal’ taxes. It traditionally helps Russian companies to establish and secure close ties with government officials at all levels. Both A and C have limited resources and are unable to sponsor social projects at the scale of larger counterparts. When asked to contribute, companies try to invest in projects that would not only be beneficial for the city and the region, but also for the enterprises

⁴¹ For A and C it is important not to end up in a complex situation of Kungurskii Mashinostroitel’nyi Zavod (KMZ). In 2005 its only option was to sell out to an investor. KMZ joined *Ishimbaiskii Mashinostroitel’nyi Zavod*, which is in turn a part of *Mobil’nye Burovye Sistemy*. Having lost control over the company, KMZ successfully integrated in a growing manufacturing and service company which produces oil drills and pumps. See www.mbs-group.ru For KMZ, this was probably the best option to jumpstart operations, whereas A and C prefer to remain independent. Their management is accustomed to take independent strategic decisions.

themselves. ‘Informal’ taxes are usually paid as sponsorship money for various social projects. Both enterprises decided not to try to ignore government officials. Instead they chose to negotiate with officials out of a necessity to increase enterprises’ relational capital.⁴² However, managers were particularly cautious not to go too far in their dedication to social services. They noted their awareness of the dangers of creating a ‘company city’ within a Russian city, or a ‘company state’ within a Russian region.

Their other option is expansion of cooperation with state investors, hoping that a 51-49, 50-50, or even a 49-51 mutually-beneficial partnership could be forged. Otherwise, managers fear they may be forced to sell their companies in full and only at a book (below market) value.

Finally, managers suggest that under some critical unforeseen circumstances they may simply sell their stakes in medium businesses and diversify into small non-lucrative sectors, such as... tourism or retail. In fact, enterprise A took some

⁴² Managers cited the YUKOS Oil Company example. YUKOS ran into trouble with federal authorities after it assumed a dominant position in several regions – to the extent that its structures supplanted local and regional authorities.

steps in this direction even before it received the first unfriendly signals from state corporations and officials.⁴³

There are indeed many challenges to medium-sized enterprises, but they retain several options to counter them. Yet, the ultimate dilemma for enterprises A and C has not changed since the 90s: how to balance the 'r' and the 'd' in their strategies? By year 2009, both enterprises realize the inevitability of a trade-off between 'r' and 'd' which they may have to make at some point in the near future. The unraveling economic crisis has only reinforced this understanding. Although a tradeoff between 'r' and 'd' is undesirable, circumstances may force management to do so in order to survive and remain independent beyond 2009.

To understand the environment in which Russian oil equipment manufacturers operate and the significance of explaining this environment, I propose applying *r-d space* model outside of this sector. The following chapters are devoted to three additional company-specific case studies.

Case Study II:

⁴³ See Structure of Enterprise A in Appendix IV.

**Competition between State-controlled High ‘r’ and High ‘d’ Enterprise, and
High ‘r’ and Low ‘d’ Enterprise:**

State Corporation Encroaches on another Successful State-owned Enterprise:

State Corporation “Rostekhnologii” vs. NPO “Saturn” and OAO “UMPO” *

In late 2007 the newly-formed giant state corporation Rostekhnologii, chaired by President Putin’s close friend Sergei Chemezov, who served with Putin in the KGB in Dresden in late 1980s, put forth a strategy to take over all of Russia’s turbine manufacturers. In a single year Rostekhnologii successfully took over most of Russia’s turbine producers, including giant enterprises in Komsomolsk-na-Amure, Samara, Saratov, and Perm’. Yet, in early 2008, it faced strong resistance from the Ufa-based *Ufimskoye Motornoye Proizvodstvennoye Ob’yedinenie (UMPO)* and Rybinsk-based *Nauchno-proizvodstvennoye ob’yedinenie Saturn (NPO Saturn)*.⁴⁴

The irony of the confrontation was that the Russian state always directly held controlling stakes in both UMPO and NPO Saturn prior to incorporation of

* - Information used in this section is based exclusively on public sources.

⁴⁴ Vadim Ponomaryov, “Predpuskivoi podogrev,” *Expert-Volga*, February 25, 2008, No 8 (96), http://www.expert.ru/printissues/volga/2008/08/pod_svoe_krylo

Rostekhnologii. By March 2008, UMPO and Saturn promptly formed a strategic alliance to protect themselves from an unfriendly takeover by the increasingly assertive Rostekhnologii. They publicly stated that they were not only state-controlled, but also *effective market-oriented* companies and, therefore, did not need additional patronage of a large and over-bureaucratized state corporation. Their efforts to fight off the acquisition were successful until November 2008. Having remained lucrative assets for Rostekhnologii and its subsidiary the State Aviation Holding (*Ob'yedinyonnaya Aviastroitel'naya Korporatsiya (OAK)*), they could no longer resist state pressure. OAK finally took over UMPO and Saturn using the global economic crisis as a pretext.⁴⁵

As this case demonstrates, even low 'd' and high 'r' coupled with state ownership do not guarantee protection from unfriendly takeovers by other state enterprises. Both Saturn and UMPO had a hard choice of whether to concede to Rostekhnologii or to continue a joint fight against the takeover. Ultimately, a

⁴⁵ See, for example, an article on the formation of a state shipbuilding corporation: "TOP-12," *Expert-Severo-Zapad*, No 48 (350), December 24, 2007, http://expert.ru/printissues/northwest/2007/48/top_12 The companies were eventually bailed out by the Russian state. But in return, they ceded strategic control over their enterprises to Chemezov's Rostekhnologii.

portion of their resources required reallocation from the 'd' to the 'r' dimension. Such corporate policy impeded their market performance in 2008.⁴⁶

On December 2, 2008, Prime Minister Vladimir Putin ordered full nationalization of Saturn and UMPO and their incorporation into Rostekhnologii as a measure to help enterprises repay large loans they accumulated before the crisis hit Russia.⁴⁷ Thus, the global economic crisis became a catalyst for nationalization under Rostekhnologii. Apparently, attempts to increase 'r' were not sufficient to escape the pressure of Mr. Chemezov. It remains to be seen how well the enterprises will perform under new management, especially after the global crisis ends.

⁴⁶ See, for example, interview with NPO Saturn Director Yuri Lastochkin in *Vedomosti*, December 24, 2007, at http://pragent.ru/public/npo_saturn3. Mr. Lastochkin expressed his enterprise's unwillingness to enter the state corporation. His arguments are strong: why should Saturn join Rostekhnologii if it already dynamically develops, has no back tax claims from the state, and 34 percent controlling stake in the enterprise remains in state property. For background information also see an article on restructuring of the engine-building industry in *Oboronnaya promyshlennost'*, July-August 2007 at http://www.cast.ru/files/Engines_4_2007.pdf. Enterprises joined their resources and acquired stakes in each other to be able to design new products, whereas the sole purpose of this venture was to oppose aggressive behavior of Rostekhnologii.

⁴⁷ For background on Saturn, see Anastasia Denisova, "Komu "Saturn"?" *Vedomosti*, No 208 (2230), November 11, 2008. Later PM Vladimir Putin defended his position on Saturn and UMPO, suggesting that they were de facto nationalized to solve their debt problems. See transcripts from December 4 and December 5, 2008 at <http://premier.gov.ru/pressconferences/1341.html> and <http://premier.gov.ru/premier/press/ru/1398.html>

Figure 4. Rostekhnologii vs. UMPO and Saturn

<i>r</i>	<i>Low 'd', High 'r'</i>	<i>High 'r', High 'd'</i>
	<i>Low 'd', Low 'r'</i>	<i>High 'd', Low 'r'</i>
	<i>d</i>	

Case Study III:

“GAZ Group” (*Russkie Mashiny*) vs. OAO “AvtoVAZ” (Rostekhnologii)

Competition of Two High ‘d’s for Greater‘r’:

Unfair Competition between a Private and a State-owned Automobile Plant

Hampers Modernization of Both

AvtoVAZ (VAZ) is Russia’s largest automobile manufacturer. It has been steadily losing competition to foreign car manufacturers as the latter set up their assembly plants in Russia. A dozen foreign and joint venture car plants have sprung up in the country over the last decade. In a 2006 (pre-crisis) attempt to bail out the VAZ plant, the Russian state assisted the state arms exporting monopoly *Rosoboronexport* (currently a Rostekhnologii structure) in taking over the

enterprise.⁴⁸ The company's performance had demonstrated signs of improvement especially after it entered in a strategic investment agreement with the French carmaker *Renault*.⁴⁹ Yet, it was not Renault's entrance, but a huge increase in relational capital that gave major advantages to VAZ under new management. As sales in Russia gradually declined, its management failed to restructure the company. Instead, it creatively used its 'r' advantage to stay afloat. The entry of *Rosoboronexport* further boosted VAZ's relational capital and, by doing so not only extended the company's life but also impeded competition on the market.

The relative success of VAZ's new vehicles is constantly undermined by lasting efforts to maintain a large workforce and an ambition to remain Russia's largest carmaker. Unfortunately for Russian consumers, this status is in part retained by the enterprise through manufacturing thirty and twenty-year old (!) models. In mid-2008, for example, this high-'r'-based strategy helped the plant to

⁴⁸ Many experts also question the logic of creation of large state corporations. Among the most notorious examples is the creation of a state corporation that will develop nanotechnologies. See, for example, "Mimotekhnologii," *Expert-Ural*, No 48 (311), December 24, 2007, <http://expert.ru/printissues/ural/2007/48/mimotehnologii>

⁴⁹ Official press-release on Renault-AvtoVAZ Strategic Partnership, http://www.renault.ru/common//img/uploaded/news/files/Renault_AvtoVAZ_Rus.pdf

sell at least an additional twenty thousand of its most antiquated models VAZ-2107, to the Russian state.⁵⁰ The state, in turn, handed out these cars as in-kind benefits to World War II veterans.⁵¹ Such contracts help sustain obsolete and inefficient manufacturers like VAZ. Moreover, they have a negative impact on medium businesses that supply parts to the plant. A large number of medium-size component suppliers are discouraged from modernization of their production lines, as they can ‘safely’ continue to stamp car components that had been originally designed decades ago. The ‘r’ of VAZ suppliers increased in synch with VAZ’s, relieving pressure to complete restructuring of the manufacturing facilities and equipment to match the late twentieth and new twenty-first century automobile industry standards.

Another car plant that Russia inherited from the USSR is the Nizhny Novgorod-based *Gorkyi Automobile Plant* (GAZ). The story is not markedly

⁵⁰ The car has been manufactured since 1982, and is a modification of Italian Fiat-124, which was built in 1966. See http://www.lada-auto.ru/cgi-bin/models.pl?model_id=4935&branch=tth and <http://ru.wikipedia.org/wiki/%D0%92%D0%90%D0%97-2107>

⁵¹ Irina Nevinnaya, “Lada” ko Dnu Pobedy: Vpervye invalidy poluchat avtomobil’ “Zhiguli” sed’moi modeli,” *Rossiiskaya Gazeta*, No 4639, April 16, 2008, <http://www.rg.ru/2008/04/16/avto-veterany.html> The Russian Federation purchased the vehicles for a full undiscounted price, paying cash. If a veteran chooses to receive cash instead of a vehicle, the Russian state does not have an option of returning it to AvtoVAZ...

different there, although, unlike VAZ, GAZ is a fully privatized enterprise. Like its Togliatti competitor, GAZ has designed and manufactured a few successful models in the last decade (primarily, minivans *GAZel'* and *Sobol'*), but its main automobile line that produces *Volga* sedans has been in decline since the breakup of the USSR. In 2007 alone Volga sales dropped from 80,000 to barely 40,000 vehicles.

GAZ was privatized in the 1990s and later acquired by one of Russia's richest oligarchs and the owner of Russian Aluminum Holding (*RusAl*), Oleg Deripaska. GAZ then entered Deripaska's automotive division *Russkie Mashiny*.⁵² The company was promptly restructured in 2006-2007 and made ambitious long-term plans for further modernization and expansion.⁵³ Through the end of 2008 GAZ remained a company with relatively high 'd' and high 'r'. Its attempts to restructure, however, were impeded not as much by competition with foreign car manufacturers as by state protectionist policies towards VAZ. As VAZ continues to use its relational capital to boost domestic sales, GAZ is tempted to follow the same

⁵² GAZ is a division of *Gazgroup* (www.gazgroup.ru), which in turn is a division of *Russkie Mashiny* (www.russianmachines.ru), controlled by Oleg Deripaska's *Basic Element* Holding (www.basel.ru).

⁵³ See, for example, Ekaterina Chichurina, "Siber poekhal: Na Gor'kovskom avtozavode 28 marta nachnut vypusk novogo legkovogo avtomobilya na amerikanskoj platforme Chrysler Sebring. GAZ planiruet cherez poltora goda dovesti lokalizatsiu proizvodstva do 50%," *Vedomosti-Nizhniy Novgorod*, March 31, 2008, №57 (2079) and Aleksey Nepomnyashii, "Volzhskiy Chrysler: S kem sobirautsa konkurirovat' sozdateli GAZ Siber," *Smart Money*, No 12 (102), April 7, 2008, <http://www.smoney.ru/article.shtml?2008/04/07/5293>

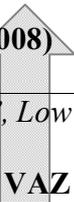
path. In 2006-2007, for example, GAZ already signed a state contract for the supply of tens of thousands of new ambulance minivans.⁵⁴ Since that was a state contract, the plant had the ‘luxury to deliver stripped-down and poorly assembled minivans and escape penalties.’⁵⁵ GAZ may choose to build new production lines, thereby shortening its distance to market (*d*). Yet, the temptation to rest on the laurels of state contracts and thus not only make sales targets but also leverage its competition with VAZ remains the most significant driving force. Despite its ambitious new modernization projects and transparent private ownership structure, GAZ once again appears to be moving towards substituting its barely developed market competitiveness with greater relational capital. VAZ’s model of behavior sets a perfect example for GAZ. The only real difference between the two Soviet car giants is that one is mostly state-owned, and the other one is private. Both enterprises heavily rely on the state orders and emulate each others’ strategies to increase the value of relational capital. As their sales plummet, so do sales of their

⁵⁴ In 2007 alone Russian hospitals received 6723 *GAZel*’ ambulances in the framework of National Project ‘Health,’ and GAZ plans to supply as many in the coming years. See, for example, “Vrachi podseli na GAZeli,” *Komsomol’skaya Pravda*, April 13, 2007, http://www.rost.ru/press/2007/04/130000_8780.shtml

⁵⁵ According to GAZ, the state is a ‘perfect consumer.’ Personal interviews with management of GAZ and chief physicians in Perm’ and Nizhniy Novgorod, March and August 2008.

medium-sized suppliers, who cannot discontinue manufacturing of spare parts as long as obsolete GAZ and VAZ vehicles are on the roads.

Figure 5. GAZ vs. VAZ

<i>r</i>	<i>Low 'd', High 'r'</i>	<i>High 'r', High 'd'</i>
	 VAZ (2008)	 VAZ (2006)
	<i>Low 'd', Low 'r'</i>	<i>High 'd', Low 'r'</i>
	 GAZ	
	<i>d</i>	

As the global economic crisis engulfed Russia in late 2008, both VAZ and GAZ found themselves uncompetitive. However, due to a much greater 'r' value of VAZ, it has been bailed out yet again – this time personally by Prime Minister Vladimir Putin.⁵⁶ While GAZ, an equally large and socially significant carmaker, sinks deeper into bankruptcy, VAZ expects to have enough cash to survive the economic crisis. With no strings attached to the government cash loan, VAZ is

⁵⁶ On March 30, 2009, Vladimir Putin pledged over 20 billion rubles (up to 1 billion USD) to VAZ. The money is provided as a loan, but few strings are attached. <http://premier.gov.ru/visits/ru/99/2389.html> On VAZ bailouts since the breakup of the USSR, see, Ilya Hrennikov, "Ne v konya korm," *Vedomosti-Smart Money*, 12 (150), April 6, 2009, <http://www.smoney.ru/article.shtml?2009/04/06/10554>

likely to remain largely inefficient: overstaffed and producing the same obsolete and substandard car models during and beyond the current economic crisis. How long the state bail out money will keep the enterprise afloat, and whether the state takes steps to bailout GAZ, remains to be seen. To an extent, it depends on the length and severity of the ongoing crisis.

Case Study IV:

ОАО “Motovikhinskiye Zavody” and ОАО “X.”*

Persistence of the Virtual Economy: Two High ‘d’ and High ‘r’ Enterprises.

Despite All Odds, Privatized Soviet ‘Dinosaurs’ Survive and Grow.

Motovikhinskiye Zavody (MZ) is one of the oldest Russian copper smelters and artillery manufacturers. Established in late eighteenth century, it grew tremendously in size during industrialization and militarization of the Soviet economy between 1930s and 1970s.⁵⁷ By late 1980s, the plant became oversized and inefficient to the extent that it could no longer operate even under conditions of

* - The name of the second (major construction) company is not disclosed. For confidentiality it is simply coded “X”.

⁵⁷ See the plant’s history at <http://www.motovilikha.perm.ru/about>

the Soviet planned economy. MZ went through a conversion program in the early 1990s and subsequently attempted to downsize and streamline its operations. However, it failed to fully adapt to the market conditions of the new Russia. After a decade-long decline and a brief period of restructuring in the late 1990s, the plant was taken over by *Finansovyi Dom Rus'*, a non-transparent investment structure headed by the former chief of Soviet Foreign Intelligence (SVR), General Leonid Shebarshin.⁵⁸ In 2005-2006, MZ gradually scaled down market reforms and in part resumed its Soviet practices, using its boosted relational capital to remain 'competitive'.

As state arms orders and orders from the oil and railways sectors substantially increased, they helped MZ to continue to finance its slowing restructuring. However, all reforms abruptly stopped after MZ entered State Corporation *Rosoboronprom* (and then *Rostekhnologii*) in 2007.⁵⁹ As of 2009, the enterprise has a rather high 'd', and a very high 'r.' Yet it not only manages to survive in its unreformed state, but also bail out other state plants that have long been bankrupt and were to be shut down in 2008 (even before the crisis hit Russia).

⁵⁸ <http://www.motovilikha.perm.ru/about/smi/smi2006>

⁵⁹ See *Appendix II* for *Rostekhnologii* current structure.

The Perm'-based *Dzerzhinsky Plant* (DP) has been bankrupt since the early 2000s.⁶⁰ In the summer of 2008, however, hundreds of its laid-off workers were transferred to MZ. This social policy is likely to further impede the market performance of MZ (increase its 'd'), but it will produce a positive impact on its relational capital ('r'). Perm' and regional authorities are pleased that MZ is once again assuming a greater social function by relieving tensions over growing unemployment. In this instance, it not only maintains its own oversized workforce, but also manages to absorb the fired Dzerzhinsky Plant workers.⁶¹ As a result, the Perm' statistical committee did not record a drop in employment even on a quarterly basis, despite the closing of a formerly large employer in Q2 and Q4 of 2008. What is not publicly addressed by authorities is the fact that the MZ structure will become ever more cumbersome and ineffective.⁶²

⁶⁰ The plant was famous for its defense production and gas and electric chain saws. See <http://zid.perm.ru> (Website to be shut down after liquidation of the enterprise).

⁶¹ Both Dzerzhinsky Plant and MZ are also transferring a large portion of their expensive social infrastructure to the City Administration dominated by United Russia Party. See, for example, Yevgenia Pastukhova, "Potrebovali mzdu," *Novyi Kompan'yon-Perm'*, No 16 (501), April 29, 2008, http://www.nk.perm.ru/articles.php?newspaper_id=747&article_id=19903

⁶² By entering in an agreement on former DP workers, Perm' City officials and MZ rely exclusively on additional federal financing that should be available through Rostekhnologii. Local resources or market conditions are not considered.

The solution to the lack of MZ's adaptation to market, as it is seen by the plant leadership, is in sustaining the volume of state orders and increasing state transfers and subsidies through Rostekhnologii. However, the plant's strategy does not account for numerous force-majeure circumstances, such as a decrease in world oil prices, a drop in state defense and railroad orders, or both. Under such or similar circumstances, MZ could find itself in a situation as dire as in early 1990s. In the meantime, MZ's close ties to Rostekhnologii, the Russian security services, the Russian military, and the administration in Perm' allow it to operate by non-market rules in a market economy.

The crisis can only strengthen MZ's positions as a key enterprise that, if all else fails, will seek and be granted a state bailout. Should new and effective medium enterprises be incorporated into Rostekhnologii structures, a part of the social burden and inefficiency of MZ may cost them some of their low 'd'. Unable to dynamically develop, former medium enterprises may eventually start going bankrupt – once again leaving MZ unreformed and poorly structured for effective operation in a more open and competitive post-crisis environment.

Enterprise "X"

X is a construction company in one of the Russian Urals regions. Established on the ruins of one of the many state construction enterprises (trusts) in early 1990s, the company has been able to remain an unreformed non-market entity for some two decades. X's complex non-transparent structure and large relational capital (high 'r') have helped it to survive under the pressure of market forces.⁶³ Moreover, in a classic virtual economy case, this enterprise's lack of transparency helped it hide profit and claim financial losses without *ever* going bankrupt.⁶⁴ With recent trends of creation of state corporations and over-bureaucratization of the government apparatus, X-type enterprises are likely to survive even longer. In fact, those that survived most of the 2000s decade, appear comfortable in the familiar virtual economy of the 1990s (as state corporations expand and economic crisis brings back barter mechanisms abandoned by the early 2000s). They appear resolved to maintain their non-transparent and 'loss-making' status. X has a high 'd' and a very high 'r': the only reason it continues to build infrastructure in the region of its operation is the special relationship that the enterprise maintains with the regional bureaucracy. Much of its strength boils down to plain and simple

⁶³ See the X complex structure in Appendix III.

⁶⁴ Filipp Sterkin, "Otobrat' avtomobil' i kottedzh: Nalogoviki proveryaut dohody uchreditielei i menedzherov ybytochnykh kompanii," *Vedomosti* No 83 (2105), May 8, 2008. Also see Gaddy and Ickes, 2002, Appendix C: Further Comments on Value Destruction, p. 251-255.

corruption: organization of pre-arranged biddings and auctions, kickbacks on contracts, and manipulation of construction inputs and costs. Such practices leave effective market-oriented medium construction companies with little room to develop. When they make an effort to conduct business fairly, they do so only as subcontractors to enterprises like X.⁶⁵ As of 2009, their existence and operation may create an illusion of a positive entrepreneurial climate and even growth in the construction sector of the region. In the long term, however, their operation is based on an outdated economic model. It can only perpetuate inefficient, corrupt, and non-market practices, often at the expense of efficient market-oriented enterprises.

Both MZ and X are unreformed enterprises that would have not been able to survive in a normal market economy in their current form. However, their large relational capital continues to serve as impregnable insulation from the market environment that most other medium businesses operate in.

⁶⁵ Author's personal experience. Interviews with subcontractors of X (August 2008), X's Technical Director (March 2008), and X's Director General (January 2009).

Figure 6. ‘Virtual Economy’ of Enterprises MZ and X

<i>r</i>	<i>Low ‘d’, High ‘r’</i>	<i>High ‘r’, High ‘d’</i>
	MZ (2000)	MZ (2008) X (since 1992)
	<i>Low ‘d’, Low ‘r’</i>	<i>High ‘d’, Low ‘r’</i>
	<i>d</i>	

CONCLUSION

State Capitalism or Just Another Informal Tax System? The Future Direction of the Russian Economy through the Prism of “Second-tier” Companies

New Russian government policies of *state capitalism* have led to the formation of at least seven state corporations in major manufacturing, energy, and even banking sectors. These corporations constitute a threat to effective market-oriented enterprises, particularly to medium enterprises that also happen to be both the most innovative and the most vulnerable in modern Russia.

As successful medium enterprises continue to expand, they become more visible to larger enterprises and to corrupt state officials. Thus, they become

desirable targets for acquisition by state-connected and state-owned enterprises, especially the newly-established state corporations. Incorporation of successful market-oriented medium businesses into these large structures may not only decrease their flexibility, but also reorient them towards a more 'virtual' economic model. As a consequence, their innovative potential and efficiency may be impeded. In the meantime, their market efficiency suffers as they adjust to the overall more aggressive business environment, further complicated by the economic crisis.

Observing the trends in the medium business sector in the Volga-Ural region, I conclude that effective medium enterprises are likely to change their behavior. In order to ensure their independence, many of them have already started a shift from a pure market orientation (*low 'd', low 'r'*) towards greater relational capital (*low 'd', medium 'r'*). Such a strategy is likely to negatively impact their 'd', e.g., they may have to abandon some of their market strategies and even principles in order to survive and increase their relational capital. A medium business with limited resources inevitably sacrifices a portion of its 'd' to improve its standing in terms of 'r'. As medium enterprises increase their relational capital ('r'), their market performance is likely to suffer (a move towards higher 'd' in *r-d space*).

Another negative trend that has become more pronounced in recent years is revival of unreformed enterprises that dominated the Russian economy during its initial transition in mid-1990s. State capitalism policies enable these obsolete (high 'd', high 'r') enterprises that have survived the seventeen post-Soviet years to prolong their operations, especially should they once again start receiving state subsidies or form partnerships with state companies, or become subdivisions of state corporations. Their 'd' is unlikely to decrease, e.g., they will move further away from the market, or, as a reaction to state policies of centralization and control, will revise their strategies and postpone their restructuring according to market principles. Moreover, should they be incorporated into the same structures as effective medium enterprises, they may start draining these enterprises' resources in order to keep themselves afloat. This process may be further complicated by the shifting of social burdens from state structures to state and privately-owned for-profit enterprises.⁶⁶ The global crisis can only contribute to this trend. This is the primary reason why effective companies are not enthusiastic about their

⁶⁶ See Gaddy and Ickes, "Resource Rents and the Russian Economy," 2005. The Russian Federal Anti-Monopoly Service (FAS), also views state corporations and natural monopolies as the gravest threat to future economic growth. See Dmitry Kaz'min, "Glavnye Ugrozy" (Major Threats), *Vedomosti* No 127 (2397), July 13, 2009, <http://www.vedomosti.ru/newspaper/article.shtml?2009/07/13/204614>

incorporation into state corporations such as Rostekhnologii, oil companies like Rosneft' and Gazpromneft, and other enterprises.

A study of medium business behavior by applying the *r-d model* is as relevant today to understanding how the Russian economy functions and what drives it, as it was a decade ago. Russian innovative medium businesses are likely to slow their growth should state policies of 2007-2008 persist during the presidency of Dmitry Medvedev, who took office in May 2008.

Impact of the Global Financial and Economic Crisis

Most of the empirical evidence to substantiate the utility of application of the Gaddy-Ickes *r-d space* model to understanding trends in medium-size business in Russia was collected throughout the first nine months of 2008. Evidence was collected by interviewing leaders in medium-size machine building enterprises and some large enterprises as well as regional and local officials in the Volga-Ural region of Russia. It was further reinforced by personal observations, discussions with Clifford Gaddy at the Brookings Institution and professors and fellow students at the Georgetown University Center for Eurasian, Russian, and East European Studies. Research conducted in the public domain – newspapers, magazines, online

publications, and even in the Russian blogosphere – also played an important role. The patterns and trends were clearly identifiable until September 2008, when the global financial crisis reached the Russian Federation. Until that time commodity prices remained high and state corporations, oil and gas and other extractive industry players, and some other major enterprises continued their expansion. The situation dramatically changed as soon as oil and metals prices started their steep six-month-long decline.⁶⁷ Heavily indebted Russian industrial giants appealed to the federal government for bailout and received support in form of capital injections, import protection measures, and a decrease in export tariffs. During a few months of uncertainty in late 2008 it remained unclear whether the *r-d space* model was still useful for description of medium-size business dynamics.

The model may indeed need to be reapplied to a new and broader set of case studies after the dust from the global financial storm settles. At the same time, it appears to remain relevant to describing the dynamics of state-business relations during the ongoing crisis. Over recent months – November 2008 through May 2009 – the emphasis of the model has shifted towards large inefficient businesses with

⁶⁷ Falling commodity prices had an immediate sobering effect on the Russian economy. The effect turned negative by October 2008, as it became clear that in the climate of lower consumption commodity prices were not going to recover. See, for example, Russian Federation: Interim Report, OECD Economic Outlook, March 2009, <http://www.oecd.org/dataoecd/16/49/42441052.pdf>

high 'r' and relatively high 'd.' Their distance to market may be great, but, given their scale and remaining social significance, they enjoy the protection of the state by maintaining their high relational capital. The best example of such behavior is the case of AvtoVAZ (Case Study III), which has been able to increase its relational capital to such an extent that it not only has outplayed GAZ, but also strengthened its position on the Russian car market despite social protests against state protectionist duties on imported vehicles. The 20 billion rubles that Prime Minister Putin pledged to give Rostekhnologii's VAZ plant will not only leave more competitive car manufacturers behind, but also encourage VAZ's suppliers to continue relying on the plant's orders during the economic crisis and abandon restructuring attempts. It is quite likely that both VAZ and numerous large and medium-size enterprises that supply it will emerge largely unreformed out of the economic crisis. Even the global economic crisis doesn't seem to change behavior of Russian enterprises with high 'r' and (relatively) high 'd'!

As for market-oriented and technologically advanced medium enterprises working for the oil and gas sector and some other industries, the situation has not changed. On the contrary, with the market liquidity squeeze, they have become ever more vulnerable to unfriendly takeovers by large state and private enterprises and state corporations. Still lacking relational capital and suffering from a decline in

demand for their goods and services, some of them have already been taken over by large conglomerates. Pipe conglomerate D (Case Study I) further strengthened its hold over the machine-building sector for oil production needs. NPO “Saturn” and Ufa-based UMPO lost their battle against Rostekhnologii in November 2008, when their controlling stakes were transferred to Rostekhnologii’s turbine subsidiary OAK in exchange for their debts to Western institutional lenders.

Ironically, the *r-d space* model may have also shifted in favor of enterprises with high ‘d’ and low ‘r.’ Some of such enterprises are located in the so-called *monotowns*, or company towns, where they provide most jobs. Federal and regional governments may simply have to support such enterprises to avoid social unrest in economically distressed and politically sensitive areas of the country, such as the Russian Far East and the North Caucasus.

The *r-d space* model emerges as relevant as ever and helps predict which enterprises may go bankrupt, which will be bailed out, and which will fall victim to corporate takeovers. The extent to which effective market-oriented enterprises will succeed remains to be seen. Much will depend on how the crisis plays out. Yet, having observed the dynamics of medium-size business development before and during the first nine months of the crisis, I conclude that some sectors of the

Russian economy may have the potential to weather the crisis (enterprises A and C are doing reasonably well given the tough environment and pressure from major enterprises), while others may yet again emerge from it in their most inefficient 1990s forms. During this crisis the Russian state has so far acted non-systemically and intuitively, often succumbing to pressure from high 'r' enterprises. The state's overall policy towards medium businesses will become clear once the crisis is over. President Dmitry Medvedev's assurances that the state is there to help small and medium, particularly innovative, businesses have not materialized in any substantive form to this date.

For most of first decade of the 2000s, high oil price and commodity prices in general spurred growth of both large enterprises and the state sector, but the wealth also trickled down the economic ladder and positively impacted small and medium business development.⁶⁸ As small and medium enterprises consolidated their positions, they gradually became more vulnerable to administrative and other forms of pressure from state (including regional) and local officials, and large enterprises.

⁶⁸ This trend particularly manifested itself in growing costs of services and prices for equipment and materials delivered to oil companies. Prices and services grew fast, at times surpassing the pace of growth of the price of oil. This situation was symptomatic not only for Russia, but for global oil and gas sector in general. See, for example, an article on the subject published at the peak of oil price in July 2008: Sheila McNulty, "Oil Price Boom Favours Service over Majors," *Financial Times*, July 21, 2008, p. 22.

Having observed the dynamics of development of medium-size business in Russia over the last several years, I conclude that the current dynamic described through *r-d space* model will prevail. Unless federal and regional governments follow up on President Medvedev's pledge not to 'squeeze' businesses⁶⁹, relational capital will remain a more significant factor than market performance and innovation. The trends described in the four case studies are likely to intensify as soon as commodity prices rebound.

Implications for Future Studies

Application of the *r-d model* is appropriate for describing the initial dilemmas that medium businesses face as state policy changes. However, it would be too simplistic not to take into account the increasing complexity of the Russian economy: mergers and acquisitions in a number of sectors, interpenetration of regional and international markets, investments, and launch of new ventures. An increasingly complex and nuanced governance and legal system, and development of civil society are also factors that may be worth factoring into the *r-d model*. In

⁶⁹ President Medvedev's phrase "*hvatit koshmarit' biznes*," which literally means "do not instill horror in businesses," became a leitmotif of his speeches devoted to economy throughout 2008.

addition to following up on particular case studies,⁷⁰ I suggest applying a more general theory of economic structures and institutional development to the study of dynamics of the Russian economy. Study of existing and emerging Russian state and non-state institutions may not only enrich case studies of medium enterprises in Russia but provide a broader framework for studies in Russian political economy.

⁷⁰ For example, “Implications for Economic Performance of Oil Industry Equipment Manufacturers during the Period of Consolidation of State Corporations and National Champions: Reasons and Schemes of Acquisition (Renationalization) of “Second-tier” Companies into State Corporations; Forms of Acquisition (takeover, merger, inclusion in a State Corporation, Public-Private Partnership (PPP), formal and informal pressure, social responsibility, and other); Survival and Growth Mechanisms of Oil Industry Equipment Manufacturers (“Virtual Economy” in the Oil Equipment Industry; Role of Business Associations; Role of Oil and Gas Companies; Impact of State Policy).

APPENDICES

Appendix I

A. Some Major Russian Manufacturers of Pumps and “Christmas Trees” for the Oil Industry:

- I. ZAO Novomet-Perm, Perm’, (www.novomet.ru)
- II. OAO ALNAS, Almetyevsk, (www.alnas.ru)
- III. OAO Korvet, Kurgan, (www.korvet-jsc.ru)
- IV. OAO Izhneftemash, Izhevsk, (www.neftemash.ru)

A-I. Oil Industry Equipment Manufacturers’ Memberships (Nationwide and Regional):

- I. Russian Association of Oil and Gas Equipment Producers (www.derrick.ru)
- II. Russian Pump Manufacturers Association (www.rpma.org.ru)
- III. Union of Oil and Gas Producers of Russia (Soyuz neftegazopromyshlennikov Rossii), (<http://www.shafraanik.com/rus/work.asp?id=3>)
- IV. Association of Western Urals Energy Professionals (Assotsiatsiya energetikov Zapadnogo Urala), (www.feeder.ru)
- V. The National Association of Natural Gas Consumers, Non-Commercial Partnership, www.gazco.ru

B. Turbine Manufacturers:

- I. NPO Saturn, Rybinsk, (www.npo-saturn.ru)
- II. OAO UMPO, Ufa, (www.umpo.ru)
- III. OAO Perm Motors Group, (www.avid.ru)

Major Business Organizations:

- I. Chamber of Commerce and Industry of the Russian Federation (www.tpprf.ru)
- II. Russian Union of Industrialists and Entrepreneurs (www.rspp.ru)
- III. Delovaya Rossiya (Business Russia), (www.deloros.ru)
- IV. OPORA, All-Russia Public Organization of Small and Medium-Size Entrepreneurs (Obscherossiiskaya obschestvennaya organizatsiya malogo i srednego predprinimatel'stva), (www.opora.ru)
- V. Regional Union of Employers of Permskii Krai "Sotrudnichestvo" <http://www.sotrudn.ru>

Appendix II. Structure of State Corporation Rostekhnologii.

State Corporation Rostekhnologii (Parent Company)



First and Second Tier Enterprises and controlling share in percent:

Rosoboronexport (100)
SSMPO AVISMA (66)
OOO NPO OboronReformProekt (100)
ZAO RussSpetsStal' (25.3)
OAO AvtoVAZ (75+1)
OAO Motovilikhinskie Zavody (25)
OAO Moskovia (51)
ZAO Promyshlennaya Energeticheskaya Kompaniya (100)
ZAO Kontsern Vysokie Tekhnologii R (100)
ZAO R.E.T. Kronshtadt (100)
OAO Russkii Strakhovoi Tsentri (100)

OPK OboronProm (31,13), including:

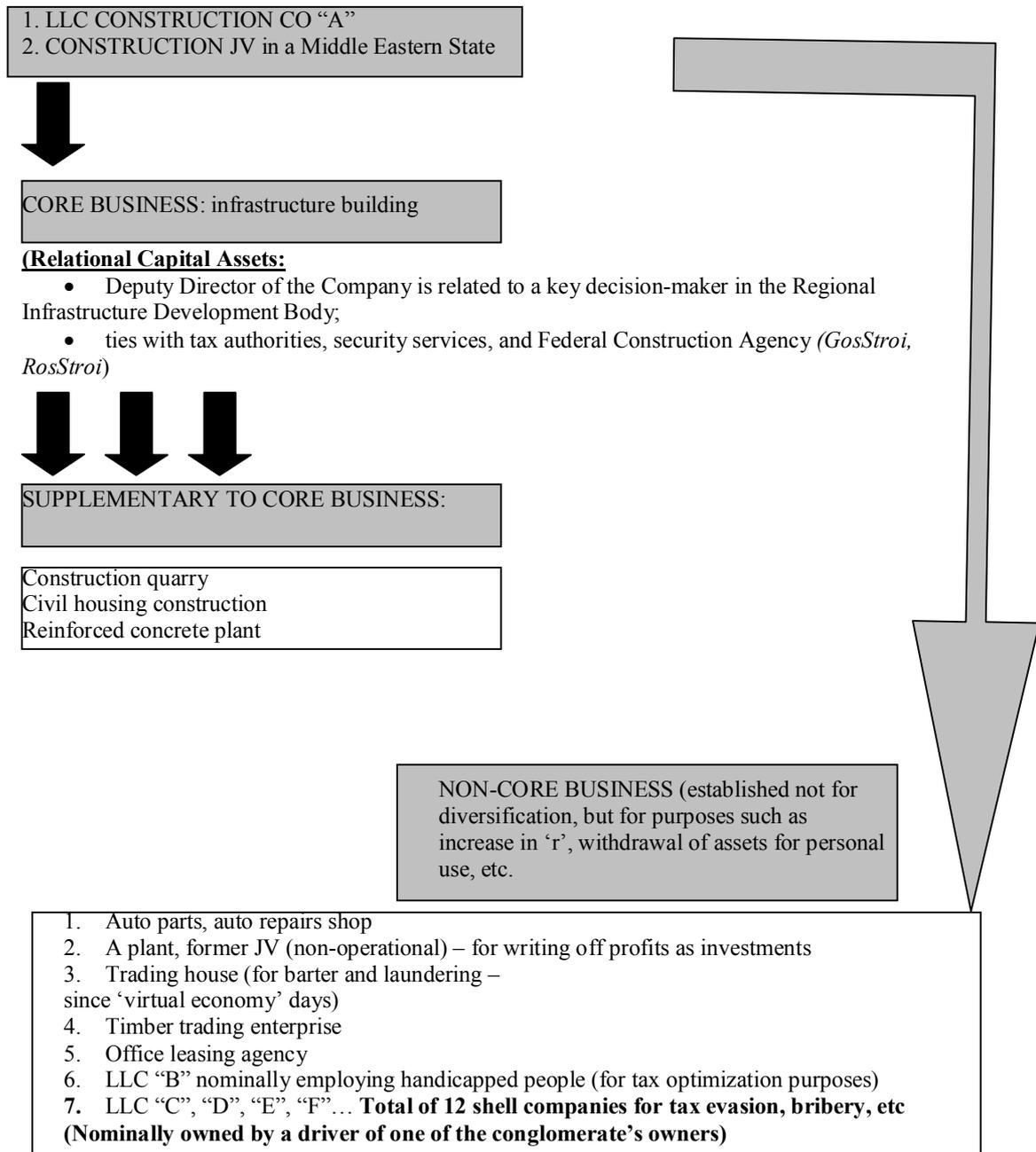
OAO Vertolyoty Rossii (100)
OAO Oboronitel'nye Sistemy (75)
ZAO OboronPromLeasing (100)

Also including six holding companies in the areas of:

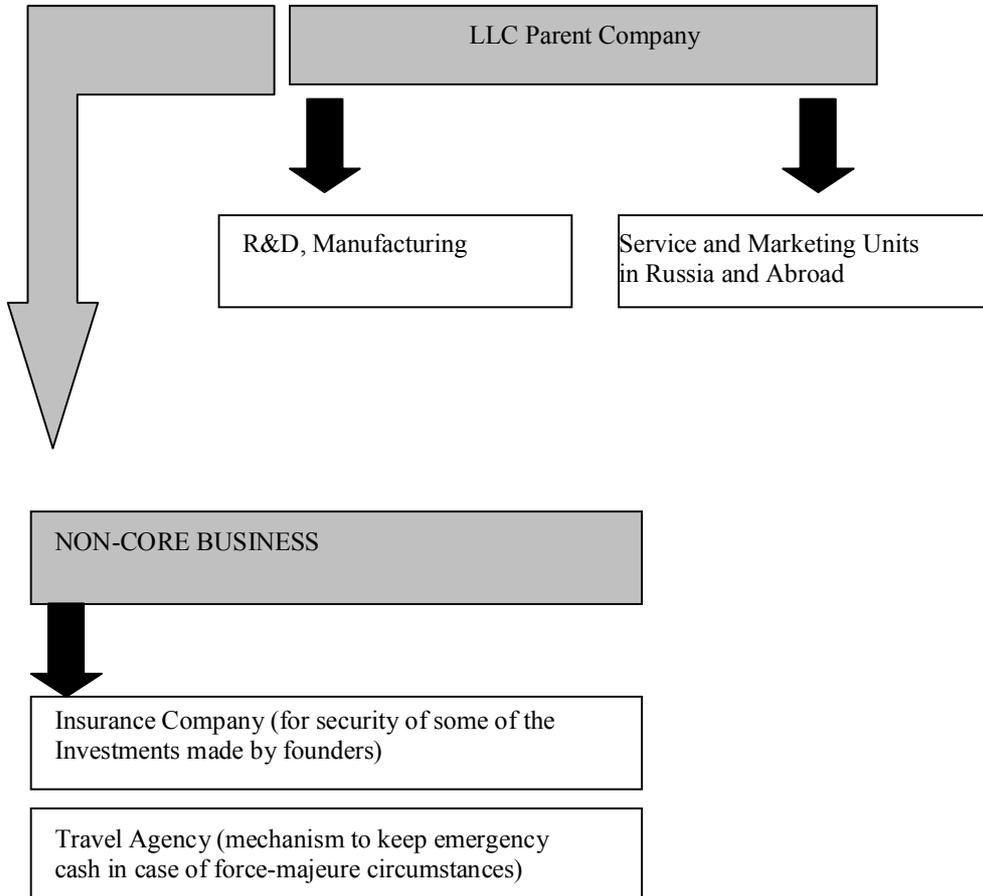
electronic systems
armor and tanks
engine-building
composite materials
explosives
fuel and fuelling.

Source: Vladislav Tyumenev, "Uroki preodolevaniya "Rosoboroneksporta," *Expert*, №45 (586), December 3, 2007,
<http://www.expert.ru/printissues/expert/2007/45/goskorporacii>

**Appendix III. Basic Structure of Construction Company “X”:
Core, Supplementary, and Non-Core Assets**



Appendix IV. Basic Structure of Enterprise A



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