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The case of Russia**

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Market asymmetries, arbitrage and transition: the case of Russia

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Abstract

This paper develops the concept of corporate strategy as a process of arbitrage between markets where asymmetries are exploited by corporate managers. From a development position, this article argues that arbitrage is possible when encountering price asymmetries where there is a technical opportunity to realize arbitrage. Examples are taken from Russian forestry, construction and mining and car industries reveal how executives can create and employ price asymmetries. However the concept of arbitrage can be extended where there are, for example, opportunities to exploit differences in health and safety, labour law more generally, environmental regulations and knowledge.

Keywords: Strategy, arbitrage, price asymmetries, privatisation, Russia.

1. Introduction

This paper extends the concept of corporate strategy as a process of arbitrage between markets (see Andersson et al 2008) where different nature asymmetries are exploited by corporate managers to improve cash ROCE. According to the traditional definition, strategy is the course of a company over the long term, seeking an advantage through its configuration of resources and competences with the aim of fulfilling stakeholder and shareholder expectations. There are different types of strategic typology and often these strategic alternatives are labeled generic because theoretically any type of business can implement them.

Anderson et al (2008) offer a new perspective on corporate strategy as a ‘process of arbitrage between markets where physical, financial and temporal asymmetries are exploited by corporate managers to boost earnings-capacity’. Also, Ghemawat (2003) notes that the scope for arbitrage is the differences that continue among countries and distances between them could be measured by a four-dimensional framework which includes differences in culture, in the administrative and institutional context, geography and differences in economic attributes.

This paper increases the scope of arbitrage and proposes that, as an organizing concept, it can be employed to describe differences that persist between regions of a country. From a development position, this paper considers the extent to which strategy as arbitrage is a new phenomenon, are there others forms of strategy as arbitrage? How could strategy as arbitrage be employed to understand the process of change in transitive economies? What creates asymmetries and opportunity for arbitrage in transitive economies? This research tries to find answers for these questions through the experiences of the transitive economy of Russia.

In this paper we show that arbitrage is possible when two conditions are met: the same asset does not trade at the same price on all markets and there is a technical opportunity of realisation arbitrage. Consequently to analyse arbitrage, it is possible to build the matrix with two parameters: opportunity and price differentiation, and selects four possible options: absent price asymmetries and strong potential for arbitrage, absent price asymmetries and weak opportunity for arbitrage, strong price asymmetries and robust opportunity for arbitrage and strong price asymmetries and weak opportunity for arbitrage.

Examples from the Russian forestry, construction and car industries reveal how executives can create price asymmetries and opportunity for arbitrage and use strategy as arbitrage getting a competitive advantage. Also, the paper shows the opportunity for exploiting asymmetries between high and low level of labour safety cost, labour law cost, environmental pollution cost and knowledge cost to boost earning capacity. In addition, by disclosing the car-maker Avtovaz competition strategy we reveal an additional type of strategy - anti-arbitrage strategy.

This article is divided into three sections: the first of which presents different types of strategy typology and offers a new look on corporate strategy as a process of arbitrage between markets where different types of asymmetries are used by corporate managers to increase earnings-capacity. The second section represents different examples from various Russian industries which reveal strategy as arbitrage. In the final section, we use the Avtovaz and Nornickel cases to consider, in more detail, arbitrage practice in the large companies that disclose a new phenomenon of arbitrage.

2. Strategy as arbitrage

According to the traditional definition, strategy is the direction and scope of an organisation over the long term, which achieves an advantage in a changing environment through its configuration of resources and competences with the aim of fulfilling stakeholder expectations (Jonson et al 2006). Also strategy should help to the company find the following questions: Where should the company compete? How could the company achieve and maintain advantage? What capabilities, assets, structures and culture do companies need to bring the strategy? How can the company change?

There are different types of strategy typology and these strategic alternatives are labelled generic because theoretically any type of business can implement them, whether it is a mining company, a high-technology firm or a public organisation.

Influential strategy typologies include Simons' strategy model, Porter's competitive strategy, Mintzberg's five Ps and more modern Blue Ocean Strategy. Simon's model (Simon 2000) analyses the concept of a company's strategy into the four different areas: strategy as process which describes the managerial activity inherent in influential goals; strategy as

competitive position which refers to how the company competes in its markets; business level strategy which refers to how a company competes in a given business and positions itself among its competitors and corporate level strategy which relates to determining what business chooses to compete in and the most effective way of allocating resources between business units.

Mintzberg (2002) describes organisational strategy by using five Ps: a plan (course of action); a ploy (specific maneuver to outwit competitors); a pattern in a stream of actions for an intended strategy to be realised; a position, that is a means of positioning firms within their business environment and a perspective, an ingrained direction of perceiving things which exist in the mind of managers.

Porter's generic strategies: lower cost, differentiation and focus, and five forces analysis (1979) are a popular framework for industry analysis and business strategy. The models have been derived from theory of industrial organisation economies. According to the philosophy of science, there are two processes of reasoning, namely the deductive and the inductive approach which are important for theory creation and observation testing (Smith 2003). Generally, the deductive approach develops a theory and constructs a research strategy to check the hypothesis. Additionally, this approach is initiated by a research process based on existing theory and extended by application of particular predictions which will be verified through data collection and findings.

Simons' strategy typology and Porter's competitive strategy were built by using the deductive approach because the authors employed different grand range theories as foundation for the models. Conversely, the inductive approach collects data and develops a theory as a result of a data analysis. Induction is the process whereby the researcher can create a theory by the observation of facts such as case studies, data collection, survey analysis of successful companies and statistical analysis as part of the inductive process; this approach is widely used for building 'theory of strategy'. An example could be Funky Business (Nordstrom & Ridderstralle 1999) and Blue Ocean Strategy (Kim & Mauborgne 2005). When studying which forces are influencing competition and profitability of an industry one can employ both of the approaches that will be demonstrated below.

Recently, the new perspective on corporate strategy as a process of arbitrage between markets has been created. Arbitrage is one of the popular ideas of modern economics, implementing the law of one price and keeping markets efficient. According to the law of one price in a

competitive market, if two assets have equivalent risk and return, they should sell at the same price. If the price of the same asset is different in two markets, there will be an arbitrageur who will buy the asset cheaply and sell in the market where it is expensive. In traditional meaning, arbitrage involves the simultaneous purchase and sale of the same or analogous security in two different markets for profitably different prices and continues until prices in the two markets reach equilibrium (Sharpe & Alexander 1990?). In addition, arbitrage helps to equalise prices and restore market efficiency.

Theoretically, arbitrage does not require capital and risk. However, real world arbitrage requires an amount of capital and involves risk. Between 1996 and 1998 there were excellent opportunities for covered interest rate arbitrage in Russia. Due to the return from borrowing in US dollars, exchanging that currency for Russian rouble and investing in interest-bearing instruments such as the Russian rouble treasury bill (GKO), while simultaneously purchasing forward contracts to convert the currency back at the end of the holding period created an arbitrage profit of about 50 cents per dollar per annum. However, in August 1998, Russia defaulted on its internal debt and arbitrageurs lost capital. This example reveals arbitrage's risk. Additionally, it shows that profitable arbitrage had to be done in special conditions as in the Russian example, exchange rate corridor for rouble/dollar being set by the Russian government.

Weyly (2007) offers some form of characteristics of markets which are essential to allow arbitrageurs to make profits: physical separation of markets; market incompleteness because a market for certain types of assets may not exist in the absence of a market maker; informational arbitrage which exploits any sort of information that makes two assets equivalent to one another and creates an opportunity for arbitrage of the segmented markets; temporal arbitrage, which uses changes in price of assets over time.

Ghemawat (2003) suggests a new look on arbitrage as an element of corporate strategy. He writes that arbitrage is not cheap capital or labour; the scope for arbitrage is the differences that continue among countries. He offers a four-dimensional framework for measuring distance between countries which includes differences in culture, in the administrative and institutional context, geography and differences in economic attributes. These differences from country to country launch a mass of strategic arbitrage opportunities. Ghemawat emphasizes differences that continue between countries on the contrary one can propose that arbitrage also is the differences that keep on between regions of the one country.

Anderson et al (2008) reveal corporate strategy as a 'process of arbitrage between markets where physical, financial and temporal asymmetries are exploited by corporate managers to boost earnings-capacity'. They employ a wide definition of arbitrage and propose that arbitrage is a process consisting of buying and selling on different markets with the intention of taking advantage of the differentiation in the price quoted. In addition, Anderson et al reveal a few types of arbitrage: 'off-shoring, out-sourcing and transfer pricing arbitrages: off-shoring arbitrages high labour costs against low labour costs, out-sourcing arbitrages internal settlements against an external supplier where a gradient of difference can be identified and captured, transfer pricing, between geographic subsidiaries, can be employed to arbitrage fiscal variations between one region and another reducing the firm's effective tax rate and lowering the cost of capital'.

One can propose that stable economy and political system has less opportunity for arbitrage. In developed countries, market forces relatively quickly maintain equilibrium of price differentiation. In countries with strong state regulation or with authoritarian regime price being regulated by the state and opportunity for arbitrage is minimal. For example in the USSR arbitrage as a legal business operation was forbidden and as a result was being illegally. In transitive countries, generally with weak economic and political institutions, there is significant opportunity for arbitrage which involves using knowledge or confident information of future economical and political decision. In addition, there is a large zone when political decision makers create opportunities for arbitrage and they are in positions to profit from their private investments. In the following sections, strategy as 'arbitrage' will be revealed through the experiences of the transitive economy of Russia.

3. Strategy as arbitrage in Russia

As was noted above Anderson et al reveal three different type of strategy as arbitrage: product, labour and capital market arbitrage which take advantage from the variability in price structure between product markets, social settlements governing employment, temporal price variations arising from asset appreciation in capital markets and tax, interest and exchange rate variations through transfer pricing. From a development position, one can set additional questions: Is this a new phenomenon in business practice? Are there another types

of strategy as arbitrage? How strategy as arbitrage could be employed in transitive economies? And what creates asymmetries and opportunity for arbitrage in transitive economies?

We try to find answers to the questions presented in the previous section from Russian economic history. It is a trivial fact that the Soviet economy was managed through the State Planning Commission (Gosplan), which had poor quality of planning and insignificant reliable feedback; industrial goods and military industry were permanently the focus of the Soviet authority and the production of consumer goods was disproportionately low. As a result, there was a scarcity of many consumer goods leading to a widespread black market. Some of the black market goods were sold by arbitragers (officially called speculators and prosecuted by the state) who exploited price asymmetries. Generally, this arbitrage and speculation were imminent within the soviet system because they were one of many regulators of economic life.

In 1985, Gorbachev announced the start of the reforms in the Soviet economy which were called acceleration, glasnost (liberalisation) and perestroika (restructuring) and the process of arbitrage was legalised. Generally, between 1987 and 1992 arbitrage was a major element of strategy for new companies because nobody understood how long perestroika would exist and business did not have experience of strategy planning. Simultaneously arbitrage was a major element of operation management due to the collapse of state regulation. Government policy and regulation gave a huge opportunity for strategy as arbitrage. For example, the alcohol reform of 1985 which was designed to fight widespread alcoholism. Prices of alcohol were raised, many wineries were destroyed and sales were restricted. Simultaneously there was a large disparity between regions of the country in alcohol supply and demand that created price asymmetries and lucky break arbitrage.

Another example could be trading with commodities in the 1990s when there were two different prices one price for internal operations within the Soviet Union and a global price in Estonia which at that time was within the economic zone of Russia. As a result, in the 1990s, this gave a huge opportunity for arbitrage and resultantly Estonia was the largest world exporter of non ferrous metal.

Another example from Russia reveals transfer pricing between subsidiaries, which utilised fiscal differences between one region and another, reducing the company's effective tax rate. After the start of the Russian reforms a few Russian regions created internal offshore zones

that gave opportunities for transfer pricing. The small Russian town Mosalsk, for example, where since 1991 had been registered Menatep, one of the largest banks, and the oil giant Yukos which were both controlled by M Khodorkovsky. According to Russian tax law these companies received large tax privileges, and yet still paid a large share of the town's budget in corporate tax. Resultantly, the town gained from dramatically increased tax revenue whilst the company benefitted from a substantially reduced taxation liability (Osipov 1999). Abramovich developed transfer pricing operations and employ price asymmetries. According to the traditional approach, price asymmetries are created by different market nature and concrete decision making, as a rule, is eliminated from analysis. The Abramovich case demonstrates how executives can create price asymmetries. In the 2000's Abramovich's Oil company Siboil which historically was a Russian leader for tax optimization and it sold oil through the traders registered in the Russian offshore zones. Abramovich's also held the post of the governor of Chukotka Region and created, in effect, an "internal offshore" tax haven and this according to reports reduced corporate tax more than \$2Bn. Using tax privileges Abramovich's company could reduce corporate tax from 35 to 5.5% (Finance 2007).

This last example shows that strategy as financial arbitrage can include additional sub strategies such as the creation by the company itself conditions for arbitrage. Generally, it is more possible in countries with weak institutional and regulatory bodies such as Russia and other countries with transitive economies.

Simplifying, arbitrage is the practice of getting benefit of a price differential between two or more markets and it is possible when two conditions are met: the same asset does not trade at the same price on all markets and there is a technical opportunity of realisation arbitrage. In this case two parameters determine arbitrage: a price differential and a technical opportunity. In the traditional understanding, arbitrage is the act of buying a product in one market and selling it in another for a higher price and it has to take place concurrently to avoid exposure to market risk and therefore arbitrage as financial practice has dramatically grown together with the progress of telecommunication which gives the technical opportunity for realisation arbitrage.

To analyse arbitrage, it is possible to build the matrix with two parameters: opportunity and price differentiation, and selects four possible options: absent price asymmetries and strong potential for arbitrage (option 1), absent price asymmetries and weak opportunity for arbitrage (option 3), strong price asymmetries and robust opportunity for arbitrage (option 2)

and strong price asymmetries and weak opportunity for arbitrage (option 4).¹ Fig1 shows matrix price asymmetries – opportunity with the four outcomes.

Fig1 Matrix price asymmetry and opportunity.

Absent price asymmetries and strong potential for arbitrage Option 1	Strong price asymmetries and robust opportunity for arbitrage Option 2
Absent price asymmetries and weak opportunity for arbitrage Option 3	Strong price asymmetries and weak opportunity for arbitrage Option 4

Source: author

Option 2 is the standard case of arbitrage and it was analysed above, option 3 could not give arbitrage therefore only two options are interesting for analysis business strategy. Option 4 is the typical case which determines state and regional regulation, bureaucratic barriers and limitation of infrastructure of the country and region. Often these determinants are positive because they protect ecological and economic interests of the country but often they have strong negative intensions.

An example could be the Russian forestry industry. China is the biggest market for wood products, which has fueled import growth, including a considerable quantity from Russia. Not surprisingly there is forest cutting carried out with abuse of the existing legislation however the major part of the cutting in the east part of Russia was made with official permits for cutting operations. Russian wood log imports in China are very attractive arbitrage but are limited by a weak opportunity for the increase of supply due to Russian state legislation.

That is why many forestry companies created many opportunities for cutting. This was done by obtaining permits for felling in specially protected natural areas where cutting is forbidden or without a genuine assessment of the volume of wood available for cutting, obtaining a permit to cut and transport the wood using relatively non-invasive technology but then using cheaper, more primitive methods; by exploiting cutting permits established on dubious interpretations of forest management laws and regulations and by exaggeration of the degree to which a forest is afflicted with pests or diseases, so that immediate selective or clear felling is necessary, as a result, about 40% of Russian softwood log imports were of dubious origin. (Morozov 2000). This example shows how a weak opportunity for arbitrage was strengthened and combined with strong price differentiation, strategy as arbitrage was created.

The Option 1 (strong price asymmetries and robust opportunity for arbitrage) gives the opportunity to create arbitrage by the way of organisation special conditions. An example of this option is the employment of migrant workers in Moscow and other Russian cities when the construction industry, having had potential for labour arbitrage, lobbied for special state resolutions to allow the employment of migrants. According to the report Human Rights Watch (2008) there were 9 million migrant workers in Russia, 80 percent of whom come from nine countries of the CIS with which Russia maintained a visa-free regime. Approximately 40 percent of migrant workers have been employed in the highly unregulated construction industry and two million of them work in the Moscow region.

Generally, migrant construction workers are young men, who leave their family in their home countries and enter Russia for six to nine months of seasonal employment, often for many years in a row. These workers enjoy higher wages in Russia and often send money to their families. Building workers usually live in deprived conditions and often employers commit violations of Russian law such as: confiscating passports, withholding wages and forcing employees to work long hours. The absence of a written employment contract also leaves migrant workers vulnerable in cases of workplace accidents because workers cannot access state-sponsored accident insurance that depends on employer contributions for all legal employees and in many cases employers do not provide any assistance to injured workers (Ibid).

This example shows the well-known type of economic arbitrage which exploits low-cost labour as a reaction to growing competition in markets and huge demand. However, the Russian model of off-shoring arbitrage is dissimilar to that observed elsewhere. Russian

business transfers labour from developing countries to the relatively more developed Russia. More generally, off-shoring transfers capital and technology from advanced economies to developing economies with lower labour costs.

In addition, this case reveals two complementary advantages for companies moving to emerging markets: undeveloped health and safety regulations and labour law. Health and safety compliance is very expensive in manufacturing but often ignored in developing countries. As a result, relocation into countries with more lenient health and safety regulation can create reduced operational expenditure. Labour law in developing and transitive countries in comparison with developed countries does not provide adequate terms of employment, anti-discrimination, unfair dismissal and child labour protection. Also, trade unions are usually not independent of executives of companies, reducing union effectiveness. Consequently, companies conducting business in developing countries can often reduce effective labour costs.

In the global market generally, environmental expenditure has been increasing and there are significant differences in environmental standards and control systems between transitive and advanced economies. Multinational companies are arbitraging environment costs, relocating domestic operations into countries with low environmental standards and/or countries with undeveloped monitoring systems in order to take advantage of international differences in pay for pollution. Finland, for example, with a strong paper industry having had huge forest reserves, encountered logging limitations from the state due to environmental standards. As a result of Finnish policy since the 1990s, round wood exports from the North-West of Russia to Finland had doubled from 4-6 million cubic meters per annum in 1982-1993 to 10-11 million cubic meters per annum and this export generated a considerable deficit of raw materials for Russian paper companies (FAO 2002). In the same period, Finland increased its production of pulp and paper two-fold whereas the Russian share in the world market reduced more than two thirds. Logging dominated the structure of Russian forest exports because the industry had inadequate wood processing in an immediate vicinity of wood growth. Finland used the Russian forestry industry solely as a raw material supplier (European forest sector outlook study 2005).

In the next section, we consider two cases: Avtovaz and Nornickel. These cases demonstrate strategy as arbitrage in action and question the extent to which earnings capacity is transformed.

4. Company Cases

Avtovaz

Avtovaz was the largest Russian firm that built and assembled cars from parts sourced within Russia and its satellite countries. Significantly, the company built approximately 750,000 cars each year before its privatisation and was a major supplier of cars to Russian consumers. It employed roughly 125,000 employees and was generating a 20% return on capital employed. In 1990s, Russia had a comparatively underdeveloped car market and according to official statistics market penetration was at 83 cars per 1,000 people, considerably lower than that in other European markets (ASM 1995). This factor created a huge demand for cars and price asymmetries between domestic and external markets because national manufactories did not have adequate capacity and the quality of cars could not satisfy consumers. Consequently, numerous small companies and entrepreneurs employed opportunities for arbitrage and in 1996 there was colossal growth in foreign second hand motor vehicles which rose to 457,000 (about 50% of the market) which was a serious threat to the domestic automotive industry and for Avtovaz in particular (ASM 1997). In order to stop the significant growth of used-car imports Avtovaz lobbied the government to create a programme to encourage domestic production of cars and increase tariff on used cars by 35% to protect the domestic producers from inexpensive used-car imports.

This case reveals two outcomes: on the one hand it demonstrates again strong price asymmetries and robust opportunity for arbitrage (Option 2) in an undeveloped market and on the other hand it shows a strategy of defense against arbitrage which is employed by opponent(s). This example clearly discloses the Avtovaz competition strategy – increasing the trade barrier for foreign producers.

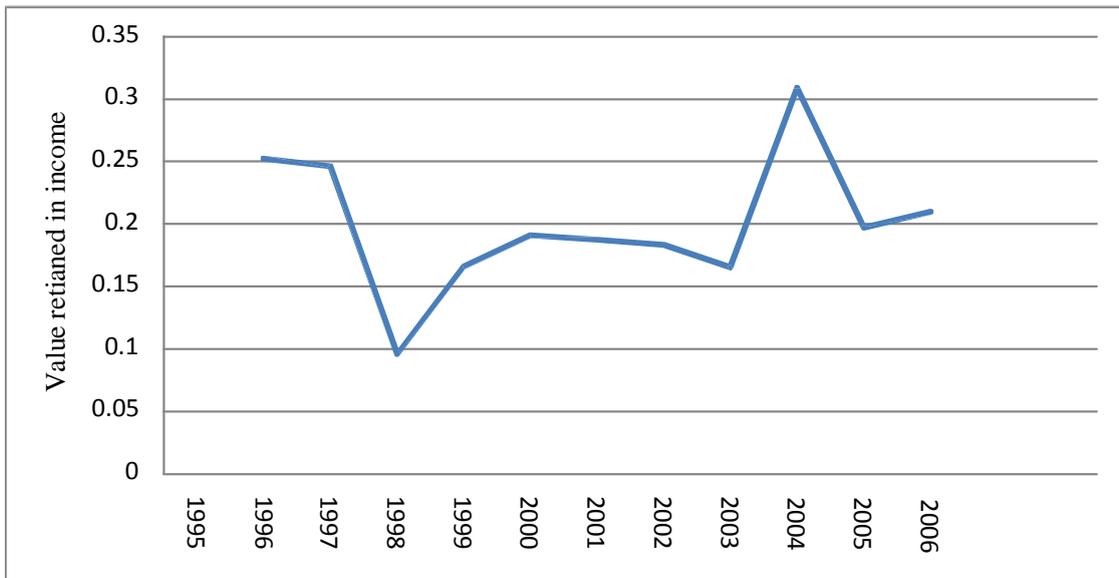
Employing matrix ‘price asymmetries – opportunity’ gives a new opportunity for strategic analysis. In the context of arbitrage, the strategy of Avtovaz was the transference of the company’s opponents position from option 2 to option 4 and as result of this movement it had been decreasing opportunities for arbitrage. Also as the second company sub-strategy could

be the movement itself from option 2 to option 1 (the absence of price asymmetries and strong potential for arbitrage): by increasing capacity, improving quality and optimising car price; consequently decreasing price asymmetries and eliminating arbitrage. The history of Avtovaz shows that the company maintained competitive advantages for 10 years by using anti-arbitrage strategy.

In that time, however, the competition in the Russian car market had been getting stronger. Despite high duties, which were reducing demand for second-hand foreign-made cars, Avtovaz could not save its position because growth of the national economy shifted consumer preferences toward new foreign-made cars of the low and average cost segments. Since 2000 all major world car manufacturers paid increased attention to the Russian market and by the end of 2002 there were already six foreign car assembly operations in Russia such as Ford, General Motors, Kia, BMW and Renault. (ASM 2003).

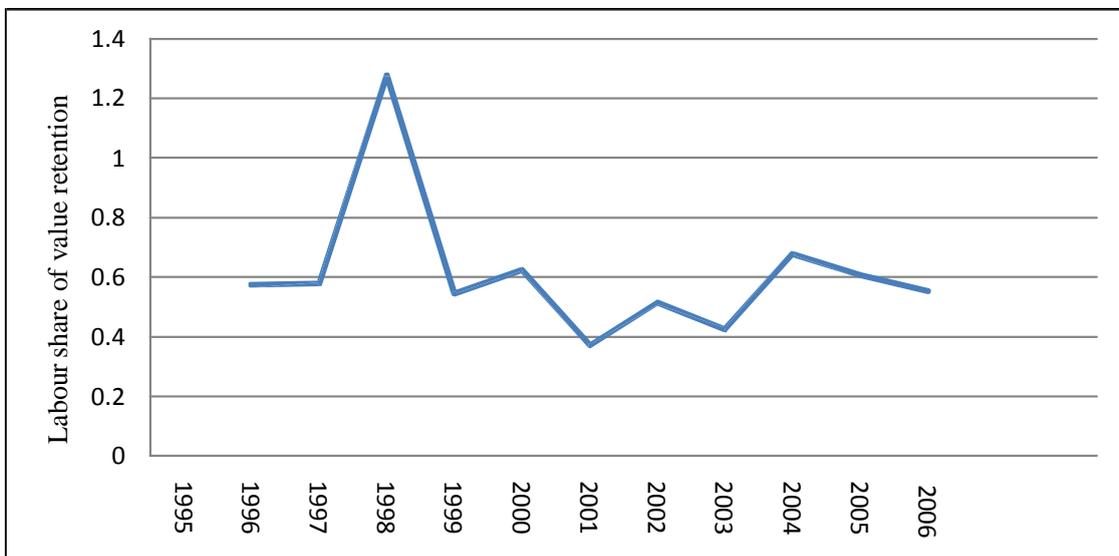
The Russian new cars market steadily posted solid rates of growth throughout the 2003-2007 period. Additionally, after years of protecting the domestic car industry through prohibitive tariffs, the government reduced the duty on imported auto components to virtually zero. This motivated the world's car producers to significantly increase production facilities in Russia. In the struggle for Russian customers, foreign companies used all possible trade methods: building car assembly plants in Russia, offering consumer credit on a wider scale, improving and developing dealer networks, selling new models in the Russia market simultaneously with sales in markets of Western countries and using wide, aggressive marketing. In 2007, the total sales of new passenger cars constituted 2,000,000 units and the domestic cars made up only 30% of them (ASM 2007). Generally, in that time Avtovaz maintained its volume of production, which fluctuated between 600,000 and 700,000, although the company dramatically decreased its market share from 50% to 24%. The financial capacity of the Russian market was growing faster than the volume indexes of sales. The Russian new cars market generated total revenues of \$24.6 billion in 2007, representing a compound annual growth rate (CAGR) of 31.3% for the period spanning 2003-2007 and market consumption volumes increased with a CAGR of 19.7%. The company increased sales from \$3.3Bn to \$5.1Bn but the share of LADA by financial volume had been decreased from 32% to 20% because it could not make up the expensive models and maintained position only in the cheapest market niche.

Chart 1 Avtovaz value retained in income



Note: Value retained in income can be determined as sum of EBITDA and labour cost divided into sales revenue.

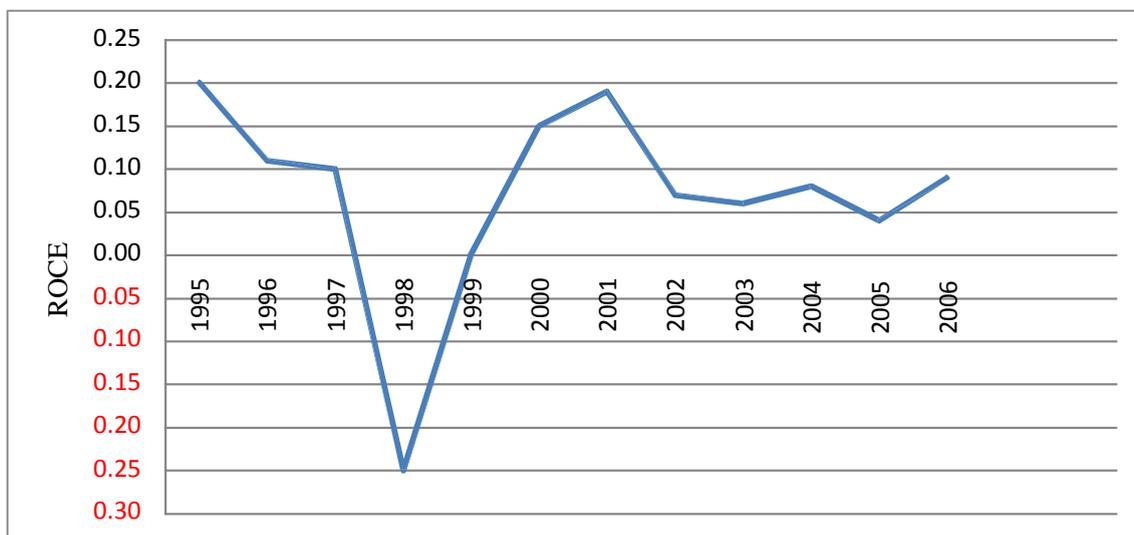
Chart 2 Avtovaz labour share of value retention



Note. Labour costs share of value retained is defined as personnel costs divided by operating result before depreciation and amortization plus personnel costs.

Source: Author calculation.

Chart 3 Avtovaz ROCE



Note: ROCE is defined as operating result before depreciation and amortization in relation to the sum of equity and long-term debt.

Source: Author calculation.

The problem facing Avtovaz during the 1990s was its increasingly weak finances driven by wealth extraction, poor operating finances and weak strategy where the anti-arbitrage struggle against foreign producers of new and used cars was the major element of corporate strategy. This story reveals a limitation of employing strategy as arbitrage and/or anti-arbitrage if these strategy employed are independently of alternative strategies and do not support other elements of corporate management.

Nornickel

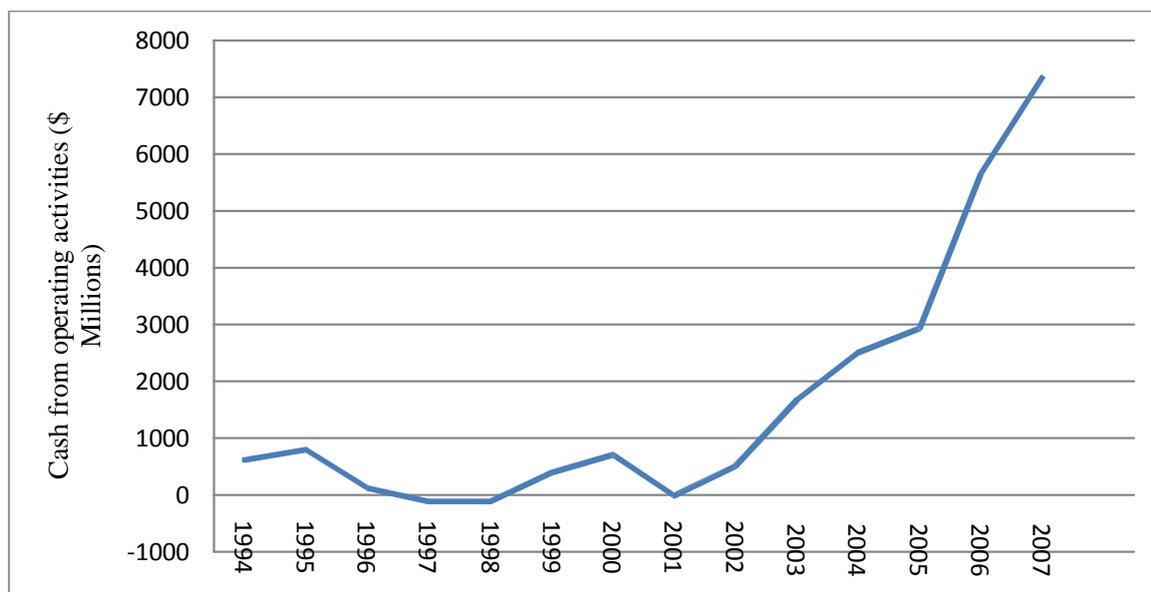
Norilsk Nickel was one of the biggest mining companies in the world and manufactured and marketed nonferrous and ore consumer products across the global market. The company produced approximately half of the world's platinum and 20% of its nickel, employing roughly 120,000 employees. Moreover, Nornickel was an unusually well-balanced company because it did not experience problems with energy and raw materials due to the large regional gas field and sufficient ore reserves for hundreds of years of strong demand. Despite many financial and political crises of Russia, the company maintained stable production

during 1989-2007 and it produced 220,000 tonnes of nickel, 410,000 tonnes of copper, 4,500,000 oz palladium and 670,000 oz of platinum per annum.

Norilsk Nickel sales revenue growth was 800 per cent in the years 1994 to 2007 and in 2007 net sales reached \$16 Bn; the market capitalization of the group grew more than 25,000% and reached \$41 Bn. These results are mainly explained by the boost in the average price of metals because in physical terms, its sales amounted to a relatively constant level. The decisive factors that influenced the world prices for the main products of Norilsk Nickel between 2002 and 2007 were continued growth in China, strong demand from major developed economies and increased impact on the metal markets of the operations conducted by international investment trusts.

There was only one three-year period of time (1996-1998) when the company had a deficit cash flow from operating activities. This was due to a dramatic growth of resources cost, a relatively low price of metals and a massive withdrawal of capital by the owners. Since 1999, the trend of cash flow from operating and financing activities increased more than tenfold and reached the company's record of \$14 Bn.

Chart 4 Nornickel cash from operating activities

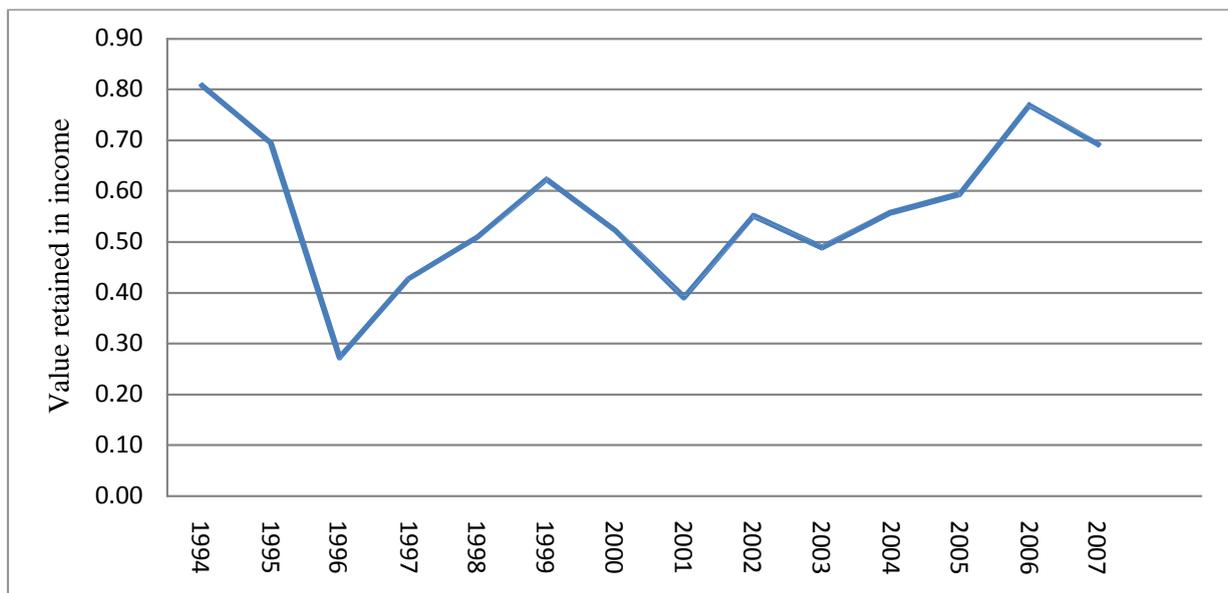


Source: Nornickel annual reports.

The company operated under extreme weather conditions in the Taimyr Peninsula above the Arctic Circle where labour and social cost have been much higher than in other regions of Russia. Therefore Nornickel increased the share of its manufacturing capacity and employment in low labour cost regions of Russia as well as Africa. Also, between 1997 and 2003 Nornickel reduced employment levels by about 3-5% per annum and expenditures on maintaining the social infrastructure of the town and the region. Nornickel increased the share of physical manufacturing capacity located in more desirable parts of Russia arbitraging the price difference between original manufactories in the Taimyr Peninsula and other Russian labour markets, to make stronger operating financials.

Figure 2 reveals the share of sales revenue retained in Nornickel after paying external costs to suppliers. Between 1994 and 2007, this ratio fluctuated around 50% and the first nadir of the ratio (1996-1997) was created by low profitability of business, high expenditure for raw materials and substantial amount of the withdrawn capital by the owners. Since 1997 this index has rising trajectory and during 1999 it reaches a local zenith of 62% due to the Russian crisis.

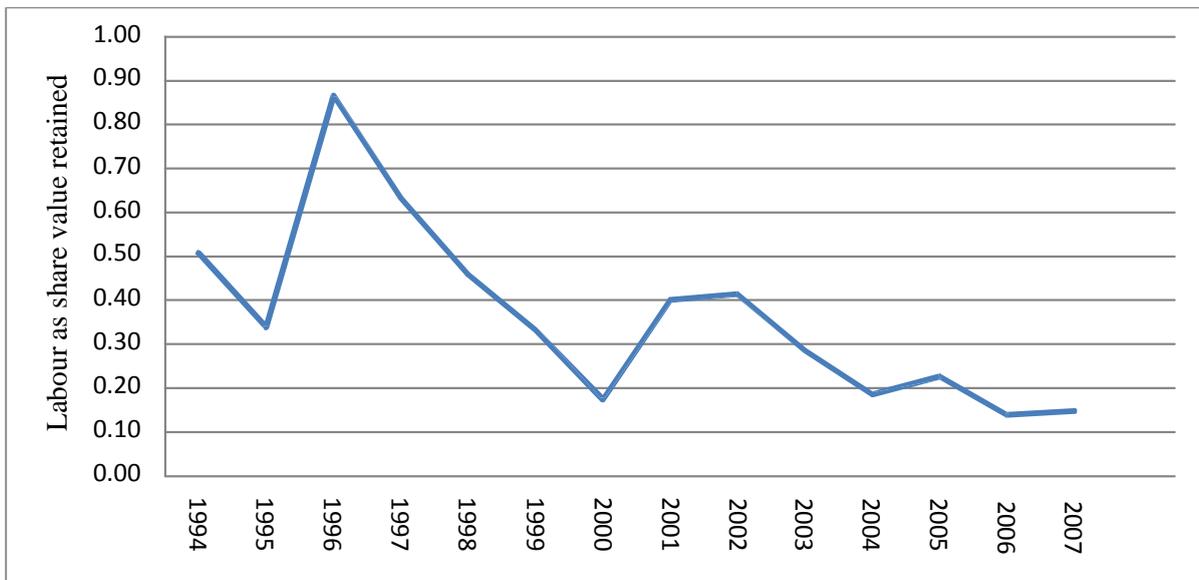
Chart 5 Nornickel value retained in income



Note: Value retained in income can be determined as sum of EBITDA and labour cost divided into sales revenue.

Source: Author calculation.

Chart 6 Nornickel labour as share value retained



Note. Labour costs share of value retained is defined as personnel costs divided by operating result before depreciation and amortization plus personnel costs.

Source: Author calculation.

Figure 3 shows that by 2007, the share of labour costs in value retained had declined considerably, in line with the progressive shift in the share of manufacturing facilities into other locations and reducing employment levels. This, combined with the strong sales growth had an exceptional effect on operating cash flow. The combination of a reduced share of external costs and a lower share of labour costs boosted the value retained in income from 30 per cent in 1996 to 75 per cent in 2006.

After 1998, the company was completely controlled by Potanin and Prokhorov (about 60% of the shares). As a result the executives decreased the proportion of the withdrawal of wealth that was used to purchase company shares and the new corporate vision and the new strategy were created. The demand of the financial markets, and a new opportunity for shareholders pushed the company to financialization of strategy. The new strategy of Nornickel was focused on increasing shareholder value, holding leading positions on the world market in the production of its key products; improving its corporate governance to international standards and the transparency of the company. Also, it was focused on the increase of production metals from the company's own ores, involvement of stale raw materials into conversion

process, development of production of metals from crowbars and waste products on production facilities of Kola Peninsula, increasing direct sales to foreign producer-processors.

According to the corporate strategy, in 2003-2005, the largest American producer of platinum Stillwater, OM Group and Canadian Lion Ore were acquired by Nornickel. As a result, it received good quality mining assets in Western Australia, Finland and Africa and the Russian share of the business declined from 98% to 78%. Through these acquisitions, total production of Nornickel increased to 300 thousand tons of nickel annually; the acquired companies in Africa had cheaper labour cost. Additionally, the purchase of OM Group and Lion Ore gave new know-how and technology so production of nickel and could potentially yield savings of about \$500 million a year. The last fact reveals a new type of arbitrage – arbitrage of knowledge which exploits asymmetries knowledge due to the creation of know-how and new technology by the company itself could be more expensive than the acquisition of another company with special expertise.

Additionally, for the establishment of reliable transportation of cargo passing through the North Sea Route the company acquired shipping and transport companies (Archangelsk Sea Port (35.05% of shares) and Enisey River Navigation (23.8% of shares)) as well as purchasing icebreakers and a reinforced container ship, able to move through ice. In order to maintain reliable energy supplies to Nornickel and to optimize electric power costs, the company increased its share in the Russian electric power industry, controlled regional electricity suppliers and developed the new Pelyatka condensed gas field. One can suggest that all these projects are elements of strategy as arbitrage which exploits asymmetries between different shipping and transport companies and power supplies. Also, the increasing of vertical integration by acquired power and transport companies additionally reduced the share of external costs.

After the 1990s the company rapidly became one of the major suppliers for the European market. The company supplied approximately half of the world's platinum and 20% of its nickel. (Nornickel AR 2000-2006). As part of the company's foreign market-oriented distribution policy, Norilsk Nickel Europe Limited (UK), Norilsk Nickel USA, Norilsk Nickel Asia and other companies were created by the company and these companies distributed products to the global markets.

The complex structure of marketing divisions abroad helped to adjust earnings capacity of the company by establishing transfer pricing between geographic subsidiaries and exploited

fiscal variations between Russia and other countries reducing the company's customs and tax payments. Table 2 reveals the differentiation between Nornickel's contract prices of copper and nickel and prices of these metals at the London Metal Exchange (LME). One can see that reduction of export income for the two metals fluctuated between \$58 million and \$343 million and the share of reduction of export income in cash from operations declined from 34% in 2002 to 6% in 2006.

Table 1 Difference between contract prices of exported metal and prices at the London stock exchange of metals

	2001	2002	2003	2004	2005	2006
Contract price copper \$/ tonnes	1515	1405	1628	2644	3476	6193
LME price copper \$/ tonnes	1578	1559	1779	2866	3679	6722
Price difference \$	3.96	9.82	8.45	7.72	5.51	7.87
Export copper 000 tonnes	378	311	267	236	252	169
Reduction of export income \$Mn	23	48	40	52	51	89
Contract price nickel \$/ tonnes	5561	5994	8779	12805	13422	21689
LME price nickel \$/ tonnes	5945	6772	9629	13823	14744	24254
Price difference \$	6.45	11.45	8.83	7.36	8.96	10.57
Export nickel 000tonnes	91	160	132	122	125	99
Reduction of export income \$Mn	35	124	113	128	165	254

Source: Katsik et al 2008

Between 1948 and 1975, the company accumulated huge reserves of Platinum Group Metals (PGM) bearing tailings because old-fashioned technology of nickel production did not absorb PGM and they utilized it as waste materials. Consequently, the company had accumulated approximately 76Mn tonnes of tailings, grading about 7.9 gram/tonne (g/t) (5.8g/t palladium, 2.1g/t platinum) and this containing about 19.3Mn ounces of PGMs. Therefore, developing the tailings project was a key production strategy of the company and in 2001, an enrichment factory for lifting up and conversion of pyrroutine concoction was built. The exploitation of cheap raw materials is type of economic arbitrage which created enormous profit for the company.

The company had a close relationship with Russian authority and in 1997 the company's major owner Vladimir Potanin was appointed vice-premier of the Russian government and he used his authority to lobby the special government solution № 254 which permitted the company to write off about \$280Mn in tax debt to the region and to postpone payment to the federal budget of \$145Mn for 10 years and the state pension fund of \$260Mn and \$350Mn for 5 and 10 years respectively (Butrin 2004). Also the strong economical and social position of the company provided total political control of the region and it helped general director of Nornickel Aleksandr Khloponin to win the election for Governor of Taimyr Region in 2001. The new governor changed the distribution regional taxes and the major part of them used for social, ecological and infrastructure programmer of company.

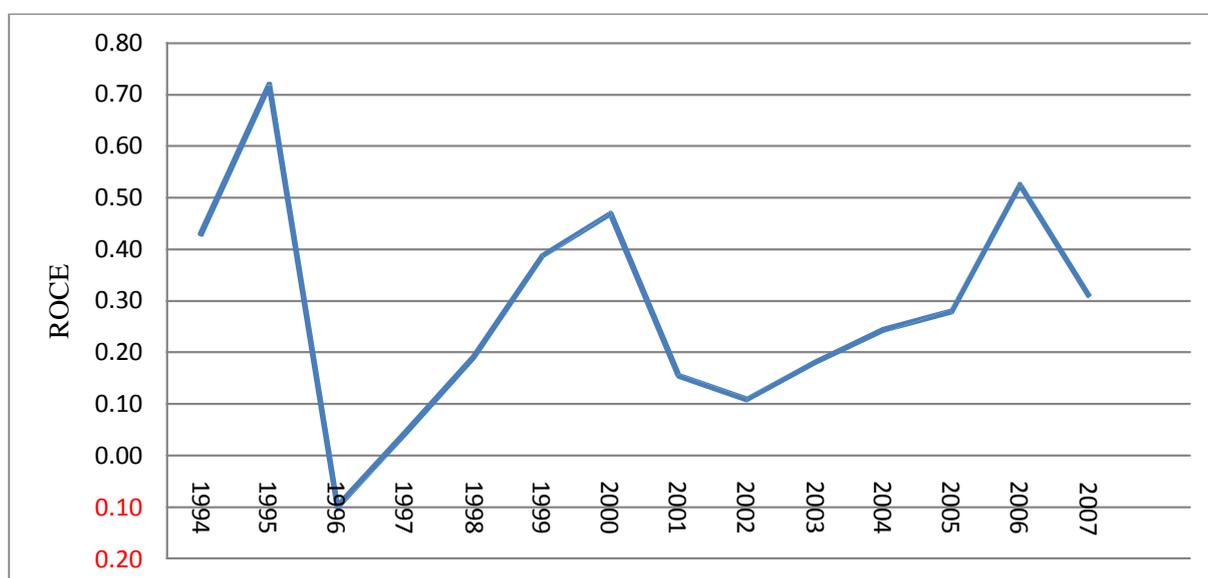
These examples demonstrate how executives of the company created arbitrated fiscal differentiation between the Norilsk region and other regions of Russia and as a result sufficiently reducing the company's effective tax rate. Also these example reveal that strategy as financial arbitrage can include additional sub strategies such as the creation by the company itself conditions for arbitrage that align with the matrix price asymmetries – opportunity (The Option 1). Reminder, the Option 1 (Fig 1) gives the opportunity to create arbitrage when there is strong potential for arbitrage and absent price asymmetries but which could be created by the way of organisation special conditions.

As was noted above since 2000 the company strategy has been financialized and one can say that financialization has become directing strategy for value creation and value absorption. An example of value creation could be the termination of PGMs law. The information on the sales of PGMs produced by Nornickel in Russia was subject to state confidentiality legislation and its exports were subject to quotas and completely dependent on the Ministry of Finance and the State Treasury. However, in 2004, Potanin lobbied for the termination of this law. As a result of changes in the legislation, the company was allowed to disclose the reserves, production, sales and consumption of PGMs and this rapidly increased the capitalization of Nornickel. Disclosing information about reserves, production, sales and consumption of PGMs are thus a type of knowledge market arbitrage for the reason that it exploits the difference between the historic and current knowledge which created huge growth of company capitalisation. The second example of financialization of strategy is purchasing about 10% of shares by the company for treasury stock in 2005 and this helping to boost earnings per share and share price. Share buy-backs are thus a form of capital market

arbitrage because they exploit the difference between the historic and current market value of a firms shares when exchanged.

Figure 4 shows cash ROCE which has a moderately a cyclical pattern and the average ROCE placed at about 28%, that was a more than the average levels of Russian companies included in the Russian stock market index RTS. In 2002 ROCE reaches its a minimal levels, and after it rapidly recovers to 50% level (2006) because of financialization of strategy and growth of sales revenue which generated huge profit margins.

Figure 4 Nornickel return on capital employed



Note: ROCE is defined as operating result before depreciation and amortization in relation to the sum of equity and long term debt.

Source: Author calculation.

It so difficult to determinate a transparent connection between arbitrage opportunities and financial gains of Nornickel due to a financial model of the company consolidates transactions from various markets.

5. Discussion and conclusion

This paper has studied the concept of corporate strategy as a process of arbitrage between markets where different nature asymmetries are exploited by corporate managers. This concept is a relatively new for economics and business practice therefore the inductive approach has been useful for developing the theory of arbitrage. Also, the scope for arbitrage traditionally includes the differences that continue among countries but we have shown that opportunity for arbitrage could comprise the differences that exist between regions of one country and the level of the differences depends on size of the country, political system and institutional variation in the culture and geography of the country.

Conditions within the country, deficit of modern economic and political institutions, regulatory policy framework and non-transparency were paramount factors in determining the strategy and influencing outcomes from privatisation in relation to economic productivity and welfare in Russia. Also all these factors formed and maintained price asymmetries and opportunity for arbitrage in different segments of national economy.

Additionally, the period reforms was characterised by an enormous level of inflation, a huge migration from eleven members of the Commonwealth of Independent States, a large differentiation in living standards and wages between Russia and CIS countries as well as between Russian regions and increasing of the share of tax in GDP. These factors formed and maintained price asymmetries and opportunity for different types of arbitrage in the Russian economy.

Historical examples from Russia reveals that arbitrage as element of business practice has not been a new phenomenon because arbitrage was imminent within the Soviet system and it was one of many regulators of economic life. Also examples from Russia reveal transfer pricing between subsidiaries, which utilise fiscal differences between one region and another, reducing the company's effective tax rate. The example shows that strategy as financial arbitrage can include additional sub strategies such as the creation, by the company itself, of conditions for arbitrage. Generally, this type of arbitrage is more possible in countries with weak institutional and regulatory bodies such as Russia and other countries with transitive and developing economies.

In this paper, it has been shown that arbitrage is possible when there are two conditions: the same asset does not trade at the same price on all markets and there is a technical opportunity

of realisation of arbitrage. Consequently to analyse arbitrage, a matrix with two parameters is built: those of opportunity and price differentiation, selecting four possible options for arbitrage. Examples from the Russian forestry, construction and car industries have revealed how executives can create price asymmetries and opportunity for arbitrage and use strategy as arbitrage getting a competitive advantage.

Also the paper has revealed some complementary advantages for companies moving to emerging markets and exploiting asymmetries between high and low level of labour safety cost, labour law cost, environmental pollution cost and knowledge cost to boost earning capacity. In addition, by disclosing the car maker Avtovaz competition strategy we reveal an additional type of strategy - anti-arbitrage strategy.

We use Nornickel cases to consider in more detail arbitrage practice in the global company which disclose a new phenomenon of arbitrage. The company adjusted the share of physical manufacturing capacity located in more comfortable parts of Russia arbitraging the price difference between original manufactories in the Taimyr Peninsula and other Russian labour markets. Also the company has demonstrated arbitrage of knowledge which exploits asymmetries knowledge because the creation of know-how by the company itself could be more expensive than acquisition another company with special expertise. In addition, the company has exploited asymmetries between different shipping and transport companies and power supplies and vertical integration by acquired power and transport companies additionally reduced the share of external costs.

The complex structure of marketing divisions abroad helped to adjust the earnings capacity of the company by establishing transfer pricing between geographic subsidiaries and employed fiscal variations between Russia and another countries reducing the company's customs and tax payments. The demand of the financial markets and a new opportunity for shareholders pushed the company to financialisation of strategy as a result the new strategy was focused on increasing shareholder value. For that reason, the company lobbied the termination of PGMs law and disclosing information about reserves, production, sales and consumption of PGMs. Also the company purchased about 10% of its own shares for treasury stock in 2005, helping to boost earnings per share and share price. Share buy-backs are, therefore, a form of capital market arbitrage because they exploit the difference between the historic and current market value of a firms shares when exchanged. It is difficult to determinate a transparent connection between arbitrage opportunities and financial gains of Nornickel because the

financial model of the company consolidates transactions from various markets and unclear of many financial operations of the company.

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