

A Soviet Enterprise's Journey from Domestic to Global Markets: The Adaptation Process of Mining Giant Norilsk Nickel¹

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Abstract: Two Finnish geographers examine the adaptation process of former Soviet enterprise Norilsk Nickel to a market economy in the post-Soviet era. In a relatively short period of time, Norilsk Nickel has managed to achieve a leading position in the global metal market, particularly in the nickel and platinum business. Particular attention is paid to the impacts of the privatization and internationalization processes within the company. The authors explore the adaptation of Norilsk Nickel to the post-socialist business environment and compare the company's present operational basis to its Western competitors through a company analysis. The data comprises a survey among the workers of the company as well as interviews with mining experts and representatives from public sector authorities.

Keywords: Russia, Restructuring, Privatization, Internationalization

JEL Classification Numbers: D21, J53, L11, P31

1. Introduction

Despite Russia's tremendous economic growth since 1998, numerous studies have described its business environment as particularly challenging for Western companies because of undeveloped formal (e.g. legislative) and informal (e.g. business practices) institutions (Kosonen, 2005) that are unstable (Sutela, 1998; 2003) and unable to attract foreign direct investments (Rautio and Tykkyläinen, 2001). Poor institutional structures remain one of the main explanations for the inferior progress of the Russian economy (Goldman, 2003). Due to this unstable business environment, Western investors have had to face unpredictable difficulties and major economic losses. In this context, Assidoman, a Swedish company (Tykkyläinen and Jussila, 1998, p. 237), and Zelen-Kamen, an Irish company (IMMR, 2001a, pp. 6–7), are examples in the forestry and mining sectors, respectively. Moreover, the Russian business environment during the 1990s has proven to be challenging for domestic companies as well (e.g. Keune, 1998). However, the Russian economy of the 1990s cannot only be described as a collection of failures; there have also been several successful business cases. This study presents one such case: the mining company

Norilsk Nickel.

Norilsk Nickel was formally founded during the last years of the Soviet Union's existence. In the beginning of the 1990s, the enterprise was still state-owned, but was privatized in the mid-1990s along with several other major Russian raw material producing companies. In the early 1990s, the company suffered heavy losses because it relied on the soft budget constraint system.² The company's management made no significant efforts to modernize or rationalize production but instead concentrated on maximizing production, counting on the continuity of government subventions (Sinitsin, 1997, p. 9). However, in later years, active participation in global competition has stimulated modernization within the company. Now, approximately 10 years hence, the company is a major player in the global metal market. Today, Norilsk Nickel commands a dominant market position in the platinum metal business³ and has already, in the year 2000, accumulated a net profit of approximately US\$1.5 billion. This article examines the main factors responsible for Norilsk Nickel's adaptation to a market economy.

The article is structured as follows. Firstly, the research objectives and methodology as well as the main concepts of the study are presented. Secondly, the institutional approach is introduced as the main theoretical tool. The empirical analysis is divided into two parts. Firstly, the company's history and its restructuring and privatization processes during the 1990s are presented. This is followed by a section that introduces the company analysis, including comparisons with some of its Western competitors. In addition, this chapter presents the results of the interviews of mining experts as well as public sector officials, and the attitudes of Russian mine workers towards co-operation with the management. The results are based on a large survey ($n = 813$) as well as a comparative survey ($n = 357$) among Russian workers in the oil sector. The interviews and surveys were conducted in order to analyse the level of co-operation within the company management, the public sector and the workers during the past and ongoing restructuring processes within the company. The final section summarizes the results of the study.

2. Research objectives, concepts and methods

In this paper, the authors analyse an enterprise's adaptation to a market economy in the post-Soviet era. In doing this, the authors examine the privatization and restructuring processes within the mining company Norilsk Nickel with a particular focus on the following: firstly, the company's business strategies that are designed to manage changes caused by inner restructuring; secondly, the transition of the society as a whole. The main research question is: What are the main tools required for a successful transformation of former Soviet enterprises to a market economy? In their analysis, the authors focus on the economic aspects responsible for the successful adaptation of a post-Soviet enterprise rather than, for example, social or environmental factors.

The main concepts applied in this study are 'transition' and 'company restructuring'. Transi-

tion can be understood to be a modernization process in post-Soviet countries (Salminen and Temmes, 2000, p. 8). Transition countries have abandoned the socialist planned economic system and aim at adopting Western-type democracy and market economy principles. Thus, China, for example, cannot be defined as a transition country despite the fact that its society is currently undergoing major changes. The aims of transition are clear: to modernize the political, economic, legislative and administrative systems so that they may correspond to those in Western countries. The differentiation between the affairs of the state and those related to business is one of the main aims of transition in the context of this paper. However, while the aims of transition are clear, the policies for the execution of this process are highly controversial (e.g. Kosonen, 2005; Goldman, 2003; Pickles and Smith, 1998). Moreover, the concept of transition itself has been criticized as an inadequate tool for comprehensively describing the ongoing socio-economic changes (e.g. Kosonen, 2002; Burawoy and Verdery, 1999). As a consequence, the concept of transition has given way to the notion of transformation, which embodies the institutionally constrained and socially, culturally and historically determined nature of change (e.g. Burawoy and Verdery, 1999; Smith and Swain, 1998).

At the state level, the concept of restructuring describes the changes in the course of social reproduction, including its dynamics, contradictions and internal crises (Johnston *et al.*, 2000, p. 710). Moreover, restructuring is considered as the reorganization of fundamental proportions in different sectors of society, such as economy, institutions and work (Tykkyläinen, 1994, p. 20). At the local level, restructuring can be represented as the changes in the modes of production and the basis of a community's economy, or the reorganization of local companies and industrial plants. However, it is important to be mindful of the fact that not all changes in the process of production can be termed as restructuring. In such a case, restructuring would become an ongoing, permanent phenomenon, whereas restructuring actually refers to the more fundamental economic or production-related changes in a company (Rautio, 2003). In the case of Norilsk Nickel, restructuring includes the reorganization of management and staff, a shift to export orientation and, to a certain degree, technological modernization.

This study provides new information with regard to post-Soviet enterprise adaptation through a case study analysis. Therefore, the research methods adopted here are primarily of an empirical nature. Interviews with and a survey among Norilsk Nickel's workers were conducted between the years 1999 and 2001.⁴ The comparative survey among workers in oil companies in Northern Russia was conducted in 2004;⁵ expert interviews were updated in 2005. The company analysis, including comparisons to Norilsk Nickel's main competitors, is based on annual reports and investment analyses.⁶

3. Theoretical background

The 1990s was an extremely challenging period for the entire Soviet Bloc. At that time, there was no experience of managing transition from the socialist planned economy to a market economy. As the former Polish President Lech Walesa stated, '*[i]t was known how to turn an aquarium into fish soup, but not the other way round*'. The process was not particularly easier for enterprises in countries like Russia, where socialism had prevailed for almost 80 years. The transition process was mainly based on the recommendations of various Western policy advisers (e.g. Sachs, 1990) who transformed this agenda into a program termed 'shock therapy' (Smith and Swain, 1998, p. 26).

Some former Soviet Bloc countries, such as Poland, had already begun their transition process at the end of the 1980s. Therefore, Russia was provided with an opportunity to take advantage of the experiences of other former Soviet Bloc countries. However, the Russian government chose a transition policy rather similar to those of other transition countries (Sutela, 2003, p. 68). Shock therapy was based on rather fierce and rapid reform policies, which included the liberalization of prices and markets, stabilization as well as privatization of state-owned enterprises and other measures aimed at guiding the society into a market economy. This shock therapy was implemented over a short period of time and later faced extensive criticism (Clarke, 1998; Elster, Offe and Preuss, 1998; Pickles and Smith, 1998) mainly due to its crude nature. This was particularly applicable to Russia, where the program was implemented in a short period of time and without an adaptation period. Hence, shock therapy was applied in an environment that lacked any experience of open markets (Goldman, 2003).

The unexpected outcomes of this therapy led to the development of the so-called transformation studies. The transformation school is an umbrella term for studies that are sensitive to the context-specific and historical and institutional determination of change (see for example Smith, 1994). Within the transformation school, the institutional interpretations of post-socialist economic restructuring focus on the interplay between the formal (e.g. legislation) and informal (e.g. business practices) institutions (e.g. Smith and Swain, 1998). Moreover, the institutionalists indicate the gradual nature of modernization due to the inertia in social and cultural change (e.g. Nielsen, Jessop and Hauser, 1995). The gradual nature of change prolongs the existence of socialist legacies and produces various post-socialist mutations (Nuti, 1996). Such mutations emerge when practices of the socialist past combine with novel ideas. Furthermore, recombinant mutations are not necessarily treated as hindrances to change; these can also be viewed as elements of organizational diversity (Grabher and Stark, 1997) which, in turn, provide a broader array of potential problem-solving practices to be used in the unique post-socialist circumstances of change.

Organizational diversity has been illustrated in the typology of enterprise adaptation (Kosonen,

2002; 2005) based on Russian and foreign-owned enterprises in the city of Vyborg, Russia. The typology includes the legacies, novelties and recombinant forms of enterprise behaviour and classifies firms into these respective categories (Figure 1). The typology provides a classification that simplifies reality; however, at the same time, it also provides tools for understanding different adaptation strategies of the companies operating in the Russian business environment in the post-Soviet era. In other words, the strategies and companies that devise them can be classified despite the fact that there are signs of business practices that can be traced back to the era of planned economy. The process of transformation is unfinished, and companies like Norilsk Nickel still have to operate with rules within the domestic markets that are slightly different as compared to those that are applicable within the global mining markets. However, companies operating in the Russian business environment used various strategies in their adaptation process to a market economy in the 1990s; according to our studies, these strategies can be classified into the six categories presented in the typology (Figure 1).

Legacies and novelties emerge when enterprises adapt their relations to the public sector, to other enterprises and to their labour force in order to meet novel circumstances. At one end of the continuum, enterprises cling to socialism, such as the orders of the state, and refuse to modernize. Such companies, termed Reactionaries here, are doomed to fail. At the other end of the continuum are the Opportunist enterprises that opportunistically seek loopholes in the novel market economy and neglect their duties towards their employees, business partners and the state. In between these categories are those enterprises that have innovatively combined socialist legacies with novel-market thinking and have, in this manner, been able to survive the years of trouble. These companies, termed as Constructors, engaged in barter trade with their partner companies during the years of financial trouble in the 1990s. They have also been reluctant to lay off excess labour due to the high unemployment rate and inability of the state to provide for the unemployed. Furthermore, they have created active lobbying networks with the state authorities and occasionally invested in public welfare in return for tax exemptions, for example.

Combining legacies with market thinking aided the Constructors to stabilize their local operative environment in the years of social and economic collapse. A part of the Constructors, the so-called Disputing Constructors, have gone too deep into their local embeddedness and become involved in local disputes, such as struggles for ownership and political power. Typically for Russia, this led to the emergence of the category of Strugglers. Strugglers are unemployed town-dwellers who establish informal, and sometimes illegal, businesses in order to earn their everyday living. The number of Strugglers was notable in the early 1990s and the state did very little to prevent their activities. The Strugglers are keeping alive the socialist tradition of black markets. Finally, with the advent of economic reforms in Russia, the category of the Neutrals gained prominence. These are companies that follow the market economy in its purest Russian form not only by paying salaries but also by hiring and firing workers as required, paying taxes

Figure 1 Typology of enterprise adaptation



Source: Kosonen (2005)

but refusing to be exploited for extra contributions by the state and networking with other companies purely on a business basis. However, in the turbulent post-socialist circumstances, it has become clear that not even the Neutrals have been able to adapt to pure market economy practices. For example, the Neutrals continue to rely on lobbying with the local authorities in order to be able to deal with the Russian bureaucracy.

Production and consumption in Vyborg survived the arduous years of restructuring during the 1990s largely due to the diversity embodied in the legacies and novelties in enterprise behaviour. When formal regulation failed to support industries and services, informal forms of behaviour and thought took over and kept the economy running, although at a much slower pace.

In the course of time, as formal economic reforms began to stabilize the operative environment, the informal institutions began to lose momentum in enterprise behaviour. Today, with the relatively strong faith that enterprises have in President Putin's reforms, there are hardly any Reactionaries in Russia. Moreover, the categories of Constructors and Disputing Constructors

have given way to more neutral (market economy like) business practices. Barter between companies is no longer efficient; redundant labour may acquire new jobs in new industries; and tax evasion is difficult. New industries and foreign capital lead to an increase in the number of Neutrals. However, some recombinant forms of operation still prevail. For example, in Russia, lobbying with the local and regional authorities is still critical in order to run businesses smoothly. Opportunist groups include enterprises that aim to achieve short-term profits by minimizing all their obligations. In the following sections, the authors study Norilsk Nickel's recent history and present business strategies in the context of the above typology and institutional approach by concentrating on the analysis of formal (e.g. privatization) and informal (e.g. workers' attitudes) factors impacting the adaptation process of the company.

4. The background of the reorganization and privatization process of Norilsk Nickel

4.1. The Soviet era

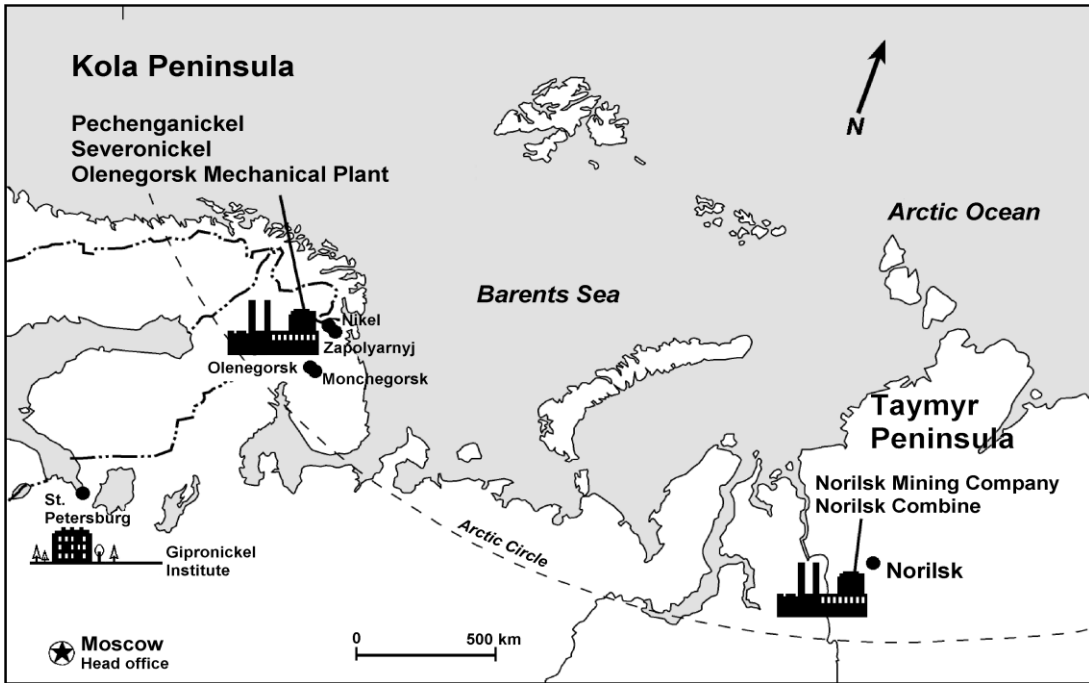
This section presents the stages of Norilsk Nickel's development during the 1990s towards a global, private-owned mining company in order to highlight some of the main industrial trends in the post-Soviet era. The historical perspective provides us with an understanding of the attitudes and opinions of the company's workers towards and the strategies of the public sector officials concerning ongoing development. The authors pay additional attention to the privatization and internationalization processes of the company, since these phenomena have reformed the character of the company and its entire business environment.

Norilsk Nickel was formally founded in 1989 when the Council of the Soviet Union passed a decree to constitute Norilsk Nickel as a State Concern for Non-ferrous Metal Production (Bond, 1996, p. 289). The company's main geographic areas of production are, and have always been, the Taymyr and Kola Peninsulas (Figure 2).

The head office is located in Moscow, whereas GiproNickel, which is where the company's planning and engineering operations are conducted, is situated in St. Petersburg. The company structure (Figure 3) was established at the end of the Soviet era, and the only major organizational change during the 1990s was the assignment of the Krastvetmet refinery to the Krasnoyarsk Region in order to offset tax debts.

During the Soviet era, Norilsk Nickel was a typical example of a centralized, state-owned and controlled industrial unit where most decisions were made from above (Bond, 1984, p. 146). Production targets were defined in the state's five-year plans and output was expressed in tons, not in currency units. Thus, productivity per worker and overall production costs did not play a central role in the Soviet-era industry. This type of production led to wastage of raw materials and energy as well as a surplus labour force. The Russian industry has inherited these structural problems and old management systems, which remain the fundamental obstacles in the develop-

Figure 2 Location of the head office and subsidiaries of Norilsk Nickel at the end of the 1990s



Source: Rautio (2003, p. 51)

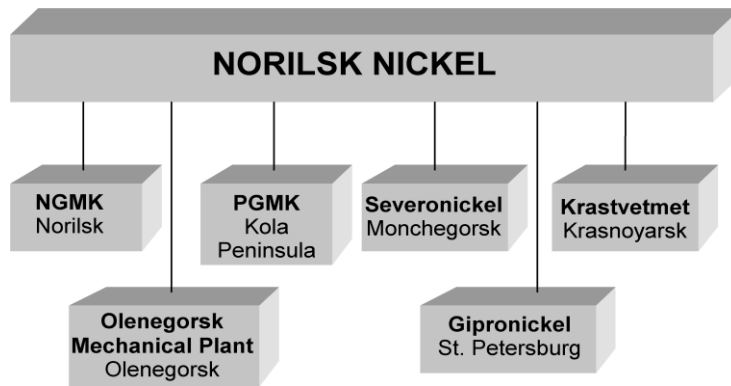
ment of Russian enterprises (Naulapää, 2000, p. 276; Clarke, 1998, p. 28). In the beginning of the 1990s, these obstacles also hampered the development of Norilsk Nickel, until the privatization process began in 1993.

4.2. The privatization process

In 1993, Norilsk Nickel was converted into a joint stock company by a decree of the President of the Russian Federation, and the following year, the company became subject to substantial economic reformation and privatization (Norilsk Nickel, 1999, p. 5). However, at the initial stage of privatization, a 38 percent block of authorized capital and 51 percent of voting shares were retained as state property.

The other more controversial and significant steps towards the privatization of Norilsk Nickel were taken in 1995 and 1997. In 1995, the block of shares owned by the state was sold to Oneximbank in a shares-for-loans program (Sinitsin, 1997). This deal was part of a major transaction where blocks of state shares of several large companies were switched to loans by commercial banks. These actions have since been denounced as covert deals between busi-

Figure 3 Structure of Norilsk Nickel incorporated at the end of the Soviet era



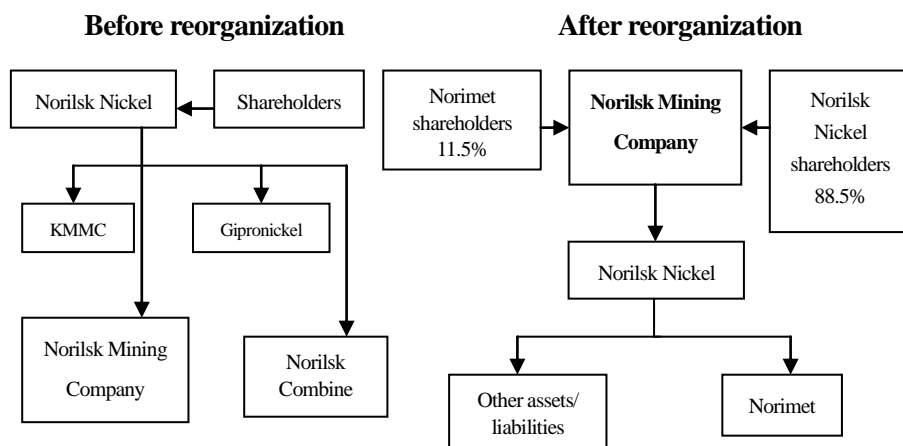
Sources: Compiled by the authors from Fleming UCB (1999) and Sinitsin (1997)

nesses and the government conducted for the purpose of ensuring the continuity of state policy.

In 1997, Oneximbank sold the former state-owned shares in an auction, which evidently was rigged, as the company shares were sold at a considerably undervalued price (Goldman, 2003). Moreover, Oneximbank actually sold the shares to itself, since the buyer, Interros, was a part of the same industrial group. Nevertheless, Norilsk Nickel became a privately owned company as a result of these transactions. The company has been investigated by the public prosecutor because of suspicions concerning its privatization (IMMR, 2000, p. 9). However, the privatization of Norilsk Nickel will apparently not be annulled since the Russian State Duma voted against reviewing the results of the privatization (IMMR, 2001b, p. 6). Nonetheless, these suspicions have, at least temporarily, caused the stock exchange value of the company to deteriorate.

The new primary shareholder of Norilsk Nickel was the financial-industrial group Interros led by Vladimir Potanin, who was the first Deputy Prime Minister of Russia during the privatization process. Potanin was ousted from the government in March 1997 after creating Interros—the country's largest financial-industrial group—by arranging loans-for-shares deals with the state (Rautio, 2003, p. 46). The loans-for-shares program was intended to aid the state with its budget deficit, which was a consequence of the government's difficulties with regard to collecting taxes. It was Potanin who proposed that the government could make up the deficit by borrowing money from commercial banks, such as his own Rosbank (Goldman, 2003, p. 120).

Currently, Potanin is one of the wealthiest oligarchs in Russia controlling, for example, Norilsk Nickel, Alfa-Alliance Bank, Rosbank, Russia-Petroleum and Izvestiia (a newspaper). After the collapse of the ruble in August 1998, Oneximbank faced serious economic and legal difficulties, which is why the management of Norilsk Nickel denied the existence of any current business relationship with the bank (Kotlyar, 1999). However, the existence of such a link is evident, sin-

Figure 4 Structure of Norilsk Nickel before and after reorganization

Sources: Matveev (2000) and Rautio (2003)

ce Rosbank is the successor of Oneximbank, while Interros is behind them both. Although Oneximbank was one of the financial institutions that fell into bankruptcy after August 1998, its viable assets were transferred to a new banking entity, Rosbank (Goldman, 2003, p. 120). Moreover, Norilsk Nickel, among other export-oriented companies, actually benefited from the August 1998 crisis because its incomes were earned in US\$ and costs were incurred in rubles, which implied that the company's domestic loans and costs were suddenly reduced to one fourth (Kotlyar, 1999).

After the completion of the privatization process, the new owners commenced with internal restructuring where one of the initial measures was the ouster of the former management, including CEO Anatoly Filatov. The Red Directors⁷, who were in charge of the company during the first half of the 1990s, were accused of representing old, Soviet-style leadership that resisted major restructuring (Fortescue, 2000). The former management had not made any significant efforts to modernize or rationalize production, concentrating instead on maximizing production and relying on the continuity of government subventions. In addition, Norilsk Nickel's organizational structure was divided into several relatively independent units during the first half of the 1990s, which led the company into a serious management and financial crisis (Fortescue and Rautio, 2005).

Norilsk Nickel launched its latest major ownership reorganization at the end of the year 2000. As a result of the reorganization, Norilsk Nickel was merged with its subsidiary Norilsk Mining Company (Figure 4); this consolidated the parent company with Norilsk Mining Company and incorporated the sales company Norimet into the organization. The representatives of Norilsk Nickel provided several reasons for this reorganization, such as the avoidance of double taxation

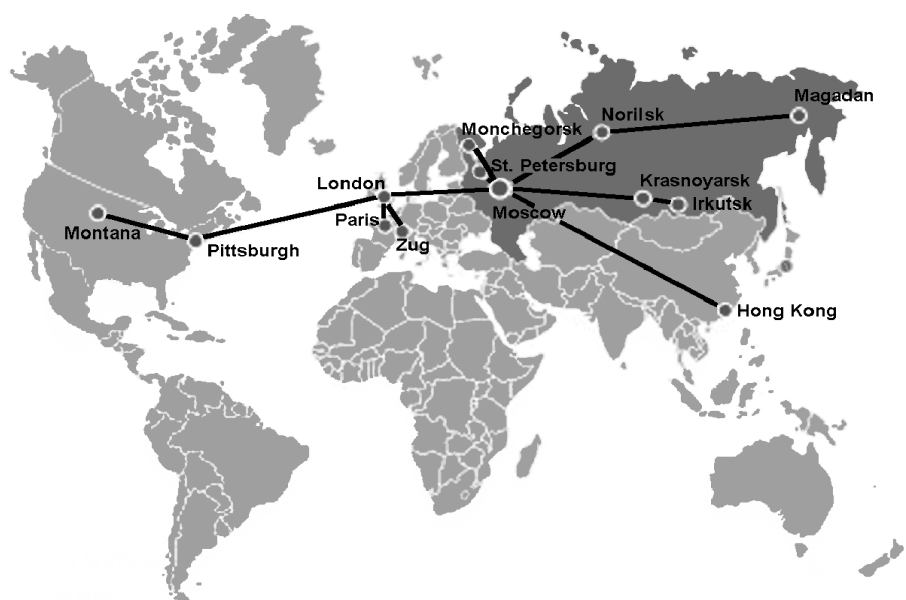
and political risks (i.e. possible hostile actions of the state), greater flexibility in foreign markets, more transparency for investors and a simpler corporate structure. However, the reorganization also increased Interros's control over the company from 58 percent to 65 percent, which must have been one of the major motives for the transaction (Rautio, 2003). The estimates of Interros's actual ownership of Norilsk Nickel are, however, only approximate, as the group is unwilling to publish its ownership share in Norimet (Figure 4).

5. Current trends within Norilsk Nickel: Internationalization and increasing productivity

In addition to privatization, another major change in the company is with regard to the process of internationalization. During the Soviet era, the company mainly served the domestic market, particularly the military industry. However, currently the company is exporting over 90 percent of its output to Western countries. In addition, Norilsk Nickel aims to join the New York and London stock exchanges, has recruited foreigners to the management board and invested in foreign mining companies in order to expand and strengthen its ore reserve basis (Rautio, 2003). As a consequence of the new business strategy, the present map of the Norilsk Nickel company structure (Figure 5) appears rather different compared to the one drawn 10 years ago (Figure 3). Clearly, the trend is towards internationalization.

As can be seen from Figure 6, privatization and inner restructuring have increased the company's efficiency. Since its privatization, Norilsk Nickel has reduced the number of employees by almost 40 percent, but has, at the same time, increased its production volume by approximately 40 percent. In the early 1990s, Norilsk Nickel employed 160,000 workers as opposed to less than 100,000 people today despite the addition of several new subsidiaries (see Figure 5). The addition of new subsidiaries can be recognized as the cause for a minor increase in the number of Norilsk Nickel's labour force since 2001 (Figure 6).

A range of Western studies argue that despite Soviet enterprises being more labour intensive than Western ones, no surplus labour can be released without any impact on production (e.g. Clarke, 1998, p. 36). The Soviet system, with its inferior organization and work management, has been seen as the main cause for low labour productivity (*ibid.*). In the case of Norilsk Nickel, there is an indication that, in the beginning of the 1990s, the company had surplus labour force compared to its Western competitors, and probably still does. However, Norilsk Nickel's production level is now notably higher than it was 10 years ago, because almost half of its labour force has been cut. In fact, the company has achieved increased productivity without any major investments in technology. According to company officials, this reorganization has not yet been completed. The surplus labour force in remote Russian industrial areas can be explained partially by the existence of the company-steered social sector. For example, Norilsk Nickel em-

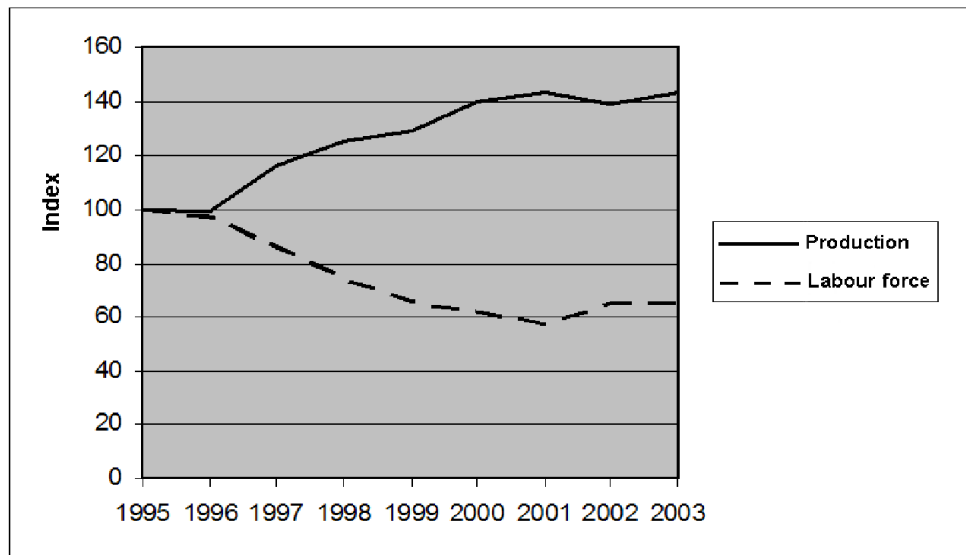
Figure 5 Locations of the head office and subsidiaries of Norilsk Nickel in 2005

Sources: Based on the annual report of the company

employs approximately 20,000 people whose work is unrelated to mining operations (Norilsk Nickel, 2002, p. 56), instead providing social and municipal services. In contrast, in Western countries social services are provided by the public sector.

In spite of the developments described above, Norilsk Nickel is still lagging far behind its Western competitors in terms of productivity. Table 1 presents the efficiency of labour, calculated on the basis of revenue per employee for Norilsk Nickel and two of its Canadian competitors, Falconbridge and Inco, both of which operate in the nickel business. During the last decade, Norilsk Nickel has managed to markedly improve its efficiency. Its revenue per employee increased from US\$27,000 in 1999 to US\$53,000 in 2003, which implies that during the four-year period, the company's labour efficiency had increased by almost 100 percent.

Despite Norilsk Nickel's improved productivity, which is mainly a consequence of the reorganization of its labour force, there remains a considerable amount of work ahead for the company to match its Western competitors. The main reason for this is the company's involvement in the social sector and its outdated technology, particularly in the nickel sector. The Soviet era left a complex legacy in the area of labour productivity. During the Soviet era itself, comparative studies revealed that Soviet industrial plants had approximately 50–70 percent more employees than their corresponding Western enterprises (e.g. Sutela, 1987). In the late 1990s,

Figure 6 Production and labour force development of Norilsk Nickel after privatization

Sources: Based on the company's annual reports and Alfa-Bank (2003)

labour productivity in the Russian steel industry was merely 28 percent of the level achieved in the United States and less than half of that achieved in Brazil (Solow *et al.*, 1999).

Norilsk Nickel can be used as an example to illustrate the fact that labour costs in the Russian North⁸ are not necessarily lower than Western countries and, in fact, are sometimes higher. Table 2 shows that a mine worker in a Canadian company earns almost five times more than his/her Russian counterpart. However, due to low productivity, Norilsk Nickel requires a work contribution of 18.9 employees in order to achieve a revenue of one million US\$, while the Canadian company achieves the same with only 3.1 employees. In other words, Norilsk Nickel requires six times more workers in order to earn the same amount of revenue as the Canadian company. Lower salaries in Russia equalize the difference notably; however, the ratio between labour cost and revenue is still better in the Canadian mining company. When calculated in proportion to revenues, Norilsk Nickel's labour costs are approximately 25 percent higher than those of its Canadian competitors.

Tables 1 and 2 show that Norilsk Nickel still faces serious challenges in its pursuit of increasing productivity. Since the beginning of the privatization process, the company has managed to conduct major internal restructuring, which has had an impact on workers from the bottom to the top levels of the company hierarchy. However, Norilsk Nickel still has approximately three

Table 1 Number of employees and labour efficiency of Norilsk Nickel and two of its comparable Western competitors calculated in proportion to revenues in 2003 (and in 2002)

Company	Number of Employees	Revenue/employee US\$1000
Norilsk Nickel (Russia)	96,520	53 (32)
Falconbridge (Canada)	6,400	325 (238)
Inco (Canada)	10,478	236 (205)

Sources: Annual reports of the respective companies

times more employees than a similar-sized Western company (Rantanen, 2000).

Like its Western competitors, the management of Norilsk Nickel has also realized the importance of the internationalization of its operations. The company has launched several international projects that are aimed at securing and stabilizing its economic foundation, and also has plans to expand its operations to steel production. However, it is difficult to envisage Norilsk Nickel's, or the entire Russian mining industry's, export orientation with regard to raw materials fading in the foreseeable future. Export-oriented industries that rely heavily on raw materials (i.e. oil, gas and mining industries) are the flagship industries of the Russian economy. Their share in the total exports is over 80 percent and they account for over half of the state budget's income through taxes, licenses, duties and various other payments (Fortescue and Rautio, 2005). In the post-Soviet era, the sectors that involve higher levels of processing (e.g. car, electronics and textile industries) have faced more serious and permanent barriers in adapting to the rules of a market economy and competing with Western companies (Helanterä and Ollus, 2004; Clarke, 1998). The present business practices of companies like Norilsk Nickel are affecting the entire Russian economy, because they are, for example, unwilling to practice barter trade (Fleming UCB, 1999), which played a crucial role in the Soviet economy (Kosonen and Rautava, 2002).

6. Relations with the public sector and the labour force after privatization

6.1. Relations with the state and regional administration

The huge debts and arrears, which were a consequence of the privatization deal (agreement with the state) and also of the financial mismanagement by former managers, was a major burden shouldered by Norilsk Nickel in the 1990s (Sinitsin, 1997, p. 20). The company's lack of tax planning and poor budgeting in the early 1990s increased its debts to the public sector, rendering Norilsk Nickel one of Russia's largest federal debtors. This development forced the company to make several agreements with the state and regions to pay off its debts, including penalties. An

Table 2 Annual earnings and productivity per employee of Norilsk Nickel and one of its comparable Canadian competitors in 2003

Company	Annual earnings of employees in US\$	Number of employees per one million US\$ revenue	Ratio between labour cost and revenue*
Norilsk Nickel	13,055	18.9	4.05
Canadian mining company**	62,322	3.1	5.20

* One US\$ in labour cost is equal to a revenue of US\$4.05 in the case of Norilsk Nickel, and US\$5.20 in the case of the Canadian company.

** The data presented in the table was provided by the company's media office that did not wish to be named.

Sources: Annual reports and data provided by the respective companies' media offices

example of such agreements was the negotiations with the Krasnoyarsk Region; this led to an agreement whereby the region received full ownership of Krastvetmet (see Figure 3) in exchange for writing off the company's debts (approximately US\$300 million) (*ibid.*). However, this transaction has also been disputed because such a deal was extremely beneficial to Norilsk Nickel, and after the agreement, the governor of the Krasnoyarsk Region was appointed to Norilsk Nickel's Board of Directors (*ibid.*).

By the late 1990s, the debts and arrears were paid off, enabled by Norilsk Nickel's improved financial situation, which was a result of increased global market prices and lowered production costs and, in particular, the collapse of the ruble in August 1998. The currency crisis in Russia proved advantageous for Norilsk Nickel in two ways. Firstly, the company's domestic ruble debts, when converted to foreign currency, were reduced to one fourth after the government decided to let the ruble float (Kotlyar, 1999). Secondly, since the company was exporting over 90 percent of its output, its incomes were earned in US\$ and costs were incurred in rubles (Komrakov, 1999). These events aided the company in resolving the debt crisis as well as improving the company's overall economic base.

The company experienced some conflicts with the state. For example, the Federal Tax Ministry threatened Norilsk Nickel with the initiation of bankruptcy proceedings on account of tax debts (Kiknavelidze, 1999, p. 11). However, this was mainly a political gambit aimed at accelerating payments. Moreover, this type of threat was typical of the strained relations between the government and the company in the late 1990s. The Federal Government was eager to collect taxes and export duties and was not tolerant of delays. From the company's viewpoint, while these payment requests by the state were legitimate, the state has simultaneously had several unpaid commissions to Norilsk Nickel. At the end of the 1990s, the management of Norilsk

Nickel (i.e. Vice CEO Yuri Kotlyar) described the state's actions towards large companies as follows: *'The state is like a group of marauding Tatars, it leaves only burning ruins in its wake'* (Kotlyar, 1999). At the same time, representatives of the regional administration of Murmansk Oblast were convinced that Norilsk Nickel should not be permitted to shut down its unprofitable operations in the Kola Peninsula without the consent of the public sector (Sazhinov, 1999). The company required mining licenses, which were controlled by the state; therefore, the company needed to avoid open conflicts with the public sector (Savakov, 2005). In other words, in order to secure its mining and export licenses, the company was required to negotiate and agree with the public sector with regard to major restructuring processes and closures of mining sites (Sazhinov, 1999). Subsequently, the relations between the company management and the state have improved due to Norilsk Nickel's stronger economic base and Vladimir Potanin's personal contacts with the government, which has, for its part, aided the company in avoiding major conflicts such as those that the oil company Yukos has been dealing with (Fortescue and Rautio, 2005).

At the local and regional level, Norilsk Nickel's relations with the public sector have been somewhat more complex. Since privatization, Norilsk Nickel has been struggling to shift its work in the social sector (e.g. kindergarten, hospital, municipal engineering) from being the responsibility of the company to being that of the public sector (Rautio, 2003). The shift is almost complete, particularly in the company's main production area in the city of Norilsk (Revjakin, 2005); however, the process has caused severe conflicts between the company management and the city administration with regard to the costs of the transaction (Tolstov, 2005). The conflict was acute during the mayoral election in 2002. The company did not approve of the candidate Valery Melnikov and put forward one of its managers, Johnson Khagazheev, as a candidate. However, Melnikov was elected and his first statement as a Mayor was most revealing: *'Let's get Norilsk Nickel'* (*ibid.*). Norilsk Nickel has recently launched a vast image campaign in the streets of the city of Norilsk in order to remind the residents of its importance with regard to the future of the city and region (Figure 7).

6.2. Norilsk Nickel's human resource management

After privatization, the reorganization of Norilsk Nickel involved large-scale cutbacks. During the 1990s, Norilsk Nickel reduced its labour force by approximately 10,000 workers annually, a practice that still continues. Despite massive cutbacks, Norilsk Nickel has managed to maintain a relatively stable relationship with its workers. In the beginning of the 1990s, the company did face a wave of strikes in Taymyr Okrug that forced Norilsk Nickel to raise salaries, which were already rather high by Russian standards.⁹ However, in order to be able to meet the demands of workers, the company used its monopoly in the domestic market to raise the prices of its products (Peterson, 1993, p. 25).

The Russian labour market has been reported to be extremely flexible, at least when it comes to

Figure 7 A street poster of Norilsk Nickel displayed in the city of Norilsk in 2005



Source: Photograph by Vesa Rautio

the role of the labour force (Clarke, 1998). Industrial production in Russia fell rapidly during the 1990s. However, most enterprises have not initiated cutbacks due to workers' acceptance of lower wages; in some cases, workers even continued in their jobs without being paid for long periods of time (*ibid.*). Norilsk Nickel is an exception to this operating practice. During the 1990s, the company cut almost 40 percent of its labour force and increased wages so rapidly that the raise exceeded inflation. Norilsk Nickel also compensated its labour force for the losses that were caused by the collapse of the ruble in August 1998 (Romanov, 2001). Currently, labour costs are the largest cost item for the company, amounting to 42 percent of the entire cost structure (United Financial Group, 2004).

Norilsk Nickel has not faced major conflicts, such as strikes, with its labour force after

Table 3 The attitudes of the workers in Pechenganickel* towards their job and the labour policy of the company (%)**

Statements	Agree	Neutral	Disagree
1) My salary is adequate for my needs	10	9	80
2) I am pleased with the human resource policy of the company	12	23	65
3) The management is only interested in achieving short-term profits	59	29	12
4) The management pays no attention to the needs of employees	51	37	12
5) The management is less concerned about the welfare of employees than it used to be	71	32	8
6) There is too much distinction between the workers and the management of the company	88	9	3
7) I am pleased with the future prospects of the company	18	26	56
8) I am pleased with the management's actions towards workers	19	26	55

* The survey (n = 813) was conducted in the Pechenga District between the years 1999 and 2001.

** The most popular alternative is marked in bold.

privatization. This can be seen as an impressive achievement on the part of the company management in the context of introducing major internal restructuring, including cutbacks and reorganization of the entire company structure. This industrial peace can partially be explained by the fact that there have not been reasonable alternatives for the workers (i.e. jobs and opportunities to shift elsewhere in Russia) in the Russian North (Birjukova, 2005; Savakov, 2005). In addition, the flexibility of the Russian labour markets (i.e. workers patience) has been seen as the reason why Norilsk Nickel has managed to avoid major strikes despite huge cutbacks (Kravchenko, 2005; Vorontsova, 2005). Moreover, the company has been able to offer long-term contracts with high salaries (by Russian standards) even during the global mining crisis that occurred at the end of the 1990s (Rautio, 2003). However, seemingly stable labour relations do not indicate that workers of Norilsk Nickel are entirely satisfied with the actions of the management. Table 3 presents the responses of the employees of Pechenganickel¹⁰ to several statements concerning their work and the company management.

The first statement in Table 3 indicates that workers of Pechenganickel were not satisfied with their incomes despite the fact that their salaries were rather high by Russian standards. This can be explained by the collapse of the ruble in 1998, which temporarily lowered the real incomes of the workers as well as by the fact that living costs in the Russian North were high. Table 3 clearly indicates that at the turn of the millennium, the workers of Pechenganickel were not satisfied with the dealings of the management. It is evident from statements 2, 3, 4, 5, 6 and 8 that the workers were not convinced about the management's ability to run the company in a rational and sustainable manner. Therefore, merely 18 percent of the workers were pleased with the fu-

Table 4 Percentage of workers in the Pechenganickel and SeverTEK companies who agree with the presented statements, and the results of the χ^2 tests

Statements	Pechenganickel (n = 813)	SeverTEK (n = 357)	χ^2 test, Sig.
1) My salary is adequate for my needs	10.4	18.6	0.000
2) I am pleased with the human resource policy of the company	12.4	74.3	0.000
3) There is too much distinction between the workers and the management of the company	87.5	8.5	0.000
4) I am pleased with the management's actions towards workers	19.1	39.4	0.000

ture prospects of the company (statement 7).

In 2004, similar questions were asked in a survey¹¹ conducted among workers of the oil company SeverTEK¹² in Nenets Okrug. Table 4 presents the results of this survey and comparisons to the Pechenganickel company, as well as the results of the χ^2 tests that were conducted in order to compare and identify differences between the two groups of workers.

To a certain extent, the workers of SeverTEK are more pleased with their incomes (statement 1) compared to the workers of Pechenganickel. The difference is even more evident in statements 2, 3 and 4, which are regarding the company management's actions towards the labour force. Overall, workers in SeverTEK are markedly more satisfied with the company's human resource policy and with the management's actions towards the labour force. Table 4 shows that, according to the χ^2 test, the variables are dependent and differences are statistically highly significant ($\chi^2 \leq 0.001$) in relation to each statement.

The above differences between the case companies can be explained by the fact that SeverTEK is a new company that is operating without the burden and legacy of the Soviet Era (Savakov, 2005; Stefaniuk, 2005). In the case of Pechenganickel, for example, the management was criticized by the workers as being too authoritarian and aiming to control even those activities that were beyond the scope of the employees' work (Rautio, 2003). Compared to Norilsk Nickel, SeverTEK is a small-scale company in which communication between the workers and management is more efficient (statement 3). In addition, SeverTEK is a joint venture of the Finnish company Fortum and the Russian company Lukoil and, according to the survey, 78.1 percent of SeverTEK's workers are pleased with the nature of the cooperation and business practices that Fortum has brought to the Russian North. In the context of the human resource policy, the data support earlier studies (e.g. Naulapää, 2000; Clarke, 1998), which argue that the Russian management system is still causing obstacles in the development of enterprises.

7. Conclusion

The aim of this paper was to study the main tools required for the successful adaptation of a former Soviet enterprise to a market economy. The authors have explored the adaptation process by using Norilsk Nickel as a case company, since it has managed to remarkably improve its economic performance and integrate itself into the global mining markets in a relatively short period of time. The institutional approach has been used to study the adaptation process. The authors have analysed both formal and informal institutional factors in the company's adaptation to a market economy in the post-Soviet Era. This section summarizes the results of the study.

The Norilsk Nickel case shows that the adaptation process is socially constructed. The authors have concentrated on analysing Norilsk Nickel's relations with the public sector and with its labour force. One of the main aims of the transformation of the socialist state to a market economy is the separation of state and economy. However, the case of Norilsk Nickel indicates that this process is still incomplete in Russia. For example, the state controls the sector producing raw material by issuing mining licenses. Moreover, issues and legislation relating to land ownership are still undecided, which implies that mining companies operating in Russia cannot own the mine fields and deposits. To provide an example, Norilsk Nickel has been operating in the same mine fields in the Kola Peninsula and in Taymyr Okrug for over 60 and 70 years, respectively; however, it still has to apply for operating licenses on a recurring basis. This creates a strong dependency on the state and leads to difficulties in obtaining loans (bail for loan) for major investments.

The Russian business environment still contains legacies from the Soviet Era; this forces enterprises to seek business practices that include both socialist and market economy aspects. These types of enterprises are termed mutations, which are presented in the typology provided in the theoretical section of this paper (Figure 1). In the typology, the Reactionaries represent the type of enterprises that cling to socialism and were therefore doomed to fail in the business environment of a market economy. Norilsk Nickel avoided being part of this group by engaging in two processes, privatization and internationalization, which began in the mid-1990s. These processes have improved the company's economic basis by focusing on export and increasing its transparency (e.g. production figures) and productivity (i.e. restructuring). In addition, internationalization has enabled the company to withdraw from the business practices of the Soviet Era, such as barter trade. However, increasing internationalization has not led to complete openness of the company or complete adaptation to the business environment in which its main competitors are operating. For instance, production figures of platinum metals are still considered a state secret, which is why Norilsk Nickel's main production area is closed to foreigners. In addition, the company is entirely dependent on mining and export licenses issued and controlled by the state.

The period immediately after the collapse of the Soviet Union was even more challenging because a majority of the companies, including Norilsk Nickel, were still state-owned enterprises operating in an unstable society that lacked market economy practices. According to the typology presented earlier, Norilsk Nickel's role in the beginning of the 1990s can be defined as a Constructor (Figure 1). The management of the company (mainly comprising the so-called Red Directors) was unable to initiate the restructuring process, which was essential for the survival of the company. Relying on state subsidies and barter trade, the management concentrated on fulfilling the production goals set by the state rather than on restructuring.

The current business practices of Norilsk Nickel suggest that the company belongs to the Neutrals in terms of typology. The company is fulfilling its obligations, such as tax payments and salaries on time; however, it is reluctant with regard to any additional commitments at the state or local level. Initially, the Neutrals, including Norilsk Nickel, appear to operate along Western business guidelines. However, a closer examination of the management's relations with the state exposes reliance on personal relations and social bargaining, which is a consequence of the Soviet legacy and the current Russian business environment. The managements of the companies belonging to this group are actively lobbying in order to obtain key positions for its managers in the public sector. For example, the governor of the Krasnoyarsk Region,¹³ Alexander Khloponin, is the former General Manager of Norilsk Nickel.

Components of informal institutions, such as workers' attitudes towards the management of Norilsk Nickel, do not appear to work in favour of the company. According to the surveys conducted as part of this study, the workers of Norilsk Nickel do not have too much confidence in the management's capability of conducting major restructuring in a rational manner. Moreover, compared to the more Western-oriented and Western-owned oil production company SeverTEK, the workers of Norilsk Nickel are not pleased with the management's human resource policy. However, Norilsk Nickel still has surplus labour, low productivity per employee and offers high salaries, which provides them with a clear advantage of being able to avoid strikes and other disputes.

The basis for Norilsk Nickel's present economic and operational stage is relatively steady, despite the barriers created by formal and informal institutions. The incomes of the company are earned in US\$ whereas its costs are incurred in rubles, which implies that the company benefited from the crisis caused by the collapse of the ruble in August 1998. The world market ore prices have remained extremely high for several years; this enabled the company to initiate its technological modernization. However, the process is proceeding gradually due to the business environment (formal institutions) and the ongoing social transition. The incomplete but ongoing transition in the Russian North manifests itself in the form of surplus labour and, for arctic regions, in overpopulated communities, which gives rise to additional costs. Therefore, the currently steady economic basis will be challenged when the world market prices begin to decrease. This

will create great challenges not just for the company but also for the public sector and residents of the resource communities in the Russian North. Thus far, these three actors have not begun to co-operate in order to create rational and sustainable restructuring policies to facilitate the process.

In summary, the main reasons for Norilsk Nickel's post-privatization success can be expressed primarily in terms of three factors: internationalization, restructuring and social transition. Firstly, the company has benefited from its internationalization strategy (i.e. export orientation), particularly during this decade, aided by high world market prices. Secondly, the management initiated a major and ongoing restructuring program accompanying the privatization process, which has lowered production costs. Finally, the social transition has benefited the company financially in the form of the collapse of the ruble in August 1998 and the ongoing inflation. In addition, the unstable society, which lacks valid social safety networks, has for its part enabled the company to conduct restructuring of the labour force without major strikes and conflicts with its employees.

Our case company, Norilsk Nickel, has been successful in its adaptation to a market economy, which is based on the three factors discussed in the paper. The Russian economy is currently benefiting from the high world market prices of raw materials, such as oil, gas and minerals. As a consequence, the share of the major raw material producing companies in the country's total export is approximately 80 percent and their taxes and export duties account for almost half of the incomes in the government's budget. However, export orientation is not an all-embracing explanation for the economic success in Russia during the post-Soviet era. For example, the beer-producing company Baltic Beverage Holding AB is an example of a company that is international by its ownership structure, but has based its success on concentrating on operations in the domestic markets. Hence, the Norilsk Nickel case does not comprehensively describe the basis of the successful adaptation process in the post-Soviet era. However, it provides tools for understanding the process in the raw material producing sector, which is extremely important for the economy of Russia at present.

Notes

¹ The authors are grateful for the financial support provided by the Academy of Finland.

² 'Soft budget constraint' describes the budget system used in the Soviet enterprises in which the plan had priority and the availability of money was not a constraint (see Kornai, 1980).

³ Platinum metals (platinum, palladium, rhodium, osmium and ruthenium) are mainly used in the car industry.

⁴ The data used in the study were collected as part of the author's doctoral dissertation project, which was completed at the end of 2003 (see Rautio, 2003). The data includes expert interviews (n = 35) and a survey among Norilsk Nickel's workers (n = 813).

- ⁵ The survey (n = 357) was conducted by Mattias Spies (University of Joensuu) among workers of the oil company SeverTEK, which operates in Nenets Okrug.
- ⁶ Financial firms such as Alfa-Bank and United Financial Group provided investment analyses with regard to Norilsk Nickel.
- ⁷ The Red Directors had already taken charge of major companies during the Soviet Era and many of these directors, like Anatoly Filatov, were ousted from the management during the privatization process.
- ⁸ The Russian North concept is used, for example, by Bradshaw (1995), Heleniak (1999) and Rautio (2003). The Russian North includes eight regions: the Republic of Karelia, Murmansk Oblast, Arkhangelsk Oblast, Nenets Okrug, the Republic of Komi, Yamal-Nenets Okrug, Khanty-Mansi Okrug and Taymyr Okrug.
- ⁹ In the Taymyr area, the average monthly salary of miners was 40,000–50,000 rubles (in 1992). At the same time, the average salary in Moscow was approximately 6,000 rubles (Peterson, 1993, p. 35).
- ¹⁰ Pechenganickel is a subsidiary of Norilsk Nickel's operations in the Kola Peninsula (Figure 2).
- ¹¹ The survey (n = 357) was conducted by researcher Mattias Spies, University of Joensuu, as part of his doctoral dissertation project.
- ¹² SeverTEK is a joint venture of the Finnish company Fortum and the Russian company Lukoil. SeverTEK is operating in the Timan-Pechora oilfields, which are located in Nenets Autonomous Okrug.
- ¹³ Taymyr Okrug (Norilsk Nickel's main production area) is part of the Krasnoyarsk Region.

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