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**Conference Paper**

## Uneven Modernisation Tendencies in the Russian North

39th Congress of the European Regional Science Association: "Regional Cohesion and Competitiveness in 21st Century Europe", August 23 - 27, 1999, Dublin, Ireland

**Provided in Cooperation with:**

European Regional Science Association (ERSA)

*Suggested Citation:* Tykkylainen, Markku (1999) : Uneven Modernisation Tendencies in the Russian North, 39th Congress of the European Regional Science Association: "Regional Cohesion and Competitiveness in 21st Century Europe", August 23 - 27, 1999, Dublin, Ireland, European Regional Science Association (ERSA), Louvain-la-Neuve

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## **UNEVEN MODERNISATION TENDENCIES IN THE RUSSIAN NORTH**

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### **ABSTRACT**

Industrial output has declined in the Russian North throughout this decade, and industrial capital is ageing due to lack of investments. Only a few companies have been successful under these conditions. This paper aims at explaining the reasons for this development by analysing the course of two companies, a nickel conglomerate in the Murmansk Oblast and the successors of mechanical wood-processing company near the town of Sortavala in the Karelian Republic. The results suggest that economic recovery is stifled by former institutions and practices which do not facilitate modern business. The study reveals extensive institutional defects in the Russian economy and the problems of profitability. One consequence of such dilemma will be a geographically uneven modernisation.

### **AIMS AND METHODOLOGY**

This paper presents an interpretation of the causes of economic crises in resource communities in the Russian North, not far from the EU border in the Murmansk Oblast and Karelia. This research focuses on largish Soviet industrial enterprises

and their small successors. The paper aims at constructing theoretical tools for conceptualising the disintegration of 'production complexes' in the Russian North. This study is an independent piece of research and forms part of two wider research projects which aim to analyse local development strategies in several communities in Russia and Hungary (see Tykkyläinen *et al.* 1998; Tykkyläinen and Rautio 1998). The empirical part of the study relies on research of business and livelihood in the small suburban locality of Helylä, in the village of Värtsilä in the Karelian Republic and the mining towns of Zapolyarnyj and Nickel in the Murmansk Oblast on the Kola Peninsula (Tykkyläinen 1998a; Tykkyläinen and Rautio 1998).

This study is based on the analysis of two companies established during the command economy era and their successors, therefore, this study does not explicitly aim to answer the questions of the generality or spatial distribution of the observed economic behaviour. None the less, this study proves the existence of some restructuring processes and management responses at a company level. It reveals nuances that are not apparent when using statistical data. This justifies the case-study approach used (cf. Tykkyläinen 1999). On the other hand, despite regional differences the principles of Soviet-type command economy were general and common. The basic societal structures, such as the ownership of industrial assets, the finance and trade, etc., were the same all over the Soviet Union. Enterprises operated under the supervision of the relevant all-union branch ministry which organised the inputs and outputs of companies. Hence, these results certainly reflect the restructuring problems of companies operating in the particular branches of industry and in specific geoeconomic conditions. The resource-based sectors, like mining and wood-processing faced severe restructuring problems and economic depression in the Russian North during the 1990s, as the case studies reveal. To what extent the following explanation is general, merits additional study.

## **ECONOMIC DECLINE AND TRANSITION**

Socio-economic transition has proved to be a long-term process in many remote places of Eastern Europe and especially of Russia. Individuals and various local communities have encountered difficult adjustment processes with the worst situation being in the countries where production has declined the most. The average change of GNP per capita between 1985 and 1995 was -5.1 % in Russia (World Bank 1997, 215). The economic regression has continued through to the late 1990s. In 1997, the GDP of Russia recovered slightly but declined in the other years: -3.5 % in 1996, -4.6 % in 1998 and -4.0 % during the first quarter of 1999 (Bank of Finland 1998; Bank of Finland 1999). The competitiveness of Russian industry has been low in the latter half of the 1990s which was one of the factors leading to the floating of the Russian rouble and its recurrent devaluations from 17 August 1998 onwards. The Karelian Republic and the Murmansk Oblast, the regions where field research for this paper was undertaken, have suffered from the decline of resource-based industries, and modernisation is urgently needed for most of the companies in these regions.

Russia has witnessed the evolution of a unique method of the dissolution of socialism among the countries of the former socialist bloc. In spite of such profound changes, Russian authorities have nonetheless been unable to modernise organisations and institutions according to the requirements of market economy (see e.g. Tykkyläinen and Jussila 1998). Companies and localities are hooked up with the remains of the Soviet production network which seems to be difficult to replace by the modern international division of labour (van Zon 1998). Consequently, Russian industrial towns are much more isolated from Western markets, finances and technologies than East-Central European ones, further lending to the unique predicament of Russia.

## **FORMER RESULTS: ACTORS OF DEVELOPMENT**

Despite sizeable bureaucracy it would be an exaggeration to say that Russian authorities currently plan and implement effective, sustainable local development strategies. Development is sporadic and local development consists of rather scattered struggles against turmoil by individuals or collective groups rather than through any plausible development strategies.

In recent research, a survival or coping strategy has been introduced when interpreting development in remote localities (Baerenholdt and Aersaether 1998; Bradshaw and Lynn 1998; Tykkyläinen 1999). The recent development of Russia is based on, at the grassroots, the increase of self-sufficiency and, in the North, the natural resources (tho Seeth *et al.* 1998; Bradshaw and Lynn 1998) The term survival strategy, or coping strategy, has also used in the West European societies. In the West European context, a survival strategy means the increase of informal work and the harsh livelihood of low-income groups (Mingione 1991; Meert *et al.* 1997). On the whole, a coping strategy consists of reactions which individuals, companies and authorities adopt in the face of a local economic crisis (Nygren and Karlsson 1992). In transitional countries, the restructuring of the local economy in small communities, such as towns, has led to drastic attempts to satisfy the basic needs by inventing new means of livelihood, resulting in a survival strategy for individuals and families (Tykkyläinen 1999; Voronkov 1995). At the practical level, individuals and communities must develop new strategies to restore income through, for instance, innovating new products, increasing the efficiency of work, establishing new enterprises, increasing enterprising work and adopting various forms of informal or casual activities.

There are numerous case studies which highlight how entire localities have transformed their economic and social structures during crises, and how different

strategies of survival or development were implemented at a community, usually town, level (Neil *et al.* 1992; Neil and Tykkyläinen 1998a). These former studies revealed that the actors reacting to the pressures of restructuring are not great in number but rather a handful of people from both in and outside of a community (Neil and Tykkyläinen 1998a). These actors are comprised of individuals and newly formed groups and *ad hoc* organisations. Restructuring usually supersedes the borders of a single community and brings together new resources (skills, funds, etc.). However, it is not realistic to expect that a traditional community — a local authority or local residents — will operate as a collective and coherent organisation in the restructuring phase. Indeed, the consequence of the heavy pressure to restructure is usually disorder rather than increased cohesion.

Hypothetically, Russian areas rich in natural resources form arenas for various efficiency-seeking processes which would lead to the active search for new development and business strategies in order to utilise natural resources and existing social capital. In Russia, society is not organised in such a way so as to permit the implementation of efficient development policy by regional and local authorities. Nor are the regional and local authorities authorised with sufficient power or equipped with the necessary financial resources for implementing such policy at present. The potential for development still depends on old societal structures and emerging capitalism.

Working communities, where the provision of services (infrastructure, housing, central heating, etc.) is associated with the operation of factories, still predominate in many places in Russia, and local authorities play a minimal role in community service provision and development, notably in the Russian North. This paternalistic form of local community was typical in the past socialist states and, despite differences, it is comparable to capitalist firms in the far past (Domanski 1992). Thus, the introduction of market economy is a quantum leap for post-Soviet

paternalistic companies and their working communities.

Partly due to this paternalistic tradition, local communities are weak. The issue of organising local development seems to be problematic. In outlying areas, local authorities do not have many revenue sources, and local people remain dependent on benefits provided by factories. In general, most people do not possess the ability and resources to promote development and, hence, are not prime actors in development (e.g. Tatarinskii 1998).

As concluded from earlier research, individuals, small groups, entrepreneurs and investors are the real actors of restructuring a community. A community consists of different skills and capabilities, different occupations and generations and, of course, different individual values and attitudes. The reactions of individuals and *ad hoc* groups to restructuring are direct, spontaneous and far-reaching. All this leads to the assertion that there are impromptu and unexpected actors reorganising economic systems in Russia.

The explanation of economic transition is elaborated in this paper by the investigation of the conditions of transition at a company level focusing on the explanation of the strategies of locals and non-locals how to continue businesses. An analysis of the cost structure of companies is used in explaining the decline and emergence of economic activities in contemporary Russia.

## **THEORETICAL FRAMEWORK - ACTORS IN RUSSIA**

**Institutional context** — The role, impacts and governance of 'local' and 'global' forces and the legacy of the past structures of society have been much studied and discussed in contemporary economic geography (e.g. Yeung 1998; Amin and Thrift 1994; Smith and Swain 1998; Swain and Hardy 1998). Geographically, the development of communities and localities has been seen as the different outcomes of global socio-economic engagement and local institutional capabilities. As a more

concrete example, previous work undertaken with the restructuring of resource communities resulted in the idea of multicausality (Neil and Tykkyläinen 1998). First, that there are general transition processes (such as globalisation, transformation of general socio-economic philosophies and re-organisation of international trade) forming the primary external factors steering development. Second, national political factors (such as privatisation, the introduction of market economy rules, etc.) challenge the industrial communities to improve their competitiveness (Neil and Tykkyläinen 1998b; Tykkyläinen 1998b). Third, there are differences in the future growth opportunities of industry according to industrial sectors. Fourth, local development processes are locally-specific, implying that they are based on the specific configuration of population, infrastructure, local economy, institutions and local cultures. These supra-local and local processes overlap and local survival strategies emerge in the interface of these processes. Fifth, individual actions, such as ‘survival strategies’ represent individual responses in a community (Tykkyläinen 1998b).

In conditions of turmoil, development originates from pressure on communities to change. This means that various factors (such as shifts in demand, deregulation, etc.) exert pressure on villages, towns and rural areas to restructure and, in more general terms, foster the development of a community. Individuals and groups react to these pressures, resulting in what may be called strategies against marginalisation. People react to change in various ways such as resisting change, passively adapting to changes or attempting to be innovative (Nygren and Karlsson 1992, 110-116). Innovative behaviour, in turn, leads up to the ‘development’ of a community. Whatever the strategy is, the influence of the various factors (and the interaction of them with actors) produces different spatial outcomes (e.g. closures of plants or ‘development’).

***The interplay of structure and agency – development*** — One of the traditional



debates of relevance in explaining Russian socio-economic development is the relationship between structure and agency. That debate can be referred to as the discussion of the nature of human geography (Thrift 1983). In its simplest, development is an interplay between human agency and economic structures (Fig. 1). From the empirical standpoint, development is an interplay of actors and institutions.

The role of human agency is fundamental in reactions to re-structuration processes. Human activity shapes everyday livelihood and generates the economic viability of a community. Simultaneously, and from the viewpoint of geographical social theory, human activity is an evolutionary process which creates economic, spatial and social practices and, finally, structures. Human agency, comprised of a complex web of actors, is central in creating conditions and acquiring benefits from any economic transformation. Local development processes are the learning processes of the actors in a local context, but within supralocal networks.

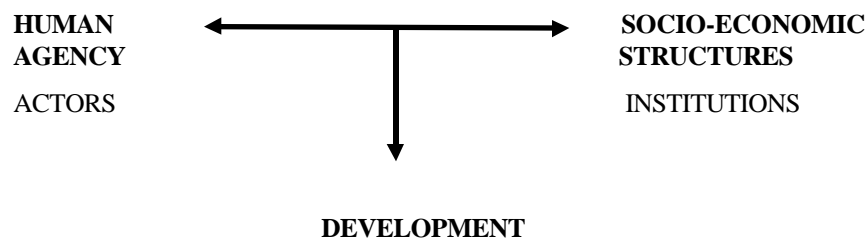


Figure 1. *The interplay of human agency and structures*

Besides transition impacts on everyday livelihood in Russia, one outcome of the transition has been the emergence of a great number of reformed or nascent social structures. New social practices emerge and shape new institutions and structures, but only very slowly because of the a massive case of inertia (Róna-Tas 1998). And that inertia varies by locality. Industrial communities are laboratories of ongoing restructuring in Russia.

The transition in the Russian North indicates that modernisation is an

company also had a farm in the vicinity as well as a subsidiary plant. When the company operated at full capacity, the number of employees was 2,500. The company reduced its labour force in the 1990s, and in 1997 the company employed

only 700. The company went bankrupt in the beginning of 1998 (Tykkyläinen 1998a).

When the company collapsed, the social obligations of the Helylä community were transferred to governmental authorities. The discarding of social obligations made it possible for company managers to begin new economic activities without the burden of providing public utilities and services for the entire community (Tsaplin 1998).

As a response to sudden unemployment, the most proactive former employees of the company focused on forming three business ventures in early 1998. First, a new company with premises in Sortavala was established to manufacture furniture. The operation of the furniture company was still in its infancy in February 1998, with the business strategy of the company being the production of furniture and kitchen fixtures. Second, there would be a continuation of the production of skis and ice-hockey sticks, but under the auspices of a new company. Third, a small-scale sawmill began to operate on the premises of the company's farm, commencing production in January 1998.

The sawmill machinery was located at the farm of the former company. The farm still had 50 cows and grassland fields of 160 hectares in 1998, but other parts of the farm were dedicated to the sawmill operation. In the winter of 1998, the sawmill operated in an old cattleshed and employed 28 workers. The company planned to recruit more people when three-shift operation would begin and production increase. The venture capital of the sawmill was put together by investors from Hungary, Lithuania and Russia with respective shares of 40/33/27. Sawn timber is exported to Budapest, Hungary by lorries. Roundwood is transported to the mill from as far away as 40 kilometres, and the company has an agreement for logging 10,000 cubic metres of roundwood per annum. Compared with many operations, this company is very small.

*Zapolyarnyj and Nikel* — Zapolyarnyj (69°26'N 30°52'E) and 30°14'E) are industrial towns near the Russian-Norwegian border in the Murmansk Region. The industrial base of these towns consists of nickel production operated by Pechenga Nickel Company: three open pits, underground operations, a mill producing nickel concentrate, a roaster plant producing pellets, a sulphuric acid plant and a smelter are the main production units in the 10x30 km mining area located in the arctic region. The mines and factories employed 9,000 in August 1998. Retirements and layoffs were seen as a valve for financial woes, and 800 employees became redundant in 1997 and the labour force was further reduced by 1,100 in 1998.

Pechenga Nickel is part of RAO Norilsk Nickel, the subsidiary of the large multilocal mining company in Russia. The Nikel conglomerate employs 100,000 persons, of which 80,000 in Norilsk, 8,000 in Nikel-Zapolyarnyj, 8,000 in Monchegorsk and a few thousands in Olenegorsk and St. Peteresburg. Pechenga Nickel is part of the nickel production chain processing local nickel ore and ore concentrate from Norilsk, 3,000 km east of Pechenga fiord. The production of Pechenga Nickel is further processed in Monchegorsk. The main worry of Pechenga Nickel is the lack of competitiveness and profitability. The current low price of nickel does not account for all the losses, with the primary reasons being the lack of advanced organisation and inefficiency of production. During research interviews, managers of Pechenga Company voiced concerns of insufficient resources for required modernisation investments (Blatov 1998; Kamkin 1998). The company also needs investments to develop a new underground mine to ensure sufficient nickel ore for the processing works.

Co-operation has been planned with the Finnish company, Outokumpu Oyj, which is expected to provide modern technology and equipment. Pechenga Nickel has constructed two shafts (more than 1,000 m deep) and supplementary facilities,

representing their inputs to the possible joint venture. If this joint venture does not materialise, nickel production in Zapolyarnyj and Nikel will cease (*ibid.*). The Zapolyarnyj and Nikel case study exemplifies modernisation and restructuring attempted through co-operation with a foreign company.

### **EXPLANATION: RESTART THROUGH CRISES**

Transition has so far lasted almost ten years in Russia. Why are companies unable to develop their production? Below, the explanation is discussed in a more analytical fashion using some traditional concepts of economics.

The direct reason for unproductive economic performance seems to be obsolete products and technology in both cases. Poor economic performance can be simply illustrated by shifts in technology, investments and demand in two countries, of which country A represents an advanced market economy and country B denotes a former socialist economy. Take a hypothetical case where consumers increase or decrease the demand, say, for skis over the long run. Assume that the equilibrium of demand and supply in market economy country A is described as E in Fig. 2, and non-market economy B can provide the same amount of products at the same price. The starting point is that the demand and supply curves,  $dd$  and  $ss$ , are located in the middle (Fig. 2), and there are companies in both countries producing almost similar products at the same price.

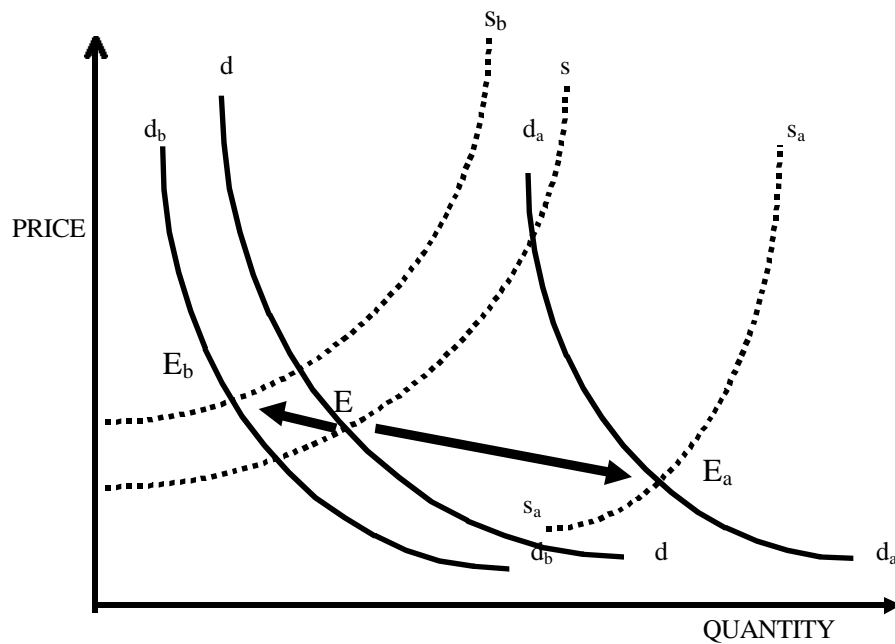


Figure 2. Downward shift in costs and increasing demand in growth economies and upward shift in costs due to declining (mass) production and decreasing demand due to decreasing incomes in declining economies. Demand curves  $d$ , supply curves  $s$ . Subscript a refers to advancing market economies and b Russia

The knowhow gained in the production process and new innovations make possible the production of the next generation of skis for much less per unit than before in the developing market economy A. The demand increases because incomes increase and consumers feel that new skis are more appealing than older pairs. The demand and supply curves shift to the right in the case of country A as well as the long-run equilibrium of supply and demand from E to  $E_a$  (Fig. 2).

In the nascent market economy, country B, high volume production is no longer possible and skis become outdated in comparison with skis produced elsewhere over time. Thus, the price of skis manufactured in country B rises due to rising costs and consumers are no longer equally eager as before to buy these skis. Hence, the gap between the competitiveness of the two countries widens in ski production. The shift to equilibrium  $E_b$  depicts the market development in Russia,

the direction which is opposite to the shift towards equilibrium  $E_a$  which illustrates the situation where companies are innovative and develop their production, as is the case in country A (Fig. 2).

But why do the companies in country B fail to develop their production? This can be explained by the concept of former inherited structures (cf. Tykkyläinen and Jussila 1998). The legacy of the former economic practices is elucidated by analysing the development of the ski, furniture and parquet company which was in operation in Helylä in the 1990s (Figs. 3 and 4).

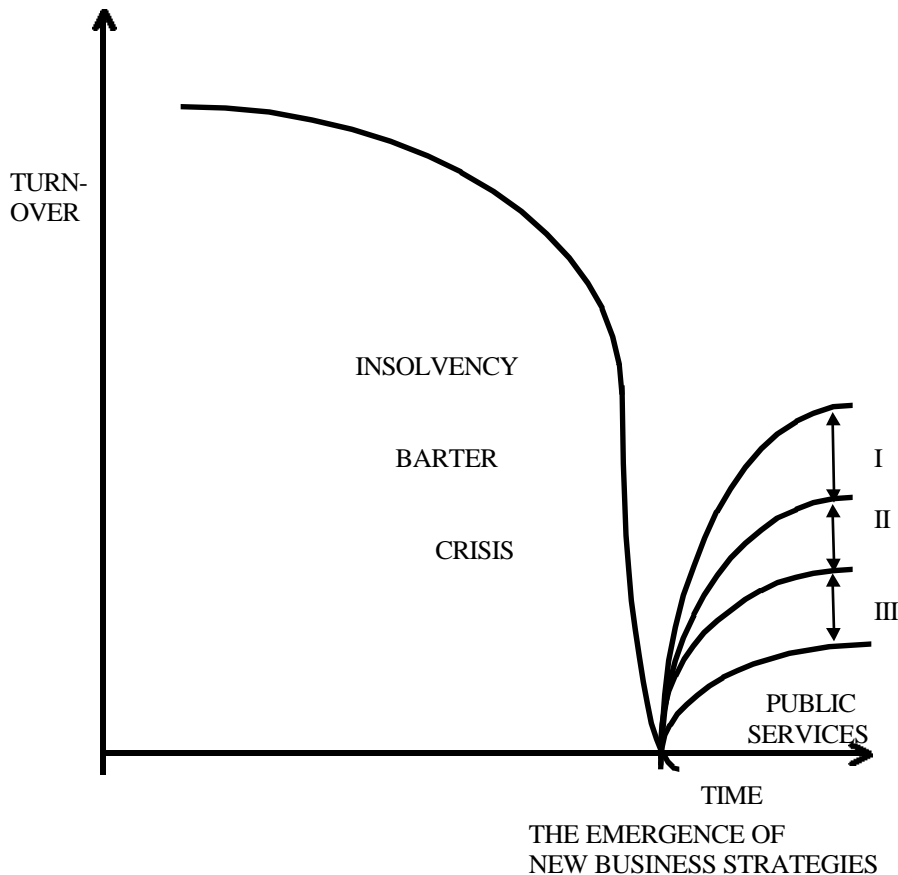


Figure 3. *The closure and restart of economic and social activities. I, II and III depict recently-founded companies.*

The curve on the left in Fig. 3 shows the decline of turnover of a large, post-Soviet company as the function of time: production declined and it soon became unprofitable, leading to the closure of the company — as happened with the

ski, furniture and parquet company. After the bankruptcy (on the right in Fig. 3), three new companies were founded and most utility and social service responsibilities were transferred to governmental bodies. Thus, public utilities and welfare provision were no longer the responsibility of any industrial company.

Figure 3 depicts the situation in which there are no possibilities to modernise production without starting from the very beginning. The reasons for this development track can be understood when the costs and revenues in the old and recently founded companies are compared (Fig. 4). The crucial difference between traditional and recently founded companies is the way business is financially managed (Fig. 4).

According to standard micro-economic theory  $TC=FC+VC$ , total cost is the sum of variable and fixed costs. These cost items can be used to describe the components of turnover, where  $TO=TC+P=FC+VC+P$  in which  $P$ =profit. Total Cost represents the lowest aggregate expense required to produce each level of output  $q$ . Fixed Cost represents the total expense that is spent even when a zero output is produced. Fixed Cost usually includes contractual commitments for rental, maintenance, depreciation, interest, etc. Variable Cost represents all items of TC except for FC, such as raw materials, fuel, wages, transport, etc. In Fig. 4, the cost components are described as a function of time in an outdated company in post-socialist country B, on the left of the figure. It is assumed that  $TO=TC=VC$  in the company in country B, which was the actual situation with many large Russian companies founded during the Soviet era, in the late 1990s. On the right, the cost components of new, emerging companies are represented, and a cost structure such as this makes it possible to invest in and develop production.

The lower part of Fig. 4 depicts the financial balance of local public services in the late 1990s. As observed in Russia, the reorganised social sector consists of expenditures on public services (EPS) which equals the sum of the redistribution of



federal taxes (RFT) and the subsidies paid by new companies (SPC) to local authorities.

Figure 4 clearly depicts the financial difficulties of a company within the Russian production context. In country B, the turnover of a company equals VC, which means that the company has no money for investments and R&D. This has been the case both in the Helylä company and Pechenga Nickel in the 1990s. Moreover, VC has not been very dependent on the pace of work. Wages have been paid, if possible, even though production has sharply declined. The total revenue has been distributed to workers. Pechenga Nickel is subject to the investment policy of RAO Norilsk Nickel and dependent on its internal financial arrangements, but the described theoretical framework essentially holds true.

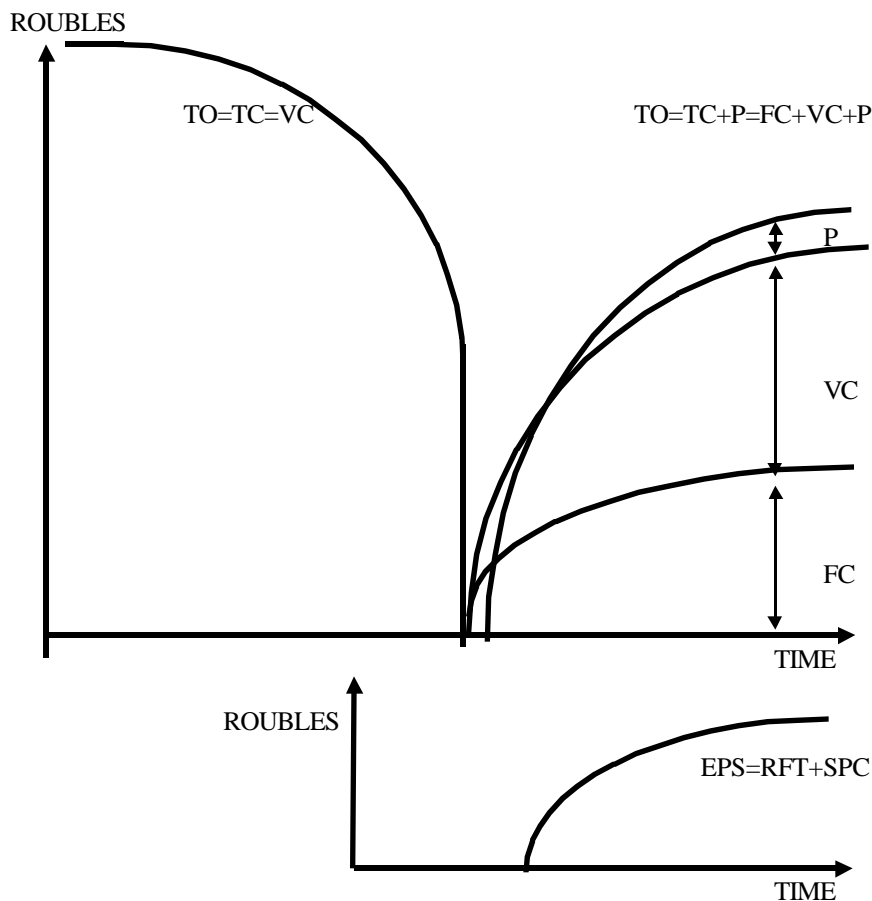


Figure 4. Revenues and components of cost in old and new companies.

One crucial reason for this situation is that companies were formerly only production units, which did not themselves take care of allocating money for investments and R&D. This sort of management has continued in large Russian companies making them noncompetitive in emerging market economy environments. The second reason originates from the recent investment climate in Russia. Investments have declined even faster than production, year after year from 1990 to 1998. Resource-based industries, as long-term and capital-intensive activities, have not succeeded in attracting even scanty investments. Both the structural and economic arguments became clear during the interviews with the managers of Pechenga Nickel in Zapolyarnyj as well as during the course of interviews in Helylä.

Public services are increasingly being outsourced from industrial companies, and service provision tends to operate under the auspices of a local authority (Fig. 4) although subsidised by companies in various degrees. In Fig. 4, the description of the financial arrangements of the newly-founded public service sector is based on the interviews in Zapolyarnyj (Tatarinskii 1998) and Värtsilä (Purmonen 1998). In the latter case, a joint venture was established to produce sawn timber just near the Finnish-Russian border, some 50 km north of Helylä (Tykkyläinen 1998a). Insufficient tax revenues from federal authorities (RFT) have led local authorities to search for assistance from private sector companies (SPC) (Fig. 4). Zapolyarnyj and Nikel in 1998 were still more like company towns in terms of public service provision.

## **COMPANY STRATEGIES FOR ECONOMIC RECOVERY**

Pechenga Nickel was still in operation in 1998 but was radically cutting expenditures and laying off employees. It attempted to avoid drifting into the same

situation as the Helylä company. The mining company has also successfully cooperated with the local authorities in transferring the responsibilities for public utilities to the local administration, especially when taking into account the scarce financial resources of local administration. The nickel company is still the major revenue source of the local administration (Tatarinskii 1998).

The company's labour force reduction programme will continue in 1999 to the same extent as in 1998. Fiscal rationalisation is also planned to be instrumented by outsourcing: some of the auxiliary departments of Pechenga Nickel will function as independent companies in the future. Regardless of even the most drastic cuts, the company is unable to put sufficient money aside for investments let alone for maintenance. It is a part of the large production complex, and meager investments are allocated to various targets, not only for Pechenga Nickel. For these reasons, external investors are welcome for the opening of a new mine and for the modernisation of production. In this way the company attempts to avoid the unviable situation indicated by Figures 3 and 4.

## **CONCLUSIONS**

Economic development in the Russian North is stifled by the former institutions from the Soviet era. This situation has led companies into a development trap: companies' revenues go to covering wages as well as social obligations and there is no appealing business environment for long-term investments. Without the radical and profound reform of the companies' business environments, in parallel with the restructuring of the production system, all economic renewal attempts will take place within an economic quagmire, more often than not spawning only bankruptcies and crises. Nevertheless, the improvements of business environments do not guarantee spatially-balanced development. Capitalism selects operations on the grounds of profitability, as seen

especially in greenfield investments (Tykkyläinen 1998a), and the starting points are not good in the Russian North. Therefore economic modernisation takes place in few, promising business sectors and localities in the Russian North.

## **ACKNOWLEDGEMENTS**

The research pertains to the Research Programme of Russia and Eastern Europe of the Academy of Finland, projects No. 38812 and 60201. The financial support of the Academy of Finland is highly appreciated. Interviews in 1998 were undertaken during the Sortavala and Kola excursions, which were organised as part of Nordplus co-operation No. 0104/97 and the TMR-course contract ERBFMMACT960147 respectively.

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