

# Enterprise Restructuring in the Context of Urban Transition: Analysis of Company Towns in Russia<sup>1</sup>

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**Abstract:** This paper examines Russian enterprise reforms in the context of urban changes. The first part includes an overview of urban formation unique to Russia and depicts the key features of urbanization; focusing on company towns often called ‘town-building enterprises’ or ‘mono-profiling towns’. The author emphasizes how the uniqueness of this type of enterprise delayed the restructuring process for both private enterprises and public institutions. Nevertheless, it concludes that the relationship between enterprises and local communities, which was previously constructed symbiotically, has changed. The second part focuses on the impact of urban infrastructure on enterprise reforms. The lack of investment in Russia has led to existing fixed capital facing obsolescence while the municipalization of enterprise-owned urban infrastructure looks set to exacerbate the situation. Although many Russian enterprises retain some social assets at hand to mitigate the impacts of economic reforms in some respects, ‘urban infrastructure hoarding’, the other side of the ‘labor hoarding’ characteristic of Russian enterprises, may lead to more serious social problems. The author points out that a potential lack of investment in urban infrastructure by these enterprises, a ‘merciful death’ in other words, can represent a means of enterprise restructuring.

**Keywords:** Russia, Company towns, Urban infrastructure

**JEL Classification Numbers:** J58, O18, P31

## 1. Introduction

A report on the decade-long transition to a market economy, summarized by the World Bank, says that some countries are finding the process of transition to a market economy problematic due to persistence of former economic systems. Although the question of whether the success or otherwise of the market economy transition can be mainly put down to economic policies remains a subject of debate, it cannot be isolated from the effect of various conditions in the early days, such as socio-economic conditions, the political situation and geographical or geopolitical factors at the time of transformation. Following consideration of CIS countries, which, based on actual economic development results for this period, were clearly classified as ‘losers’, the World Bank found that the more significant difficulties in such countries were attributable to purely geographic factors to a certain extent; ‘These [CIS] countries also faced greater obstacles to achieving reallocation, such as

physical size, distance to external markets, large and inefficient company-town enterprises in isolated regions...' (The World Bank, 2002, p. 15). This phrase means that phenomena linked to their physical size and regional diversity could restrict their economic development in the 1990s.

In this paper, citing Russia as an example, the author focuses on the aforementioned company towns and examines how the geographical characteristics of a large and particularly diverse country are reflected in its corporate structure and the type of effect this has on the corporate reform movement. The regional diversity inevitable in such vast territories has been shown to be a negative factor in the development of economic reform.<sup>2</sup> In fact, the impact of the severity of Russia's climate, the vastness of the Russian land area and the predominance of expensive land transport over cheap sea transport means that in most areas of the Russian economy, the costs of infrastructure construction, likewise those of industrial and agricultural production, are several times that of almost any other country (Lynch, 2005, p. 222). Therefore, there are no grounds for stating that the country can develop smoothly and continuously under a liberal market economy without taking geographical characteristics into account and in this sense, 'geography matters'. In other words, in order to understand the territorial dimensions of the Russian economic cataclysm, certain awareness of national contemporary geography is required (Bradshaw, 1997, p. 3).<sup>3</sup> However, the concrete impact of the latter at corporate level has seldom been the object of specific discussion, since the corporate structure in Russia has been mainly treated as a unit of corporate management to date.

In addition to the above, however, we must highlight the fact that almost all company towns were built under socialism. In recent years, historians have revealed that throughout the *Gulag* system, comprising Soviet labour camps and prisons housing millions of political prisoners and criminals from the 1920s to the mid-1950s, forced labour facilitated the exploitation of lands and natural resources in remote areas and also developed vital infrastructure and key industries. In some cases, the construction of company towns was carried out under this *Gulag* system, as has been proved by the history of the Noril'sk Nickel foundry in the far north of Siberia. The city of Noril'sk and the Noril'sk Nickel itself, which is certainly the largest of the company-town enterprises in Russia, consisted of a series of labour and construction camps operating from June 1935 to August 1956 (Hill and Gaddy, 2003, p. 128).<sup>4</sup> Although an extreme case, a number of company-town enterprises were constructed in the form of an ideal socialist company, which controlled the provision of conveniences and social services and compensated for the absence of a market economy and even the current Russian corporate structure retains these socialist characteristics. In fact, major Russian companies quite often govern and support neighbouring communities; not only through involvement in production and sales, but also the provision of various social services. In other words, they now act as substitutes for governments, which despite considerable size, have been weakened. This means that key regional industries, such as company-town enterprises, are most likely to perform the governing function. In the current paper, the author therefore tries to verify changes in the relationship between enterprises and local communities, based on the perspective of the former

creating the latter as part of its development processes.<sup>5</sup>

The first part includes an overview of urban formation unique to Russia and depicts the key features of urbanization; focusing on company towns often called ‘town-building enterprises’ or ‘mono-profiling towns’. The author emphasizes how the uniqueness of this type of enterprise delayed the restructuring process for both private enterprises and public institutions. Nevertheless, it concludes that the relationship between enterprises and local communities, which was previously constructed symbiotically, has changed. The second part focuses on the impact of urban infrastructure on enterprise reforms. The author points out that a potential lack of investment in urban infrastructure by these enterprises, a ‘merciful death’ in other words, can represent a means of enterprise restructuring.

## **2. ‘Town-building enterprises’ and ‘mono-profiling towns’**

Increases in non-rural populations are generally used as yardsticks to measure the degree to which societies have been modernized. Since the former socialist states required highly developed societies, in order for their primacy over capitalistic countries to be apparent, the need for governments to construct cities and towns as national policy was highlighted, i.e. the construction of basic industries and urban infrastructure most appropriate to the socialist cities and towns as part of economic planning. To best illustrate the characteristics of this policy, we can examine the so-called ‘Russian version’ of company towns. There are two terms which express it in Russian. If a problem is seen from the company perspective, it is called a ‘town-building enterprise’ (*gradoobrazuiushchie predpriatiia*) while if viewed from the town perspective, it is ‘mono-profiling towns’ (*monoprofil’nye goroda*).

However, although neither of the above are strictly defined academic terms, both are frequently used when corporate restructuring has a particularly acute effect on the surrounding community. For example, the current Russian bankruptcy law incorporates a special provision whereby the regional authority effectively guarantees the existence of town-building enterprises (Fujiwara, 2005). It denotes how the contradiction caused by the transition from planned to market economy was significant between the industrial locations established in the Soviet era and the corporate management style based on the market economy. Indeed, this has widely been recognized throughout the privatization policies in the 1990s. In this regard, the concepts of town-building enterprises and mono-profiling towns are negative evaluations of the corporate structure in Russia from the perspective of the efficiency of enterprise activities.

At the same time, these two concepts suggest the problem of the corporate structure may not be limited simply to the ownership and management within an enterprise. In addition, the governance of the surrounding local community, previously in a relationship of mutual dependence and mutual benefit with the enterprise, whereby each filled the other’s very basic needs in the Soviet era, was

largely involved in the formation of Russian enterprises. In general, even in a broad sense, the issue of stakeholders in relation to the corporate governance of Russian enterprises tends to be no more than that of the function of the ownership, management and audit of such enterprises. However, it is extremely unrealistic to assume that they did (or definitely did not) carry out reforms while completely ignoring local community views, during emergencies such as conflicts concerning ownership and management rights, large-scale downsizing and the closure of enterprises. If enterprises and communities exist with mutually closed relations for a particular reason, the presence of the latter must be far more significant on the issue of corporate governance. In Russia, where the state-owned enterprises were long charged with the task of supporting and controlling communities, it seems understandable, even if unreasonable, for Russian enterprises to support communities come what may. Although this is usually pointed out with certain criticism, state influence, in particular that of regional administrations and both hidden and overt, towards enterprise management can be understood as part of a reasonable administrative regulation to decrease transaction costs in Russian society, provided enterprises are deemed one of the means or 'tools' of the governance of a local community. With this in mind, to confirm these points, the author will summarize the features of town-building enterprises and mono-profiling towns and examine some of their preexisting internal problems.

### **2.1. Definition and classification**

The quantity of so-called town-building enterprises existing throughout Russia varies according to the definition used. As shown in Table 1, where certain cases are summarized, various organizations have actually established their own standards for practical needs to implement economic policies. If the amount to be paid as corporation tax exceeds 30% of the total revenue of local government, then they are also known as town-building enterprises. As aforementioned, these definitions are pragmatic rather than academic or theoretical and are thus decided a priori. Various standards set up for town-building enterprises suggest that their restructuring efforts are expected to be the most challenging as affecting community development. As is clear from the following example, it is obvious that the greatest cause of difficulty comes from the fact that the enterprise and town are unified economically as well as physically.

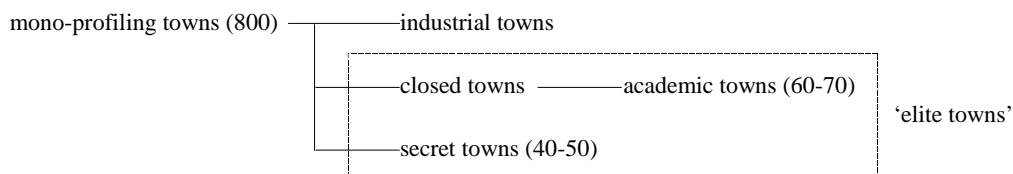
Moving on, the degree of exclusivity granted to mono-profiling towns, more specifically, the extent to which such company towns are externally sealed off, would be a factor of the town-building enterprise characteristics. It is appropriate to classify mono-profiling towns according to the exclusivity. If sufficient mineral resources are found for mining, towns should be established and developed with enterprises from the mineral mining and processing industries and a so-called 'coal mining town' is a good example of this style. In fact, the fuel-energy sector, including coal mining and the mining and processing of oil shale and natural gas, has the greatest number of town-building enterprises in Russia in terms of workers (Neshchadin and Gorin, 2001, pp. 81-82). If town-building

enterprises of the non-military sectors of industry support the whole town economy in this manner, it is appropriate to call them industrial towns (Figure 1). Meanwhile, closed towns and secret towns can be identified as cases where the armed forces and munitions industry were deeply involved in establishing towns in the Soviet era.<sup>6</sup> More often than not, they are physically distinguished by boundaries set by a concrete wall and require special permission to visit. Although both are often seen as the same type, certain differences must be noted. Most significantly, the existence itself of secret towns was not disclosed to the public for many years, not shown in available maps, and they were only referred to by code names based on ZIP/postal codes. All such secret towns remain under the jurisdiction of the Ministry for Atomic Energy (*Minatom*) or the Ministry of Defense (*Minoborony*), meaning the movement of their inhabitants is strictly controlled. However, the old town names were reinstated following the collapse of the USSR and their data is now partially available from the Statistical Office, making it relatively easy to identify the relevant locations; under federal government law, forty-seven cities or towns were entitled to such status in 1992 (Lappo and Polian, 1998, p. 43). On the other hand, the existence of closed towns was disclosed to the public during the Soviet era, which hampered the ability to select closed towns immediately based on various statistics. In addition, in many cases, a certain degree of exclusivity was removed in the post-Soviet period; reducing the likelihood that a list covering all former closed towns will be possible (Gentile, 2003, pp. 145-146). As shown in Figure 1, academic towns can be included in the category of closed towns, featuring higher education and research institutions all grouped together on the outskirts of big cities such as Akademgorodok (the base of the Siberian Branch of the Russian Academy of Sciences) in the suburbs of Novosibirsk, namely the model for the Tsukuba Science City in Japan.<sup>7</sup> Although it is helpful for us to distinguish such closed towns as distinct from the secret towns in this way, both have certain aspects in common. These include the fact that the built environment (including the town as a whole, comprising all fixed assets) was deeply involved in the munitions industry and that the authority formed a town space which was closed to the outside world. Actually, it is within such closed and secret towns that strategic enterprises for the country and superior human resources existed and with this in mind, they could be referred to as 'elite towns', successfully combining a high standard of welfare with ample funds for significant investment in the Soviet era (see Figure 1). However, the exclusiveness and isolation of these town spaces became a negative factor during the transition to a market economy and their superiority over other towns became a huge obstacle to reforms for the Russian economy.

**Table 1 Example definitions of town-building enterprises**

- Ministry of Economy  
—A residential area around an enterprise with more than 5,000 employees, or where the employees and their families of the enterprise make up in excess of 50% of the total inhabitants (adopted in the bankruptcy law).
- Ministry of Labour  
—The employees of one or two sectors make up no less than 25% of all employees in a district, or industrial production of the sector accounts for no less than 50% of total industrial production (330 mono-profiling towns classified as critical from the labour market perspective).
- World Bank  
—Large enterprises provide employment for more than 25% of the total inhabitants of the town, their share in total industrial production exceeds 50% and they only operate in a specific market (approximately 800 town-building enterprises provide workplaces for two million people).

Source: Leksin and Shvetsov (2001, pp. 464-483)

**Figure 1 Classification of mono-profiling towns**

Note: Figures in parentheses show the approximate number in each category.

Source: Rowland (1996), Lappo and Polian (1998), Neshchadin and Gorin (2001, pp. 51-110), Gentile (2003) and Bignebat, TEAM University of Paris I and CNRS (2003)

## 2.2. A classical case for town-building enterprises

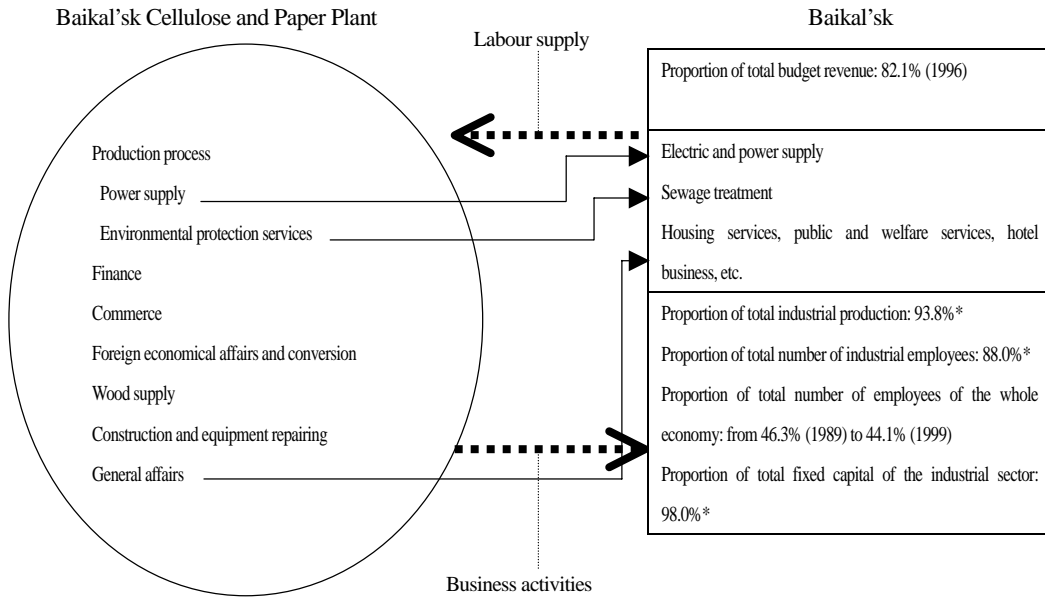
Now, the author will describe a classical case for town-building enterprises in Russia; with the Baikal'sk Cellulose and Paper Plant, located on the southern shore of Lake Baikal in the East Siberia region, the example cited for scrutiny. The town of Baikal'sk, spreading from east to west across the plant, can be considered a typical Russian-style company town, where the characteristics of town-building enterprises and mono-profiling towns are clearly apparent.<sup>8</sup> The town, alongside the plant, was constructed from the latter half of the 1960s to the early 1970s. Interestingly, the USSR

Ministry of Medium Machine-Building (*Ministerstvo Srednego Mashinostroeniia*) was in charge of its construction and provided groceries to all households in the town. This ministry, known from 1989 as the Ministry for Atomic Energy, was the single most powerful industrial ministry of the USSR, and in effect 'a state within the state' in the sense that it was the *primus inter pares* of the group of defense industry ministries (Cooper, 2000, pp. 148-149). This fact tells us that both the community life in Baikal'sk, as well as the business activities of the Baikal'sk Plant, were inextricably linked to the Soviet military-industrial complex.<sup>9</sup>

The total population of Baikal'sk was approximately 17,000 in the year 2000 (as compared to 15,727 people in the 2002 census), of which almost 3,000 were working for the Baikal'sk Plant (including the secondary divisions). As shown in Figure 2 below, the economic relationship between the two is so close that the plant supports the overall daily life of residents through its business activities and the maintenance of the local infrastructure and facilities. The plant occupies an overwhelmingly predominant role in the town's economy, with its share of industrial production and investment in fixed capital in the town's economy reaching an average of 93.8% and 98.0% respectively in the period 1985-1994. In addition, the general affairs division of the plant manages, maintains and operates public facilities for residents, while the public sewerage and electric and power supply systems are under the control of the subdivisions in charge of the production line. Approximately 60% of the housing in the town was privatized pre-1996, but less than 30% of the total cost of providing housing services, including improvement of housing stock, is offset by rental income paid by tenants, meaning the remainder must be covered through direct plant subsidies and the local budget it largely supports (Sukhodolov, 1996, pp. 187-190).<sup>10</sup> It is therefore easy to find close economic ties between the enterprise and town, as well as their interdependence in a physical form such as in the infrastructure facilities of the town.

Since they represent the town's lifeline, the supply of utilities such as gas, electricity and water have a strong public character. Although often managed by corporate bodies such as public utilities, administrative discretion is frequently exercised through public regulations. In the case of a socialist state, where the segregation between the government and general public was unclear, the state-owned enterprises charged with governing the neighbouring communities were often involved in performing various kinds of administrative work. Especially as in this case, when a large plant was built from scratch in a remote area isolated from surrounding regions, it was considered desirable that the lifelines of the town be incorporated in the plant production line. They needed to be physically connected to establish an efficient industrial location from the perspective of cost-efficiency within a centrally planned economy. At the same time, this prevented independent operation of the supply of electricity and heating and sewerage treatment from the plant production line. If they were suspended, this completely immobilized the town's lifeline; rendering the life of all citizens unsustainable. In short, the enterprise and town were literally in a symbiotic relationship, meaning the closure of the former should have heralded the end of the latter, even in a physical sense.

**Figure 2** Baikal'sk Cellulose and Paper Plant and Baikal'sk



\* Average between 1985-1994

Source: Configured based on Sukhodolov (1995, p. 103) and High-Level Advisory Services... (1996, p. 12)

Such an industrial location strategy may certainly be reasonable under a centrally planned economy. On the one hand, there was deliberate construction of a built environment completely unified with enterprise and its business activities facilitated the growth of the town economy. On the other hand, this also allowed the enterprise to have a ready supply of labour. Especially in remote areas, where it was difficult to secure a stable labour supply, ensuring the provision of positive infrastructure within the town, especially housing, was the key to doing so. In fact, the actual spread of water supply, sewerage and heating in Baikal'sk largely exceeded the average values of other regions in proximity (Irkutskiy Oblastnoy Komitet... , 1995, p. 40), despite its location in Siberia, a region peripheral to the USSR.

### 2.3. Mono-profiling towns following the USSR collapse

If the transition to a market economy is to be viewed from the town perspective, where the company-town enterprises are located, what sort of change is possible and how should we understand it? Firstly, we will scrutinize the changes in mono-profiling towns as industrial towns, citing the aforementioned example of the 'coal mining town'. The market economy in Russia has



marginalized the coal mining industry economically, which symbolized the aspirations of the USSR as a working-class nation. Indeed, the Russian government started abandoning communities and firms where coal miners were the masters of the house. It is numbered as a national policy with help from the World Bank. Previously, decisions on whether to cease mining operations were based on the exhaustion of resources. However, drastic changes in mining management during the transition to a market economy mean that decision making discipline is dictated by the level of profitability.<sup>11</sup>

At the end of the 1990s, 2.5 to 3 million people lived in 64 cities and 76 towns, collectively comprising approximately 800 settlements, where the coal mining industry played an important role during the period of economic growth (Leksin and Shvetsov, 2001, p. 508). According to the Statistical Office, the total number of employees in the coal mining industry dropped by nearly half in 1990-2001—from 484,000 to 266,000 (Goskomstat Rossii, 2002b, p. 115). As is well known, the coal mining industry, where workers were hit most seriously by the problem of unpaid work in the 1990s, successfully received financial aid from federal government amid a deepening economic crisis and rising social tensions. However, it should be emphasized that it was the only industrial sector unburdened by excess employment or labour redundancy, unlike almost all other sectors during the period of economic reform. The absence of the so-called ‘labour hoarding’<sup>12</sup> can be attributed to the inability of many coal mining enterprises to provide job opportunities to neighbouring communities, hence discarding the role of town-building enterprises. This means that social disorganization, surfacing once a symbiotic relationship ends, appears most likely to occur in those sectors where the relic of the socialist age is best preserved and enterprises and towns are most unified.

Now, reverting to the case of Baikal’sk (see the preceding section), as is obviously shown in Table 2, the Baikal’sk Plant no longer has power to support the town of Baikal’sk, given the significant contraction in the labour market. The town has lost over a quarter of employment jobs and the plant itself over 30% of employees during the decade in question. Moreover, there was also a precipitous fall in jobs in construction and transport and communication sectors where only 24.6% and 31.2% remained respectively. Since both are closely related to the business activities of the plant—the subcontracted construction work ordered by the plant accounting for 90% of the construction orders received (Sukhodolov, 1996, pp. 106-108), such a significant drop can presumably be linked to the declining capital investment in the plant. Meanwhile, absolute increases in employment in the education and culture sector were recorded and the Baikal’sk labour market also placed added emphasis on housing and health care services. As certified in some studies, Russian regional and local governments remain very significant employers, still running educational and health care facilities and certain housing services. Despite a backdrop of general contraction, certain areas of the public sector increased employment in the 1990s, even in absolute terms, which was clearly the case in public administrations, educational institutions and health care services (Gimpelson, 2001, pp. 36-37). The town administration of Baikal’sk, struggling for survival, has also striven to follow suit to improve the employment situation, although such efforts have been hampered by a lack of

resources, given the overall loss of employees. All things considered, decreased employment opportunities in the locally monopolistic enterprise have caused a deterioration in living conditions and a functional disturbance within the community as a place of residence. The role of the Baikal'sk plant as a town-building enterprise has altered significantly in the sense that it can no longer support the community and other local industries. An analysis of administrative documents and data concerning the plant restructuring program illustrates that it is seeking a new relationship based on the market economy, i.e. a means of running a more effective business independently from the hometown (Tokunaga, 2005). Under conditions which differ from those previously, it is then understandable to try to remodel a monolithic organization into a more diversified and independent structure.<sup>13</sup> In fact, among the key challenges for the Russian economy is the reduction in the relationship between the worker and his or her firm to one based on labour in exchange for wages; a shift from the situation under socialism where the enterprise was also responsible for the provision of many other collective and individual items of welfare (Harloe, 1996, p. 9).

**Table 2 Employee jobs in Baikal'sk in 1989 and 1999**

Sector	Number of employees		Proportion (%)		Ratio of 1999 to 1989 (%)
	1989	1999	1989	1999	
Mining and manufacturing	4,657	3,077	52.8	46.8	66.1
Baikal'sk Cellulose and Paper Plant	4,084	2,904	46.3	44.1	71.1
Construction	794	196	9.0	3.0	24.6
Transport and communication	346	108	3.9	1.6	31.2
Wholesale and retail distribution, hotels and restaurants (including catering services)	853	949	9.7	14.4	111.2
Housing services	494	402	5.6	6.1	81.4
Education and culture	875	1,000	9.9	15.2	114.3
Health care services	366	341	4.1	5.2	93.2
Others	443	505	5.0	7.7	114.0
All employment jobs	8,828	6,578	100.0	100.0	74.5

Source: *Kontseptsiia Sotsial'no-Ekonomicheskogo Razvitiia...* (1999, pp. 27-28)

Turning to the 'elite towns', the Russian government remains seemingly ambivalent about the role they have to play. While their preferential treatment is indispensable for national security and the development of high-tech industries, it inevitably imposes a substantial burden on state coffers. Even after the Soviet regime, huge funds have been allotted to these towns deeply linked to the munitions industry to prevent social disorder and breakdown.<sup>14</sup> Although no more than local

self-governing bodies in terms of the Russian administrative structure, they are financed directly under the federal budget and all taxes (including federal taxes) collected once within their own territory can be obtained in some cases (Brock, 1998). This means that they are actually treated as well as or even better than their higher governments in legal status—regional governments constituting the state as regional forms of state apparatus. In this sense, the ‘elite towns’ are like blots on the financial landscape in Russia, since their public finance deviates substantially from the standard financial system in a federal state. It is thus true that such towns have been constantly subject to pressure to be economically normalized. In particular, since the corporation tax credit system previously enjoyed by Russian big businesses in closed towns was seen as an abuse of the privilege afforded to these areas (Leksin and Shvetsov, 2001, pp. 529-532), federal tax authorities vigorously sought to abolish it and the loopholes that encouraged investors to seek out a tax haven were closed in early 2004.

The status of the ‘elite towns’ cannot be determined by economic efficiency alone, due to their nature as nuclei of the highly militarized state. Nevertheless, the economic crisis in the 1990s affected this privileged status, hence they were deprived of the protection and care afforded by the state for an extended period. These difficulties are simply reflected in the level of unemployment rate; although unexpected, unemployment in closed cities and towns is harsher than in other regions, regardless of the time of year (Brock, 1998, pp. 1073-1075; Lappo and Polian, 1998, pp. 46-47). The market economy in particular has contributed to security problems through the non-payment of wages, the outflow of nuclear materials and technologies, talent and brain drain, the increasing risk of an accident and so forth. The politics of decentralized federalism have provoked confusion about who is responsible for the closed cities and towns.<sup>15</sup> In addition, following the financial crisis of August 1998, subsidies from the federal government budget were largely removed in some closed towns, and the reduction ratios of household income exceeded average levels for Russia as a whole (Brock, 2000); indeed certain specialists assert that they are definitely no longer privileged towns. In the case of academic towns among the closed towns, the actual key industry is ‘Russian Science’, meaning the significant difficulties and tribulations faced following the advent of the market economy have shaken up the status quo as ‘elite towns’. A newly established ‘Science City’ (*Naukograd*) category, an official status granted by the federal government in 1999, is apparently designed to shield academic towns through privileges and immunities. However, rather than aiming to protect all academic towns, its basic aim involves choosing the most competitive (*Science*, 14 January, 2003).

### **3. Restructuring of urban infrastructure as a node to link enterprises and towns**

As was clarified in the previous section, the maintenance of built environments created in the Soviet era on an as-is basis ran contrary to the business logic of capitalist enterprises. In this context, the existing relationship between enterprises and local communities must be dissolved and this applies to

physical as well as economic aspects. In this section, therefore, focusing on urban infrastructure and services, the author will examine the nature of the built environments sought by the Russian market economy and the extent to which they have changed to date.

### 3.1. Increasing risk due to ongoing obsolescence of urban infrastructure

An assessment of the current state of Russian enterprise production facilities reveals that the stock of fixed capital has rapidly deteriorated in the 1990s, as shown in Table 3. This clearly indicates the negative impact of the Russian economic crisis on built environments in industrial towns. According to the OECD report on the investment environment in Russia, fixed capital formation still remains at less than quarter of the corresponding figure for 1990. Roughly 25% of industrial capacity is made up of sub-scale or obsolete assets, about 70% of which was introduced in the Soviet era and only 15% of which is now considered productive (OECD, 2001, p. 11).<sup>16</sup> Obsolescent production facilities are known to be a major cause of industrial accidents and are increasingly becoming a risk factor for the entire Russian economy.<sup>17</sup> This is particularly true for the coal mining industry, where a rapidly aging and antiquated operational system has repeatedly led to huge explosions with dozens of fatalities, even after the resumption of economic growth (*Vremia Novostey*, 10 February, 2005). Including these cases, the Russian Emergency Situations Ministry (*MChS Rossii*) has cited the number of emergency cases of a technogenic nature at around 500-1,000 per annum; with an annual death toll exceeding one thousand (Table 4).

**Table 3 Basic indices of fixed productive capital in large and medium-sized enterprises in Russia**

	1970	1975	1980	1985	1990	1995	2000
Average age of operating (years)	8.42	8.94	9.47	10.11	10.80	14.25	18.68
Age structure (% of the total):							
under 5 years	40.8	37.5	35.5	33.1	29.4	10.1	4.7
over 20 years	8.3	9.0	10.7	12.9	15.0	23.1	38.2
Obsolescent level (% the end of each year)	25.7	30.5	36.2	41.7	46.4	47.5	51.3
Retirement rate (%)*	1.8	1.6	1.4	1.3	1.8	1.5	1.2
Renewal rate (%)**	10.6	8.9	8.1	6.9	6.9	1.7	1.5

\* Decommissioning as a percentage of total capacity (calculated by real expenditure)

\*\* New commissions as a percentage of total capacity (calculated by real expenditure)

Source: Goskomstat Rossii (2002a, pp. 355-356)

**Table 4 Emergency situations of a technogenic nature in Russia**

	1997	1998	1999	2000	2001	2002	2003	2004
Number of emergency cases	1,174	955	856	614	617	814	518	863
Number of fatalities	1,557	1,138	1,149	948	1,157	1,433	891	1,930

Source: Compiled from the web site of the Russian Emergency Situations Ministry, <http://www.mchs.gov.ru/>

Moreover, the level of risk accrued from the neglect of urban infrastructure is climbing to fatal levels, as was exposed at the time of the destructive fire atop the Ostankino TV tower in Moscow and numerous breakdowns in municipal heating and electricity systems in Siberia and the Far East during a particularly harsh winter in the years 2000-2001 (Peterson and Bielke, 2002, pp. 13-15). Although rehabilitating decayed and degraded urban infrastructure appears to be a key priority of the Putin administration, the occurrence of malfunctions and accidents remains uncontrolled; emergency situations, such as frequent mine explosions in the countryside, are periodically reported; a big fire broke out in a historic building near the Kremlin on the eve of the 2004 presidential election; an unprecedented blackout paralyzed the centre of Moscow in spring 2005 and so forth. As a famous Russian journalist, highly critical of the Putin regime, exposed, an elderly man froze to death in his dilapidated housing units in Irkutsk during a harsh winter (Politkovskaya, 2004). There are numerous cases of residential households going without both heat and hot water for the entire winter due to an energy crisis and/or decayed buildings, some of which lead to the dismissal of officials for the neglect of public duty or even legal action against top officers like the former vice-governor of Koryakskiy Autonomous Okrug in the Far East region and the mayor of the Far Eastern city, Petropavlovsk-Kamchatka (*Vremia Novostey*, 16 June, 2005, 22 July, 2005).

The decay and obsolescence of urban infrastructure was definitely caused by the sharp fall in capital investment during the economic stagnation of the 1990s. When considering the structure of the Russian economy formed to date, however, capital investment recovery does not necessarily indicate a final solution for the problem of obsolescence. It is known that while domestic investment activities are concentrated in fields where only short-term return on investment can be realized, governmental investment projects should be the results of lobbying and compromising efforts, involved in promoting private interests, rather than those realized in accordance with the national priority (Isaeva, 2001). Moreover, there is a phenomenon that may be termed 'black investment' in the 'black economy' which has penetrated deeply into the Russian economy. In this scenario, 'phony' investors are set in place within an elaborate scheme created by a 'real' investor to avoid tax payments (Kosals, 1998, pp. 75-77). Given these circumstances, there can be said to be no panacea for upgrading and renewing all areas of urban infrastructure. There exists no solution, other than

seeking improvement in the general investment environment and gradual long term development of direct and indirect financial markets.

### **3.2. Another risk: municipalization of urban infrastructure**

Private investment and current expenditures by Russian enterprises are directed not only towards production activities. As symbolized by town-building enterprises, the life-support infrastructure, created solely for the purpose of developing communal services, used to be treated as enterprise-owned assets in accounting terms, and thus the renewal and maintenance of these assets was set down as the social responsibility of the enterprises. According to Russian government estimates, the life-support infrastructure managed by state enterprises provided a range of social services to more than half of the working population in the final days of the USSR. Specifically, several million people lived in enterprise-owned housing, receiving care in polyclinics and hospitals and using culture and sports facilities. Even kindergartens and recreation camps for children and youth were owned by the enterprises (Healey, Leksin and Shvetsov, 1999, pp. 266-268).

With regard to this point, several surveys have already been carried out on the provision of in-house welfare support. The results are summarized in Table 5. As of 1990, more than half of the surveyed enterprises made these life-support facilities available to all the employees and their family members. Although the holding ratio of these facilities showed a relative tendency to decrease over time, it remained relatively high at the end of the 1990s. Interestingly, in the case of enterprises remaining under the control of the munitions industry, this figure clearly exceeded that of all other industries, which fully endorses the view that the munitions industry, at the head of the Soviet industrial hierarchy, also dominated the distribution network for food and other essentials. This meant, in turn, that it provided superior public services for neighbouring communities.

These life-support facilities for residents may be interpreted as additional assets in terms of accounting systems, because they are not immediately related to profitable activities. However, they are by no means ancillary in terms of social significance. The quality of Soviet citizens' life, as it was known at that time, was largely dependent on the extent to which access was secured to favourable urban infrastructure. There was an association between housing quality, tenure, social group and spatial location in the Soviet urban scene and this differentiation of the urban infrastructure generated a distinctive type of urbanity with its own emergent patterns of inequality (Smith, 1996, p. 84). In this manner, the general level of accessibility to urban infrastructure was considered to contribute towards increasing poverty and a widening gap of social differentiation rather than individuals' financial assets measured in monetary terms. This is why even nowadays many Russian workers are willing to stay put in their current jobs and use life-support facilities, even if they are not paid on time and/or in accordance with the law (Gimpelson, 2001, pp. 42-43). It can be said therefore that the mono-profiling towns most accessible to urban infrastructure sees them stand atop the urban hierarchy and the 'elite towns', consisting of those closed and secret in nature, have attained

a privileged position to the utmost extent.

**Table 5 Proportion of Russian enterprises providing social services**

	1990	Until 1992	1994	1995-1998	1998	2000
<b>All industries</b>						
(% of total)*:						
Catering	55		50		41	
			49.2			21.1
Medical services	64		63		56	
Vacation facilities	62		56		44	
Professional training	78		71		59	
New housing	45		34		18	
All housing			12.7			7.8
Kindergarten	66		54		32	
Nursing subsidies			43.9			16.9
<b>Munitions industries</b>						
(% of total)**:						
Catering		90		68		
Sport facilities		56		35		
Cultural facilities		37		20		
Library		78		60		
All housing		82		35		
Kindergarten		81		19		
Polyclinic		89		69		
Sanatorium		53		41		
Recreation camp		66		45		
Store		65		54		

Source: \* Guriev and Ickes (2000, p. 33) and *Ekonomika i Zhizn'*, No. 38, 2002

\*\* Kosals, Ryvkina and Simagin (1999, p. 74)

Yet, the transition to a market economy does not allow an in-house welfare system whereby an enterprise hoards all communal services for residents. Indeed, the welfare provision inherited from the USSR—the ‘premature welfare state’ coined by J. Kornai (1992)—is no longer sustainable for Russia. In other words, current capitalist enterprises should devote themselves to business activities as an essential responsibility of being a profit-oriented agency. They have to privatize most social assets and services if necessary and replace the provision of privileges for all population groups by market-based provision for areas with effective demand. If it is difficult for various reasons,

including specifically non-continuance as going concerns, then all such social assets and services must be transferred to the municipalities in which they are located. In fact, the initial plan in Russia suggested that the municipalization of urban infrastructure, having begun in 1993, be completed by 1997 coupled with policies aimed at privatizing state-owned enterprises (Kosals, Ryvkina and Simagin, 1999, p. 72). Quite often, however, the results were poor or even terrible due to the widening economic gap between the country's most prosperous regions and underdeveloped peripheral regions in the post-Soviet period. In particular, when social assets and services were transferred to municipalities in deprived areas, the life-support facilities were never properly managed and maintained due to a lack of financial strength, which caused a greater geographical differentiation of municipalization. Even worse, the number of 'discarded' assets—assets for which, on the one hand, enterprises unilaterally renounced responsibility and which, on the other hand, were abandoned by those municipalities having fallen on hard times—increased in the mid 1990s as compared to the previous period (Healey, Leksin and Shvetsov, 1999, pp. 270-276).

No matter save that related to the restructuring of life-support facilities was affecting communal services or prompted greater urgency for regulation to avoid any conflict of interest or make it controllable under the responsibility of public authorities. Unless appropriately managed, it is highly likely that malfunctioning municipalization will cause a socio-economic crisis to an extent no less than that induced by obsolescent urban infrastructure. This is why a relatively large portion of social assets and services still remains under the control of enterprises, although divestiture by the latter remains steadily underway (see Table 5). In addition, there are many cases where privatized enterprises continue to equip, operate and maintain various facilities, even if they are separated in accounting terms. Both federal and regional governments seemed to prefer or even encourage life-support facilities, initially consisting of housings, to be under enterprise control during the economic turmoil of the post-Soviet period. It is common knowledge that numerous Russians benefited from cross-subsidies, i.e. rent subsidies via enterprises despite the fact they were officially subsidies for industrial development. We can gain an insight into the workings of this curious mechanism if we observe the spread of non-payments and barter transactions. Although these have paralyzed the nascent market economy in Russia, they operated as a strategy for surviving the troubled period. Actually, all actors (governments, enterprises and workers) stuck in this vicious circle were able to continue without taking risks and subsequently losing their own rights.

### **3.3. How to rebuild urban infrastructure: the inescapable price of 'urban infrastructure hoarding'**

All the above suggests that the reconstruction of urban infrastructure as a part of economic reforms has a considerable influence upon the restructuring of enterprises as well as that of local communities. It ensures that the closer their mutual proximity, as in company towns, bigger and more complicated problems are likely to emerge. However, it is pretty difficult to rehabilitate or rebuild urban



infrastructure, which was first created over several decades in the Soviet era, despite it being an emergent and major concern in the Russian economy. Firstly, the production units of enterprises and the life-support infrastructure are quite often unified in economic as well as physical terms. Secondly, the latter can play a role as a buffer against social stress; hence alleviating negative impacts on the citizens in general. This ‘urban infrastructure hoarding’, viewed from the local community perspective, may be a description of the above-mentioned ‘labour hoarding’ (see Note 12), since they both work as a stabilizer of society and help reduce the social stresses encountered in the transition period. Furthermore, the practice of Russian enterprises or Russian-style CSR (Corporate Social Responsibility) providing generous welfare services to the local population appears to be a type of social norm. It is quite interesting that Russian big companies, mentioned as having corporate governance comparable to that of outstanding companies in advanced countries, and even foreign multinationals entering the country have spent considerable amounts to revive local economies and make community care programs affordable.<sup>18</sup> To understand the importance of community care, it suffices here to give an example; Yukos, a big petroleum company in Russia—one of the world’s largest non-state oil companies, producing 20% of Russian oil, has a reputation for being generous in one town, whereas it is a less welcome guest in another. Yukos’ reputation has soared in Angarsk, which is home to the Angarsk Petroleum Chemical Company acquired by Yukos in 2000-2001, as it provided a fund to rebuild urban infrastructure including leisure and sports facilities and support a social security program there.<sup>19</sup> This runs contrary to the case of Yuganskneftegaz in Nefteyugansk, Yukos’ former hometown<sup>20</sup>; although Yuganskneftegaz represented the livelihood of almost all the 100,000 people or so in the town, where the residents distrusted their owner, Yukos, for a perceived lack of work for the town. Rather, the people of Nefteyugansk envied their neighbours in Surgut, where another Russian oil company, Surgutneftegaz, had put more resources into building local support (*Financial Times*, 2 August, 2004).

Even if it is inefficient for market-oriented private enterprise to take on the greater financial burden of maintaining life-support facilities to alleviate social problems such as poverty, it can be regarded as a reasonable choice in the eyes of stakeholders, in particular of local actors like municipalities, communities and populations. Nevertheless, the ‘urban infrastructure hoarding’ inevitably not only delays the implementation of corporate restructuring, but also acts as something of a double-edged sword for the local communities. The fact that urban infrastructure remains under the control of enterprises can remind us of the potential held in the future; a profit-seeking private enterprise may decide to suspend investment in urban infrastructure and services provision in local communities. Whereas the ‘merciful death’ of urban infrastructure may represent one form of urban restructuring, this, in turn, may lead to the creation of a favourable environment for corporate revival. This represents one of the forms of ‘quiet restructuring’ for Russian enterprises groping for survival. In light of all these considerations, it is certain that enterprises can perform the final decision-making (even partially, considering the political pressure from involved actors) and, needless to say, this is

most likely to occur in mono-profiling towns, i.e. company towns in Russia. Such events do have precedents in world history. A serious social problem was identified in the U.S. metropolis after the oil-shock, where commercial real estate capital was withdrawn from the rental housing market due to reduced profit. Insufficient capital investment in housing and chronic shortages in housing services had brought urban blight to the inner city and a number of communities were abandoned in ruined blocks. Similarly, in today's Russia, the number of 'discarded' assets such as dilapidated housing and other excessively depreciated assets has sharply increased after the mid 1990s: the share of social assets in need of complete restoration or replacement amounts to an estimated 7-10% of the housing stock, 4-7% of child care facilities and 4-6% of health care facilities (Healey, Leksin and Shvetsov, 1999, p. 271). Urban slums with morally outdated and rundown buildings were already in place in regional capitals as well as in Moscow, the wealthiest place in the country.<sup>21</sup> At the same time, it is important here to note that the authorities are currently promoting urban redevelopment in collaboration with big companies; a review featuring in-depth interviews with Muscovites reveals an 'abuse' of urban infrastructure that disregards the local population such as forced sale of company-owned flats, the construction of office towers adjacent to low-rise apartment buildings, a high-end residential area surrounded by iron walls and so forth (Nakamura, 2005).

#### **4. Conclusion**

Exploring the formation and transformation processes of company towns in Russia, the author has emphasized the significance of the corporate structure based on geographical criteria, specifically highlighting the relationship between enterprises and local communities on the road to a market economy. From this perspective, many studies on the transition from socialism to capitalism have been carried out in the field of urban studies.<sup>22</sup> Referring to the results of such studies, the following three points are to be highlighted as the conclusion of this paper.

Firstly, the unique urban formations were formulated by the Soviet economic development policy to adapt better to the regional diversity stemming from the vastness of the Russian territory and address the socialist features of corporate structure, which has restricted opportunities for the reform of Russian enterprises and effectively prevented their restructuring. Nevertheless, there is no doubt that 'labour hoarding' and 'urban infrastructure hoarding', as two sides of the same coin, have contributed to the stabilization of Russian society through various ways and means of supporting local communities. Secondly, it does not mean that the structure of socialist enterprises can be compatible with a capitalist society. As discussed so far, the relationship between enterprises and local communities has steadily dissolved, even in mono-profiling towns where both worked very closely together for many years. With respect to this matter, attention should be focused on how a couple of towns were driven to the brink of extinction in the Russian North with the shutdown of key industries; the port and coal-mining centre of Beringovskiy, which had a population of roughly 3,000 in the late

1990s when heating, water and electricity all failed, had lost almost its entire population by late 2002 (Thompson, 2004, p. 76). Thirdly, enterprise restructuring can be associated with urban restructuring through the rebuilding of urban infrastructure; a certain economic system must source the corresponding built environment.<sup>23</sup> However, there is a high foreseeable social risk there, because the scrapping of life-support infrastructure in particular will thoroughly change the perspective on local communities. In consideration of the existence of urban infrastructure, like dilapidated housing units—breeding ground for urban slums, the eventual problem will then become how to reconstruct the relationship between enterprises and communities with help from the authorities. In other words, the author argues that Russian enterprises will never completely dismantle the structure of socialist enterprises unless the local communities accept the logic of capitalism.

## Notes

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<sup>2</sup> For this discussion, see Hanson (2001).

<sup>3</sup> Concerning the geographical implications of the Russian economy, see also Mote (1992), Parshev (2000), Bradshaw (2002), Dienes (2002), Hill and Gaddy (2003), Naim (2003), The World Bank (2004), Mel'nikova (2004) and so forth. This issue is closely related to the costs of implementing northern regional development programs and the economic burden of supporting residents in the Russian North.

<sup>4</sup> The outline of construction plan for Noril'sk can be obtained from *Istoriia Stanlinskogo Gulaga...* (2004, pp. 425-435).

<sup>5</sup> In this paper, towns will be used for analysis for the sake of convenience only; in many cases, the basic units of communities supported by Russian enterprises are assumed to be cities (*goroda*) or towns (*poselki gorodskogo tipa*). However, in the case of large cities like regional capitals, districts (*raiony*) and/or mini-districts (*microrayony*) are often chosen.

<sup>6</sup> Rowland (1996) provides us with the most comprehensive analysis of Russia's closed and secret towns.

<sup>7</sup> The western media often refers to Akademgorodok as 'Silicon Steppe' in Russia, compared to 'Silicon Valley' in the United States (*Financial Times*, 23 February, 2000).

<sup>8</sup> In terms of the number of town-building enterprises, forestry is the largest industry and comprises 20.5% of the total (Neshchadin and Gorin, 2001, p. 81). According to the industrial classification of Russia, pulp and paper processing such as that of the Baikal'sk Plant is included in this category.

<sup>9</sup> For details on the history of Baikal'sk, see Sukhodolov (1996, pp. 21-62).

- <sup>10</sup> The town of Baikal'sk is not an independent municipal authority under the current system of regional government. Consequently, it lacks budgetary autonomy, meaning that all revenue and expenditure are controlled by the higher government, Sliudianskiy rayon of Irkutsk oblast'. See in detail: Vinokurov, Antonova and Ozernikova (1999, pp. 9-20) and Iandiev (2002, pp. 124-127).
- <sup>11</sup> See Leksin and Shvetsov (2001, pp. 503-523) regarding the restructuring of the Russian coal mining industry and its influences on 'coal mining towns'.
- <sup>12</sup> In general, 'labour hoarding' means that firms do not reduce their work force despite worsening business conditions. As for the 'labour hoarding' in Russia, see Aukutsionek and Kapelushnikov (1997).
- <sup>13</sup> The future sustainability of Baikal'sk was held in doubt before the collapse of the USSR. Concerning the major issues at that time, refer to the discussion of the development of municipalities in Irkutsk oblast' (Sukhodolov and Trufanova, 1991, pp. 91-143).
- <sup>14</sup> The federal law defines the state as having an obligation to guarantee a stable supply of basic goods and commodities for the inhabitants in secret cities.
- <sup>15</sup> Refer to the paper on the San Diego State University web site, <http://www-rohan.sdsu.edu/~alexseev/ZATO.htm>.
- <sup>16</sup> With regard to the renewal of production facilities, however, there was a significant gap between industrial sectors: at the end of the year 2000, among those substantially above the average operation age (15.7 years) were petroleum refineries (23.5 years), the iron and steel industry (23.3 years) and the machine industry except for medical machinery manufacturing (21.7 years); while the oil and gas extraction industry is at the other end of the spectrum (under 10 years) thanks to the booming market over recent years (Glisin, 2001, p. 42).
- <sup>17</sup> It is quite possible that unless a manufacturing unit is loaded to maximum capacity, its performance will be sub-optimal, such as the mechanical burden of repeating stop-starts, efficiency losses associated with production processes at less than design capacity, possible increased airborne or waterborne effluent and so forth (Crotty, 2002, p. 312).
- <sup>18</sup> With regard to the social welfare activities of multinationals in company towns of Eastern Europe and the former USSR, see Lewis (2005, pp. 66-89).
- <sup>19</sup> Angarsk Petroleum Chemical Company, producing about 30% of Russian petroleum chemical products, is clearly a town-building enterprise of Angarsk (population of about 247,000 based on the 2002 census). See the Angarsk web site, <http://www.gorodangarsk.ru/pages/aboutcity>.
- <sup>20</sup> Yuganskneftegaz was sold to help court officials recover \$28bn worth of tax arrears allegedly owed by Yukos and acquired by Russia's state oil group Rosneft (*Financial Times*, 2 August, 2005).
- <sup>21</sup> Krashennokov (2003) and Alexandrova, Hamilton and Kuznetsova (2004) provide case studies of urban blight in Moscow and Tomsk respectively. As for the geographical features of social polarization in Moscow, see also Vendina (2002).
- <sup>22</sup> Other than those cited in the paper, see *GeoJournal*, Vol. 42, No. 4, 1997 (Moscow and St.

Petersburg in Transition); *Political Geography*, No. 19, 2000 (The 1999 Annual Political Geography Lecture); *Eurasian Geography and Economics*, Vol. 43, No. 3, 2002 (Special Issue on Moscow as an Emerging World City) and so forth.

<sup>23</sup> As for the built environment in the Soviet regime, see Andrusz (1987).

## Appendix

### Location map of places cited in the paper



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