# ECONOMICS

MONOTOWNS: A NEW TAKE ON THE OLD PROBLEM

A. Shastitko<sup>\*</sup> A. Fatikhova<sup>\*</sup>

Ì

\* Lomonosov Moscow State University 1 Leninskie Gory, Moscow, 119991 Russia

Submitted on December18, 2014 doi: 10.5922/2079-8555-2015-1-1 © Shastitko A., Fatikhova A., 2015 The authors of this paper propose an approach to studying risk management in the most vulnerable monotowns that would account for the relations between major stakeholders and use the tools developed in the framework of the new institutional economic theory.

Having compared the existing definitions of the "monotown" concept, the authors present their own approach. They identify key reasons behind monotown vulnerability and systematize stakeholders' risks. The authors then posit that a study of monotown-related issues would be incomplete without accounting for stakeholders' interests and relations. Monotown problems become apparent in the context of institutional agreements carried out with high transition costs and increased risks of opportunistic behaviour encountered by the institutional agreement stakeholders. Solving these problems through the methods proposed in the article would help to identify a wider range of alternatives while still taking into account all the typical scenarios. The authors analyse the process of risk management in monotowns from the viewpoint of international practices; and identify structural alternatives of outweighing these risks by considering key relations affecting the implementation of each alternative.

*Key words:* monotown, risk management, stakeholders, structural alternatives, institutional agreements.

## Introduction

Regardless of any circumstances and obstacles, one of the key priorities of long-term economic policy is creating mechanisms for sustainable economic development. Sustainable development of Russia as a whole isn't possible without sustainable development of its regional system comprised of cities as structural elements. Special attention should be paid to towns focused on a single industry. Their significance is explained not only by a high proportion of their population and output, but also by increased vulnerability to various shocks that can trigger the domino effect. The processes that have a negative impact on the country's economy are especially pronounced in monotowns, since such territorial units are more vulnerable to abrupt changes in their environment. Moreover, this reaction is not always accompanied by adequate adaptation measures that would ensure the stability of a mono-town's economy as well as that of the national economy.

In the current conditions, positive and stable changes in the monotown situation require mechanisms of adaptation to changes in the environment without a regular inflow of federal resources. The solution to this problem is based on the search for development, and application of radically new approaches to studying the socioeconomic position of monotowns and improving mechanisms of risk management for such urban areas.

This work aims to propose an approach to studying the issues of managing monotown risks in view of the relations between the key interest groups.

Despite the fact that the monotown problem has been widely discussed by both researchers and politicians, there is no single definition of a monotown. That is why the first section of the article is dedicated to an overview of approaches to defining the object and the formulation of a working definition within the conceptual framework of monotown studies. The second part of the article focuses on the cause of monotown vulnerability and associated risks. The third part considers ways to mitigate these risks. It lays out key provisions of a conceptually new approach to discussing the monotown issues in the context of success and international practices using the elements of new institutional economics. The conclusion summarises key arguments.

#### 1. A relationship-based reincarnation of the monotown concept

Today, according to the official data of the Government of the Russian Federation, 313 out of 1100 monotowns (i.e. almost 30%) are single-industry municipalities [23]. In terms of population, this ratio translates into 13.5 million people living in such towns. At the regional level, the proportions of monotown population are as follows (fig. 1, FD stands for federal district):

In other words, almost every tenth Russian citizen lives in a monotown (or a single-industry settlement). As figure 1 shows, this circumstance is of special significance in three federal districts: the Volga, Ural, and Siberian ones.

Despite the fact that modern economic studies offer a wide range of definitions of the term 'monotown,' there is no single explicitly specified conceptual framework. In some cases, 'monotown,' 'single-industry settlement,' and 'factory town' or 'company-town' are used as synonyms. Monotown is defined as a monocentric city in view of the prevalent employment industry and the activities of working-age population [2]. It is worth noting

٢

that this definition narrows the set of monotowns in one sense and broadens in another. It is the case if one compares it with the following definition: *a* town with a single major employer functioning on its territory [7].

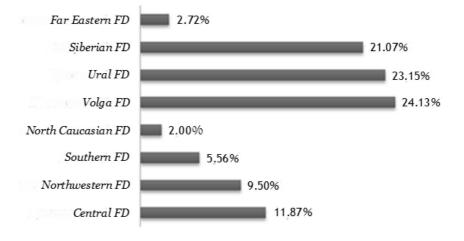


Fig. 1. Population concentration in Russian monotowns (percentage of the total population of corresponding federal districts, as of 2014)

*Source:* compiled by the authors based on Rosstat data and Governmental Decree No. 1398-r of July 29, 2014

In other words, a monotown is a settlement with such a close relationship between the functioning of a large company (the principal employer) and the economic and social aspects of the town's life that the future of the town depends on the prospects of the company's functioning and development [6].

The previous definition permits the possibility of several single-industry companies. As shown below, under certain conditions, these definitions will not contradict each other.

Giving a working definition and identifying its key characteristics are relevant not only for positive studies, but also for devising an economic policy, since these processes affect not only the assessment of the scale of problems and the degree of diversity but also the development of solutions.

It is worth noting that Russian legislation does not give an unambiguous definition of the notion of 'monotown.' Governmental Decree No. 121 "On the Federal Programme for Public Support for Small Businesses in the Russian Federation in 2000—2001" of February 14, 2000 defines monotowns as towns formed by a city-forming company. The Governmental Decree No. 1001 "On the Procedure of Classifying Companies as City-Forming and Particularities of Selling Town-forming Companies of Debtors" lays down the following criteria for classifying companies as town-forming:

— the company employs at least 30 % of total population working at the town's companies;

— its assets include public utilities and engineering infrastructure providing services to at least 30 % of the town's population [22]. Earlier, the Ministry of Regional Development of the Russian Federation formulated the following criteria for classifying towns as single-industry ones:

1. The town is home to a company or several companies operating within a single manufacturing process and employing more than 25% of the working age population [19].

2. The town is home to a company or several companies operating within a single manufacturing processes and accounting for 50% of the total industrial output.

Additionally, taxes and levies transferred to the municipality by a local company or several companies operating within a single manufacturing process should account for at least 20% of the total amount of taxes and levies transferred to the municipality by all organisations and companies.

It should also be noted that the threshold values of indicators that could be used to describe key characteristics of a monotown are often employed to identify monotowns as objects of economic policy. All else being equal, the higher the value, the more pronounced are the monotown characteristics.

However, the development of a non-technocratic approach to studying the monotown problem requires paying attention to an alternative opinion based on identifying (more precisely, summarising) additional criteria for single-industry towns [9]:

1) one or several companies function within one industry, their production output is aimed at a narrow market segment; all the other local companies meet the needs of the town's population [11];

2) the town is characterised by an intricately structured activity of interrelated companies catering for the same final market (except for the companies meeting the needs of the town's population) [7];

3) transfers to the municipality heavily depend on sales of the town-forming company;

4) the town's population specialises in a single professional field, the diversification of population's employment areas is rather complicated;

5) remoteness from economic centres coupled with the absence of a well-organised transport infrastructure hampers population mobility; the town becomes an isolated territorial unit.

The analysis of publications and laws and regulations on monotowns shows that existing approaches to their definition are contradictory and based on different classification criteria. At the same time, a comparison of different approaches makes it possible to produce an image necessary for conceptualising the notion of monotown. This image corresponds to the last of the described approaches, however, it focuses on the nature of relations between key stakeholders in a monotown.

*Firstly*, a monotown is a town that is highly dependent on the performance of a single company. Therefore, it is worth noting that there can be several companies but the nature of their relations and associated problem will be the same.

There can be several companies producing similar items. A change in the conditions of demand for their produce has a one-way effect and, thus, af-

٢

fects the overall results of the companies' performance (as well as the taxation base). If, technically, there are several production facilities owned by independent companies, the changes in the market situation produce resonance effect similar to return on an asset portfolio that is not diversified by risks or returns. Therefore, in the case of negative shocks, the employees of one company do not have an opportunity to switch to a comparable alternative, since (a) economic centres are remote, (b) the town's production facilities owned by different companies are facing the same situation, and (c) the town's companies oriented towards meeting the needs of the population are unlikely to absorb the laid-off workforce.

Secondly, the process chain production facilities, which are closely connected and have no other alternative connections, can function both within one company and in the framework of contractual relationships between companies with different owners but with prohibitively high costs of switching to alternative suppliers (and customers) beyond the town limits<sup>1</sup> (more precisely, the town's economic boundaries in view of the transport accessibility costs). For companies within the process chain, the effect of a changing economic situation is similar to that considered above. The only difference is the possibility of problems resulting not from the general deterioration of the situation but from the decisions made at the level of large companies representing one of the process chain's links, when negative external effects are not internalised due to the absence of mechanisms of analysing negative consequences for the companies. Therefore, due to significant switching costs, the instability of contractual relations within value added chains becomes another important element of the monotown definition<sup>2</sup>.

Therefore, the dependence of the situation in the city on the situation at production facilities of one or several companies that are either connected or manufacture similar products is associated with a significant economic (not obligatory geographical) distance. This results in considerable switching costs in functional and spatial terms, also for the working-age population that accounts for a significant percentage of voters. For the sake of simplification, some issues can be considered with an assumption that the whole population is of working age and has the right to vote.

Costs require special attention, since they point to the problems of contractual relationship organisation, well known from the economic theory of transaction costs. First of all, it concerns constructing mechanisms of inter-

<sup>&</sup>lt;sup>1</sup> A good example is the organisation of concrete production in the town of Pikalyovo, the Leningrad region, which is based on alumina production waste. A waste supply disruption in the absence of an economically justified opportunity to switch to alternative suppliers due to extremely long transportation distance resulted in mass layoffs and a sharp deterioration in the population's well-being (even against the background of the crisis phenomena observed in Russian in late 2008/early 2009) and an increase in social tension.

<sup>&</sup>lt;sup>2</sup> From this perspective, it is worth stressing an important comment to the monotown definition: the context of economic policy requires paying attention to same-type negative consequences that can arise from a wide range of similar initial conditions of the organisation of relations in monotowns.

action between economic agents in the situations of specific assets, quasi rent distribution, and mitigating the problem of opportunistic behaviour — the aspects that gain significance in the context of contractual approach to studying the monotown problems; some elements of this approach have been developed by the Russian economists [26]. Therefore, the problem of opportunism associated with asset specificity arises, at least, in the following relations:

1) business to business relations (in value added chains within the town's economy and beyond it);

2) business/employee relations (due to the employees' limited switching opportunities);

3) authorities/taxpayer relations (both business and employees<sup>3</sup>);

4) authorities/population relations (as the recipient of municipal serviced financed by the municipality).

Therefore, in this 'reference system,' the town's budget and capacity to provide different public and socially significant services also depend on (a) the situation at the town-forming companies and (b) the relations between the company owners and local authorities representing the interests of the population in the context of the 'principal/agent' relations.

#### 2. The key sources of monotowns' vulnerability

When speaking of the economic development of modern Russia, it is logical to start from the economic situation in monotowns. They demonstrate the whole range of consequences resulting from the recurrence of the same major problems of the country's economy<sup>4</sup>.

Let us consider each cause of the vulnerability of monotowns and, therefore, the increased risks of critical situations.

*The first* is a reduction in the increase in monotowns as compared to the beginning of the 21<sup>st</sup> century, as well as a trend towards a reduction in the number of monotowns with a large population (50 to 100 thousand people). This situation points not to the termination of cultivating new territories for creating town-forming companies but rather to a trend towards the internal migration of monotowns' population to more developed multi-industry cities. For instance, a number of monotowns in the regions of the Far Eastern federal district were reclassified as villages due to the mass emigration of working-age population. The problem stems from a *global crisis of town-forming companies*. Their produce is not competitive; costs of production maintenance are extremely high; most fixed assets are beyond their operational lifetime. This gives rise to a more serious problem — the insufficient amount of qualified human resources — which hampers the acceleration.

*The second* is the narrow specialisation of monotown's economic activities, which is a serious barrier to development. Monotowns' development is vulnerable to the slightest fluctuations in the environment and has no ability

V

<sup>&</sup>lt;sup>3</sup> It is assumed that local taxes are paid by the employees of town-forming companies. These include not only income but also property taxes.

<sup>&</sup>lt;sup>4</sup> Also literally: under certain conditions, narrow specialisation of the economy can generate problems not unlike those faced by monotowns.

to resist negative external effects. Changes in the external market situation, decreasing demand, as well as plummeting prices of goods sold by the townforming company can cast a monotown's economy in a state of acute crisis, which may only be overcome by using significant financial resources. The statement is proven by both the economic instability of the 1990s and the 2008—2009 economic and financial crisis: the socioeconomic situation in monotowns was the most depressive throughout the country; at the same time, monotowns affect the economic situation nationwide. According to some estimates, the actual unemployment rate in Russia ranged from 7 to 7.5% at the beginning of the 2008 crisis, whereas in monotowns it reached approximately 30% [27].

The third is the fact that a wide range of problems is accounted for by longstanding lack of a consistent policy for preventing crises in monotowns. In particular, there is a need for a single legal framework for adopting governmental measures aimed at stabilising the situation in monotowns (namely, sustaining town-forming companies and social support). As mentioned above, today, there is no legally established definition of the concepts of 'monotown' and 'single-industry territorial unit'; however, these terms are used in number of regulations and regional decrees. The government defines the term 'multi-industry' through the prism of the town-forming company, which would affect the budget balance in case it is sold or faces bankruptcy. Moreover, the unfavourable situation in monotowns is aggravated by a system of hierarchical budget relations. In accordance with the current tax distribution system, only 20 kopeks out of 1 rouble of taxes collected in a town stay there [24]. As a result, the municipality's administration loses interest in creating favourable conditions for the town's economic development. It seems that an evident solution would be an increase in the proportion of taxes and levies transferred to the municipality. However, such measures are not taken. Moreover, federal law No 122-FZ of August 22, 2014 abolishing tax transfers to the municipalities of certain monotowns (research monotowns and closed territorial administrative units) was adopted. According to the Audit Chamber, some research monotowns violate the provision on the obligatory transfer of at least 50% of taxes to the municipality [5].

Another aspect of the budget system that has an adverse effect on monotowns is the widespread practice of integrating the regional component into the hierarchy of federal and local budgets. Within this system, federal transfer payment to closed towns are first received at the level of constituent entities of the Russian Federation. Technically, this procedure is nothing but an artificial barrier to the reception of necessary funds by closed towns. As a result both direct transaction costs and the period of fund transfer increase. This gives rise to suspicions about the consistency of the current public policy towards modern monotowns.

The *fourth* cause of monotown's vulnerability is the absence of an effective and comprehensive national programme for investment support. According to the State statistical service, in 2012, an average resident of a large monotown 'received' a little more than 75% of average investment per a resident in a town with 100,000 population. As to foreign investment, the ratio was even lower — below 74% [20]. In other words, monotowns are less attractive to foreign companies (including those whose final beneficiaries are Russian citizens investing through offshore companies). Moreover, the state does not take sufficient compensation measures. However, it does not mean that all monotowns need more public investment. At this stage, it is merely an element of diagnosis. Probably, in some cases, it is not monotowns but residents willing to move that require investment.

*Finally*, it is a lack of public measures aimed at solving the internal problems of monotowns. Public policy towards monotowns is intermittent. The key characteristic of the measures taken is the absence of a comprehensive solution to the problem, disregard of their sources, a propensity for momentary effects. In other words, the measures adopted by the Government are short-term and provide a temporary solution (for instance, the case of Pikalyovo [10]). Moreover, if the state takes measures to regulate the situation in monotowns, in most cases, they are aimed at those with a population of at least 50,000 people. Therefore, the only cause why one could expect any attention to the monotowns of Kaliningrad region would be the special status of the region. The frequent use of subsidies and government grants for townforming companies within state programmes for economic development support only partially compensates for the negative effect and does not create sufficient prerequisites for solving the problem.

Therefore, a solution to the group of related issues, which is necessary not only for sustaining the national economy but, what is more important, for revitalising monotowns, requires a detailed approach.

A search for an optimal solution to the monotown problem requires an accurate identification of structural risk-bearing factors. One should admit that the range of risks to successful development of monotowns (and, hence, social stability) is rather wide and cannot be identified unambiguously. In this case, it is logical to group risks based on the homogeneity of existing problems [42]. Let us consider a classification of typical monotown risks. At first, let us identify the direct risks of a town-forming company (*'business')*, social risks (*'population'*), and those of municipality (*'authorities'*). Then potential risks associated with the interaction of these groups will be considered (see Table 1).

Table 1

Subjects	Risks and their description
Business	Infrastructural risks result from the malfunction of infrastructure facilities due to depreciation and a significant increase in the cost of infra- structure maintenance. The most common causes are the use of infrastructure facilities beyond their operational lifetime, absent or overdue reconstruction and modernisation, the ab- sence or insufficiency of conditions necessary for increasing technological capacities; exposure to environmental and cli- matic factors and anthropogenic phenomena.

## Classification of typical monotown risks

The end of table 1

Subjects	Risks and their description
	Technological risks
	are associated with the high cost of production processes and
	the introduction of stringent requirements to using fixed as-
	sets. The highest risks relate to using assets beyond their op-
	erational lifetime.
Population	Risks of deterioration in the standards of living
	Risks of human resource migration
Authority	Risks of municipalities
	correspond to the possibility of damages resulting from
	changes in the public policy and its priorities. Decisions
	made or the absence thereof, measures towards nationalisa-
	tion and expropriation without compensation, force majeure
	(military actions, social unrest, etc.)
Authority/population	Solvency risks
	relate to the solvency of an average resident. The probability
	of these risks increases with growing unemployment, salary
	reductions, and population aging.
	Risks of reduction in human capital
	The threat of unpredictable losses associated with insuffi-
	cient investment in professional and cultural capital, as well
	as general deterioration in the physical health of population.
Authority/business	Consumer risks
	relate to the aspects connecting the demand for a company's
	produce and services and their sales in consumer market.
	Product risks
	Acceptance (or a lack thereof) of the product in the market
	of a corresponding economic and industry specialisation
	Proprietary rights risks
	A possibility of expropriation of infrastructure facilities fol-
	lowing force majeure and insurmountable circumstances.
	Financial and economic risks
	relate to budget deficit and, therefore, insufficient funding of
	the monotown from the budget of a designated level. These
	risks result from the internal and external market situation,
	the condition of national economy and investment potential,
	banking system crisis, and inflation.
Population/business	Consumer risks
	Human resources risks
	are associated with such factors as fluctuations in the number
	of working age population, low living standards, and internal
	migrations resulting in structural changes in human re-
	sources.
	Solvency risks
	Risks of reduction in human capital

Source: compiled by the authors.

٢

In ideal conditions, the above risks (present in part or in whole) should be identified and assessed as early as the stage of monotown development. Moreover, there is a need to devise a risk management strategy. In effect, one cannot speak of managing a certain monotown risks, since, despite the acute need for risk management, this problem is another element of the group of problems described above.

## 3. Monotowns' risk mitigation mechanisms

Without aiming at broad generalisations, this section will demonstrate that monotown problems are not desperate and resettlement is not the most evident prospect in the case of an active reaction to the problem deterioration. At the same time, success stories show that typical solutions can be coupled with original ideas taking into account the local situation.

An example of a successful solution to the monotown problem is provided by Canada, where the joint efforts of population, business, and municipalities overcame the crisis of monotowns that seemed to be doomed to liquidation. Canadian practices can also be of interest, because the industry composition of the country's monotowns is close to that in Russia. Let us analyse the measures taken to rehabilitate the economies of two Canadian towns — Tumbler Ridge and Elliot Lake.

The town of Tumbler Ridge [39] was founded in Canada in the late 1980s to support a major coal mining initiative. The new town's population was 5,000 people. By 2000, the town-forming company Teck Corporation announced the closing of the largest mine, which threatened the town's existence. The main idea of regional authorities was to liquidate the town and resettle the population. They stressed the town's single-industry focus and the impossibility of taking standard measures to rehabilitate its economy. However, most residents and officials did not want to leave their hometown and believed that Tumbler Ridge's economy can be saved and that it could turn from a specialised industrial centre into a prosperous economic centre.

The municipality developed a detailed long-term strategy for the revitalisation of the doomed town. The strategy's concept consisted in the stable provision of social services to the residents and support for the transport and engineering infrastructures. These measures suggested the creation of a stable social platform capable of not only enduring but also encompassing the diversification of its economy. The project was successful. An important element of the policy planning was its division into long- and short-term aspects. The *short-term* strategy suggested concluding an agreement with the regional authorities on transfers from the regional budget to maintain the living standards of the remaining population. The long-term one was aimed at diversification. Alongside meeting the social needs of the population, the local authorities were buying out the housing of those leaving the town and selling it at rather low prices. This initiative was welcome, since, after the reconstruction, the bought out houses were sold at extremely low prices ranging from USD 12,000 to 25,000. Therefore, more than 60% of housing units were resold (725 houses and 260 flats out of 1,600 units).

Moreover, the quality of social services was improved — the level and accessibility of education, medical services, and social security were enhanced. Special relations with different organisations were established, which guaranteed the basic social package level throughout the transition period until the stabilisation of the internal economic situation. Social security and available housing stimulated immigration — by 2002, 97% of houses and flats were sold to new residents.

Human capital increased as workforce was moving to the town. This made it possible to facilitate the development of small and medium businesses. For instance, services and recreation facilities started to open — the town witnessed rapid construction of small hotel facilities, restaurant chains, and car washes. Moreover, the town's geographical position made it possible to launch a project on forestry development. Approximately 40 small and medium enterprises (further referred to as SMEs) opened in 2008 making a significant contribution to the town's economic revival. In particular, a 2012 survey showed that 53 out of 80 SME representatives declared their intention to develop their business in the town due to the favourable conditions [37].

Owing to the population inflow and, hence, stable transfers to the local budget, it became possible to adapt the existing infrastructure to the development of new industries: rail lines were developed and large equipment maintenance facilities opened. This made it possible to estimate the actually employed area of the town and this reduce its size at the expense of un- and little-populated districts. Thus the campaign to rehabilitate Tumbler Ridge was completed. A trend towards turning the town into a tourist destination emerged. 50 more companies specialising in hospitality were created. Today, the views of Tumbler Ridge can be seen at almost all Canadian tourist websites.

Another Canadian town — Elliot Lake [33] — is another positive example of a successful solution to the problem of town saving. The town's economy was focused on uranium production. Elliot Lake faced a crisis in 1990. Ontario Hydro — the principal customer of the town-forming companies Rio Algom Limited and Denison Mines Limited — terminated its contract on uranium supply, because it had found a cheaper source of higher quality. The town-forming companies of Elliot Lake announced the decommissioning of three major mines; as a result, 2,000 people were laid off. In 1992, Denison Mines Limited closed down its business, and 1,100 more people were made redundant. The remaining 553 employees of Rio Algom Limited lost their jobs in July 1996. Elliot Lake's economy fully dependent on the income of town-forming companies. As early as 1986, 4,858 people of the town's 17,984 population were employed at uranium production companies, 3,962 more worked in related fields producing goods and services used in the uranium production. In the early 1990s, the news of mass layoffs of working age population became a disturbing sign of the imminent demise of the town. It was accompanied by a grim forecast of population reduction (400-500 people) by the beginning of 1997. In effect, the situation turned out differently; in 1994, the town's population was 14,300 people, in 1997 14,500, including the employed population of 2,500.

Having faced a critical situation in the conditions of time pressure, insufficient funds, and a lack of experts in economics, the authorities decided to restructure the economy of the town, which had always depended on the mining industry. The objective was set to diversify the economy before the crisis arises. In 1987, the Economic Development Committee (further, Committee) was established; it devised the new plan to overcome the Elliot Lake crisis.

The town-saving concept consisted in taking measures to attract investment and stabilise the economy using the existing resources and focusing on the short-term aspect. The concept was based on three initiatives: 1) retirement living, 2) tourism, and 3) small business diversification.

The Committee's policy towards retirement age population focused on attracting retirees to Elliot Lake and encouraging their spending, which created new opportunities for local businesses. In 1987, the senior partner of Denison Mines Limited and the town's authorities made a decision to sell the workers' empty houses to pensioners that had come to the town. Since the income of this population category is stabled and ensured by the state, retirees are not affected by the number of industries the town specialises in. At the same time, regular spending on consumer goods would make it possible to stabilise the local economy. Since the programme's adoption and until the end of 1987, 27 people moved to the town. Later, the programme's framework was adjusted; in 1991, the Committee established Elliot Lake Retirement Living, an independent non-profit corporation. It managed the abandoned housing and introduced the concept in neighbouring towns. In 1993, Active Living, an estate agency from Ontario, expressed interest in buying out the houses and flats left by the emigrating population of such monotowns and selling them to retirees. Having set the price at USD 19,900, the company could hardly meet the demand. As a result, 3,600 people of retirement and 3,000 people of working age had moved to Elliot Lake by 1997. Retirement Living became one of the largest regional companies selling real estate to retirees at affordable prices with a reserve of 1,520 housing units.

This programme contributed not only to the creation of a safe "tax shield" for the municipality, but also to the attraction of SMEs selling furniture and household equipment. As a result, more than \$30 million is injected into the local economy on an annual basis.

The second initiative to revive the town's economy was tourism. Its objectives were almost identical to those of the retirement living programme — creating new opportunities for SMEs through attracting tourists to Elliot Lake and encouraging their spending. Surrounded by dense forest, numerous lakes, winding rivers, and hills, the town met most needs of the tourism industry. Before 1990, the town's only tourism initiative was opening golf courses and skiing, hunting, and fishing facilities meant solely for the management of the uranium production corporations.

The committee allocated the public funds, as well as those meant for creating new jobs, to building tourism infrastructure in Elliot Lake. The infrastructure project included the construction of a 120 km bypass, an information centre, and a platform with panoramic views, as well as smaller objects, such as boat ramps, garages, and hiking and snowmobile trails.

Thanks to an advertising campaign launched at first in Ontario and later in other neighbouring cities, Elliot Lake started to attract an increasing number of tourists coming mostly for short vacations. More than 47,000 tourists visited the town in 1993—1997. Numerous TV and radio commercials attracted hunting and fishing aficionados, including TV stars, to Elliot Lake. Some of them stayed in the framework of the retirement living programme having concluded a one year contract for taping a TV show. The town gained popularity beyond Canada — Americans, Germans, and the British were coming there both as tourists and for permanent residence.

The provision of an adequate level of hotel services contributed to the development of the town's SMEs, which provided an increasingly wide range of goods and services. New hospitality and infrastructure facilities — hotels, bars, diners, etc. — were rapidly built. Moreover, Elliot Lake Retirement Living expanded its operation from providing housing to retirees to organising two-day vacations (mostly for retirees) and creating new companies in the tourism industry. A corporation emerged that offered almost all types of tourist services — from regular to extreme ones. Their functioning required an organisation that would take on technical maintenance, development, and equipment of the existing infrastructure.

Finally, the third initiative concerned small and medium businesses. The Committee's objective was to create new companies operating in different industries. As of early 1990, all the town's companies operated in uranium production-related fields. After the Committee had been established, more than 200 volunteers expressed a wish to develop and attract new businesses.

The economic diversification strategy admitted that local producers had already made all possible investments in the town's development thus creating jobs for the working-age population. As a result, a decision was made to take additional measures contributing to the conversion of corporations. namely, the development of an alternative industry that could significantly reduce operating expenses. Local producers started to work together. Elliot Lake Mine Manufacturers' Association was initiated by the town's Committee. To reduce operating expenses, the Association developed a three-point strategy: creating short-term jobs, efficient energy use, and abolition of municipal taxes. Alongside the funds allocated by the state to support the region's economic development, the Committee devised a detailed business plan and carried out a study into financial management at production facilities. These measures resulted in a decision to organise urgent regional and municipal fundraising to collect 25 million dollars for the development of businesses in alternative industries. Over the next seven years, more than 30 companies operating in different industries within the diversified economy were opened, which made it possible to increase the employment rate through attracting 500-1,000 new workers each year.

The cases of the Canadian towns of Tumbler Ridge and Elliot Lake show that even the most depressive and sparsely populated monotowns that were "doomed to death" due to a lack of prospects for the town-forming company can stabilise their economies and 'revitalise' their territories. The story of Tumbler Ridge shows that a town can be rehabilitated through providing sustainable social services — it is crucial that the population is certain of their safety. Moreover, there is a need for a sound consideration of the objectives and opportunities of short- and long-term planning and a competent estimate of the necessary spending. The case of Elliot Lake shows that the revitalisation of a town can become more rapid and efficient if the municipal treasury has sufficient funds for urgent and strategic spending; the local authorities are a tested and efficient administrative unit; the town's infrastructure is accessible and of high quality; and there is stable internal immigration. It is worth stressing the importance of the residents' willingness to remedy the town's economic situation as well as that of cooperation between the municipality and the owners of town-forming companies.

The Canadian practices are of interest not only as 'success stories' but also as an opportunity to analyse the structure of relations between the agents of institutional arrangements<sup>5</sup>. Let us consider the mechanisms behind each of them in detail.

In the case of Tumbler Ridge, the town-forming company did not participate in the town's revitalisation (its closing necessitated these measures). Therefore, the *authorities/population* model is to be considered in this case. The external environment comprises the representatives of regional authorities willing to close the town and resettle its residents. The internal environment is represented by the residents who do not want to move and the town's administration. The population enters an agreement with the municipality: the former can provide the social basis for the economy's diversification and further development if the latter ensures social safety (salaries, medicine, education, and infrastructure). In this process, the value of a monotown as a specific asset is lost. The municipality has to enter two 'hierarchical' agreements — regional authorities/town (in the context of a short-term strategy it is equivalent to concluding an agreement on regional funding to ensure the provision of social services over the period required for diversification) and town/population ones (ensuring the provision of social services over a shortterm period in exchange for human resources necessary for long-term diversification). In the *town/population* connection, an important role is played by a so called 'add-in' — the mediator (a superstructure over the population link in the corresponding structure of relations). The mediator is either elected by the population or it is an open position offered by the administration (in this case, almost any stakeholder can become the mediator).

However, this mechanism generates a number of problems. Firstly, it encourages *opportunistic behaviour*: provision of social services without the formalisation or specification of the individual's obligations increases the

<sup>&</sup>lt;sup>5</sup> In this case, we use the concept developed by Douglass North and Lance Davis in 1971 [36]; it has found increasing usage in transaction cost theory due to the development of a comparative analysis of structural alternatives of transaction performance in view of three important characteristics — uncertainty, frequency, and resource specificity. It is worth noting that Oliver Williamson — who formulated the principles of such analysis — used the case of a monotown or a company-town to illustrate the problems of establishing contractual relationships in the conditions of resource specificity in one of his most famous works [29].

risk that these obligations will not be met. Secondly, there is an increased risk of non-fulfilment of contractual obligations in both types of relationships (regional authorities/town and town/mediator/population). Of course, the risk is significantly lower in the first case, since it is much easier to formalise the obligations of the parties. As to the second type of relationships, the situation is complicated by a lack of assurance from the population as to providing the municipality with the necessary human resources 'on demand.' Finally, the town/mediator/population relationship raises the question of assessing the probability of information asymmetry. In particular, if the mediator is not selected according to the principle of aligning the interests of population and municipality and is guided by their subjective ideas, there is a high probability that the other agents will receive incomplete information.

As to the measures taken in the town of Elliot Lake, their structure resembles that of measures adopted in Tumbler Ridge. The town-forming company did not enter the contractual relationships due to the termination of its operations. However, in the case of Elliot Lake, the *regional authorities/town* relationship is not considered. The initiative to save the town belonged to its administration, which produced the *town/mediator/population* relationship, however, the role of the mediator was rather significant, since it was assumed by the Economic Development Committee [33] — the confluence of the administration's and population's interests. However, the further development of short- and long-term strategy (attracting retirees for creating the 'financial shield,' the development of tourism and recreation, and further diversification based on SMEs) is considered from the position of the *mediator*.

In this case, the mechanism of obligation and assurance formalisation is simplified, which reduces the probability of both opportunistic behaviour and information asymmetry. The risk of non-fulfilment of obligations persists; however, its degree is much lower. Nevertheless, this mechanism is associated with the following questions: is it possible to estimate the probability of the strategy's positive outcome? Even if the housing resale project is successful (which is unlikely in the Russian conditions), will the inflow of retired population be stable? What should be done in the towns that, due to certain circumstances (for instance, climate and environmental conditions), cannot be attractive to immigrants? Is it possible to attract enough funds for industrial diversification and further development of SMEs through the development of tourism and recreation? Finally, does it mean that success is guaranteed only in those towns where town-forming companies do not participate in the institutional agreement?

These questions call for a more comprehensive consideration of the problem of relationships in a monotown<sup>6</sup>. We are considering an institutional arrangement model with three initial components: the *town-forming company* (business), *population*, and *authorities* (the town's administration).

<sup>&</sup>lt;sup>6</sup> It is assumed that this concerns monotowns of categories 1 and 2, which are the most vulnerable and characterised by an unstable socioeconomic situation. Towns of category 3 (characterised by a favourable situation) will not be considered in this context.

Since the decisions reached by the owners of the town-forming company often take precedence over the position of the head of the town's administration, an appropriate point of reference is the choice of business alternatives — to support production (i.e. it is profitable) or discontinue it (if it is unprofitable or there is an increasing risk of an unfriendly takeover). The scheme given below shows possible scenarios for monotowns (fig. 2).

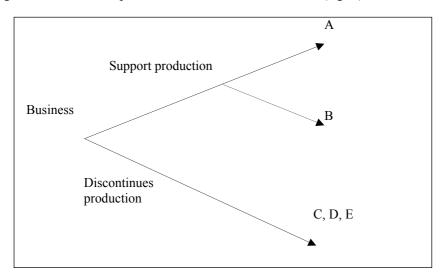


Fig. 2. Possible scenarios for monotowns

Business decides whether it is reasonable to maintain the operations. If the decision is positive, two alternatives are possible depending on whether additional adjustment are necessary (case B) or not (case A).

• *case A:* all three agents are satisfied with the situation, the only thing required is regular monitoring in order to prevent unfavourable situations or to take opportune measures to forestall them.

• *case B:* there is a need for certain adjustments to the existing institutional arrangements. Since explicit threats have not been identified, the problem can be solved locally through improving employer/employee relations, revision of social obligations, and possible conclusion of an agreement of development programmes [26] (this is consistent with the *business/population*, in very rare cases a triunique structures).

If maintaining operations is not profitable (or possible) for the company, three situations (C, D, and E) can arise.

• C suggests the liquidation of the town and resettlement.

In the towns with a potentially depressive economic situation, where the costs of sustaining the town-forming company and the town artificially are not only high but also unreasonable, there is a need for the *town* and *popula-tion* to reach an agreement (as the Canadian practices show) through a survey or an open election. In the case of mutual agreement on the unfeasibility of the town's further development, there is a need to solve the resettlement problem (which results in a contract with the representatives of three levels of authorities — local, regional, and federal [26]).

### • *D* suggests maintaining the asset specificity.

Maintaining the asset specificity (in part or in whole) is possible if the town-forming company is taken over or merged with a company operating in the industry. In this situation, the basic relation is that between *business* and *population*, since it requires a solution to the problem of employer/employee relations, mainly, whether there is a need for retraining, how soon it should be completed, and how many employees will need it. There is also a need to reach a decision on the future of the non-working age population, whether it is reasonable for this cohort to stay in the town or to resettle, which will facilitate a reduction in the town's area.

• *E* suggests that a specific asset is transformed into a general asset.

1) transformation of a part of a specific asset into a general asset (for instance, internal diversification, also in terms of industry composition at the town level);

2) devaluation of a specific asset necessitates conversion to a general asset (for instance, in the case of external diversification, i.e. if the town-forming company is taken over with further conversion).

Since the general characteristic of this scenario is the transformation of a specific asset into a general one (to a significant degree), it is reasonable to suppose that some of the monotown's residents will resettle due to both the change in the industrial profile and other reasons. Therefore, one can expect some instances of migration between towns/cities (not necessarily of the single-industry type; it is more important to focus on the way to ensure migration inflows). Since the success of industrial diversification is based on a stable labour market, the initiatives of the business/authorities structural element should be aimed at attaining this objective as the first priority. This requires minimisation of switching costs for the population group. Therefore, the actions of the business/authorities subgroup should be coordinated and aligned with the following logical structure: *creating jobs — providing* infrastructure (with allowance for the changes in the housing market) — ensuring safety and safeguarding proprietary rights — providing social services (education, medicine, etc.) — making utilities available — providing sociocultural services.

In other words, the 'default' situation suggests the readiness of the population to provide human resource, however, the actions of both the authorities and business (thus we examine their interaction) should be aimed at creating the most favourable conditions for the development of a stable labour market.

## Conclusion

The study of monotowns within the concept presented in the article made it possible to arrive at the following conclusions.

• A solution to the monotown problem using a wide range of different tools requires the formalisation of the concept of 'monotown.'

• Monotowns' vulnerability is not an isolated phenomenon, on the contrary, it encompasses a number of aspects — ranging from the system ties

between the competitive and industrial policy concerning the produce of town-forming companies to the state policy's intermittent, situational measures taken to sustain monotowns.

• The aggregate of various risks can be presented within a single reference frame, if they are considered and classified from the perspective of a comparative analysis of institutional arrangements.

• A study into the relations between the key monotown stakeholders can and should take into account the problem of opportunistic behaviour, which is especially pronounced due to high switching costs.

• International practices show that it is possible to successfully mitigate the risks associated with monotowns. At the same time, the success stories suggest that rather generic solutions can be complemented with original ideas (in view of local particularities) requiring considerable efforts in designing relations between the key stakeholders.

• Putting aside specific examples, one can put together a general scheme of interaction between the counter-agents of institutional arrangements in the context of a monotown and identify the general mechanism aimed at solving monotowns' problems.

It is worth stressing that the proposed measures are aimed at alleviating the situation in monotowns with pronounced socioeconomic problems and suggest a solution that is alternative to those offered at the moment, namely, direct intervention of the federal and regional authorities consisting in the liquidation and conservation of the most vulnerable monotowns. The proposed approach can be used in studying of and searching for solutions to the problems of the most depressive monotowns, since it encompasses the key scenarios and suggest taking into account the relations between major stakeholders.

However, due to the lack of an integrated and detailed framework for solving problems through coordinating different mechanisms of institutional arrangements agreements in the Russian practices — the practical application of this methods requires further development both in terms of further specification and application to specific objects, namely, different monotown categories.

## References

1. Analiticheskii doklad o rezul'tatah vypolnenija proekta «Monoprofil'nye goroda i gradoobrazujushhie predprijatija» [Analytical report on the results of the project «monotowns and town-forming enterprises»], available at: http://www. union. invest. ru (accessed 04.09.2014).

2. Animitsa, E. G. Medvedeva, I. A., Sukhih, V. A. 2003, *Malye i srednie goroda: nauchno-teoreticheskie aspekty issledovanija* [Small and medium-sized cities: scientific and theoretical aspects of the study], Ekaterinburg; Perm, 105 p.

3. *Bazovyj Jelement «Monogoroda. Perezagruzka»* [Basic Element «Monocities. Reloaded»], available at: http://www. basel. ru/bitrix/images/catalog/Моногорода Перезагрузка (2).pdf (accesed 04.03.2013).

4. Vorobyov, M., Gusev, V., Malyj, V. 2013, Sovremennyj resursnyj monogorod: territorija dozhivanija ili proekt social'no-politicheskoj stabil'nosti (na primere g. Vol'ska Saratovskoj obl.) [Modern resource industry town: Living out area or project of social and political stability (for example, Volsk Saratov region)], *Vlast* [Power], no. 4, p. 11—12.

5. Verdikt professionalov [Verdict of professionals], 2009, *Terra Sapiens* [Terra Sapiens. Scientific Newsletter of the Union of Russian science cities], no. 1 (8), May, p. 4.

6. Gureeva, M. A. 2011, Jekonomicheskie problemy monogorodov v uslovijah mirovogo finansovogo krizisa [Economic problems of single-industry towns in the global financial crisis], *Vestnik Rossijskogo Novogo universiteta* [Bulletin of the Russian new university], p. 37–45.

7. Granberg, A. G. 2001, *Osnovy regional'noj jekonomiki* [Fundamentals of Regional Economy], Moscow, 495 c

8. Azarzhevskaya, V. S. 2005, *Sovremennye problemy funkcionirovanija gradoobrazujushhih predprijatij* [Modern problems in the functioning of core enterprises], Saint Petersburg.

9. Kryukova, O. G. Arsenova, E. V. 2010, Vlijanie mirovogo finansovogo krizisa na jekonomiku monogorodov [The impact of the global financial crisis on the economy monocities], *Jeffektivnoe antikrizisnoe upravlenie* [Effective crisis management], no. 1, p. 80—87.

10. *K situacii v gorode Pikalevo. Dos'e* [By the situation in Pikalevo. Dossier], available at: http://itar-tass. com/info/853402 (accessed 20.12.2014).

11. Ljubovnyj, V. Ya., Kuznetsova, G. Yu. 2004, Puti aktivizacii social'no-jekonomicheskogo razvitija monoprofil'nyh gorodov Rossii [Ways to enhance the socioeconomic development of single-industry towns of Russia], *Biblioteka mestnogo samoupravlenija* [Library of local government], no. 54, Moscow, 224 p.

12. Manaeva, I. V. *Podhody k gruppirovke monogorodov Rossijskoj Federacii* [Approaches to grouping monocities Russian Federation], available at: http:// srastvortseva.professorjournal.ru/c/document\_library/get\_file?uuid=a67ed1e2-e8b1-455d-8155-43a3c7739f35&groupId=992555 (accessed 20.10.2014).

13. Maslova, A. N. 2011, Monogoroda v Rossii: problemy i reshenija [Monotown in Russia: Problems and Solutions], *Problemnyj analiz i gosudarstvennoupravlencheskoe proektirovanie* [Problem analysis and public management design], Vol. 4, no. 5.

14. Medvedev provedet soveshhanie po zanjatosti v monogorodah [Medvedev will hold a meeting on employment in monocities], available at: http://er. ru/news/2013/9/9medvedev-provedet-soveshanie-po-zanyatosti-v-monogorodah/ (accessed 28.04.2014).

15. Mikhailova, E. A., Rozhkov, Ю. В. 1991, *Finansovo-kreditnye metody regulirovanija investicionnyh rynkov* [Financial and credit management practices of the investment markets], Leningrad, 120 p.

16. *Mirovaja jekonomika — jekonomika Rossii* [The world economy — the economy of Russia], available at: http://www.ereport.ru/stat.php?razdel=country &count=russia&table=ipecia\_(accessed 16.04.2014).

17. Monogoroda Rossii: kak perezhit' krizis? Analiz social'no-jekonomicheskih problem monogorodov v kontekste mirovogo finansovo-jekonomicheskogo krizisa, vlijajushhego na sostojanie gradoobrazujushhih korporacij [Monocities Russia: How to survive the crisis? Analysis of the socio-economic problems of single-industry towns in the context of the global financial and economic crisis affecting the city-state corporations], 2008, Moscow, available at: http://www.regionalistica. ru/projects/detail.php?ELEMENT\_ID=385 (accessed 16.04.2014).

18. *Monogoroda v Chuvashii: itogi i perspektivy* [Monocities in Chuvashia: results and prospects], available at: http://www.regnum.ru/news/1585282.html (accessed 25.03.2014).

19. «O nesostojateľnosti (bankrotstve)» [«On Insolvency (Bankruptcy)»], Federaľnyj zakon ot 27 sentjabrja 2002 g. № 127-FZ [Federal Law of September 27, 2002 № 127-FZ].

20. Oficial'nyj sajt Federal'noj sluzhby gosudarstvennoj statistiki RF [The official website of the Federal State Statistics Service], available at: http://www.gks.ru (accessed 25.03.2014).

21. Pashintseva, N. I. 2009, Oficial'naja statistika dlja reshenija problem monogorodov Rossii v uslovijah krizisa [Official statistics to solve problems monocities Russia during the crisis], *Voprosy statistiki* [Statistical Issues], no. 2, p. 3.

22. *Postanovlenie Pravitel'stva RF № 1001 ot 29 avgusta 1994 goda* [Resolution of the Government of the Russian Federation № 1001 of 29 August 1994].

23. Rasporjazhenie №1398-r Pravitel'stva Rossijskoj Federacii ot 29 ijulja 2014 goda [Order number 1398-r of the Government of the Russian Federation dated July 29, 2014], available at: http://government.ru/media/files/41d4f68fb74 d798eae71.pdf/ (accessed 08.12.2014).

24. Stolyarov, O. I. *Programmnyj podhod k razvitiju jekonomiki monogorodov* [Programmatic approach to the economic development of mono-towns], available at: http:// www.megacities.ru/analitika/index. php?ELEMENT\_ID=2010 (accessed 08.12.2014).

25. Terekhova, T. *Upravlenie riskami i strategija upravlenija* [Risk management and control strategy], available at: http://www.acg.ru/news2.phtml?m=816 (accessed 08.12.2014).

26. Faikov, D. Yu. 2011, Social'nyj kontrakt kak instrument strategicheskogo razvitija municipal'nogo obrazovanija [Social contract as a tool for strategic development of the municipality], Problemnyj analiz i gosudarstvenno-upravlencheskoe proektirovanie [Problem analysis and public management design], no. 4, p. 55–61.

27. Fedotova, N. E. 2009, Teoreticheskie aspekty sovmestimosti gipotezy Filipsa s rossijskim rynkom truda [Theoretical aspects of compatibility hypothesis Phillips with the Russian labor market], *Izvestija Irkutskoj gosudarstvennoj jekonomicheskoj akademii* [Proceedings of the Irkutsk State Academy of Economics], no. 4, p. 14.

28. Chernova, G. V. 2010, *Praktika upravlenija riskami na urovne predprijatija* [Risk management practices at the enterprise level], Saint Petersburg, 389 p.

29. Williamson, O. 1996, *Jekonomicheskie instituty kapitalizma. Firmy, rynki, «otnoshencheskaja» kontraktacija* [Economic Institutions of Capitalism. Firms, Markets, "relational" contracting], Saint Petersburg.

30. Shastitko, A. E. 2010, *Novaja institucional'naja jekonomicheskaja teorija* [New Institutional Economics], Moscow, 880 p.

31. Agrawal, A., Cockburn, L., Rosell, C. 2010, Not invited here? Innovation in company towns, *Journal of Urban Economics*, Vol. 67, no. 1. p. 78–89

32. Barnes, T. J., Hayter, R. 1994, Economic Restructuring, Local Development and Resource Towns: Forest Communities in Coastal British Columbia, *The Canadian Journal of Regional Science*, Vol.17. no. 3, p. 289–310.

33. Mawhiney, A.-M., Pitblado, J., 1999, *Boom town blues* — *Elliot Lake: Collapse and revival in a single-industry community*, Dundurn press, Toronto, Oxford publishing house, 346 p.

34. Dinius, O. J., Vergara, A. (eds.), 2011, *Company Towns in the Americas: landscape, power, and working-class communities*, Athens, Ga. [u. a.], Univ. of Georgia Press, XIV, 241 p.

35. Dale, B. 2002. An institutional approach to local restructuring: the case of four Norwegian mining towns, *European Urban and Regional Studies*, Vol. 9, no. 1, p. 5–20.

36. Davis, L., North, D. 1971, Institutional Change and American Economic Growth, Cambridge.

37. District of Tumbler Ridge business information package, available at: http://www.pris.bc.ca/tumbler/tumbler.html (accessed 08.12.2014).

38. Dignard, L. A. 1989, *A comparative approach to the study of community and work in Canadian mining and forestry towns*, a thesis submitted to the faculty of graduate studies and research, Carleton University Ottawa, Ontario Canada, Ottawa, 420 p.

39. Gill, A. M. 2002, Respecting context in Northern resource town planning: the case of Tumbler Ridge, *Western Geography*, no. 12, p. 113–129.

40. Green, H. 2010, *The company town: the industrial Edens and satanic mills that shaped the American economy*, New York, 248 p.

41. Hinderink, J., Titus, M. (eds.), 2002, Small towns and regional development: major findings and policy implications from comparative research, *Urban Studies*, Vol. 39, no. 3, p. 379–391.

42. Hopkin, P. Fundamentals of Risk Management: Understanding, evaluating and implementing effective risk management, 440 pg.

43. Rudacille, D. 2010, *Roots of steel: boom and bust in an American mill town*, 290 pg.

44. Tony, C. 2002, Company town syndrome Australian CPA, Proquest Abl, inform № 8, 28 p.

45. Wood, P. Taylor, C. 2004, Big Ideas for a Small Town: the Huddersfield Creative Town Initiative, *Local Economy*, Vol. 19, no. 4, p. 380–395.

#### About the authors

*Prof Andrei Shastitko,* Head of the Department of Competitive and Industrial Policy, Lomonosov Moscow State University; Director of the Centre for Competition and Economic Regulation Studies, Russian Presidential Academy of National Economy and Public Administration, Russia.

E-mail: saedd@mail.ru

Adelya Fatikhova, MA student, Faculty of Economics, Lomonosov Moscow State University, Russia.

E-mail: afatikhoff9@gmail.com

٢