

UDC 339.9 (470.55)

LBC 65.050.22(2Rus-4Chel)

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Assessment of economic potential of the Chelyabinsk Oblast: state and development prospects

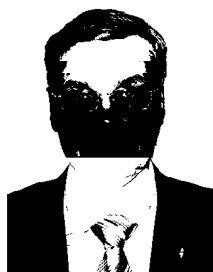
The article presents the results of economic activities in the Chelyabinsk Oblast for the last years, main indicators of improving regional investment policy, perspectives on implementation of regional economic projects. It provides economic indicators of the development of the Chelyabinsk Oblast industry potential in the case of metallurgical, machine-building, nuclear, etc. enterprises.

Economic activities, economic indicators, regional investment policy, industrial production index, investment projects.



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Introduction

The goal and objective of the paper is to provide an overall analysis of the regional economic situation in the post-crisis period in the case of the Chelyabinsk Oblast, one of

the leading industrial regions. The significance of the regional economic potential research is determined by the necessity of elaborating proposals on its innovation development. The analysis should obviously be commenced

with the most industrially developed regions. Several approaches to regional economic analysis are described in literature [1, 2, 3, 4]. The Chelyabinsk Oblast is economically one of the largest subjects of the Russian Federation. A considerable industrial potential, comprising metallurgical, machine-building, military-industrial and nuclear enterprises is largely determined here, as well as throughout the Southern Urals, by the level of economy. Several leading universities, three subdivisions (branch) of National Research Nuclear University 'MEPhI' are situated in the Chelyabinsk Oblast; the educational potential of the region is rather large, therefore the innovation direction of development is preferable. Moreover, the Chelyabinsk Oblast is one of the most energy-intensive oblasts in the Russian Federation: electricity consumption makes more than 32 billion kWh per year. Chelyabinsk power system ranked 3rd in the Ural Federal District and 12th in Russia in electricity yield in 2010 and 2011 [5]. Power plants provide about 78% of the total electricity demand in the region. Since

the oblast's generating enterprises are included into the system of Urals unified energy ring and the Unified energy system, electricity shortage is recouped by power purchased in the wholesale electricity and capacity market.

1. State and prospects of regional economy.

The socio-political situation in the Chelyabinsk Oblast is stable and manageable, the economy has been developing quite successfully. A certain threat to the maintenance of economic stability comes from low level of the population's income, growth in the prices for goods and housing and communal services, environmental problems. Diversification of economy, support of small and medium businesses, innovation sectors, the development of agrarian-industrial complex are the priority directions of the local authorities' economic policy (*table*). Particular attention has been given to attracting investments in the economy. The key task facing all municipalities comprises search for investors, site preparation for investment projects, elaboration and promotion of new brands in the Russian and foreign markets [6].

Key indicators of the Chelyabinsk Oblast economic development in 2012

Indicator	Indicator value			Region's location	
	in the region	in the federal district (FD)	in the Russian Federation	in the federal district (FD)	in the Russian Federation
Industrial production index by types of economic activity	102.7	100.8	102.9	2	45
including, %:					
- mining	107.9	97.9	101.0	2	26
- manufacturing	102.8	106.8	104.5	3	49
- production and distribution of electricity, gas, water	99.3	101.3	101.3	6	48-50
Oblast's share in the total volume of FD own production shipped, %	14.3	-	-	-	-
Total volume of own production shipped in manufacturing (per one employer), thousand rubles	424.7	852.8	380.4	5	24
Oblast's share in agricultural production of the RF, %	1.7	-	-	-	18
Volume growth of 'construction' work, %	89.4	100.2	101.9	6	73
Housing growth, %	127.5	107.4	102.7	2	12
Fixed-asset investment growth, %	105.1	116.4	111.6	5	59
Foreign investments (total), million U.S. dollars	1193.8	3726.4	74789.0	2	7
Share of direct foreign investments in the total volume of investments, %	1.1	11.6	10.2	6	71
Self-sufficiency of consolidated budget, %	83.75	97.04	87.04	5	26

In spite of the oblast authorities taking an active stand on attracting investments in January – September of 2012, the volume of foreign investments in the oblast's economy declined by 33%, as compared with the same period of 2011, and amounted to 1.799 billion U.S. dollars. The export volume of investment capital (1.762 billion dollars in January – September of 2012) indicates the need further improve the regional investment policy (*fig. 1*).

2. Dynamics of the Chelyabinsk Oblast economic indicators.

Metallurgical industry plays a major role in shaping the economic and financial results of the oblast. The global economic recovery, accompanied by rising demand and prices for metals in domestic and foreign markets in 2010 – 2011, contributed to the growth of economic indicators of the region. In 2011 the growth of GRP of the Chelyabinsk Oblast reached 5.8%, growth of industrial production made 6.3% compared to the level of 2010 [7].

At the same time, the stagnation in the world metals markets, since the end of 2011 up to 2012, led to deteriorating operational and financial indicators of the region's basic metallurgical enterprises, adversely affecting the development of the region's economy.

In January – May of 2012, the region's economy was characterized by the slowdown in industrial production growth. Industrial production index amounted to 104% as compared to January – May of 2011, including mining (99.8%), manufacturing (104.9%), production and distribution of electricity, gas, water (96.6%). The volume of industrial production reduced by 4% in May of 2012 month on month (*fig. 2*).

The volume of metallurgical production was observed to increase by 1.2% in January – May of 2012, but dropped by 2.2% in May 2012 month on month. The share of loss-making enterprises amounted to 35% (32.9% across the RF) in January – April of 2012; the profit of enterprises decreased by 13.9%, as compared with the corresponding period of 2011; the amount of losses increased by 58.1%.

Figure 1. Dynamics of fixed-asset investments index

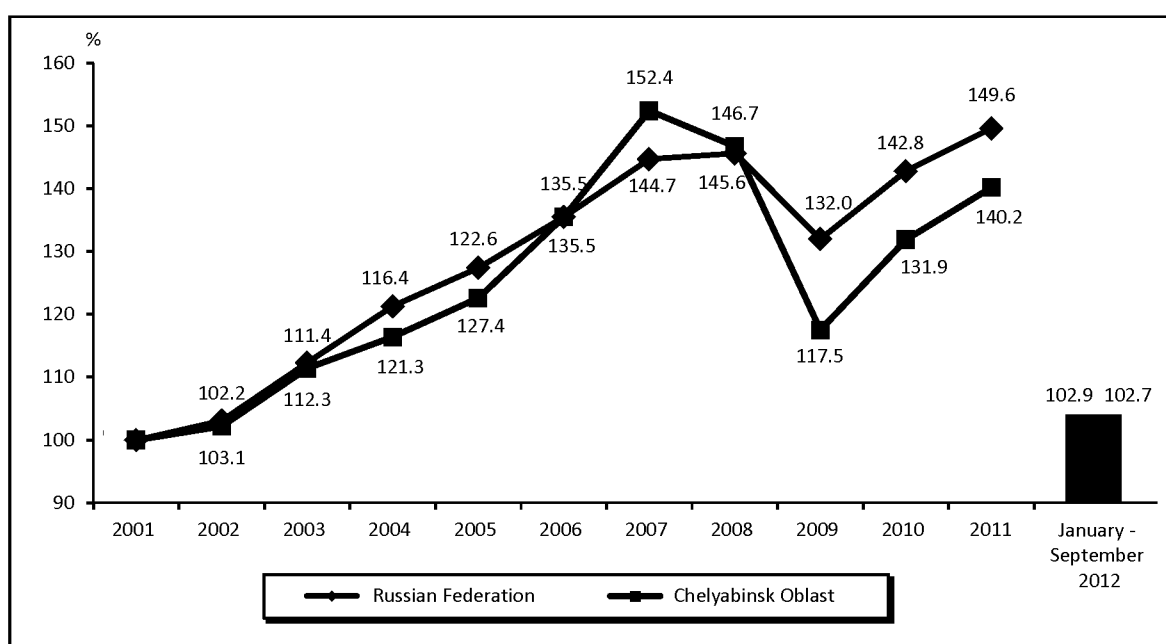
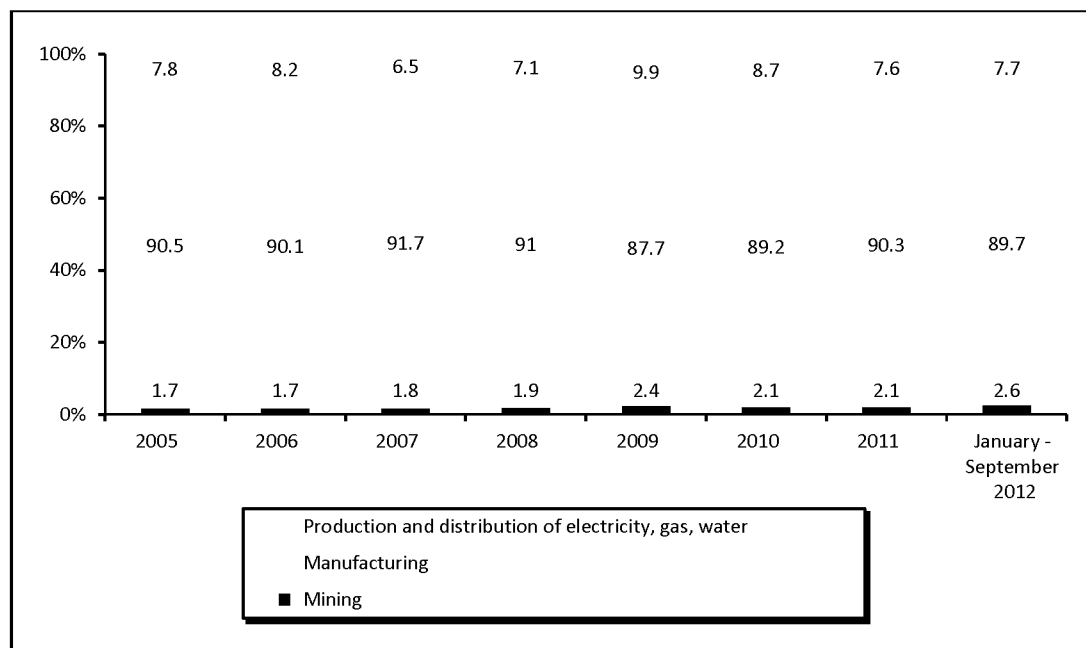


Figure 2. Volume structure of own-production shipped, by types of economic activity



The sales volume decline of 10.3% was observed in the foreign economic activity of the region in January – April of 2012, as compared with the corresponding period of 2011, including 10% drop in export (*fig. 3*).

Negative economic trends in the region are related primarily to the slowdown in metallurgical production development since the second half of 2011, caused by worsening situation in foreign and domestic markets (decrease in demand for metal products, growth in raw materials prices), the profits of the oblast's largest metallurgical enterprises had considerably reduced by the end of 2011, OJSC MMK and OAO Mechel ended the year with a loss of 125 million U.S. dollars and 19.674 billion rubles, respectively. According to the results of the first quarter of 2012, the financial indicators of the largest metallurgical enterprises of the oblast worsened significantly [8].

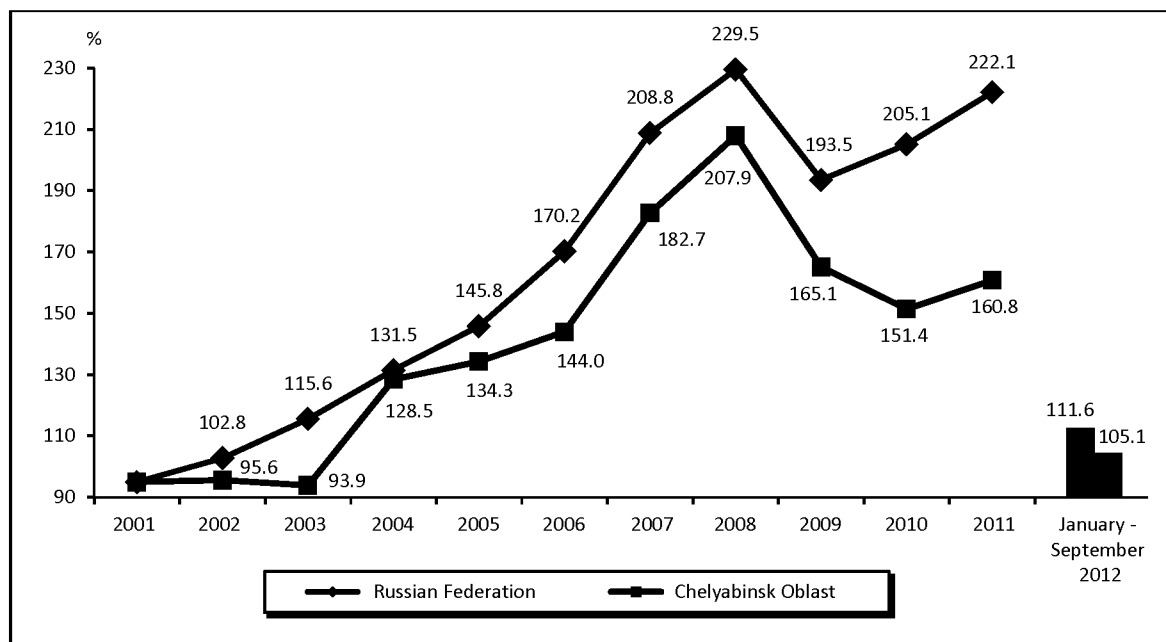
Thus, OAO Chelyabinsk metallurgical plant reported a net loss of 103.68 million rubles (in the first quarter of 2011, the income received was over 1.85 billion rubles). Product sales decreased by 10%.

OJSC ChTPZ reduced steel pipe output by 20% in comparison with the first quarter of 2011; the production of large-diameter pipes was cut down by 27% due to the decrease in demand, connected with the completion of JSC Gazprom's large projects. The net loss of OJSC ChTPZ in the first quarter of 2012 made 1.02 billion rubles. In 2012, the group ChTPZ was in a difficult financial situation because of the need to repay debt on short-term loans taken in 2008 – 2009 for the financing of large investment projects. Total amount of accounts payable makes about 107 billion rubles.

OJSC MMK increased production volumes, however, raising production was overshadowed by falling prices for most products. As a result, net profit of the enterprise amounted to 3 billion rubles, i.e. 33% less than in the first quarter of 2011.

The fall in nickel price on the world trading platforms in July of 2012 led to a critical situation in JSC Ufaleynickel (due to depreciation of fixed assets, the product's prime cost of the enterprise was significantly higher than its market value).

Figure 3. Dynamics of industrial production index by types of economic activity



JSC Ufaleynickel has urgent need for replenishment of working assets. However, banks have withdrawn credits so far, because of the unstable financial position of the enterprise and the worsening situation in the world economy.

According to experts, financial indicators in metallurgical industry will not improve significantly in the near future, due to the absence of preconditions for the world growing demand in products, falling volume of single orders owing to the completion of Sochi Olympics facilities construction.

The situation in the metallurgical industry has a significant influence on the socio-economic situation in the region, as metallurgy remains a basic sector of the oblast's industry, despite the measures taken by the regional government and aimed at economic diversification (fig. 4) [9, 10].

Positive trends were observed in machine-building on the background of stagnation in the region's metallurgical sector in 2012. The index of machinery and equipment production made

125.8% in comparison with the corresponding period of 2011; the index of electrical equipment production was 123.1%. At the same time, the growth set in machine building was not maintained in May of 2012. The volume of machinery and equipment production dropped by 3.5%, and the production of transport and equipment fell by 7.5%, as compared to the prior month [8].

The main problems in machine-building industry are the depreciation of basic production assets, low competitiveness of products, the shortage of circulating assets for technical re-equipment, high energy tariffs.

As a result of the insufficient modernization level of machine-building plants, Russia's accession to the WTO may have a negative impact on the region's machine-building industry. According to the results of surveys conducted by an independent analytical centre WTO-inform, on the consequences of the WTO entry for the Russian regions, the Chelyabinsk Oblast might incur losses up to 100 million rubles by 2020; metallurgical sector will be

developing, while other sectors of the industry will practically cease to exist, leading to the reduction of more than 50 thousand jobs.

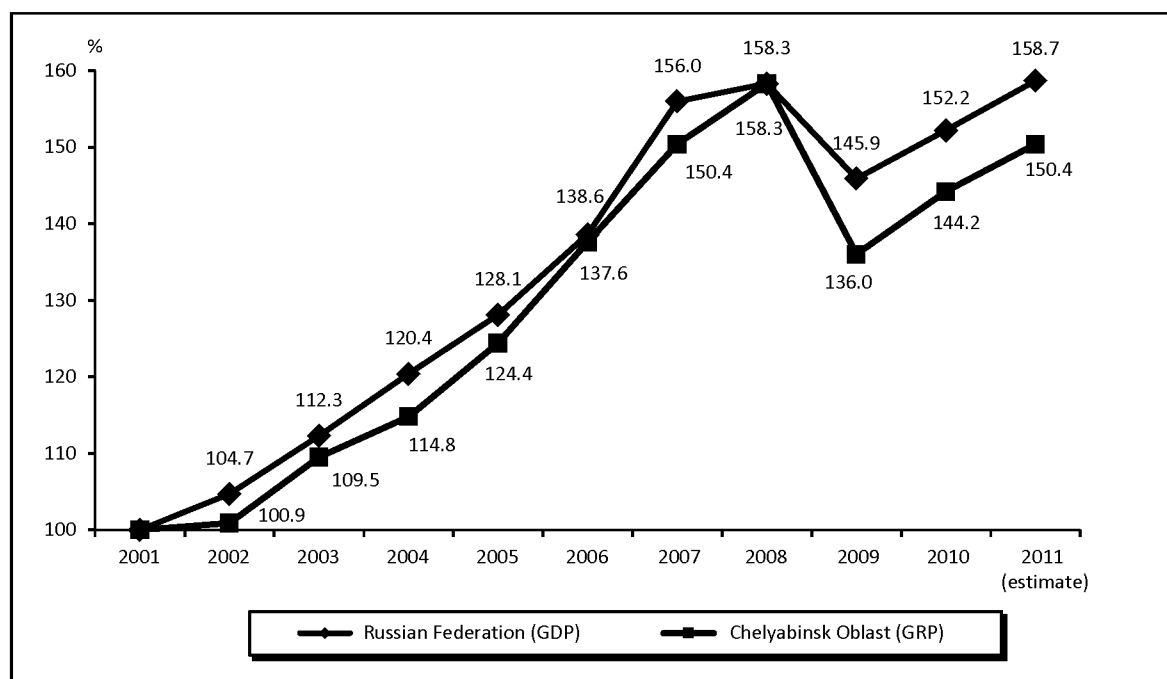
At the same time, the real mechanisms for protecting enterprises at the level of subjects are not enough. It is necessary to make decisions on support of domestic machine-building at the level of the Government of the Russian Federation, in particular moving to long-term orders from the Ministry of Defense, making it possible to plan the economy of an enterprise for 3 – 5 years; limiting the growth of natural monopolies' tariffs; reducing bank interest rate on loans for the modernization of production; finding solution to the problem of railway transportation (the reform of JSC Russian Railways and the transfer of more than 60% of the rolling stock to private ownership has led to an unjustified growth of tariffs, rail cars shortage, forcing enterprises to shift to the use of their own trucks) [11].

In the second half of 2012, the financial state of industrial enterprises was observed to be deteriorating, due to rising tariffs for natural monopolies' services since July, 1, 2012 and related to increasing industry costs. At the same time, enterprises will not be able to compensate for the rise in the cost of industrial production under conditions of low demand as a result of increase in products prices.

Attracting investors to free facilities is the task of an utmost importance. The possibility of implementing projects on the establishment of modern steel manufacturing (the project of CJSC KONAR in cooperation with the Italian company CividaleGroup), as well as hydraulic cylinders manufacturing (project of the Ural engineering centre) is being considered.

The situation remains difficult at the Federal state unitary enterprise Signal and Plastics Plant, as a result of the Russia's Defence Ministry refusal of 2011 to place

Figure 4. Indices dynamics of physical volume of gross domestic product (GDP) and gross regional product (GRP)



procurement state orders for ammunition and special chemicals up to 2015. The Federal state unitary enterprise Signal dismissed 10% of the employees, and in December of 2011 was reorganized into a joint stock company. The state has invested 3.4 billion rubles in the authorized capital of the defense enterprise. The change of the legal form will contribute to enhancing control over the enterprise activities.

In 2012, the number of defense enterprises experienced change in ownership: enterprises of the defense-industry complex were nationalized, while civil industries plants were privatized. In this context, the key issue that is to be settled at the level of Russia's Defense Ministry is the use of standby mobilization capacities, involving high maintenance costs [11, 12].

The enterprises significant for the oblast's development, such as CTZ-Uraltrak LTD., OJSC ChTPZ, OJSC MMK, etc., supported by the regional authorities were able to attract credit resources.

The oblast's government takes an active stand on providing support to the problem enterprises of the region: search for investors, efficiency control over bankruptcy administration, resolution of conflicts, which may lead to rising protest moods among employees, control over salary arrears.

Due to financial difficulties of the group ChTPZ the oblast's authorities intend to provide the necessary support to the company management in giving state guarantees for refinancing loans.

Special attention is given to promoting goods of local producers on the oblast market. In order to increase the loading level of the enterprises capacities, the oblast government forms annually the territorial industrial production orders. In 2012, the territorial order for metal products amounted to 2.267 million tons, for coal to 1.2 million tons, for cement to 496 thousand tons. 49 enterprises of

the oblast were among suppliers of the territorial order for machine-building products. The electronic database of the oblast enterprises has been created, containing information on product range and demand for raw materials, as well as information and analytical system of support for small and medium manufacturing enterprises (the market of production orders and services).

In 2012 the oblast Ministry of industry held passportization of modern manufacturing facilities in order to minimize costs for the startup of new production facilities due to the intensive development of intraregional cooperation. On the whole, it can be stated that the economy of the Chelyabinsk Oblast needs innovation development based on high technologies. Nuclear technologies, being rather significant in the region may become one of the directions of high-tech development, although such proposals need further consideration, as all the enterprises and organizations are located in closed administrative territorial units.

3. Economic situation in one-company cities of the Chelyabinsk Oblast

Eight cities and towns of the Chelyabinsk Oblast (Asha, Verkhny Ufaley, Karabash, Magnitogorsk, Miass, Satka, Ust-Katav, Nyazepetrovsk), as well as three closed administrative territorial units or CATU (Snezhinsk, Tryokhgorny, Ozersk), are recognized as monocities. All CATU have separate subdivisions (branches) of National Research Nuclear University 'MEPhI' and are multi-profile nuclear centres, therefore, potential sites of high tech development, particularly nuclear technologies. It is reasonable to formulate appropriate proposals on the basis of new developments, Innovation development programme, and modernization of the State Corporation Rosatom [3, 4, 5, 6, 7, 8], as regional economic environment allows this to be done.

To date, all one-company cities of the Chelyabinsk Oblast have worked out comprehensive investment development plans (CIP), however, the pilot projects of only two cities (Satka, Karabash) have been approved at the federal level. The town of Asha became a participant of the UN Development Programme in Russia (UNDP) [5]

In January 2012, Heads of such cities and towns, as Nyazepetrovsk, Asha, Karabash and Ust-Katav submitted to Russia's ministry of Regional Development reports on economic situation, they also presented the investment projects, aimed at the economic diversification of municipalities. All of the presented projects were approved by the Ministry. The possibility of financing the construction start of a mountain-skiing complex in the town of Asha and mining-and-metallurgical integrated works in the town of Nyazepetrovsk for the 2012 – 2013 period was being considered.

In 2011 all monoterritories demonstrated industrial output growth, however, they still depend on the local economic mainstays.

The development strategy of Satkinsky Municipal District includes 3 directions: the development of tourism industry; the modernization of engineering infrastructure facilities; development of small power engineering; organization of new productions. While implementing the projects it is planned to create more than 6 thousand of new working places, Moreover, it is expected that 5 thousand vacancies will contribute to the development of tourism in the town of Satka. Satkinsky District was included in the 'Community Development Support Programme based on Information and Communication Technologies in the Russian Federation for 2011-2014'. The project 'Introduction of a soft hardware platform Dispatcher Centre of Energy Resources Consumption Monitoring' is to be financed by the Fund 'Sustainable Development' with the support of Russia's Ministry of Economic Development.

In January – May of 2012, the industrial production index in Satkinsky Municipal District made up 89.9%, the level of registered unemployment accounted for 3.2% of the economically active population in 2004.

Investment projects of the town Karabash include the following: processing of industrial production waste, use of natural resources and the establishment of enterprises in the sphere of services. It is planned to allocate 10 billion rubles for the modernization of local economic mainstay ZAO Karabashmed, that will increase the production 2 times, up to 120 thousand tons of copper per year. In 2011, the total amount of investments in construction and installation works amounted to 767.2 million rubles, about 3 to 4 billion rubles are to be invested in the modernization of the production in 2012. In 2011, three large investment projects were launched (the construction of a clothing manufacture, wood-cement panels plant and fish processing and storage complex), that will result in the creation of over 500 jobs. The total projects cost amounts to 1.1 billion rubles.

Under the support of the oblast government, the investors, willing to make investments in the disposal of ZAO Karabashmed industrial waste, have been found. Ferromet LLC (Chelyabinsk) plans to set up fine dust processing facilities on the territory of former radio plant (the project cost is 450 million rubles). Karabash industrial complex LLC (Moscow) is going to build a plant for the processing of metallurgical slags (the project cost is 500 million rubles).

In January – May 2012 the industrial production index of Karabash urban district made up 91.9%, the level of registered unemployment was 4.7%.

The comprehensive investment plan (CIP) has been developed for Ashinsky urban settlement under the agreement between the government of the Chelyabinsk Oblast and the Agency of the United Nations Development Programme (UNDP). The main activities and investment projects, stipulated by the CIP

are the following: the reconstruction of OAO AMZ steel-rolling mill (the project cost is 11 billion rubles); the construction of a year-round ski complex 'Two valleys' (2012–2014); the creation of a multifunctional rehabilitation complex 'the Urals Gates' (2011–2020); the implementation of the comprehensive programme on Asha municipal services modernization.

In January–May 2012 the industrial production index of Ashinsky Municipal District made up 103.1%, the level of registered unemployment was 4.8%.

A large investment project on the construction of mining-and-metallurgical integrated works with a capacity of 5 million tons per year in Suroyamsky deposits is to be implemented in Nyazepetrovsky Municipal District. The oblast authorities held a meeting with potential investors, i.e. the managements of the companies FlemingFamily-and-Partners (Britain), KobeSteel (Japan), SunInvestmentPartners (Hong Kong). Construction of the plant will allow for creating of over 3 thousand workplaces on the monoterritory with the highest level of unemployment throughout the region (9.6% in May of 2012, with the average oblast ratio of 1.5%) [8].

Conclusion

The term 'innovation cluster' has emerged in the Russian economic dictionary. The analysis of possibility of creating such clusters should be based on regional economic trends,

the region's scientific and educational potential. Due to the fact that several large-scale atomic industry enterprises, as well as a number of branches of the National Research Nuclear University 'MEPhI' have been functioning in the Chelyabinsk Oblast, the involvement of the existing nuclear and educational complexes in the monitoring of the regional economy and power engineering development, and in the formation of a cluster innovation approach to the development of the regional economy becomes topical for consideration in the near future. All the trends of the recent years, presented in figures 1, 3 and 4 show that the growth rate following the crisis period of 2008–2009 even exceeds the rates, characteristic of the previous period of the Chelyabinsk Oblast development.

Based on the research conducted, it is reasonable to examine the issue concerning the nuclear technologies contribution to the oblast economy: new generation nuclear fuel, radioactive isotopes for medical and technological purposes, etc. The implementation of economic approaches and innovation projects completion will lead to the formation of a unified innovation and investment programme on the Chelyabinsk Oblast's further development, the elaboration of the corresponding organizational and economic measures, that, in turn, may contribute to attraction of investments into the regional economy.

References

1. Drury C. An introduction to management and cost accounting: a manual for higher schools. Translated. Ed. by N.D. Eriashvili Foreword by Prof. P.S. Bezrukikh. 3rd ed., revised. Moscow: Audit, UNITY, 1998.
2. Ditger Khan. Planning and control: the controlling concept. Moscow: Finance and statistics, 1997.
3. Taburchak P.P., Vikulenko A.Ye., Ovchinnikova L.A. et al. Analysis and diagnostics of financial and economic activity of an enterprise: a manual for higher schools. Ed. by P.P. Taburchak., V.M. Tumin., M.S. Saprykin. Saint-Petersburg: Khimizdat, 2001.
4. Tkach V.I., Tkach M.V. Management accounts: international experience. Moscow: Finance and statistics, 1994.
5. Vorobiev A.G., Myakota Ye.A., Putilov A.V. Approaches to assessment of energy security in the region (by the example of Chelyabinsk Oblast). Economic and social changes: facts, trends, forecasts. 2010. No. 4(12). P. 71-79.

6. Biryukov D.V. Effectiveness of investments at the macroeconomic and regional levels. *Journal of Russian Entrepreneurship*. 2010. No. 2. P. 4-10.
7. Putilov A.A., Vorobiev A.G., Strikhanov M.N. Innovation activity in the nuclear industry. V. 1: Basic principles of innovation policy. Moscow: publishing house 'Ore and Metals', 2010.
8. Rosstat data for 2011 – 2012.
9. Putilov A.A., Vorobiev A.G., Putilov A.V, Goldman Ye.L. Public corporations and development of high-tech sectors of the real sector of the economy: a historical perspective and global experience. *Economy in the industry*. 2009. No. 2. P. 2-13.
10. Putilov A.A., Vorobiev A.G., Putilov A.V, Goldman Ye.L. Public corporations and development of high-tech sectors of the real sector of the economy: the economic benefits and the role of industrial modernization. *Economy in the industry*. 2009. No. 3. P. 13-21.
11. Putilov A.A., Vorobiev A.G., Putilov A.V. Economics of uranium raw materials in pre- reactor technological conversion of nuclear energy resources. *Non-ferrous metals*. 2010. No. 4. P. 89-95.
12. Putilov A.A., Vorobiev A.G., Petrov V.A. Characteristics of raw uranium in prereactor technological redistribution of nuclear energy resources. *Non-ferrous metals*. 2012. No. 4. P. 10-16.