

Stages of Economic Development of the Russian Far East

Anatoly V. Moshkov

Department of Geography, Territorial and Economic Structures Laboratory,
Pacific Institute of Geography, Russian Academy of Sciences, Far Eastern Branch,
Radio Str., 7, 690041 Vladivostok, Russia

Abstract: The extensive economic development of the Russian Far East which started in the early 17th century is continuing up to now involving various sectors and industries. In the course of this development the current sectoral structure of the Far East of Russia has been formed, its regional imbalances serving as the driving force for continued advancement and improvement. With the analysis of the various positive and negative factors influencing the development of the region, it is emphasized that the vast Far Eastern territory of the country has both all-Russian national and specific local features. Historically, several stages of the region's economic development can be defined, each of them determined by the territorial specifics, previous achievements, national and global political and economic situation. The researcher's approach to the evaluation of the spatial differentiation of economic structures at any given period of time can be seen as an important tool in the study of spatial features of regional economic structure transformations.

Key words: Economic development stages, economic potential, imbalances, natural resources, production factors, Russian far East, sectoral value added structure, territory

INTRODUCTION

The full-scale economic development of the Far East began in the early 17th century, when the considerable territories of Yakutia, Kamchatka, Amur region became parts of Russia; this economic development continues to this day. The first settlements founded on the territory as administrative centers, later turned into large economic hubs with transport system, industry and social infrastructure. The economic development of the Russian Far East involves such sectors as agriculture, forestry, fishery, mining, processing industries, infrastructure, etc. which form the regional level of development of the Far East and adequately reflects the general trends of the process. At the same time, the regions of the Far East are also characterized by their specific features of economic development. These features can be identified when studying the current sectoral structure of the gross value added both in the whole Far East region and in the territorial entities of the Far Eastern Federal District.

The economic development of the territory and the formation of the sectoral value added structure in the Far East are influenced by a combination of favorable and negative factors which cause imbalanced relationships between the industries in the region's economic structure. Those include the prevalence of agriculture,

timber, mining and other similar industries which do not provide the working population with high income, in contrast to the manufacturing sector.

The favorable factors of production in the Far East include its advantageous economic position and geographic location in the Asia-Pacific region, rich and diverse natural resource potential of the territory's lands and waters, high production and infrastructure capacity and others. The negative factors are high production and transport costs, low share of the value added in manufactured products, low competitiveness of processing industries and others.

The need to overcome these imbalances is one of the driving forces of the territory's economic development. The stages marked in different periods of the economic development of the Far East (the formation and functioning of the economy in the conditions of an emerging market; the command economy which replaced it; the contemporary market transformations) characterize its regions, firstly as parts of the national economy with their economic interests subjected to the national needs; secondly as relatively independent entities with specific economic and geographic position, natural resource and economic potential, established proportional sectoral structure.

Problem statement: It should be noted that the economic development of regions of the Russian Far East evolved in the process of implementation of the strategic state tasks (primarily, the inclusion of the territories into the state, the resettlement of population from the European part of the country, the construction of cities, transport infrastructure, the exploitation of the unique natural resources, the organization of the manufacturing sector), in the period of the socialist state-planned economy and under the influence of market mechanisms, including international raw markets of the Asia-Pacific region.

The description of the economic development stages in the Russian Far East is important as it leads to the identification of the factors and conditions that formed the existing sectoral value added in the region. It also helps to diagnose the existing problems and to determine the prospects for the socio-economic development. During the economic development of the region, stable territorial combinations formed in industries and business activities which may be of interest to domestic and foreign investors.

MATERIALS AND METHODS

The stages of the economic development of the territory of the Russian Far East were singled out in the analysis of rich material containing reference data on the history of the industrial development, on the ratio of economic activities in certain regions and scientific reviews, evaluations of the economy state in different periods of time. The sectoral method applied in the paper to studying the processes of the economic development of the territory allows us to fully reflect the industrial unity of the emerging economic structure of the regions that appears among the businesses and industries on the basis of common use of their products, raw materials, machinery and manufacturing technologies. The position of a sector in the structure of the region's economy (specialized, production servicing or population servicing) can be determined by the degree of its participation in the territorial division of labor and the nature of its interaction with other industries.

RESULTS AND DISCUSSION

The study of spatial and temporal features of the economic development of the Russian Far East, the formation of the sectoral structure of the value added that are associated with changes in the socio-economic situation in the country and regions, including the regional industrial trends and factors has led to the formulation of successive development stages and

covers the period from the early 17th century to 2010s (Bogdanova, 1982; Gladyshev *et al.*, 1974; Gladyshev *et al.*, 1971; Demyanenko, 2003; Dongarov, 1990; Minakir and Prokapalo, 2010; Moshkov, 1988; Moshkov, 2008; Shitikov, 1967; Romanov, 2009).

Agrarian and industrial mining and infrastructure stage (17th century-1922):

At the beginning of the economic development of the Russian Far East, the main economic activities of its population (migrants and indigenous communities) were agriculture, hunting and forestry, fishing, sea animals hunting. Later they were accompanied by the mining industry (extraction of precious and non-ferrous metal ores, coal); processing plants appeared (ship repair, mechanical workshops, including the production of agricultural equipment, fish industry, flour, cereals butchery and dairy, bakery and confectionery workshops, etc.) trade, construction, electricity, transport and communication industries developed.

By 1922, the economic structure of the Russian Far East developed specialization in the coal mining industry, nonferrous metallurgy (production of non-ferrous metals, processing, production of concentrates), timber and fishing industry. The Trans-Siberian Railway was the most important part of the infrastructure which had a significant influence on the formation of the economy structure of the Far East. It became a kind of an "economic axis", around which the main industrial hubs of the South of the Far East were formed. Among the first large enterprises were the plants of coal, forest industry and nonferrous metallurgy.

The coal industry performed an essential task of fuel supplies to the Pacific Fleet, the railway and the growing population. The decline in coal production was noted during the Civil War and intervention but was overcome by the middle of the 1920s when the coal production totalled 600 ths. tons/year, i.e., it reached the level of 1917.

Despite the substantial resources and high demand for wood in neighboring countries, the timber industry (wood harvesting, timber production) in the southern regions of the Far East (Primorsky Krai and Khabarovsk Krai, Amur Oblast) developed rather slowly due to weak development of transport in the territory.

The non-ferrous metallurgy (extraction of precious metal ores) was represented by lead, zinc and gold mining. The artisanal and semi-artisanal gold mining methods were used in all regions of the southern Far East, the extraction and processing of lead-zinc ore were developed in Primorsky Krai. In 1914, the Tetyukhe-AGOT mining company opened its first concentration plant. The manufactured concentrate was fully exported abroad. The

ore extraction reached 1,000 tons/year and the number of workers employed at the mine was 1,300. During the Civil War, the mine was often closed and the total losses amounted to nearly 1 million rubles (Kolosovsky, 1926). The fishing industry (fish, crabs, seaweed, sea mammals) included fishing and processing of fish and seafood (salmon salting, fishmeal from Pacific herring, harvesting of seaweed, etc). The significant fish resources and a stable demand for fish products ensured rapid development of the industry.

Among the industries that served the needs of production, there were electricity industry (coal-fired power), building materials industry (extraction of non metallic building materials, brick production), metalworking, shipbuilding and ship repair, repair of machines and equipment. The main problem in the development of the service industries was their limited capabilities to meet the needs of the Far East economy. There were also difficulties in supplying the population with consumer goods such as light and food industries products. Among the regions of the Far East, Amur Oblast had the most favorable climatic conditions for agriculture; thus, the milling industry had a special role in the structure of the region. The light industry goods (clothes, footwear) were brought to the Far East from other regions.

Industrial and agricultural extractive stage with elements of manufacturing industries, mainly for defense purposes (1922-1940): At this stage, the main industries in the economic structure of the Russian Far East were mining, manufacturing, power generation and distribution, agriculture, hunting and timber, fishing, construction, transport and communications industries.

By the end of 1922, the specifics of the Russian Far East's historical development allowed private capital (domestic and foreign) to keep the leading position in most sectors of industry, agriculture and trade. For example, out of 198 operating industrial enterprises, 78.8% belonged to private owners (Sanachev, 1993). Russian private commercial and industrial capital was active in the domestic and foreign markets.

In the end of 1922, the Far East entered the period of the New Economic Policy. Winding down the role of the private capital in the national economy as well as strengthening the state sector were the characteristic features of this period. The process of nationalization of the private sector in the Far East had its own characteristics in different industries of the economy.

The gold industry was the most important industry of the regional systems in the Far East. In 1923, the private capital controlled 43.9% of the industry's enterprises. The

reforms in the industry began with setting high tax rates for the private capital (30-60% income tax rate and trade tax was 8-20% of the profit). In the Amur Oblast as a result of this tax policy, first, the exploration for gold and then its production were suspended. In 1926, in the Far East, only 560 poods of gold were produced (49% of the level of 1913) (Kolosovsky, 1926).

The private capital benefit was especially notable in the coal mining industry of Primorsky Krai. In 1922, the state coal mines produced 3 times less coal and at a higher price than private enterprises (Sanachev, 1993). The main consumers of coal (including government organizations and enterprises) were the Ussuri Railway, power stations, population, etc., they preferred to buy fuel from the private traders. The administrative measures that were taken (the Decree on obligatory purchase of fuel by state-owned enterprises only from nationalized mines, revoking private companies' licenses on explored areas and others) led to almost complete exclusion of the private capital from the industry. The reforms took a heavy toll both on the private coal mines and on consumers. The sharp decline in coal production at the nationalized enterprises, its high cost led to the fact that the Ussuri Railway was forced to switch from coal to wood. As a result in the winter of 1925, the residents of Vladivostok experienced a severe fuel crisis.

In 1923, 28% of woodworking companies belonged to the private sector of the Far East. For example, there were 6 state and 34 private saw mills in Primorsky Krai (Kolosovsky, 1926). Traditionally, Russian private timbermen were an intermediary between the Far East harvesting companies and Japanese woodworking companies (mainly producing matches from aspen logs). The reforms affected this area of business, too. Government bodies set uniform wholesale prices for wood export contracts and agreements which did not satisfy the foreign customers. Later, after discussing the situation at the Far Eastern Economic Conference, the taxes on wood exports were significantly reduced. However, the monopoly position of Russian timbermen in the Pacific market of aspen logs was practically lost due to the inflexible price policy on the part of the government bodies. But the US and Japanese companies strengthened their positions in this segment of the forest products market.

The deficiency of production and non-production goods (which arose as a result of violations of the existing trade, intermediary and economic relations with the foreign countries in the Asia-Pacific Region and high cost of product transportation from the European parts of Russia to the Far East) provided the impetus for the construction and reconstruction of domestic service

industries. To service the needs of production, in all regions of the Far East, new repair enterprises were built and the production of construction materials was started. Individual tailor shops and food producers developed into separate industries-clothing, dairy and meat. At the same time, in Primorsky Krai, the power stations at the Zybnunye coal mines and the Spassky cement plant were put into operation.

In non-ferrous metallurgy of Primorsky Krai, a new production was created-preparation of lead concentrate from semi-finished products and refined lead from finished metal.

The private capital had a particularly strong position in the agro-industrial sector. It almost completely controlled the trade and industrial turnover between the town and the countryside. However, the nationalization affected this economic field, too. As early as in 1925, a monopolistic intermediary appeared between the farmer and the agricultural product market-state trusts. The farmers had to sell agricultural products surplus and purchase the necessary goods only centrally, through state organizations. Thus, the private sector was completely eliminated from all industries of the Far East economy.

The experience of reforming the economy of the Far East makes it possible to identify the most effective spheres of the private capital application such as procurement, transportation, processing and marketing of agricultural products sales of consumer goods, agricultural machinery and equipment in the rural areas; food industry (including fish and seafood); consumer goods industry (leather goods and footwear); timber processing. The private capital proved ineffective in rail transportation; ship building and ship repair; electric power industry. Foreign investments in the Far Eastern economy were mainly directed to the raw material industries (Sanachev, 1993).

Since the beginning of the 1930s when the private sector of the economy was completely eliminated (nationalized), the economy of the Far East became unable to use the mechanisms of market self-regulation. The state took over the responsibility to meet the needs of production and population in all industries of the economy and not just in the sectors that were traditionally less attractive for the private capital in the Far East.

In fact, a historic opportunity to use in practice the positive aspects of government control and market self-regulation was missed. The government control facilitated the concentration of enormous financial, material and human resources on the most significant social and economic issues. The market self-regulation involved efficient use of resources and responsiveness,

rearranging production in accordance with the customer demand. The superiority of the state-planned principle in the economy affected the structure of the Far East regions in the form of one-sided development of specialized industries which performed nation-wide function. First of all they provided manufacturing industries with cheap and high quality raw materials in the western parts of the country, carried out cargo shipping, helped to solve the geopolitical issues in the region. The service industries did not have the opportunities to provide goods and services for all the needs of production and population. Those imbalances between the levels of development of specialized and service industries were typical of the structure of the Far East in the following years as well.

This stage of the economic development of the Far East is characterized by the following features. The Dalstroy state company began the development of non-ferrous metals deposits in Magadan Oblast (gold, tin, tungsten and others) with the focus on the extraction of precious metal ores (gold). At the same time, power energy and equipment repair base of the region's economy were created.

In Primorsky Krai, after the reconstruction of a cement plant in Spassk-Dalny, the cement industry turned from being a serving one into a specialization sector. The engineering industry received a new boost during the implementation of the program of duplicative defense companies formation in the eastern part of the country in Khabarovsk Krai. Heavy engineering became the industry of specialization in the region. In Amur Oblast, the production and population servicing industries developed further.

A new industry of specialization emerged in the economic complex of Sakhalin Oblast-the production of crude oil. The Okha-Komsomolsk-on-Amur pipeline was constructed for the delivery of oil to Khabarovsk Krai. The strategic interests of the country in the Far East and favorable economic and geographical position of Khabarovsk Krai resulted in the appearance of a new industry of specialization-oil refining industry (production of oil and lubricants from crude oil extracted in Sakhalin). In general, the growth of capital investments in the industry in 1936 in Khabarovsk Krai amounted to 2,250% as compared to 1928 (Shitikov, 1967). The deterioration of the political situation in the Far East caused a reorientation of some export industries of the Far East regions to the domestic USSR consumers.

Industrial and defense stage (1941-1945): During the Great Patriotic War, the economic development of the Russian Far East was mostly led by the industries

fulfilling the state defense orders and export production (to pay for the supplies of weapons, military equipment, ammunition and raw materials)-mining, manufacturing, transport and communications, agriculture, hunting, timber, fishing.

The specialized production of export and strategic products (timber, fishing industry, non-ferrous metallurgy) developed rapidly. The delivery of a number of industrial and non-industrial products from the European regions of the USSR to the Far East stopped which contributed to the development of the local service industries. At the same time, the local service companies were partially reequipped for defense production, for example, in the Primorsky sugar plant (Ussuriysk), the production of ammunition was organized, in the Spassky cement plant, the production of drill bombs was arranged.

The greatest changes occurred in the industrial structure of Khabarovsk Krai, the Far East's only steel enterprise was put into operation (Amurstal, Komsomolsk-on-Amur). The manufactured products were to partially satisfy the machine-building plant's demand in metal, previously supplied from Siberia and the European part of the country. In addition, coal mining industry appeared a new production service industry for Khabarovsk Krai.

Significant changes also occurred in the fuel and energy complex of the Far East, for example, in the north of Sakhalin Oblast, the production of natural gas began; in Chukotka Autonomous Okrug, coal mining was started.

Industrial and processing stage with intensively developing service industries (1946-1961): At this stage of the Russian Far East economic development, the State Economic Development Strategy was implemented aimed at the quickest liquidation of war damage, achievement of the pre-war level and further development of the productive powers. To solve the issue of transition to the civilian economic development, the country returned to the five-year plans as the primary form of sectoral and territorial planning and management.

Economic reforms were the most important feature of the stage which were associated with the transition to the new principles of planning and economic management. Economic administrative districts ruled by Economic Councils were established. Industrial and construction enterprises had only two levels of subordination-one part reported to the Council of Ministers of the USSR or the Republic and the other reported to the local Councils of Worker's Deputies.

Operational control of the huge economic mechanism conducted by a number of all-Union ministries and departments was very difficult and ineffective. Overdepartmentalization was the main drawback of the

rigidly centralized command economy; it prevented the establishment of normal industrial relations, even within integral compact territories. The system of economic councils was to help solve the issue of the intensification of horizontal ties between enterprises, provide the conditions for integrated development of the territory.

The transition to the territorial principle of management did not only interfere with the normal operation of enterprises but contributed to the improvement of their economic activity, strengthened the production ties in the regional systems of the Far East. For example, in 1957 the companies of the Primorsky Economic Council fulfilled the plan of gross output by 116.8%. As compared with 1956, the volume of gross output increased by 22.8%.

The emergence of new sectors of specialization was one of the most significant changes in the structure of the regional systems. In Primorsky Krai, on the basis of a unique datolite field, the Bor chemical mining enterprise (Dalnegorsk) was established, the boron products used in the production of nuclear equipment and in metallurgy as an alloying element. In Khabarovsk Krai, new tin mining and heavy engineering enterprises appeared, in Amur Oblast, electrical industry companies were established. In the Republic of Yakutia (Sakha), diamond mining was started.

In all regions of the Far East, the building materials industry serving the needs of manufacturing started to produce new kinds of wall materials, concrete products and structures. This is also the period when companies serving the needs of the population were opened such as sewing, footwear factories, bakeries, large meat processing plants, dairies.

Industrial and processing stage with infrastructure development (1962-1991): The government regulation of the economic development process in the Russian Far East which was performed by the Economic Council, was not sufficiently effective. They did not always quickly solve the issues of sectoral specialization, introduction of new technology, etc. which had an adverse effect on the growth of labor productivity. As a result, the return to the sectoral principle of management was performed with the use of the positive aspects of territorial management. In 1965, the government implemented an economic reform which included the following changing the organizational structure of the economy management; the return to sectoral management techniques, the reconstruction of the Union and Union-Republican ministries, strengthening the vertical integration of the economy; improving the management system through a rational combination of sectoral and territorial planning, improving

the balance of the economic mechanism, strengthening the social orientation in planning decisions strengthening economic incentives in production, introducing economic accounting at all levels, including industrial associations which were the focus of all sides of the production process from applied research to implementation of the final product.

The technical equipment of the Far East industry was being improved which contributed to a fuller use of the available factors of production, including the emergence of new industries. In the Far Eastern region, new manufacturing plants, enterprises for the production and distribution of electricity, mining enterprises were constructed.

That stage was characterized by the following changes in the sectoral value added structure of the Far East. There appeared new specialization industries in Primorsky Krai such as aircraft and instrument engineering which required not only a high level of production technical equipment but also highly skilled workforce. In the Far East, another aircraft manufacturing center of national importance (Arsenyev) was formed. In Khabarovsk Krai, a new industry of specialization was created-pulp and paper industry (new wood processing facility in Amursk); in Amur Oblast, it was the heavy engineering.

To meet the needs of the population and production (non-ferrous metal mining) in cheap electricity, in the Chukotka Autonomous Okrug, the only nuclear power plant in the Far East (the Bilibino Nuclear Power Plant) was built. In the north-east of the country, a powerful energy center was created which included the nuclear power station, the Chaun and Anadyr Heat Generation Plants and the State Egvekinot District Power Plant.

The intensification of production in all the constituent elements of the economic structure was the main feature of the stage in the economic development of the Far East. It was supposed to produce an increased influence of all parts of the economic mechanism on production efficiency and the improvement of the economic management quality.

Another peculiarity of this stage was the development and implementation of regional target complex programs such as the complex program of the eastern USSR regions development-the Economic Development Program of the Baikal-Amur Railway Area (Agafonov, 1970; Aizenberg and Sobolev, 1982; Baklanov, 2001). It was a document containing the information on resources, contractors and timing of the whole complex of social, economic, organizational and other activities designed to effectively solve the issue of the USSR's eastern regions development. The use of

natural resources of the southern part of the Far East in the economic turnover was largely associated with the need to establish productive forces in the poorly developed territory. The construction program of the Baikal-Amur Railway supposed the involvement of the mineral, timber and energy resources of the territories adjacent to the track.

The formation and development of Aqua-Territorial Production Systems (ATPS) was another feature of this stage. The spatial structure of the ATPS was presented by the central coastline part which was the main basis of the ocean development as well as coastal and ocean parts and an abyssal continental part (Baklanov, 2001; Minakir, 2006; Baklanov and Romanov, 1991). Functionally, the ATPS was composed of interconnected specialized and service industries. However, the specialized industries in the ATPS were usually represented by the fishing industry, shipbuilding and ship repair, offshore natural resources extraction. The service of this production was carried out by port management, container production, fish netting, electric power and building industry. A good example of such a system was the ATPS which began to form on the basis of oil and gas fields of the Northern Sakhalin Shelf.

Describing this stage of the structural changes, it is necessary to note the intensification of agro-industrial integration, expressed in strengthening the links between the sectors of agriculture, industry, production and social infrastructure. These aspects were reflected in the materials of the May 1982 Plenum of the Central Committee of the CPSU which approved the Food Program of the USSR for the period up to 1990 and the creation of agro-industrial complexes.

The "Guidelines for Economic and Social Development of the USSR in 1986-1990 and for the period till 2000" supposed increasing the production capacity in the eastern part of the country on the basis of advanced growth of the production and social infrastructure industries. For the Far Eastern economic region in particular, the increase in production of non-ferrous and rare metals was planned as well as the priority development of the fuel and power industries, the increase in the catch of fish, the production of high quality fish products.

Industrial and extractive stage with degradation of mining and manufacturing industries and agriculture (1992-2000): At this stage of the economic development of the territory of the Russian Far East, the collapse of the USSR occurred, a number of new independent states appeared and the social and political structure of the Russian Federation changed. As a result of breaking

bonds between the enterprises in the framework of a single national economic complex of the Soviet Union, many Russian companies (including those in the Far East) and their business partners in the CIS (Commonwealth of Independent States) countries were caught in a protracted crisis (Barkov *et al.*, 1998). The socio-economic transformations in the Russian Far East were carried out taking into account the traditional and new, mainly foreign, markets in the Asia-Pacific region. The following economic activities came to the fore: fishing, timber logging, transport, construction, trade, real estate transactions. The foreign labor from China, North Korea, Vietnam was actively used for the development of these industries.

The basis of the region's economic specialization (non-ferrous metallurgy, timber and fishing industry) was laid in the early stages of the economic development of the territory. These industries retained their value in the sectoral structure of value added in the Far East for decades and most effectively fit into the new economic conditions, won their niche in the world markets of the raw materials (Baklanov and Romanov, 1991). However, the relatively effective raw material part of the specialized industries was largely dependent on the fluctuations of world prices such as those of fuel and metals. The fall in global demand for non-ferrous metals (tin, tungsten) had a negative impact on the development of non-ferrous metal industries in the Far East. At that time, the volumes of ore and concentrate production were significantly reduced at all enterprises and some mining companies stopped their work, for example in Chukotka Autonomous Okrug (the Iultinsky and Peveksky mining and processing plants), in Primorsky Krai (Khrustalnensky mining and processing plant), in the Jewish Autonomous Oblast (Khingansky mining and processing plant).

The crisis affected the manufacturing industries, those serving the needs of the population and production. These industries were characterized by the greatest decline in production due to, first of all, the loss of traditional sales markets in the country because of the active role of competitors from the Asia-Pacific region. For example, the domestic enterprises of consumer goods industry could not compete with the cheap goods produced in China, Vietnam, the Republic of Korea. The defense enterprises based in Primorsky and Khabarovsk Krai also experienced great difficulties with government orders. The situation was aggravated by the overall aging of production equipment in the majority of the region's industries, creating a big potential demand for machinery and equipment (including conversion technologies). Only in Amur Oblast, the following enterprises were eliminated: the Blagoveshchensk cotton spinning mill, clothing

factory, the Iskra match factory, the Raichikhinsk glass factory and car repair enterprise. Also, clothing factories were closed in Primorsky Krai. In agriculture, the amount of used farming lands and livestock reduced.

Industrial and mining stage with industrial infrastructure development and further stagnation in manufacturing (2001-2015):

At this stage of the economic development of the Russian Far East, the extractive economic activities, fishing, logging, power generation and distribution, construction, transport and communications underwent preferential development. In 2012, the highest share in the sectoral structure of the value added of the Far East belonged to mining operations (27.1%). In 2013, in the structure of the region's employed population, the share of agriculture, hunting and logging, fishing and fish farming accounted for only 8.9%, mineral extraction employed only 3.4% of the workforce, manufacturing-8.4%, power, gas and water production and distribution-4.6%. Among all the types of economic activity, the largest share of the employed population of the Far East was in wholesale and retail trade-17.1% and 10.3% in transport and communications. Some regions of the Far East had their specifics in the sectoral structure of the employed population. For example, in Magadan Oblast, the Republic of Yakutia and Chukotka Autonomous Okrug, there was a high share of employment in the extractive industries. In Primorsky Krai and Khabarovsk Krai, there was a high share of employment in manufacturing industries.

As well as for the country on the whole, at this stage of the economic development, in the Far East regions high growth rates in industrial production were registered, the situation being due to favorable conditions (primarily, the high prices for the products of extractive industries owing to the sustainable growth of demand for raw materials and fuel) on the world markets. This situation facilitated heavy investment in linear infrastructure, contributing to the development of export industries, including oil and gas pipelines, port facilities, power lines, new power plants, etc (the construction of the Eastern Siberia-Pacific Ocean oil pipeline, a seaport in the Kozmino Basin, the Lower Bureya Hydroelectric power plant).

In 2014, the economic sanctions applied against Russian import of equipment, components, technology, investment restrictions seriously complicated the economic activity in the Far East. In response, the Russian government limited the imports of a number of goods, first of all, certain food and agricultural products. In the process of import substitution, the domestic manufacturers were able to occupy the niche with their

products in the markets of consumer and industrial goods (for example, components for engineering plants).

Industrial and mining stage with development of industrial infrastructure and manufacturing, agriculture, forestry, fishing and fish farming, transport and logistics (2016-2050): In the sectoral value added structure of the Far East, the mining economic activities will retain their importance with the further in-depth and complex (depending on consumer demand) use of local and transit natural resources. The following industries are actively developing using the scientific and technical progress achievements: the mining and smelting cluster on the basis of iron ore fields and metallurgical industries in the Jewish Autonomous Okrug, Amur Oblast and Khabarovsk Krai; the petrochemical clusters based on the local oil and natural gas processing in Sakhalin Oblast and the transit oil and gas in Khabarovsk and Primorsky Krai; the metallurgical clusters based on the non-ferrous metal ore fields in the Republic of Sakha, Magadan Oblast, Kamchatka Krai, Chukotka Autonomous Okrug; the fuel and energy clusters based on the coal fields in the Republic of Sakha and the hydropower resources of Amur Oblast; the fishery clusters in Sakhalin Oblast, Kamchatka, Primorsky and Khabarovsk Krai, Magadan Oblast; the forestry cluster in Amur Oblast, Primorsky and Khabarovsk Krai (Baklanov *et al.*, 2011; Melamed, 2008; Mezentsev, 2010; Minakir, 2006; Minakir and Prokapalo, 2010).

The further development of the manufacturing industries will likely be carried out in the directions providing extractive industries and basic industries (including transport and logistics) with the required equipment (Melamed, 2008; Mezentsev, 2010; Minakir and Prokapalo, 2010; Baklanov, 2012): the shipbuilding clusters in Primorsky and Khabarovsk Krai, Kamchatka, Magadan, Amur Oblasts; the aviation clusters in Primorsky and Khabarovsk Krai; the space cluster in Amur Oblast the automobile cluster in Primorsky Krai the electrical engineering cluster in Primorsky Krai and the Jewish Autonomous Okrug and others.

The strategy of rapid economic and social development requires a comprehensive and complete use of raw materials with the production of various finished products. For example, in the timber industry, the development of mechanical and chemical-mechanical wood processing is necessary in the non-ferrous metallurgy, in situ production of various semi-finished products and finished metals. It is important to maintain the position of Russian companies in the world markets of raw materials (wood, non-ferrous metal ores, diamonds, oil and natural gas, coal). Thus, in the Far East, there is the

need for balanced development of the industries serving production and population as well as specialized industries carrying out mining and refining of raw materials together with production of finished goods. However, these tasks have not yet been solved by either the state-planned economy or the emerging market economy. With these unresolved issues of the territorial production organization, the Far Eastern regions of Russia have come to the beginning of the large-scale market reforms in the structure of the regional economy planned for the period up to 2050.

CONCLUSION

The study presents a historical approach to the study of the features of a territory's economic development. The stages of development have been determined using the sectoral method; the features of territorial and sectoral structure formation have been marked. This method reveals the increasing diversity of the economic sectoral structure, its balance in the Far East of Russia at different stages of its economic development. The largest increase in the diversity of the economic sectoral structure is marked in the soviet periods of state-planned economy. In the conditions of formation and recovery of market relations, the economic sectoral structure in the regions of the Russian Far East is greatly simplified; the mining industries focused on foreign markets receive the preferential positions.

The description of economic development stages by territorial and sectoral associations allows us to fully evaluate the spatial differentiation of economic structures at any given period of time. In general, this approach to analyzing the economic structure of the Far East of Russia can be seen as an important tool in the study of spatial features of regional economic structure transformations.

ACKNOWLEDGEMENTS

The research was supported by the Russian Science Foundation (RNF), grant "Factors, mechanisms and types of structural transformation and modernization of the territorial socio-economic systems of Pacific Russia", no. 14-18-03185.

REFERENCES

- Agafonov, A.T., 1970. [Main Issues of the Industrial Complexes Formation in the Eastern Regions of the Country]. Leningrad Publishing, Russia, Pages: 168 (In Russian).

- Aizenberg, E.B. and J.A. Sobolev, 1982. [Complex Development Programs of the USSR's Eastern Regions]. Ekonomika Publisher, Moscow, Russia, Pages: 126 (In Russian).
- Baklanov, P.Y.A. and M.T. Romanov, 1991. [Territorial Organization Strategy of the Economy of Primorsky Krai]. USSR Academy of Sciences, Far Eastern Branch, Vladivostok, Russia, Pages: 260 (In Russian).
- Baklanov, P.Y.A., 2012. [Pacific Russia: Pages of the Past, Present and Future]. Dalnauka Publisher, Vladivostok, Russia, Pages: 406 (In Russian).
- Baklanov, P.Y.A., A.V. Moshkov and M.T. Romanov, 2011. [Territorial economic structure and economic areas in the long-term development of the Russian Far East]. Bull. Far East. Branch Russ. Acad. Sci., 2: 18-28 (In Russian).
- Baklanov, P.Y.A., 2001. [The Far East of Russia: Issues and Preconditions for Sustainable Development]. Dalnauka Publisher, Vladivostok, Russia, Pages: 144 (In Russian).
- Barkov, Y.E.YU., V.P. Didenko, E.V. Gudkova and P.A. Minakir, 1998. [Economy of the Far East: Five Years of Reforms]. Russian Academy of Sciences, Khabarovsk, Russia, Pages: 263 (In Russian).
- Bogdanova, L.P., 1982. Main Stages of Territorial and Industrial Structures Formation in the Southern Zone of the Far East. In: Territorial and Economic Structures of the Far East, Bogdanova, L.P. (Ed.). Russian Academy of Sciences, Khabarovsk, Russia, pp: 119-135 (in Russian).
- Demyanenko, A.N., 2003. [Territorial Economic Organization in the Far East of Russia]. Dalnauka Publisher, Vladivostok, Russia, Pages: 284 (In Russian).
- Dongarov, A.G., 1990. [Foreign Capital in Russia and the USSR]. Mezhdunarodnye Otnosheniia Publisher, Moscow, Russia, Pages: 168 (in Russian).
- Gladyshev, A.N., A.V. Kulikov and B.F. Shapalin, 1974 [Issues of Productive Forces Development and Distribution in the Far East]. Mysl Publisher Moscow, Russia, Pages: 215 (in Russian).
- Gladyshev, A.N., N.I. Nikolaev, N.M. Singur and B.F. Shapalin, 1971. [Economy of the Far East: Issues and Prospects]. Khabarovskoe Knizhnoe Izdatelstvo Khabarovsk, Russia, Pages: 406 (in Russian).
- Kolosovsky, N.N., 1926. [Economy of the Far East] Planovoe Khoziaistvo, Moscow, Russia, Pages: 35 (In Russian).
- Melamed, I.I., 2008. [Development Strategy of the Russian Far East]. Sovremennaiia Ekonomika i Pravo Moscow, Russia, Pages: 464 (In Russian).
- Mezentsev, V., 2010. [Territory of innovative development]. Ekspert, 15: 97-99 (In Russian).
- Minakir, P.A. and O.M. Prokapalo, 2010. [Regional Economic Dynamics: The Far East]. Russia Academy of Sciences, Khabarovsk, Russia, Pages: 304 (in Russian).
- Minakir, P.A., 2006. [Regional Economy: The Far East] Ekonomika Publisher, Moscow, Russia, Pages: 84 (in Russian).
- Moshkov, A.V., 1988. [Stages of economic complex formation in the Southern zone of the Far East] Geografiia Prirodnye Resursy, 1: 112-119 (in Russian).
- Moshkov, A.V., 2008. [Structural Changes in the Regional Territorial and Sectoral Systems of the Russian Far East]. Dalnauka Publisher, Vladivostok, Russia Pages: 268 (in Russian).
- Romanov, M.T., 2009. [Territorial Economic Organization in Poorly Developed Regions of Russia]. Dalnauka Publisher, Vladivostok, Russia, Pages: 318 (in Russian).
- Sanachev, I.D., 1993. [Far eastern new economic policy Experience and lessons]. Bull. Far East. Branch Russ Acad. Sci., 2: 94-104 (in Russian).
- Shitikov, A.P., 1967. [Khabarovsk our Region Decorate with an Order]. Khabarovskoe Knizhnoe Izdatelstvo.