THE DEVELOPMENT OF KALININGRAD REGIONAL ECONOMY: A NEW STAGE OF RESTRUCTURING

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The Kaliningrad region is developing in complicated exclave conditions, which results in insufficient resilience of its economy to external impacts. There is a need for constant monitoring of the economic situation in the region and the adaptation of the regional strategy to changing conditions.

This article sets out to evaluate the stages of regional economy development and the methods of its modernisation and restructuring in view of accumulated experience in reacting to changes in conditions of regional development.

The authors analyse complex statistical data from 1990—2012 and the modern condition of the Kaliningrad regional economy compared to the national average. The article relies heavily on the results of the survey of specialists working in regional companies.

Russian accession to the WTO and the abolition of certain customs privileges planned for 2016 form the basis for the import substitution manufacturing and will significantly affect the conditions of regional economy development. Implementation of the Strategy for the Socioeconomic Development of the Region will contribute to the innovativeness of economy, its export orientation, development through an increase in labour productivity, and cooperation with both Russian and international partners. It will reduce the dependence of production on imported raw materials and semi-finished produces, as well as its energy intensity. The formation of a new more stable economy will be facilitated through federal support and implementation of a number of regional programmes.

Key words: Kaliningrad region, special economic zone, economy restructuring, regional development strategy
The economy of the Russian Baltic exclave — the Kaliningrad region — has undergone radical restructuring more than once throughout its history [1; 12; 13; 17]. The first period is characterised by the development of a socialistic (command) economy, which had to replace the ruined economy of the East Prussian territory that became part of the USSR after WWII. Not only radical institutional transformations explained by the development of an entirely different economic system but also a fundamental change in the region’s economic specialisation took place at the time. The least affected was the pulp and paper industry, though both suppliers and consumers of the end product changed. Out of a few mechanical engineering companies, only ship repair yards maintained their specialisation. The other remnants of industrial facilities included a destroyed amber factory, small brick factories, and agricultural processing and consumer goods production facilities.

A large fishing industry, a number of mechanical engineering facilities, and new consumer goods and food industry facilities were developed in the Soviet period. Oil extraction was launched. Livestock production became a key specialisation.

By the end of the 1980s, the level of regional economic development reached the national average: industrial production per capita was 10% below and agricultural production was 10% above the national average [16, p. 28]. The disintegration of the USSR and the transformation of the Kaliningrad region into an exclave of the Russian Federation increased the negative effect of the crisis of the 1990s. A decrease in the industrial and agricultural production was more dramatic than in other regions of the country (fig. 1, 2).

![Fig. 1. Industrial production dynamics in comparison to the 1990 level, %](image)

Source: [10; 11].
A lot of industrial facilities closed down. A significant part of the privatised fishing fleet was “re-flagged”. Investment into the companies’ fixed capital radically decreased. At the same time, foreign trade turnover increased dramatically (fig. 3).

**Fig. 2.** Agricultural production dynamics in comparison to the 1990 level, %

*Source:* [10; 11].

**Fig. 3.** Dynamics of foreign trade in the Kaliningrad region in 1992—2012, mln US dollars

*Source:* [10; 11].
The 1990s saw the rapid development of the commercial service industry, predominantly trade. Completely new types of services emerged. International tourists started visiting the region (however, the number of Russian tourists decreased significantly). In order to mitigate the crisis phenomena resulting from the region’s transformation into an exclave, the Federal Target Programme for the Development of the Special Economic Zone in the Kaliningrad region for 1998—2005 was adopted. Nevertheless, only 3% of the allocated funds were received in 1998—2001. The programme was not implemented in full and could not compensate for the region’s economic losses. Thus, on December 7, 2001, the federal target programme entitled “The Development of the Kaliningrad region until 2010” was approved by Governmental Decree No. 866. Later, it was extended until 2015. In 2002—2011, only the federal budget accounted for 18 billion of the funds allocated for the programme implementation. Significant funds were provided by the regional budget and non-budget sources. The industrial priorities of the programme include, first of all, infrastructure industries that support the development of the regional economy in general and create favourable conditions for investment projects. These industries are transport, energy, communications and telecommunications. Favourable conditions are created for the development of the tourism industry and finding solutions to pressing environmental problems. Special attention is paid to the social sphere — healthcare, education, culture and arts. There are projects aimed at modernisation of commodities production in accordance with the world market requirements.

The crisis of the old economy resulted in an increase in unemployed labour force and created prerequisites for new production facilities. The key factor of their development was the federal law on the special economic zone in the Kaliningrad region (1996), on the one hand, and the end of the economic crisis in Russia (since 1999), on the other hand. Growing incomes of the country’s population resulted in an increasing demand for high-quality products that were produced in the Kaliningrad region on the basis of the raw materials and semi-finished goods imported duty free.

According to the law on the SEZ, a necessary requirement for transportation of such goods to mainland Russia was 30% of added value (15% in case of advanced domestic appliances). Customs concessions granted to the companies operating on the principle of partial import substitution more than made up for their losses incurred in transporting the produce to mainland Russia through foreign countries. Manufacturing of such goods and their transportation to other Russian regions rapidly developed.

Industrial production largely based on customs concessions emerged in the region. Companies working in such conditions have, as a rule, a low capital-labour ratio (table 1). Gross output per employee is rather high. However, it does not hold true for added value (table 2).
### Table 1

#### Distribution of fixed assets and capital-labour ratio by industry in the Russian Federation and the Kaliningrad region in 2011

<table>
<thead>
<tr>
<th>Industry</th>
<th>Distribution of fixed assets by industry</th>
<th>Capital-labour ratio, % of the national average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>KR</td>
<td>RF</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Agriculture, hunting, forestry</td>
<td>2.6</td>
<td>3.1</td>
</tr>
<tr>
<td>Fishing and fish farming</td>
<td>0.7</td>
<td>0.1</td>
</tr>
<tr>
<td>Mineral extraction</td>
<td>4.7</td>
<td>10</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>11.3</td>
<td>8.9</td>
</tr>
<tr>
<td>Electric power generation and transmission, and gas and water supply</td>
<td>9.4</td>
<td>7.4</td>
</tr>
<tr>
<td>Construction</td>
<td>2.4</td>
<td>1.6</td>
</tr>
<tr>
<td><strong>Total for industrial production</strong></td>
<td>31.1</td>
<td>31.1</td>
</tr>
<tr>
<td>Trade</td>
<td>1.7</td>
<td>3.5</td>
</tr>
<tr>
<td>Hospitality</td>
<td>0.4</td>
<td>0.6</td>
</tr>
<tr>
<td>Transport and communications</td>
<td>33.7</td>
<td>26.5</td>
</tr>
<tr>
<td>Finance</td>
<td>2.2</td>
<td>2.4</td>
</tr>
<tr>
<td>Real estate industry</td>
<td>20.4</td>
<td>23.8</td>
</tr>
<tr>
<td><strong>Total for commercial services</strong></td>
<td>58.4</td>
<td>56.8</td>
</tr>
<tr>
<td>Public administration and military security, welfare</td>
<td>3.4</td>
<td>4.8</td>
</tr>
<tr>
<td>Education</td>
<td>2.9</td>
<td>2.8</td>
</tr>
<tr>
<td>Healthcare and social services</td>
<td>2.3</td>
<td>2.3</td>
</tr>
<tr>
<td>Utilities, other social and personal services</td>
<td>1.9</td>
<td>2.2</td>
</tr>
<tr>
<td><strong>Total for non-commercial services</strong></td>
<td>10.5</td>
<td>12.1</td>
</tr>
</tbody>
</table>

*Source: [4; 9; 18].*

In most industries, the added value production per an employee (which can be interpreted as the productivity of labour) in the Kaliningrad region is lower than the national average. The gap is especially large in mineral extraction, finance and the real estate industry. It is self-evident, since the scope of mineral extraction in the Kaliningrad region is incomparable to the regions specialising in raw materials. Similarly, the scope of financial and real estate activities in the region is much more limited than in other large regions (Moscow, the Sverdlovsk region or the Republic of Tatarstan). However, in manufacturing, trade, hospitality, transport and communications, the performance of the Kaliningrad region in terms of labour productivity is also below the national average. Only in agriculture (due to natural prerequisites), the fishing industry and fish farming (which is explained by the earlier economic specialisation), the performance of the Kaliningrad region is above the national average.
Table 2

<table>
<thead>
<tr>
<th>Industry</th>
<th>Valued added per employee (the national average for all industries = 100 %)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>KR</td>
</tr>
<tr>
<td>Gross value added</td>
<td>78</td>
</tr>
<tr>
<td>Agriculture, hunting, forestry</td>
<td>52</td>
</tr>
<tr>
<td>Fishing and fish farming</td>
<td>173.3</td>
</tr>
<tr>
<td>Mineral extraction</td>
<td>520</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>94.4</td>
</tr>
<tr>
<td>Electric power generation and transmission, and gas and water supply</td>
<td>112.3</td>
</tr>
<tr>
<td>Construction</td>
<td>70</td>
</tr>
<tr>
<td><strong>Total for industrial production</strong></td>
<td>94.1</td>
</tr>
<tr>
<td>Trade</td>
<td>78</td>
</tr>
<tr>
<td>Hospitality</td>
<td>37.1</td>
</tr>
<tr>
<td>Transport and communications</td>
<td>82.5</td>
</tr>
<tr>
<td>Finance</td>
<td>5.2</td>
</tr>
<tr>
<td>Real estate industry</td>
<td>109.8</td>
</tr>
<tr>
<td><strong>Total for commercial services</strong></td>
<td>80.7</td>
</tr>
<tr>
<td>Public administration and military security, welfare</td>
<td>66.7</td>
</tr>
<tr>
<td>Education</td>
<td>37.3</td>
</tr>
<tr>
<td>Healthcare and social services</td>
<td>56.5</td>
</tr>
<tr>
<td>Utilities, other social and personal services</td>
<td>24.7</td>
</tr>
<tr>
<td><strong>Total for non-commercial services</strong></td>
<td>49.5</td>
</tr>
</tbody>
</table>

Source: [4; 9; 18].

Without customs concessions granted by the 1996 law on the special economic zone in the Kaliningrad region, most “import substitution” companies can cease to be or dramatically reduce their production. The instability of companies relying on customs concessions was discussed as early as the second half of the 1990s. For example, the French professor I. Samson who supervised research in the Kaliningrad region called the region’s economy based on customs concessions “fragile” [5, p. 7].

The customs concessions granted by the law cannot be given an unambiguous assessment. On the one hand, they helped to create new companies that manufacture products that are in demand on the Russian market. On the other hand, the federal and regional budgets lose an important source of inflow. Moreover, some companies enjoy both types of privileges (although, according to the law, a company can use only one type thereof). It often happens that the same people own both — the companies involved in manufacturing products on the basis of imported raw materials/semi-finished...
goods and eligible for customs concessions, and the companies registered as SEZ 2006 residents (their total number is 95) after they invested at least 150m roubles into production and thus became eligible for tax exemption. The possibility of emergence of such “hybrid” schemes was discussed before the adoption of the SEZ law in 2006 [2]. As soon as the law was adopted, these concerns became reality.

As it mentioned, companies using customs concessions and manufacturing products for the Russian market are required to generate at least 30% of added value (or 15% in case of advanced domestic appliances). However, there is a way to circumvent these requirements: the lacking added value can be accounted for by customs cleared imported components, which makes it possible to interpret them as produced in Russia in terms of added value. Both schemes are used in car manufacturing, whose output amounted to 250,000 vehicles in 2012 [4].

Experts do not give an unambiguous assessment to the socioeconomic development of the Kaliningrad region. Official statistical data show that the region lags behind the national average. However, certain data confirm a higher level in comparison to the national average (fig. 4).

At the same time, objective information suggests better economic performance, a higher standard of living and greater attractiveness of the region (fig. 5). Of special interest is the positive net migration, which proves that the region is considered as attractive.

![Fig. 4. Regional socioeconomic indicators below the national average, 2012. (GRP as of 2011, RF = 100)](source: [9]).
At the same time, by a number of indicators, the Kaliningrad region lags behind the national average and exhibits certain urgent problems. As of the end of 2013, the regional economy was characterised by:

— low capital-labour ratio (57% of the national average);
— low innovative performance of production (production of innovative goods, works and services per capita is 22 times as low as the national average);
— insufficient labour productivity (78% of the national average);
— low value added requirement (the average of 18% across manufacturing industries);
— a high percentage of “import substitution” manufacturing companies using the 1996 SEZ customs concessions with a low value added requirement (predominantly, in car manufacturing and electric appliance production and, partially, in the food industry);
— dependence of “import substitution” companies on the imports of raw materials and semi-finished goods;
— low economic efficiency of the 2006 SEZ tax exemptions, which resulted in only 9,100 new jobs, whereas the contribution of the 95 SEZ residents to the regional budget equalled the amount of budget concessions (4,400m roubles as of 2012);
— low financial potential of the region and dependence on external (Russian and to a lesser degree foreign) investment;

\[1\] For initial data see: [4; 6; 9; 18].
— investment made by the state (also in the framework of the federal programme for the region’s development until 2015) rather than by private companies;

— dependence of regional businesses on debt financing, which significantly exceeds internal sources;

— the use of “hybrid schemes” by local manufacturers enjoying both tax exemptions and customs concessions;

— low contribution of local economic entities into the regional budget;

— most business people’s reliance on public support more than their own efforts.

One can speak of the “fragility” of the region’s economy, its dependence on external factors and the need for restructuring. The restructuring should include the closing or modernisation of enterprises characterised by low efficiency and the engagement of their former employees in developing new production facilities and increasing the role of manufacturing industries, transport, and tourism.2

Over a rather short historical period, the economy of the Kaliningrad region underwent serious transformations caused by changes in the external conditions of regional development.

1. 1945—1991. The period of command economy (the Soviet period) saw partial restoration of the economic potential damaged by WWII and the creation of an industrial and agricultural economy of the national average level with a focus on fishing, mechanical engineering, pulp and paper, and meat and dairy industries, as well as livestock breeding and overseas transportation.

2. Since 1992 — a period of transitional and, later, market economy.

2.1. 1992—1998. A steep decline in the traditional regional industries accompanied by the development of market relations, small enterprises and the modernisation of commercial services industry.

2.2. 1999—2007. While the national economy was recovering from the crisis, the Kaliningrad region — due to the customs concessions granted by the SEZ law — rapidly developed import substitution, i.e. the manufacturing of goods from imported raw materials and semi-finished goods designed for the Russian market. Residential construction increased. Trade, transport and tourism started to develop. Maintenance of Russia’s foreign economic ties became an increasingly important function.

2.3. The global economic crisis of 2008—2009 had an adverse effect on the region’s economic development. The import substitution assembling industry was affected, and trade turnover decreased.

2.4. In 2010, the region’s economy started to recover from the crisis. However, in 2012, the economic development decelerated as a result of global negative trends also characteristic of the Russian economy as well as the changes in the regional economic conditions that are expected in

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2 For the assessment of features, problems and potential development trends see: [1; 2; 6; 15—17; 19; 20].
2016. The unfavourable external conditions require structural changes in the regional economy that will be able — using the tax exemptions granted by the SEZ law — to reduce the effect of the exclave position of the region on its economy.

All expert evaluations of the prospects of regional economy emphasise the problems that will be faced by most manufacturing companies after the abolition of customs privileges. These privileges account for the import substitution orientation of most regional companies at the moment.

Although customs concessions for goods imported for regional consumption will not be abolished, exports of imported raw materials and semi-finished goods to the markets of the Customs Unions will be liable to customs duties. Thus, different scenarios of further development of the region’s economy are being considered. Among other measures, they consider the preservation of the existing privileges, the provision of compensation to the companies depending on such privileges and the introduction of new privileges (for example, the abolition of VAT). In any case, there is a need for a more detailed strategy of the region’s socioeconomic development that will ensure the long-term stability of regional economy.

At the same time, it is important to preserve the balance of the indicators of socioeconomic development. It is especially important to take into account a scientifically justified forecast of labour force balance in order to avoid a demand for employees that cannot be met by the current migration inflow. Otherwise, it will result in an increase in the number of migrant workers who predominantly arrive from Central Asia and work illegally.

The improvement of regional development management requires the application of new forecasting methods. To this end, the regional government is introducing an economic and mathematical model that makes it possible to take into account long-term trends in the development of economy and changes in its structure as well as to systematise numerous regional socioeconomic indicators. Alongside this model (which is being introduced in many regions of the country), a balance model of long-term regional sustainability — which can be used both separately to forecast the socioeconomic development of the region and in combination with the above mentioned model — is being developed in the Kaliningrad region with the help of IKBFU scholars.

The balance model of long-term sustainability includes:
— a model of external and internal commodity flows in the Kaliningrad region;
— a predictive demographic model coupled with a model of prospective balance of regional labour resources;
— a model of regional financial flows.

The developed model was tested. Three scenarios of regional development were constructed for a period until 2018: “import substitution” (a conservative inauspicious variant), “economic modernisation” (corresponds to the objective of the state regional programme drawn up by the regional government) and “export orientation in the local zone format” (the most effective scenario that requires additional decisions to be made at the federal level).
These scenarios are based on calculations for eight variants of demographic development (the differences lay in net migration and age-specific birth rates). Balance of labour resources by industry was calculated for three scenarios (zero net migration, and positive net migration of 4 and 8.7 thousand people).

The state programme “Socioeconomic Development of the Kaliningrad Region until 2020” was adopted at the beginning of 2013. Its key objectives include:

— dynamic socioeconomic development of the Kaliningrad region based on the advanced development of competitive sectors of regional economy;
— modernisation of the region’s utility, transport and social infrastructure;
— development of a multimodal transport and logistics zone;
— development of a research and educational system on the basis of the Immanuel Kant Baltic Federal University;
— improvement of investment climate;
— creation of new economic development centres and industrial parks including efficient agribusinesses;
— an increase in the tax and non-tax revenues of the consolidated budget of the Kaliningrad region;
— development of the region’s recreational potential [3].

The key mechanism of the state programme implementation will be the new federal target programme for the development of the Kaliningrad region until 2020. The draft was approved by the federal Ministry of Economy in January 2014. As of today, the earlier adopted regional development programme until 2015 is still in effect [14].

The regional government has also prepared one more draft state programme for the Kaliningrad region — “Economic Modernisation” [8]. It is designed to unlock the potential of the region to ensure its sustainable and dynamic development.

The adoption of new federal and regional programmes creates prerequisites for the necessary adjustments to and successful implementation of the existing Strategy for the socioeconomic development of the Kaliningrad region [13]. It will make the economy more innovative, develop its export orientation, increase labour productivity, and facilitate cooperation with both national and international partners. There is a need to reduce its dependence on imports of raw materials and semi-finished goods as well to make local industries less material- and energy-intensive.

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