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REGIONAL ECONOMY

AN ASSESSMENT OF THE ECONOMIC PERFORMANCE OF THE EU BALTIC REGION STATES

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mark, Finland, and Sweden) and Eastern European countries (Poland, Latvia, Lithuania, Estonia) during the integration of the latter states into the EU. Performance dynamics is analyzed for eight EU Baltic Sea Region countries. Three Russian Baltic regions constitute a control group. The authors conduct a production-function-based comparative analysis of development dynamics in individual countries to identify distinctive features for each group. Despite a rapid growth of Eastern European economies, the difference between the region's eastern and western countries remains substantial. Economic convergence between eastern and western EU countries in terms of investment does not lead to convergence in labour efficiency. The capital-labour ratio and the growth rate of labour efficiency in the Russian Baltic are close to the Eastern European average. Keywords: European Union, integration, production function, efficiency, investment

The paper explores how the common

economic space, a product of the EU, influ-

enced the economies of the Baltic Sea Re-

gion states in 1995–2015. The authors in-

vestigate changes in the economic performance of the developed (Germany, Den-

Introduction

The integration of national economies into the common economic space helps EU member countries remove barriers for a free flow of people, capital, goods and services, thus promoting economic development and enhancing the standards of living. The most vivid example of such an association, arguably, is the foundation and enlargement of the European Union (the EU). The effects of the European integration on the development of the EU member states have been studied quite profoundly, given the fact that 22 counties have joined the EU since its foundation. [1-6]. Owing to a number of peculiarities, the accession of Central and East European countries to the EU in 2004 deserves special attention. Firstly, 10 new countries simultaneously join the EU. According to the World Bank, this accession added another 103 million consumers to the common pan-European market, enlarging the total EU population to 490 million people. Secondly, the new member-countries lagged considerably behind in the level of their economic development. There are numerous research publications exploring both the forecasts related to this enlargement and its consequences [7-11]. Researchers have mostly focused on the problems of investments [12; 13], migration, employment and unemployment [7, 14–16], which were aggravated by the global financial crisis [17]. The geographic scope of the studies varies from individual EU countries [16, 18] and groups of countries [19, 20] to the entire EU, and the level of territorial division can be down to NUTS 3 [21; 22].

EU enlargement creates new opportunities for the development of both old EU members and new ones. However, there are certain problems caused by each enlargement. More developed member states benefit from getting access to a bigger market [23], and enjoy a wider range of opportunities for supplying their goods to new member states; there is an influx of migrants [7] willing to work under less favourable conditions, although the latter factor may lead to a rise in unemployment. Unemployment can also be caused by the translocation of some production facilities and the migration of investment to less developed EU countries offering lower salaries [14]. On the other hand, by moving low-efficiency enterprises to countries with lower production costs, the developed countries release resources for more competitive high-efficiency industries [24; 25].

Yet, there is another effect to be considered: having received access to new markets, a substantial enlargement of investments in EU member states leads to an increase in prices and salaries, which affects the competitive capacity of the countries' goods in global markets. This was the situation observed after the EU 2004 enlargement in Portugal, Ireland, Greece and Spain, where the growth of salaries entailed heavy budgetary expenditures and shattered the balance of the state budget [26].

Less developed new member states gain a wider access to intellectual and financial resources, most importantly state-of-the-art technology, through foreign investments [11]. This manifests in the construction of new production facilities and the renovation of the existing ones. Unemployment is reduced by migration of the population to the better developed EU countries [7; 15]. Still unemployment may grow since some enterprises are shut down having become uncompetitive after the abolishment of customs duties and the arrival of higher-productivity industries offering fewer jobs. Let us remark that the accession of East European countries to the EU gave an impetus to the development of the new member states: the volume of foreign investments increased and their economic growth rate accelerated. However, after a period of initial growth, the economic growth rates sharply declined, when the share of direct foreign investments reached 7—15% of the total volume of investments [27].

The baseline for this study is the following: the enlargement of the EU in 2004 essentially completed the formation of the common economic space in the Baltic Sea region, but the countries of the region differed substantially in their development levels. The better developed Western and Northern countries joined the EU in the 20th century (Germany, Denmark, Sweden, Finland), and the less developed Eastern countries - in 2004 (Poland, Estonia, Latvia, Lithuania). The analysis of a limited number of countries that have similar natural and climatic characteristics but differ in the level of their economic development can demonstrate in more detail the effects of European integration. This can also be done by comparing them with the Baltic regions of the non-EU Russia. This analysis is important for Russia as well, especially in connection with the foundation of the EAEU.

It was in the 1990s that the East European countries became more oriented towards establishing active economic contacts with the better developed West European countries. They initiated the process of accession to the EU, which involved harmonization of legislation and other regulations with the EU standards. Accession to the EU has had a profound effect on their economies. It would be wrong to assume that the enlargement of the EU to the Russian borders has not influenced the economic development of Russia's border regions, which started participating in the EU programmes such as INTERREG, CBC and others. It is therefore expedient to assess how the establishment of the common economic space has influenced the economy of the Russian Baltic Sea region (BSR). An important remark concerning the territories we include in the Baltic Sea region is that this study covers the eight above-listed EU countries, while the Russian BSR includes only three administrative regions (St. Petersburg, Leningrad and Kaliningrad Regions) that border on the Baltic Sea, although some other studies included five administrative regions in this group [28].

This paper focuses on the analysis of changes in the economic performance of BSR countries in the context of EU enlargement and improvements in the economic performance of some of the countries in this region. The article offers a comparative analysis and describes equations assessing and comparing the efficiency indices of the EU member states having similar natural and climatic conditions but different levels of economic development and the Russian BSR. Previous studies have analyzed the effect of the integration on labour productivity, capital-labour ratio and unemployment dynamics, as well as the relationship between labour productivity and unemployment in the EU at large and in various groups of countries, including those that had simultaneously jointed the EU [1; 20; 29]. In this case, the eight countries chosen for the analysis were considered separately. The approach to estimating the effect of the integration and the main methods and models of data analysis were suggested previously [29]. They were specified and augmented for this study.

Data

This paper analyzes the processes in the Baltic Sea Region in the period from 1995 to 2015. Before 2004, East and Central European countries had been modifying their economies to conform to the EU accession requirements. In research literature there have been only occasional attempts to compare them with the developed countries of 1975—1995. Five out of the eight countries in our study are in the the Euro zone (Germany and Finland since 1999, Estonia since 2011, Latvia since 2014, Lithuania since 2015), but the effect of joining the Euro zone is beyond the scope of this study.

The study assesses economic performance indicators of the eight countries — labour productivity, capital-labour ratio, as well as the ratio of the countries' growth and their growth rates. These indicators were estimated using the data on the gross domestic product (GDP) (for Russian regions — gross regional product (GRP)), investment and employment. The capital-labour ratio is defined as the ratio of cumulative investments (five-year investment aggregate, i. e. the volume of investment in the current year and the four preceding years) to employment; labour productivity is estimated as the ratio of GDP (GRP) to employment (number of people employed).

The data for the study were taken from Eurostat [30] and the WorldBank [31], from the "Eurostat Yearbook" statistical reports [32; 33] and "Regions of Russia" statistical reports [34—37]. The Eurostat database provides the major part of information in a comparable form — in euros and in 2010 prices. To calculate the cumulative investments in EU countries we collected the data on investments since 1991 and converted them to a comparable format using the indexes of physical volume and the share in GDP. For Russian regions, the cost indicators were converted to the comparable 2010 prices via the indexes of physical volume. Since GRP calculations in Russian statistics started in 1996, the data on GRP in 1995 were derived from the indexes calculated by N. N. Mikheeva [38]. The indexes were then converted into the Euro by the average weighted exchange rate for 2010 according to the Central Bank of Russia [39].

First, we analyzed the dynamics of primary and secondary indexes, plotted graphs, determined country-specific features, major tendencies and points at which they changed, compared the dynamics of the indexes in EU countries and the Russian BSR. The analysis shows that labour productivity in Germany has changed very little; its growth in Denmark and Finland is only slightly higher. Sweden is the only exception: this indicator increased approximately 40% over the period in question, i. e. on average 1.7% annually. At the same time, the rise of labour productivity in East European countries has been 2—2.5-fold, i. e. more than 4% per year on average. The annual growth was lower only in Poland — 3.6%. The average yearly growth rate in the Russian BSR was also 4%. This growth was due to new production facilities and introduction of new technologies. The growth rates in the East European EU member states and the Russian BSR were similar.

The probable reasons for the low growth of labour productivity in Germany are the following ones: investments in the country's economy has increased very little for the last 20 years and the capital-labour ratio (determined on the basis of the total amount of investments in the last five years) has increased less than 5%. The growth of the capital-labour ratio in the other three developed countries was higher — roughly 1.5fold. The growth of this index in the less developed countries was very high, ranging from 2.6-fold in Latvia and the Russian BSR to nearly 3.5fold in Estonia and Poland. It was the increase in investments that boosted labour productivity. If, however, we look at changes in the output/capital ratio, defined as the ratio of GDP to cumulative investments, Germany's economy proved to be the most effective: the country's GDP was growing faster than the cumulative investments. In the majority of the EU countries and the Russian BSR the increase in investments somewhat exceeded the GDP growth, this gap being the biggest in Poland and Estonia, and the output/capital ratio in these countries dropped by more than one third.

Another parameter considered was the ratio between labour productivity growth over 20 years and the capital-labour ratio averaged over this period (or in specific years). It is used to measure the degree to which the investment input influences the growth of labour productivity. Here again we see a significant divergence between the developed countries and the East European countries. Germany demonstrated the worst results. Denmark and Finland's indices were roughly one and a half times higher, and those of Sweden were twice as high. In Germany, it takes seven times more investments per an employed person than in Lithuania to achieve the same growth in labour productivity. It turns out that in developed countries, especially in Germany, the efficiency of new investments for building up the capital-labour ratio is low. New capacities develop out the existing facilities with a high capital-labour ratio, and a lot more investments will be needed to acieve even a slight increase in labour productivity as compared to Latvia or Lithuania. However, the situation with growth rates is somewhat different due to the differences in labour productivity levels.

The structure of the economies of the countries in question changed markedly over the study period (1995—2015). The share of manufactur-

ing decreased in the majority of the Baltic Sea Region countries. The exceptions are Germany and Lithuania, where it increased. In Germany, this share remained stable through the entire period except for 2009, the year most affected by the global financial crisis. The share of manufacturing dropped the most significantly in Finland (by 8.4 percent) after 2009. Among the more recent EU member states, the heaviest decline of this index was observed in Latvia (7.5 percent). The share of manufacturing in the Russian BSR decreased insignificantly, approximately as in Denmark and Poland. It is generally slightly lower than in Germany but higher than in other countries. The share of manufacturing is the lowest in Latvia.

Methodology

Having analyzed the dynamics of the key parameters for the Baltic Sea Region countries, we moved to plotting the graphs of the primary and secondary economic indexes to determine whether and how they were related. Graphs for individual countries and for the two country groupings (developed countries vs. East European countries and the Russian BSR) are examined. Relying on the analysis of the graphs we revealed the correlation between the indexes, built mathematical models and performed calculations to determine how changes in the efficiency parameters varied among the countries and their groups. Homogenous and non-homogenous Cobb-Douglas functions were calculated for timeseries data for individual countries:

$$y_i(t) = A_i \times k_i^{\alpha_i}(t), \tag{1}$$

$$Y_i(t) = B_i \times K_i^{\alpha_i}(t) \times L_i^{\beta_i}(t) \times \exp(\delta_i \times t),$$
(2)

where: *A*, *B* are constants; $y_i(t)$ is labour productivity in the country *i* in the year *t*; $k_i(t)$ is the capital-labour ratio in the country *i* in the year *t*; α , β , δ are constants; α , β are factor elasticities; δ is the neutral progress rate; Y(t) is the gross domestic product (GDP) or, for the Russian BSR, gross regional product (GRP); K(t) is the cumulative investments (in this paper summed over five years); L(t) is the employment. Factor elasticities represent the change of the resultant index at a 1% increase in the factor. In our case they demonstrate the efficiency of investment — how much the increase in cumulative investments (capital-labour ratio) by 1% will modify the GDP (labour productivity).

Analyzing the data, we investigated the possibility of building a model based on panel data for developed countries and East European countries separately:

$$y_i(t) = A_i \times k_i^{\alpha}(t), \tag{3}$$

where A_i is country-specific and α is cross-cutting.

Standard R statistical software packages were used for the calculations. The analysis of the results permitted comparing the efficiency of the development of the Baltic Sea Region national economies and assessing the potential for its change using production functions (1).

Results of Calculations

We plotted a graph to determine the dependence of labour productivity on the capital-labour ratio. The graph shows that the division into the two groups is justified (Fig. 1). The differences between the two groups are conspicuous, while distinctions inside the groups are much smaller, although still present among developed countries: labour productivity in Denmark is notably higher while the capital-labour ratio is the same. In the developed countries, both indexes have been significantly growing but they are slightly higher in Germany. The curves representing three countries are almost parallel, and Germany demonstrates a relatively minor increase in capital-labour ratio and yields a greater increase in labour productivity.



Fig. 1. Capital-labour ratio and labour productivity in BSR countries

The curves for East European countries are nearly coincident, with somewhat higher indexes in Estonia and the rest of the countries and regions falling slightly behind but following the same pattern. The Russian BSR lags slightly behind East European countries, and this gap is due to the smaller amount of investments and their lower efficiency.

The correlation between labour productivity and capital-labour ratio has been changing. One can say that in the 2010s East European countries nearly reached the level of labour productivity and capital-labour ratio observed in the developed countries in the early 1970s, but the tendencies were somewhat different. If the curves are extrapolated they will cross but not continue each other. After catching up with the developed countries in the capital-labour ratio, the East European countries will still have a lower labour productivity. The developed countries had a capital-labour ratio of around 40,000 euros in the 1960s, but their labour productivity was growing at a higher rate. Today, there has to be a much greater increase in the capital-labour ratio to gain in labour productivity, and a build-up of investment volumes will yield a far lower increase of labour productivity in East European countries. A change of the path would require a leap of efficiency through major technological changes, transition to groundbreaking technology.

The plot suggests that in addition to equations for individual countries it is possible to make equations for the two country groupings, since the dependence of labour productivity on the capital-labour ratio is similar within each of the groups.

To show the correlation between labour productivity and capitallabour ratio according to the functions (1), for individual countries (2) and for the two groups we plotted another graph (Fig. 2), investigating the change in labour productivity and capital-labour ratio since the baseline year. The initial year for the Northern and Western countries was 1975, and for the East European countries — 1995 (their earlier data are not comparable). The graph demonstrates that the growth of labour productivity in the East European countries over 20 years was roughly the same as in the developed countries over 40 years, but in order to attain it the former had to increase investments far more substantially, with a much lower return.

To estimate the output elasticity of cumulative investments calculations were run by the formulas (1) and (2) for the eight countries and the Russian BSR. It turned out that the elasticity was near to 1 for all the developed countries. For the East European countries the elasticity was on average one and half times lower. Elasticity measures the percent by which labour productivity will increase if the capital-labour ratio (cumulative investments per one employed person) is increased by 1%.



Fig. 2. Changes in capital-labour ratio and labour productivity in the Baltic Sea Region countries (1975—2015 for developed countries, and 1995—2015 for East European countries)

The plots show that calculations with the panel data can be run for the two sectors separately — for four Western countries and five East European countries, including the Russian BSR. In this case, factor elasticities are constant, and free terms are country-specific. Table 1 shows the results of the calculations by the formulas (1) and (3).

The results demonstrate a high efficiency of the Western countries the factor elasticity is almost 1, i. e. a 1% increase in the capital-labour ratio (cumulative investments per one employed person) yields a nearly equal increase in labour productivity. The efficiency of investments in the East European countries is more than one a half times lower, as corroborated by the results of calculations for individual countries. If the investments in the East European countries continue growing at the same rate, their capital-labour ratio will match the current level in the developed countries, but the labour productivity will climb only to the early 1990s level. In all probability, however, the growth of investments will be slowing down, and the East European countries will be catching up at an even slower pace.

Table 1

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	1				
Index	Developed	Developed	East European	East European	
	countries	countries	countries	countries	
lnA	0.186	-0.0002	1.070	1.005	
IIIA	(0.96)	(-0.001)	(15.2)	(23.0)	
a	0.947	0.980	0.634	0.588	
α	(20.2)	(29.1)	(25.5)	(36.3)	
lnA ₁	0	0.065	0	0.226	
$IIIA_1$		(3.1)	0	(8.6)	
lnA ₂	0	0.204	0	0.164	
		(10.2)	0	(6.7)	
lnA ₃	0	- 0.061	0	0.269	
	0	(-3.1)	0	(11.1)	
lnA ₄	0	0	0	0.318	
$IIIA_4$		0	0	(12.9)	
\mathbb{R}^2	0.72	0.87	0.86	0.95	
F	406.6	270.0	648.8	413.8	
Р	0.0000	0.0000	0.0000	0.0000	

Results of the calculations for the Cobb-Douglas production function parameters in equations (1) and (3) based on the panel data for Baltic Sea Region countries (t-statistic in parenthesis)

During 1995—2015, the East European counties raised their labour productivity almost to that in the developed countries: from around 15% to nearly 30%, but the lag in absolute numbers increased.

Having examined the approximation plots, we can see that the free term A_i demonstrates the efficiency of the countries in comparison to each another, and the countries can be ranked in the following way (Fig. 3). The capital-labour ratio being equal, the country with a higher coefficient A_i will have a higher labour productivity. Among the developed countries, the highest efficiency was shown by Denmark, followed by Germany, Sweden, and Finland. In the East European group, the efficiency was the highest in Poland, followed by Lithuania, Estonia, Latvia, and the Russian BSR. The worst results in each of the groups were demonstrated by the countries where the share of manufacturing declined the most (Finland and Latvia). The highest efficiency, on the other hand, was observed in the countries with a slight reduction in the share of manufacturing (Denmark and Poland).

Several formulas (1) were used to predict changes in labour productivity until 2035. In the optimal scenario for the East European countries, provided the average rate of increase in investments is maintained, Estonia will catch up with developed countries in terms of the capital-labour ratio, Poland will match their level of 2015, and Lithuania — the level of 1995. In terms of labour productivity, however, they will only get to the level demonstrated by developed countries in 1990. Latvia and the Russian BSR will by 2035 match the 1995 level of the capital-labour ratio of developed countries, but their labour productivity will be 1.5—2 times below the 1995 level of developed countries. In reality, however, the rate of increase in the capital-labour ratio in developed countries has on average been quite steady since the 1970s, whereas in East European countries it has been gradually declining towards the rate observed in developed countries, i. e. 2—3% a year, on average. Hence, the gap in labour productivity levels will be growing.



Fig. 3. Observed (gray dots) and estimated (black dots) data obtained from formulae (3) for developed (A) and the East European (B) countries; equation parameters are shown in Table 1

Discussion

The comparative analysis of the development of the Baltic Sea Region countries that joined the European Union (EU) at different times and the Russian BSR showed that although the national economies of the East European countries have been rapidly growing, they still lag behind the developed countries and the differences between the two groups of BSR countries remain substantial. The translocation of the not so new facilities and technologies to the East European countries has resulted in a situation where in spite of the rapid growth of investments their efficiency is much lower than in the developed countries. Catching up gradually with the developed countries in terms of investment volumes, the East European countries are reducing their lagging behind in labour productivity very slowly. The growth of the capital-labour ratio being equal, the developed countries demonstrate a much higher growth in labour productivity. By drawing the production functions for countries individually and for groups of countries we compared the efficiency of the economic development within each group of countries and ranked them. The Russian BSR proved to be quite close to East European countries in its development efficiency, although lagging behind slightly.

One should remark that within EAEU Russia is a technological leader, exporting its technology to other EAEU countries. Given sanctions, the flow of the latest technology from developed countries to Russia is impeded, which means that innovation projects should be given more support to accelerate the increase in labour productivity for sustainable growth of the economy.

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THE EXTERNAL ECONOMIC FACTOR IN THE DEVELOPMENT OF NORTHWESTERN REGIONS: INSTITUTIONAL SUPPORT AND AN IMPACT ASSESSMENT

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This research is warranted, since the Northwestern Federal District accounts for a significant proportion of Russia's exports. The study aims to reveal the connection between the federal district's external and internal economic development and to identify the extent to which institutional support for international economic cooperation facilitates brisk international trade. The authors consider international trade from the perspective of its procedural and institutional components. The study stresses dependence between the total international trade and internal economic performance of Russia's North-West. Another focus is an analysis of institutional support for the development factors and the levels and areas of international economic cooperation. The analysis shows that the Northwestern regions' external and internal economic development is interdependent and there is considerable support for international cooperation at different levels and in different areas. To a degree, this is explained by the federal district's geographical position and transport connections, the 'Nordic' character of the economy shared by the Russian and neighbouring territories, and the multitier nature of the institutional framework for international economic cooperation in the international region.

Keywords: external economic development factor, institutional support, Russia's North-West, international interregional cooperation, Nordic Europe, features of Nordic regions

Introduction

Home to 9.46% of Russia's population, the Northwestern Federal District (NWFD) accounts for 9.85% of the country's total area. In 2016, the district ranked first on its contribution to Russia's international trade (14%), followed by the Volga (10.2%) and Siberian (7%) federal districts (calculated based on [24]). In 2015, the top 200 of Russian exporters featured 28 companies from the NWFD (again, 14%).

What is the connection between the district's economic development and international trade? How does brisk international trade affect the district's economic development? What encourages Northwestern regions to take an active part in international economic cooperation? We can safely assume that there is such a connection and that the driving force behind the regions' foreign economic activities is a developed institutional framework for international cooperation.

This article examines how international trade affects the socioeconomic development of Russia's North-West and what institutional incentives exist in the field.

Theoretical Approaches to International Trade as a Regional Development Factor

There is ample research literature on regional foreign economic potential. The effect of interregional cooperation on the socioeconomic development of a region has been studied in detail [1]. A set of performance indicators has been proposed to analyse regional export potential. These include a region's role in the international division of labour, transport system, membership in international organisations, compliance with international rules and standards, etc. [12, p. 8]. S. P. Zemtsov and V. A. Baburin have introduced the notion of 'international economic and geographical position', which identifies the coasts of the Black and Baltic Seas and the Sea of Japan as Russia's most favourable territories [7, p. 126]. A. A. Maltsev has studied international trade in the Urals [5].

Other works evaluate the effect of export on GRP, using the logarithmic function. L. M. Kapustina studies how Russia's openness to the world economy affects national security. The research considers such indicators as changes in GDP, investment as a percentage of GDP, public expenditure on education, the proportion of imports in national consumption, the proportion of low-income earners, income gap, foreign investment as a percentage of total investment, etc. [8, p. 259—278]. Based on international trading performance, experts evaluate risks, threats, and the degree to which border regions benefit from their position [10, p. 5]. Authors have proposed methodologies for assessing the regions' readiness for Russia's WTO membership (L.E. Strovsky [9, p. 3], A.F. Linetsky [11]) as well as techniques for analysing models of regional international economic ties in the context of the possible consequences of the country's WTO accession (E.D. Frolov [30]). V.G. Prudsky, G.A. Demin

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[23, p. 49]; Zh. A. Mingaleva, E. D. Oborina [16, p. 57—59], and others have addressed national institutional support for federal and regional collaborations. For instance, N.N. Evchenko addresses [6, p. 26] international cooperation agreements as an instrument for managing regional international trade. However, the available studies of regions' economic development and international trade are not exhaustive. Moreover, such researches often overlook the features of institutional support for individual regions.

Characteristics of Russia's Northwestern Regions

The following features of the Northwestern regions affect international cooperation at different levels and across different fields:

— the border and coastal position, a high level of development of the transport infrastructure (partly owing to the historical past);

— local cities' considerable research and educational potential — Saint Petersburg is the district's administrative centre with enormous academic potential, Arkhangelsk and Kaliningrad are home to federal universities; this potential translates into international research and academic collaborations [31] and networking;

— the common 'Nordic' specialisation of different industries, which means common problems and, as a result, the need to share experience and expertise in environmental protection, sustainable forest management, etc. Other common issues include the development of transport infrastructure on sparsely populated territories in harsh climates, the need for a developed energy sector or the purchase of fuel (necessitated once again by the severe climate), the ways to develop agriculture in extreme conditions, support for entrepreneurship (particularly, among the youth), training of specialists familiar with the north, the development of tourism in unique locations, and the creation of social infrastructure on sparsely populated territories;

— proximity to the Nordic countries and other EU member states an arena for multilateral international interregional cooperation boasting a strong institutional framework for funding international programmes for sustainable socioeconomic development and transport infrastructure enhancement. The Nordic macroregion strives to develop a transregional identity;

— the diversity of institutional frameworks for international cooperation in the macroregion. The study's geographical focus is the space of international economic cooperation, where Russia's North-West plays an important role.

Russia's North-West has forged economic ties with member states of various associations and macroregions — the Barents Euro-Arctic region (BEAR), the Baltics, the Baltic Region, the Council of the Baltic Sea States (CBSS), the Northern Dimension (ND), and the Arctic Council.

The BEAR brings together Russia, Norway, Sweden, Finland, Denmark, and Iceland. Russia, Denmark, Sweden, Finland, Lithuania, Latvia, Estonia, Poland, and Germany — the countries that have shorelines along the Baltic Sea — comprise the Baltic region. These states, Norway, and Iceland are members of the Council of the Baltic Sea States. Having an even wider membership, the Northern Dimension is a political concept designed 'to draw the EU's attention to northern Europe and to develop cooperation especially with northwest Russia'. At a practical level, the Northern Dimension means 'projects launched by the EU and individual countries, groups of countries, the Commission, organizations, regions and local actors in the ND region'. The ND's geographical area is described as 'an open circle from the Barents Sea to northern Germany. The open circle highlights the fact that Iceland, the USA and Canada as well as seven more remote Arctic regions are also involved in the Northern Dimension' [29, p. 5—7] (fig. 1).



Fig. 1. The geographical scope of alliances in Nordic Europe and their cooperation with Russia

Source: the websites of the Norwegian Barents Secretariat (http://barents. no/en/barents-region-0) [20] and the Council of the Baltic Sea States (http:// www.cbss.org/council/); [29, p. 6–7].

Similar climate and topography, which translated into similar economies, and long-standing economic and cultural ties between Russia's North-West and the bordering regions of Northern Europe necessitate international economic partnership and collaborations, including those at the regional level. In the Barents Sea Region, Russia accounts for most of the territory and population. The area's largest cities are also Russian, which emphasises how important the role of Russia and its NWFD in the region is (table 1).

Table 1

		Proportion	Proportion		
Country	Region	in the region's total	in the region's total		
		population, %	area, %		
	Republic of Karelia	12.0	10.3		
	Republic of Komi	16.3	23.7		
	Arkhangelsk region (and				
Russia	Nenets autonomous re-				
	gion)	22.4	33.5		
	Murmansk region	14.5	8.2		
	Total	65.3 %	75.7 %		
	Lapland	3.4	5.3		
	Kainuu	1.4	1.1		
Finland	Northern Ostrobothnia	7.8	2.1		
	North Karelia	3.1	1.0		
	Total	15.8 %	9.5 %		
	Norrbotten	4.8	5.5		
Sweden	Västerbotten	5.1	3.1		
	Total	9.8 %	8.6 %		
Norway	Nordland	4.6	2.1		
	Finnmark	1.4	2.6		
	Troms	3.1	1.4		
	Total	9.0 %	6.1 %		

The proportion of the Barents Regional Council member states in the region's total area and population

Overall, 5,244 thousand people live in the member states of the Barents Regional Council, on a territory of 1,764 thousand sq km.

Compiled and calculated based on data from the statistics services of Russia [24], Norway (http://www.ssb.no/a/english/aarbok/tab/tab-050.html) [38], Sweden (http://www.statistikdatabasen.scb.se/pxweb/en/ssd/) [37], Finland (http:// www.stat.fi/tup/suoluk/suoluk_vaesto_en.html) [35] (accessed 07.07.2017). The data are relevant as of 2016 (Russia and Sweden), Norway (2013), and Finland (2017). If one considers the BEAR and even the CBSS countries in whole, Russia will account for a significant proportion of the total GDP, population, and exports. As to the Arctic Council, Russia's share is more modest but still significant. The Council brings together the BEAR states and two G7 members — the US and Canada (table 2).

Table 2

Association	GDP, USD (prices current)	Population, people	Exports, m USD (prices current)	
Barents Euro-Arctic region	48.8	84.5	45.8	
Council of the Baltic Sea States	20.3	48.6	14.7	
Arctic Council	6.1	29.3	12.8	

Russia's proportion in selected associations, % (compiled and calculated based on [34; 40])

According to Russia's Strategy for the Development of Seaport Infrastructure until 2030, the capacity of the national Arctic ports will increase 1.6—2.8-fold after the construction of new and the redevelopment of existing port facilities have been completed. This is forecast in the energy carrier/raw material and innovation-focused scenarios, based on 2013 data. The port of Murmansk may become one of the largest transhipment centres for both international trade and Arctic cargoes [28].

A Model for Assessing the Effect of International Trade on Regional Socioeconomic Development

To evaluate the effect of international trade on regional socioeconomic development, it is convenient to divide the international trade factor into procedural and institutional components. The procedural component includes such elements as the degree of development of international trade ties — namely trade in goods, services, and technology, — international investment, and international labour migration. The institutional component comprises international economic cooperation agreements of different levels.

The effect of the procedural component is evaluated by calculating the coefficient of correlation between the region's internal economic development (x) and international trade (y), $(y(x) = y_n(x_n))$. International trade turnover is an accurate measure of international trade. Measures of production, raw material, investment, intellectual, and other potentials were taken into account:

 x_1 — the scale of regional economy (gross regional product, USD million);

 x_2 — specialisation (volume of goods shipped (locally produced by the manufacturing industries), USD million);

 x_3 — mineral resource potential (the region's contribution to the national mineral extraction,%);

 x_4 — labour potential (number of the employed, people);

 x_5 — transportation potential (cargo traffic and cargo moved by road, rail, sea, and air, million tonnes);

 x_6 — technological potential (innovative goods produced and services provided, USD million);

 x_7 — intellectual potential (number of university graduates, people);

 x_8 — internal R&D expenditure, USD million;

 x_9 — entrepreneurial potential (small businesses' turnover, USD million);

 x_{10} — investment potential (fixed asset investment, USD million).

Hence, $y(x) = y_n(x_1, x_2, x_3, x_4, x_5, x_6, x_7, x_8, x_9, x_{10}).$

In view of the dramatic effect the 2008—2009 financial crisis had on development trends, it is reasonable to confine the analysis to 2010—2015.

The coefficient will demonstrate the correlation between y and x. The Chaddock scale will be used: 0.1—0.3 suggests weak, 0.5 moderate, 0.5—0.7 significant, 0.7—0.9 strong, and 0.9—0.99 very strong correlation.

The Case of the NWFD regions: Testing the Model

Our model was tested in the case of the NWFD (table 3). A strong correlation between changes in the selected parameters — namely the GRP, the volume of goods shipped (locally produced by the manufacturing industries), innovative production, and internal R&D spending — and international trade turnover exists in Saint Petersburg. This result confirms the city's position as a major industrial, innovative, and academic centre of Russia's economy. In the case of the Pskov, Novgorod, and Vologda regions, a strong correlation exists between international trade and such measures as the GRP, manufacturing industry produce, the number of the employed, and small businesses' turnover. This proves the efficiency of the current regional SME and industry support policy.

In the Republic of Karelia and the Arkhangelsk and Nenets regions, the strongest correlation was observed between international trade and the contribution to the national mineral extraction. Unlike the other two regions, Karelia has a high volume of goods shipped (produced locally by the manufacturing industries).

Table 3

	GRP	Volume of goods shipped (locally produced by the manufacturing industries)	Contribution to the national mineral extraction	Average annual employment	Cargo moved by road and rail	Innovative goods and services	Number of university graduates (bachelor's and master's degrees)	Internal R&D spending	Small businesses' turnover	Fixed asset investment
Saint Peters-										
burg	0.97	0.98	- 0.19	0.04	0.52	0.92	- 0.16	0.94	0.77	0.47
Republic of Karelia	0.46	0.95	0.98	0.93	- 0.10	0.60	0.87	0.23	0.44	0.62
Republic of										
Komi	0.61	0.80	-0.74	-0.24	0.78	0.63	- 0.58	0.76	0.30	0.63
Arkhangelsk										
region	0.03	- 0.34	0.92	0.82	-0.84	-0.38	0.92	-0.48	- 0.18	- 0.03
Nenets auto- nomous re- gion	0.49	- 0.64	0.78	- 0.97	- 0.39	0.91	no data	- 0.19	0.13	- 0.84
Kaliningrad										
region	0.60	0.81	- 0.56	0.86	0.77	- 0.03	- 0.42	- 0.32	- 0.50	0.02
Leningrad re- gion	0.77	0.76	0.07	0.70	0.64	0.26	- 0.09	0.73	0.85	0.57
Murmansk region	0.52	0.02	0.16	0.01	- 0.17	0.04	- 0.05	0.28	0.37	0.54
Vologda re-										
gion	0.88	0.88	- 0.22	0.14	0.56	- 0.49	0.45	0.64	0.91	0.88
Novgorod re-										
gion	0.92	0.83	- 0.15	- 0.03	0.48	- 0.44	- 0.20	0.67	0.97	0.74
Pskov region	0.94	0.94	no data	0.91	0.84	0.59	0.47	- 0.21	0.98	0.89

The coefficients of correlation between international trade and regional economic development in the Northwestern federal district, 2010—2015 (calculated based on [24])

Overall, a strong or moderate correlation was most often observed between international trade and two of the indicators examined. These are the GRP and the manufacturing industry output (eight out of eleven regions). The second strongest correlation was demonstrated by fixed asset investment (seven regions), cargo traffic (six regions), employment, innovative goods, R&D spending, and small businesses' turnover (five regions each). The weakest correlation is associated with the number of graduates, which is explained by a low birth rate in the late 1980s/early 1990s. Eight out of 10 measures have a strong correlation with international trade. Therefore, there is a close link between economic development and international trade in Russia's North-West. Moreover, an increase in international trade will contribute to the regions' socioeconomic development.

Evaluation of Institutional Support for International Trade in Russia's North-West

Brisk international trade observed in the NWFD prompts a study into the institutional framework and international cooperation tools behind it.

The institutional framework for international economic collaborations in the Northwestern regions was analysed by examining relevant cooperation agreements. A major economic centre, Saint Petersburg boasts firm institutional support for international trade. The city has concluded bilateral cooperation agreements with 93 cities and 25 regions across the globe (http://gov.spb.ru/gov/otrasl/c foreign/statistic/) [27]. The Kaliningrad region, which has entered into 19 international agreements, has a strong institutional framework for international cooperation. The Leningrad region has concluded 16 agreements on economic and other types of cooperation with regional and federal authorities of foreign states (official website of Russia's Ministry of Foreign Affairs [4]). The Republic Karelia has forged partnerships with regions of eleven countries (http:// www.gov.karelia.ru/gov/Leader/inter5.html) [18]. The Murmansk and Arkhangelsk regions also boast a strong institutional framework for international trade. The region's core partners — members of the Council of the Baltic Sea States and the Northern Dimension — belong to the studied geographical area, some of them are located in the Arctic. We classified the international agreements concluded by the NWFD regions and identified the following levels of cooperation.

Multilateral intergovernmental economic cooperation. Russia has entered into a number of international agreements and joined several organisations contributing to Arctic exploration and development. In 2013, Russia instigated the establishment of the International Expert Council on Cooperation in the Arctic — an organisation that brings together research associations from the five polar countries (Russia, Denmark, Canada, Norway, and the US). Obviously, the Arctic initiatives engage the northernmost regions. The Presidential decree of May 02, 2014, N 296, identified the Republic of Komi, and the Murmansk, Arkhangelsk, and Nenets regions as Arctic territories. At this level, Russian territories cooperate within the BEAR, which was established in 1993 to promote international partnerships. The BEAR consists of five working groups that are accountable to the Barents Euro-Arctic Council (http://www. barentscooperation. org/en). The Working Group of Indigenous People also functions in close collaboration with the Council (beac-russia. com/) [20]. Forums are a promising mode of cooperation. The BEAR is working to organise an event akin to the annual Davos Forum.

Bilateral intergovernmental economic cooperation. In this case, institutional support is possible at a regional level. For instance, the Nenets autonomous region is a member of the *Finnish-Nenets Subgroup* of the Interregional Cooperation Working Group under the *Finnish-Russian In*tergovernmental Commission for Economic, Industrial, and Research Cooperation (website of Russia's Ministry of Foreign Affairs [4]).

Agreements of this level include *programmes for Russia-EU crossborder cooperation until 2020.* These are 'South-East Finland — Russia' (Saint Petersburg, Leningrad region, and the Republic of Karelia), 'Karelia' (Russia (Republic of Karelia, Saint Petersburg, and the Leningrad, Murmansk, and Arkhangelsk regions) — Finland), 'Russia — Estonia', and 'Russia — Latvia' (the Leningrad and Pskov regions, Saint Petersburg) programmes.

The Northern Dimension initiative is another regional-level programme promoting transboundary cooperation in environmental protection, transport infrastructure development, and other areas [3, p. 55].

Multilateral transnational international economic cooperation brings together bordering countries within the same region. A vivid example is a collaboration between the regions of the fourteen BEAR member states in the framework of the Barents Regional Council. The BEAR serves as a platform for cooperation at two levels. In the Council, Russia is represented by the Republics of Karelia and Komi, and the Arkhangelsk, Murmansk, and Nenets regions — all constituents of the NWFD. The Council includes three working groups. The Republic of Karelia collaborates with three Norwegian counties. The collaboration is supported by the Norwegian Barents Secretariat. Nineteen projects worth NOK 3.4 m were implemented in 2015 (website of Russia's Ministry of Foreign Affairs [4]).

Another example is the *Northern Forum* — an international nongovernmental organisation bringing together governors of northern regions. The Forum is an observer on the Arctic Council. The Yakutsk Declaration was signed by the Forum in 2015. The signees included Russian territories — the Republic of Yakutia and the Chukotka, Nenets, Khanty-Mansiysk, Krasnoyarsk, and Yamal-Nenets regions — and international partners (Iceland's city of Akureyri and the South Korean Gangwon Province). The focus of the Declaration is the Forum's stronger position in the Arctic Council and closer collaborations with the Council's working groups and structures to solve the urgent problems of Northern development (https://mvs.sakha.gov.ru/mezhdunarodnoe-sotrudniche stvo) [14]. The Nenets autonomous region is a member of the Northern Forum and the Republic of Komi contributes to the implementation of the Forum's projects.

The *Kolarctic* cross-border cooperation programme brings together the Cap of the North (Finland, Sweden, Norway) and Russia's North-West (Saint Petersburg, the Murmansk, Arkhangelsk, Leningrad, and Nenets regions, and the Republic of Karelia) (http://www.ved.gov.ru/interreg_ cooperation/cooperation_program/cooperation_new/) [22].

Some *Euroregions* — transboundary collaborations between European countries — include Russian northwestern territories. For instance, the Kaliningrad region is a member of five Euroregions — Baltic, Neman, etc.

Bilateral international interregional economic cooperation. The Kaliningrad region has signed long-term international cooperation agreements with five Lithuanian, four Polish, and three Belarusian regions. Partnerships have been established with two Danish, two Swedish, and two German territories (website of Russia's Ministry of Foreign Affairs [3]). Since 2008, Kaliningrad has hosted a forum of partner regions. The Murmansk region has signed agreements with Nordic regions — Norway's Finnmark (a 25-year partner of the Arkhangelsk region), Troms, and Rogaland, Finland's Oulu, Lapland, and Northern Ostrobothnia, and Sweden's Norrbotten (http://minec.gov-murman.ru/activities/intercoop/) [15]. The Leningrad region has concluded agreements on economic and other types of partnership with the regional and federal authorities of Finland (two regions), Norway, Belarus (four regions), and other countries (http://inter. lenobl. ru/programm/mprog) [26].

Inter-city international cooperation (sister cities). Saint Petersburg has signed agreements on bilateral cooperation with 93 foreign cities. Cities of the Novgorod, Kaliningrad, Vologda, Pskov, and Leningrad regions are members of the Hanseatic League of New Time, which brings together 187 cities from 16 countries. The League promotes trade, economic, and cultural ties among its members (hanse. org) [36]. Partnerships have been established between bordering sister cities (Narva — Ivangorod, Imatra — Svetogorsk, etc.) that share a common history [2, p. 29—30].

The agreements promote cooperation within the following areas.

Economic cooperation covers a wide range of possible areas — trade, investment, etc. [32]. Economic agreements are concluded at all the levels described above. The BEAR has an intergovernmental group for economic cooperation and an interregional one for investment and economic

cooperation. The Northern Forum launched a programme for sustainable economic development — a network of northern and circumpolar business associations. The Kolarctic programme supports socioeconomic development in the partner regions and promotes the free movement of goods, capital, and people (http://kolarctic.info/ru/kolarctic-2014-2020-ru) [19]. In this context, an important aspect is the development of entrepreneurship and business environment. These issues have been addressed by the Forum of the Kaliningrad Partner Regions. The Republic of Karelia has forged a partnership with the Swedish province of Västerbotten. The Swedish-Karelian Business and Information Centre is a product of this collaboration.

Many agreements cover multiple areas of cooperation. In the case of the agreements between the Murmansk region and Norwegian, Finnish, and Swedish territories, these include trade, industrial cooperation, foreign direct investment, fairs and exhibitions, meetings and symposia, partnerships between associations and foundations, and information exchange (http://minec.gov-murman.ru/activities/intercoop/) [15].

Environmental protection is among the most popular cooperation areas [39]. The BEAR has environmental working groups at both an interregional and intergovernmental level. The organisation also promotes collaborations in the field of forest protection. The Kolarctic programme is committed to solving common problems in environmental protection and healthcare (http://kolarctic.info/ru/kolarctic-2014-2020-ru/) [19]. Within the programme, the Nenets autonomous region submitted an application for an alternative energy project (ARCsynopsis) (http://invest.adm-nao. ru/nao/international/) [13].

In 2014—2015, the Republic of Karelia and Sweden's Västerbotten collaborated in such fields as renewable energy sources, eco-efficient communities, and energy conservation technology.

Transport infrastructure. The BEAR includes an intergovernmental working group on transport and an interregional group on transport and logistics. Euroregions also promote cooperation in the field of transportation. A vivid example is a joint project between the Republic of Komi and Finland. The aim of the project is the construction of a railroad from Oulu to Perm via Arkhangelsk and Syktyvkar (http://www.rkomi.ru/page/424). Another focus of international infrastructure development is the Northeast Passage — Russia's historical integration transportation system in the Arctic. This route was studied by Mikhail Lomonosov, who wrote *A Brief Description of Various Voyages in Northern Seas and Indication of a Possible Passage through the Siberian Ocean to East India.* The 'industrial' marine passage approaching the North Pole was envisioned by Dmitry Mendeleev, who contributed to the design of icebreakers (http://www.muctr.ru/about/history/mendel/). In 2016, a record vol-

ume of cargo was transported via the Northeast Passage — the most impressive results of the Soviet time were surpassed. The State Commission on Arctic Development believes that the cargo carried via the route can increase tenfold in 2014—2020 (http://special.tass.ru/ekonomika/4134 998). LNG production on the Yamal Peninsula, which will be launched in the near future, will contribute to the growing importance of the route (http://special.tass.ru/ekonomika/885773). According to Chinese estimates, the route may handle up to one-seventh of the country's international cargo in 2020. South Korea also strives for leadership in marine transport operations in the polar regions.

Other areas of cooperation include tourism, research and education, support for indigenous peoples, emergency operations (BEAR), culture, etc. Within the BEAR, the Nenets autonomous region is involved in projects in the fields of telemedicine (the 'Innovations for a better life in the High North' Russian-Norwegian project was launched in 2017), environmental protection, support for minor indigenous peoples, tourism, etc. (http://invest.adm-nao.ru/nao/international/) [13]. The Republic of Komi has forged a partnership with Finland to develop agriculture, deer farming, forestry, tourism, etc. (http://www.rkomi.ru/page/424) [17]. Within the BEAR, the Arkhangelsk is going to organise business excursions to Arkhangelsk for the Norwegian members of the Arctic Marine Cluster (https://dvinaland.ru [21]). Committed to excellence in education and research, the region makes a significant contribution to international Arctic studies. Home to the Immanuel Kant Baltic Federal University, the Kaliningrad region also boasts considerable academic potential. Multilateral academic cooperation is the focus of the Barents Cross-Border University Network, which brings together higher education institutions of Canada, Denmark, and Greenland and Russia's Mikhail Lomonosov Northern Arctic Federal University [25].

Conclusions

The above analysis draws a number of conclusions:

— the economic development and international trade are closely connected in Russia's North-West. Brisk international trade will contribute to the region's socioeconomic development;

— there is a strong institutional framework for international trade as a development factor in the Northwestern regions. Covering a wide range of areas, cooperation agreements have been concluded at different levels. The regions are involved in multilateral and bilateral intergovernmental economic cooperation, cross-border collaborations between Russia and the EU, multilateral and bilateral transnational interregional economic cooperation, and inter-city international cooperation. Collaborations in investment, trade, and information exchange extend to a wide range of areas — industry, environmental protection, transport, tourism, science, education, etc.;

— developed international trade and a strong institutional framework for economic collaborations are a product of the NWFD's obvious advantages. These include a unique geographical position, the 'Nordic' specialisation of different industries, shared with the bordering countries (accounted for by the severe climate), proximity to European countries an arena for multilateral international interregional cooperation, and the diversity of institutional frameworks for international cooperation in the macroregion, where Russia's North-West plays an important role.

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THE ROLE OF PUBLIC COMPANIES IN CREATING A PLATFORM FOR ECONOMIC GROWTH IN SAINT PETERSBURG

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Saint Petersburg has a special mission in delivering national development priorities, ensuring sustainable economic growth, and commercializing *R&D. This necessitates research on the* situation in the corporate sector, including investment potential and propensity to invest. The authors estimate the readiness of Saint Petersburg public companies to employ investment tools in delivering development strategies, which determine to a large extent the competitiveness of the city's economy. This article presents a study into the response of twenty local public companies to changes in the economy and their ability to stay efficient and preserve investment potential in volatile economic conditions. The measures taken by the companies are considered as inert and inefficient. The authors surveyed managers from 70 Russian non-public companies, who confirmed the hypothesis that businesses are interested in investing in the earning assets (securities) of other companies to receive interest (dividends). The respondents tend to associate the risk of such investments with the issuer's corporate control and corporate governance, which often fall short of best practices. The authors conclude that there is a need to improve knowledge of corporate relations, which affect competitiveness and the raising of funds necessary for sustainable economic growth in Saint Petersburg.

Keywords: economic growth, strategy for regional socioeconomic development, investment resources, public joint-stock companies, corporate governance

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Introduction

With a population of one million people, Saint Petersburg is the economic centre and the only agglomeration in Russia's North-West. The city experiences scattered industrialisation and economic space polarisation. Saint Petersburg's influence on the national economic space is constantly increasing [1, p. 111; 116].

Buoyed by investment, Saint Petersburg is the fourth strongest regional economy in Russia [2].

The city's coastal location, large sales market, and a number of other factors have translated into investment attractiveness and investment flows from developed economies [3, p. 128]

However, specialists from the Expert RA rating agency report as follows. The current period of growing investment risks has been the longest since observations began in 1996. As a result, the localisation of international consumer goods — primarily automobile — production has turned into a threat rather than a benefit for the city's development. Investment in defence is also past its peak [4].

There is an urgent need to solve the city's economic problems listed in the 'Economic development and knowledge economy in Saint Petersburg' state programme for 2015—2020. These are as follows:

— international rating agencies downgraded the city's credit outlook from stable to negative at the beginning of 2014;

— investment has reduced and investment attraction rates have been unstable.

In Saint Petersburg, the dynamics of fixed investment has always differed from the national average (fig. 1).



Fig. 1. Fixed investment,% of the previous year's level

Based on: Rosstat. URL: www.gks.ru

In 2016, the proportion of public fixed investment dwindled to 16%, as compared to 18—19.5% in the previous years. Whereas, at the national level, the proportion of federal fixed investment fell from 10% to 9%, Saint Petersburg witnessed a dramatic reduction to 5.8%.

To secure leadership in Russia and the Baltic region and to ensure innovative social and economic development until 2030, Saint Petersburg needs substantial investment resources. Only fixed investment should increase from 351.9 bn rouble in 2012 to 3000 bn rouble in 2030. A sine qua non is a more efficient use of investment resources [2].

An important source of finance and investment in the city's strategic development is highly liquid assets — securities and other financial instruments. This warrants an assessment of the investment characteristics of Saint Petersburg corporate sector and companies' ability to attract funds in order to implement their strategies in the corporate capital market and to create conditions for the successful development of promising industries.

The competitiveness, efficiency, and investment attractiveness of the corporate sector — chiefly, public companies — is impossible without a flexible reaction to changes in the economy. Such a reaction consists in asset and business area optimisation, management and control improvement, and information disclosure for shareholders and investors to make informed decisions.

Key to the mobilisation of investment leverages for development is the quality of corporate governance, which defines the system of relations between the executive bodies of the public company and its board of directors, shareholders, and other stakeholders. Within corporate governance, the theoretical structures of management theories localise in organisations through the activities and interactions of individuals. This creates microfoundations for dynamic capabilities [5, p. 4; 6, p. 42].

Constant efforts to enhance corporate governance are required not only to cater for the interests of shareholders and corporations. The World Economic Forum's annual *Global Competitiveness Report* considers the efficacy of corporate boards in calculating the overall competitiveness index [7, p. 46—48]. The recent Ease of Doing Business ranking places Russia 66th of 189. This year, the country has improved its position by 44 places. The regulation of the Government of the Russian Federation of June 25, 2016 No. 1315—3 approved of a 'Corporate governance Enhancement' roadmap. The protecting minority investors index of the Doing Business ranking was chosen as control indicator. Its value should increase from 5.67 in 2017 to 6.67—6.83 in 2018 [8].

Business community contributes to the development of corporate governance and relations. Supporters of the cause are the Centre for Corporate Relations Development and Economic Dispute Resolution nonprofit partnership, the Joint Committee on Corporate Ethics of the Russian Union of Industrialists and Entrepreneurs, the National Corporate Governance Council (NCGC), and other organisations established to develop, introduce, and monitor advanced professional standards in Russian companies. Since 2008, the NCGC has published National Corporate Governance report [9].

However, corporate governance suffers from one of the unsolved problems of Russia's economic policy. This is the persistent lack of coordination between the policy's tools and priorities at national, regional, industry, and corporate levels [10]. Authoritative methods for evaluating regional development — even those that estimate the capability to forecast, and react to socioeconomic crises [11; 12] — do not consider the corporate governance of local companies.

This study aims to evaluate the efficiency of Saint Petersburg public companies, in particular, the contribution of corporate governance to investment attractiveness, economic growth, and the implementation of the city's Strategy for Economic and Social Development until 2030 [2]. Another objective is to identify motives behind the decisions made by shareholders and potential investors and acceptable conditions of shareholding and debt security purchase.

Methods

When discussing conditions for economic growth, it is important to understand what behaviour of economic agents is indicative of their capability to attain long-term goals in a complex, challenging, and changing environment, to stay competitive in national and international markets, and to contribute to the development of regional economies.

The contribution of public companies to ensuring multi-channel financing and attracting private resources to strategic projects and activities is enormous. On the one hand, the shares of public companies are available to any investor in the stock market. On the other hand, companies must be flexible in their reactions to the requests of stock market regulators and both national and international investors to increase the transparency and quality of corporate governance.

In corporate governance, any ineffective or unconscientious action leads to reputational damages in the capital market and limits the opportunities of external investors. Better corporate governance has become key to the investment attractiveness of public companies and, thus, to investment climate and investment activities in a region.

An evaluation of corporate governance can use a different number of components, have a varying level of detail, and employ one or several methods. Below we will consider current practices.

At first glance, when evaluating investment attractiveness, a company's market value and dividends paid seem to be principal criteria for assessing the management efficiency. However, the 'imperfections' of the market and the situation in it affect these parameters. In some cases, guided by a flawed financial model, a company's management makes mistakes when identifying key competences necessary for implementing its strategy [13, p. 26–27].

The EcoDa (European Confederation of Directors' Associations) and IFC (International Finance Corporation) link an increase in governance efficiency to the 'comply or explain' principle [14, p. 6]. In Russia, the document regulating corporate governance enhancement is the Corporate Governance Code of 2014 (referred to as the Code below) [15]. Today, all public companies have to incorporate information on compliance with the Code's principles and recommendations into their annual reports (§ 70.3—70.4 of the bank of Russia Regulation of December 30, 2014, N 454-P On Information Disclosure by Issuers of Mass-Issued Securities. When analysing non-public companies, researchers usually estimate the quality of corporate governance based on the KPI system [16, p. 70].

We believe that corporate governance ratings are largely overlooked as an evaluation tool by shareholders, investors, companies, and regulating authorities. Internationally, many ratings — Governance, Management, Accountability Metrics and Analysis (GAMMA), Transparency and disclosure (T&D) Rating, The Audit Integrity Accounting and Governance Risk rating (AGR®), Board Effectiveness Rating, Institutional Shareholder Services Corporate Governance Quotien (ISS CGQ), and Overall GMI rating — monitor the compliance of public companies governance with requirements for protecting shareholder's rights. Until 2011, the Standard&Poor's credit-rating agencies evaluated corporate governance in Russian companies. The Russian Institute of Directors has calculated the National Corporate Governance Rating (NCGR®) since 2004 [17, p. 80-88]. Experts emphasise that ratings are effective evaluation tools. They are targeted, comprehensive, easily adjusted, representative, easy-to-interpret, independent, frequently updated, and relatively cheap to calculate [18, pp. 19, 89]. Business communities' lack of interest in corporate governance as an evaluation tool deserves a close study.

This article evaluates corporate governance in 20 out of 85 Saint Petersburg public companies from a perspective of an investor. The study uses information from the companies' official websites, the National Settlement Depository, the Moscow Exchange, Finam Holdings, and the SPARK system by Interfax.

We surveyed 70 managers from Russian non-public companies. The questions concerned experience in attracting investment, future plans, and investment requirements. The goal was to understand to what degree business is interested in investing in the assets (securities) of other organisations in order to receive income (dividends) from investment projects. Another objective was to assess the prospects of public companies attracting investment through issuing corporate obligations and shares.

Findings

The turnover of seventeen of the surveyed companies (with the exception of Bank Saint Petersburg, Vitabank, and Gazpromneft) accounts for 40.9% of Saint Petersburg's gross regional product.

The surveyed companies operate in the following industries:

— production of turbines (Power Machines);

— production of gas turbines (except turbojets and turboprops) (Proletarsky zavod);

- production of spacecraft and aircraft parts and equipment (Techpribor);

 production of engines (excluding aircraft, automobile, and motorcycle engines);

— production of communications equipment (Zvezda);

— production of communications (Zavod Volna);

— power generation (TGK-1);

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- power transmission and connection to distribution lines (Lenenergo);

— fixed telephony (Rostelecom);

- wholesaling of solid, liquid fuel, and related goods (Gazprom Neft);

— wholesaling of automobile parts and equipment (excluding representatives) (Rollman Group);

— securities management (Arsagera management company);

— monetary intermediation (Bank Saint Petersburg, Vitabank);

— residential and mixed use development (Metrostroy);

— testing and analysis of integrated mechanical and electric systems, energy inspection (Federal Testing Centre);

— production of cereal flour (Leningrad Kirov Baking Factory, Petersburg Flour Mill).

Svetlana, Inteltech, and Radiosvyaz public companies focus on R&D in natural sciences and technology. Techpribor, Zvezda, Power Machines, Proletarsky zavod, and Volna consider R&D as an auxiliary function.

Most of the companies studied are leaders in innovation in such fields as:

— civil and military aircraft (Tekhpribor);

high-speed diesel engines within the power range of 400—1,700 kW (Zvezda);

— NPP turbines, including low-speed powered turbine units of a power of up to 1.5 GW, supercritical and ultra-supercritical steam turbines of a power of above 660 MW, sustainable and efficient water turbines, and related equipment (Power Machines);

— pumps for nuclear power plants (Proletarsky zavod).

The Techpribor public company and Zavod Volna R&D company are ready to expand the national import substitution programme through manufacturing electronic component that were earlier imported from NATO states (fuel measurement and alignment units, on-board engine control systems, fuel management systems, and data collecting and processing units).

Tables 1—4 show selected institutional characteristics of the public companies surveyed.

Table 1

Desister	Number	%
Register	of companies	of the total*
Monopoly Register of the Federal antimonopoly		
Service	4	20.0
List of Strategic Enterprises	1	5.0
OAO list according to the Regulation of the Go-		
vernment of the Russian federation N 91-R ('golden		
share')	1	5.0
List of essential companies	2	10.0
Defence industry registry	5	25.0
Registry of accredited testing laboratories (centres)	2	10.0
Registry of certificates issued by the Assay Cham-		
ber of the Russian Federation	4	20.0
Authorities issuing testing laboratory certificates	4	20.0
Registry of personal data processors	4	20.0
Russian Union of Industrialists and Entrepreneurs	1	5.0
Registry of trustees	1	5.0
List of accountable companies (IFRS)	11	55.0
Banks meeting requirements for bank guarantees		
issue for taxation purposes	1	5.0
Registry of brokers	2	10.0
Registry of dealers	2	10.0
Registry of depositaries	2	10.0

The companies surveyd in registers

* Proportion in the total number of companies surveyed.

Source: SPARK system. URL: http://www.spark-interfax.ru/ (accessed April 5, 2017).

Many of the companies surveyed belong to the defence industry (25%) and every fifth is a market leader (table 1). As a manufacturer of diesel engines, Zvezda is included in the registry of exclusive suppliers of Russian arms and military machinery.

Most Saint Petersburg public companies are large manufacturers (61.1%) (table 2).

Table 2

Category	Number of companies	% of the total*
Large enterprises	11	61.1
Medium enterprises	3	16.7
Small enterprises	3	16.7
Microeneterprises	1	5.5

Companies surveyed, by size

* excluding Bank Saint Petersburg, Vitabank.

Source: SPARK information system. URL: http://www.spark-interfax.ru/ (accessed April 5, 2017).

A microenterprise, Arsagera was the first Russian management company to go public on the Moscow Exchange.

Small and microenterprises among public companies prompt a discussion about the superfluity of introduction of corporate governance best practices in certain cases [17, p. 44; 19, p. 64]. We believe that the 'comply or explain' principle is obligatory for everyone. The problem can be solved through outsourcing certain corporate procedures — internal auditing and the functions of a company secretary, non-executive director, and shareholder representatives working under a contract.

Most Saint-Petersburg public companies are privately owned (table 3).

Table 3

Ohin	Number	0/	
Ownership	of companies	% of the total*	
Privately owned	11	57.9	
Joint private and foreign ownership	3	15.8	
Mixed Russian ownership (federal)	3	15.8	
Mixed Russian ownership (regional)	1	5.25	
Other mixed Russian ownership	1	5.25	

Companies surveyed, by ownership

* excluding Gazprom Neft.

Source: SPARK system. URL: http://www.spark-interfax.ru/ (accessed April 5, 2017).

Foreign legal entities are among the owners of TGK-1, Bank Saint Petersburg, and the Rollman Group.

In companies owned in part by the government, the Russian Federation — represented by the Rosimushchestvo — encourages the introduction and development of corporate government tools. However, the other companies often lack both competencies and incentives to work in that direction.

Saint Petersburg public companies are complex integrated structures. Most of the companies surveyed have considerable experience in managing groups of companies, subsidiaries, and affiliates (table 4).

Table 4

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Company name	Number of co-owners	Co-owners holding more than a 25% stake	Number of affiliates (company's data)	Number of branches (Rosstat)
Gazprom Neft			57	1
Rostelecom	17	1	47	70
TGK-1	4	2	4	27
Lenenergo	4	2	7	26
Power Machines	1	1	8	9
Metrostroy	8	1	15	4
Leningrad Kirov Ba-				
king Factory	1	1	2	2
Petersburg Flour Mill	2	2	5	0
Zavod Volna	4	1	1	1
Inteltech	4	2	1	2
Techpribor	6	1	4	1
Proletarsky zavod	2	2	1	3
Zvezda	7	2	4	1
Svetlana	5	1	14	3
Radiosvyaz	1	1		
Rollman Group	5	-	8	
Arsagera	11	1	3	
Federal Testing Centre	2	1		
Bank Saint Petersburg	35	1	5	7
Vitabank		•••	•••	•••

Number of co-owners, subsidiaries and affiliates of the companies surveyed

Source: SPARK system. URL: http://www.spark-interfax.ru/ (accessed April 5, 2017).

Key to a better quality of corporate governance in these companies are an accurate identification and delineation of responsibilities between parent and affiliate management, efficient participation in the work of the affiliates and subsidiaries' boards of directors, a clear procedure for the approval of major and interested party transactions. Almost all the companies are characterised by concentrated corporate control, i.e. one of their co-owners holds a blocking minority stake (over 25%). The activities of the companies surveyed suggest that their managers have key competencies in the following fields:

— the preparation and implementation of a development strategy (Rostelecom, Gazprom Neft, Bank Saint Petersburg);

— the preparation and implementation of long-term development, import substitution, innovative development, and energy efficiency programmes in the affiliates of state corporations (Rostech) and companies with more than 50% of state ownership, in accordance with the Government regulations and recommendations from the Ministry of Economic Development;

— the implementation of the 'Development of the Defence Industry', 'National technology', 'Development of Civil Marine Engineering in 2009—2016' federal target programmes, and the state armament plan for 2011—2020;

- export contracts in the framework of defence cooperation;

- intellectual right management;

- introduction of quality management systems;

- Russian and international product certification;

- defence procurement;

— dual-use technology;

- SPV (special purpose vehicle) projects;

— engineering collaboration with research and academic institutions, including that in the framework of the Union State.

Most of the companies have announced ambitious plans that require investment. Rostelecom intends to break into the market of content and digital services (data centres, cloud services, OTT video, Industrial Internet of Things, Geodata). Gazprom Neft plans to continue the modernisation of refineries and Svetlana to modernise the power supply facilities, utility networks, and communications. Power Machines has concluded a contract with Gazprom and Linde to produce LNG equipment. The company is considering the opportunity to enter the renewable energy market. Proletarsky Zavod intends to extend production to oil, gas and NPP equipment. Gazprom Neft aims to achieve maximum value added on the capital invested in Russia's gas industry.

Tables 5 and 6 show how Saint Petersburg public companies attract investment through issuing shares.

Table 5

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Company name	Registration date (dd. mm. yyyy)	Stock type	Offering type	Status
Rollman group	28.01.2016	PBE	Public offering	Completed
Techpribor	19.01.2015	CBE	Non-public offering	Withdrawn
Lenenergo	03.12.2015	CBE	Public offering	Competed
Inteltech	25.12.2014	CBE	Non-public offering	Withdrawn
	04.05.2016	CBE	Non-public offering	Continues
Zavod Volna	17.06.2015	CBE	Conversion	Withdrawn
	22.10.2015	CBE	Public offering	Failed
Federal Testing	27.01.2015	CBE	Stock issued to foun-	Completed
Centre			ders only	
Petersburg Flour	28.11.2016	CBE	Non-public offering	Continues
Mill				

The issue of shares by the companies surveyed in 2014—2016

* PBE stands for preferred book entry stock and CBE for common bookentry stock.

Source: SPARK information system. URL: http://www.spark-interfax.ru/ (accessed on April 5, 2017).

Table 5 shows that Saint Petersburg public companies do not see issuing stock as a major tool to attract finance. Moreover, in some cases, such attempts were not successful, which is indicative of the poor quality of preliminary analysis. The issue of stock does not yield the desired result, when strategic investors — who are interested in the consolidation of control and leadership in a certain market — are more prone to act than portfolio investors are [20, p. 11].

The dividend policy of the companies surveyed also proved to be inefficient. For detail on dividend payments in 2014—2015, see table 6.

Table 6

Company nama	Commo	on stock	Preferred stock	
Company name	2014	2015	2014	2015
Gazprom Neft	30 676 209	30 676 209 30 676 209		
Rostelecom	8 603 004 15 231 824		848 746	1 239 676
TGK-1	868 780	936 621	0	0
Lenenergo	0 0		0	0

Accrued dividends, 2014-2016, thousand roubles

Company name	Commo	on stock	Preferred stock	
Company name	2014	2015	2014	2015
Power Machines	7 879 360	0		
Metrostroy	12 394	13 943	4 943	5 607
Leningrad Kirov Baking				
Factory	303 188	324 337	0	0
Petersburg Flour Mill	0	0	23 000	18 600
Zavod Volna	0	0	0	0
Inteltech				
Techpribor	33 035	25 856	22 023	17 238
Proletarsky zavod	0	0	0	0
Zvezda	5 620	0	_	_
Svetlana	1 673	1 673	558	558
Radiosvyaz				
Rollman group	0	0	7 091	14186
Arasgera management				
company	0	0	0	0
Federal testing Centre	0	0	0	0
Bank Saint Petersburg	887 899	459 313	2 155	2 211
Vitabank	0	0	30	30

End of table 6

Source: SPARK system. URL: http://www.spark-interfax.ru/ (accessed on April 5, 2017).

The classical approach suggests that rational long-term investors prefer shares to bonds and treasury bills, since the former are more lucrative [21–23].

However, investors are increasingly embracing a risk culture [24, p. 29]. According to experts from the Russian Presidential Academy of National Economy and Public Administration, an analysis of risks and profits associated with different types of assets yields a different result — long-term investors prefer corporate bonds [25, p. 64—67].

Long-term investors are interested in safeguarding the assets and using them effectively. Another goal is to reduce risks, which investors cannot estimate and do not want to take. The need for investors to manage risks in a long-term perspective reduces a company's investment attractiveness and the cost of its shares [9]. International studies prove this finding [26—28].

Unfortunately, only three of the surveyed companies have attempted to issue bonds (table 7).

Table 7

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Company name	Issuance date	Announced amount	Issue size	Status
Rostelecom	September 2016	15 000 000	15 000 000	Issued
Power Machines	Juy 2014	30 000 000	30 000 000	Issued
Gazprom Neft	March 2016	25 000 000	25 000 000	Issued
	June 2016	10 000 000	10 000 000	Issued
	August 2016	15 000 000	15 000 000	Issued

Bonds of the companies surveyed, 2014-2016

Source: SPARK system. URL: http://www.spark-interfax.ru/ (accessed April 5, 2017).

Such passive behaviour of public companies is puzzling, as business is keenly interested in investment in performing assets.

A survey of mangers from 70 Russian non-public companies shows that 35.7% of the respondents do not have experience in investment and 20% have a limited experience. The other companies have invested only in subsidiaries and affiliates.

Fifty companies procure funds from other organisations within the same holding. Only 21.4% of the companies surveyed have experience in issuing corporate bonds. All the companies use bank loans.

When answering the question 'what is your company's major motivation to invest?' the respondents mentioned the following:

- financing investment projects associated with growth and high performance (82.9%);

— investing idle funds in liquid vehicles (35.7%);

— generating additional income (14.3%).

It is easy to predict how potential investors would react to a company's statements not mentioning the rate of return on investment projects, holding the results of ROI analysis secret, and offering only general information on dividends and other financial performance indicators.

The respondents link their readiness to invest in the equity securities of other companies to the opportunity to gain certain rights. Among major benefits, the respondents mentioned:

— participation in the approval of large transactions;

— opportunity to obtain from the registrar information on shareholders and the number of shares they hold.

Other important rights include:

— to access the list of persons entitled to attend general meetings;

— to access minutes of board meetings;

— to freeze the shares of major shareholders and to call a repeat meeting.

The respondents identified the following rights as the least important:

— to call an extraordinary shareholder meeting;

— to influence the procedure of general meetings;

— to introduce changes into, and approve a revised version of, the articles of association.

In the latter case, the respondents' opinions seem ungrounded. The articles of association often overlook essential aspects of corporate governance — board's powers in regard to the establishment and dissolution of executive bodies and the adoption and control over the implementation of strategies and business plans. Changes to the articles of association will bridge such gaps.

Anyway, 'all non-property rights of participants in corporate relations should support the property rights of corporate members, since nonproperty rights contribute to the achievement of goals, in pursuit of which individuals join a corporation' [29, p. 15].

There are bleak chapters in the national history of corporate relations. In the 1990s, irregularities in the preparation and conduct of general meetings, the erosion of shareholders' interest through follow-on offerings, and wrongful acts during major and interested party transactions were common. I Yu Belyaeva and M A Eskindarov describe such irregularities in the dealings of Gazprom, Lebedinsky GOK, NLMK, Surgutneftegaz, Altayenergo, Nosta, and other companies [30, p. 46—48]. It has been stressed that: 'when individuals their different interests act in the interests that differ from those of other participants in corporate relations, a collision of interests takes place, which can lead to a corporate conflict' [31, p. 7]. The respondents believe that, given the current condition of the corporate control market and the level of corporate governance, conflicts may result from:

— reorganisation of a company (77.1% of the respondents estimated the risk as 'very high');

— strategic goals and the ways to attain them (65.7% named them a frequent cause of conflicts);

— choice of investment instruments, relations with affiliate legal entities (a 'common cause' of conflicts according to 66.5% of the respondents).

All the respondents stressed the need to improve some corporate governance components. When answering the question as to what components require improvement, the respondents mentioned the following:

- risk management, internal control, internal auditing (32%);
- organisation of the work of the board (28%);
- corporate social responsibility (28%);

- exercise of shareholders' rights (10%);
- executive management (8%);
- transparency and information disclosure (6%).

Public companies' apathy and ineffectiveness in governance inevitably reduce the investment attractiveness of the Saint Petersburg corporate sector. As a result, the number of private sources of finance and investment in the projects and initiatives within the city's strategy for economic and social development will dwindle.

Prospects

Investors anticipate that better governance will become a common response of the corporate sector to the changing conditions of free crossindustry and cross-territory flow of capital. One of the national priorities identified in the 'Fundamentals of the Activity of the Government of the Russian Federation until 2018' is 'corporate governance best practices'. Industry-specific strategic planning documents, national and regional programmes, and the plans and programmes of individual companies should embrace this priority.

Attaining better corporate governance by Saint Petersburg public companies is crucial to securing economic growth and socially oriented innovative development.

Saint Petersburg enjoys the status of a federal region. The city's authorities, acting within their powers, should collaborate with the business community:

— to create a shared knowledge centre so that companies will be able outsource the functions of a company secretary, internal auditor, non-executive director, and shareholder representatives;

— to establish ratings as a principal tool for monitoring the quality of corporate governance including the cases of public procurement;

— to create a competitive market in the field of business information and due diligence to provide investors with access to reliable and rapid data on local investment opportunities, with confidence and national security requirements taken into account;

— to collaborate with mass media to ensure the transparency of reorganisations, mergers and acquisitions, reorganisations followed by the creation of non-profits and municipal companies, and bankruptcy, and to avoid corporate insolvency;

— to encourage the Saint Petersburg Union of Industrialists and Entrepreneurs to develop an institute of corporate governance and relations and to create a system of professional communities.

Having undertaken a mission to create new values and to pursue best practices, Saint Petersburg could create a national, or even Eurasian, re-

search and educational platform for the professional discussion of theoretical problems and practical applications in the field of corporate governance. This platform could become a talent pool of corporate governance professionals.

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REGIONAL SECURITY

NATO POLICIES IN THE BALTICS: OBJECTIVES AND PRIORITIES

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The authors employ geopolitical analysis to identify the core characteristics of NATO's current policy towards the Baltic Sea region. After the demise of the Soviet Union, the region was considered as one of the safest in terms of military security. However, in the aftermath of the Ukraine crisis, the region has witnessed a growing tension in relations between NATO and the Russian Federation. A comparative analysis of NATO's official documents on the Baltics shows that the chief pretext for increased military presence in the region is the alleged need to defend the Baltic states from the Russian threat. Special attention is paid to the attempts of Western military strategists to encourage the neutral Nordic states — Sweden and Finland — to accede to NATO. This would lead to the organisation's northern enlargement. The current situation suggests that to ease tension in the Baltic Sea region Russia has not only to respond adequately to emerging military threats but also to launch an awareness campaign to explain its position and dispel the myth about Russia preparing to start a hybrid war against the Baltic States.

Keywords: NATO, Baltic Sea, political strategy, military tension, Russia, Baltic states

Introduction

In November 2016, President Vladimir Putin approved a new version of the "Foreign Policy Concept

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of the Russian Federation" [1]. Only three years have passed since the approval of the previous Concept but this short period was so full of serious changes in world politics that the necessity of its updating became evident.

The Ukrainian crisis after Euromaidan, the introduction of anti-Russia sanctions and countersanctions, growing activity of the "Islamic State" in the Middle East had a serious impact on the foreign policy of our country. That is why alongside with the reconfirmation of the principles and approaches declared in the 2013 Concept the new edition contains a number of changes.

Thus, in the 2016 Concept we see new aspects concerning the relations with the West. Paragraph 61 criticizes the containment policy adopted by the NATO and EU member-states against Russia; their policy runs counter to the growing need for cooperation and addresses transnational challenges and threats in today's world [1, c. 51]. Special attention in this connection is paid to the necessity for Russia to "build its relations with NATO taking into account the degree to which the Alliance is ready to engage in equitable partnership, strictly adhere to the norms and principles of international law, take real steps towards a common space of peace, security and stability in the Euro-Atlantic region based on the principles of mutual trust, transparency and predictability, to ensure the compliance by all its members with the commitment undertaken within the Russia - NATO Council to refrain from seeking to ensure one's security at the expense of the security of other States, as well as with military restraint obligations as per the Founding Act on Mutual Relations, Cooperation and Security between the Russian Federation and the North Atlantic Treaty Organization of May 27, 1997" [1, c. 27-28]. Therefore the Russian Federation maintains "its negative perspective towards NATO's expansion, the Alliance's military infrastructure approaching Russian borders, and its growing military activity in regions neighbouring Russia, viewing them as a violation of the principle of equal and indivisible security and leading to the deepening of old dividing lines in Europe and to the emergence of new ones" [1, c. 28].

In order to withstand such tendencies it is very important to identify the reasons for and consequences of the visible growth of confrontation between NATO and the Russian Federation in the Baltic Sea region. Though this question has been raised already by such specialists as N. Mezhevich [2; 3], Yu. Zverev [3], K. Khudoley [4], A. Nosovich [5; 6], S. Zalevsky [7], V. Volovoj, I. Batorshina [8], V. Konyshev, A. Sergunin, S. Subbotin [9] and others, the results of our research are not only relevant but are quite new as they are based on the latest NATO documents, officials speeches, works of analysts and experts from the North Atlantic Alliance that for the most part had not been scrutinized by Russian political scientists. It gives us an opportunity to reveal the real objectives and intentions of the NATO strategists regarding the Baltics in today's confrontation with Russia.

The Baltic Sea Region in the North Atlantic Alliance Strategy a Change of Priorities

There is no doubt that the Baltic Sea is of special geopolitical significance for both Russia and a number of European countries — NATO member states and those that keep their neutral status. On one hand, the military forces of the NATO Alliance and those of the Collective Security Treaty Organization (CSTO) contact here directly. On the other hand, the importance of the Baltics regarding global economy, trade development and the direct access to the World Ocean is beyond any doubt.

NATO in the context of the geopolitical evaluation of the regional situation should be understood in two ways. Firstly, as a political and military multilateral actor, and secondly, as a framework for cooperation used by the United States for strengthening its position in this part of the global geopolitical space. For a certain period of time the NATO, strategy did not focus on the Baltic Sea region as a priority area of potential military conflicts. The Baltic Sea region used to appear on the agenda only when some incidents occurred: for example, NATO analysts mention in this respect the cyber-attack on Estonia in 2007, which they attributed to Russia [10]. But after Crimea's reunification with Russia the situation has changed drastically as the Baltic states are now considered by the NATO (especially, Americans) strategists as the next target for Russia's 'aggression' on the post-Soviet territory. From this point of view, there is a direct link between NATO and the USA role in global politics. Jan Hanska, a Finnish defense specialist, argues that, even if the Baltic Sea region has never been a high-priority area in US geostrategy, the superstructure of NATO ties the US to its stability to such a large degree that, should the US fail to protect its allies in the area, the whole credibility of its foreign policy and strategy would collapse. Even if the Baltic Sea region is not of direct importance to the US, it cannot afford to stand on the sidelines" [11, c. 15].

During the Cold War, the American policy toward the Baltic Sea region was built on containment of the USSR by strengthening allies and exerting pressure on neutral countries such as Sweden and Finland. This was done both openly and behind the scenes. In the President Ronald Reagan era, the focus was not on the Baltic region *per se*, but rather on the countries along the borders of the Eastern Bloc. After the fall of the Berlin wall and the withdrawal of Russian troops from Lithuania, Estonia and Latvia in 1993—1994, the USA was eager to increase its influence, but not actual presence, in the region. Instead, the NATO framework was

used. The Partnership for Peace (PfP) program was introduced as a first step towards membership in the Alliance. After the Baltic States joined NATO in 2004 and the war on terrorism intensified in Iraq and Afghanistan, the Baltic Sea region was considered one of the most peaceful places of the world and the American interest in its military presence here reduced. The NATO exercise *Steadfast Jazz* in autumn 2013, which was to signal strategic reassurance to the Baltic States and Poland and shed light on the new NATO Response Force (NRF), only attracted an American participation with 160 people (compared to France 1,200 and Poland 1,040) [12]. It was a sign not only of USA reduced defense budget, but also of its assessment of low tensions in the Baltic region.

Now, as we have already mentioned, the Baltic Sea begins to play a central role in the strategic confrontation between Russia and the West, so we have to look at the USA and NATO strategy in this region.

The Baltic States Security as a Declared Aim for the NATO Growing Presence in the Region

During the last years of Barak Obama's presidency it became obvious that the United States wanted to strengthen its presence in the Baltic under the pretext of the need to protect the Baltic countries from Russia. An analysis of numerous materials prepared by both American military experts and pro-American leaders in Estonia, Lithuania, Latvia, and a number of Nordic countries seems to be convincing enough to testify to this [13—19]. Let us try to analyze the most typical and important positions from the point of view of security that are reflected in them.

The main concern is the fact that from the military point of view, the Baltic States — Estonia, Latvia, and Lithuania — are isolated from other NATO members. It could be extremely difficult, if not impossible, to respond to an incident in the Baltic Sea region without the acquiescence of non-NATO countries. That is why the main task is to make Finland and Sweden a part of the NATO, and to make the ruling elites of these countries change their neutral status.

The Nordic countries play an important role in guaranteeing the security of the Baltic States. They have close relationship based on their cultural and historical commonality. Denmark and Norway have done a lot to develop Baltic military capabilities since the collapse of the USSR, and Sweden and Finland, although not members of NATO have a close security relationship with them. At the same time, much concern is expressed about the dependence on non-NATO Sweden and Finland, which being important allies for the USA and loyal partners of NATO are not

obligated to come to the assistance of any NATO member in the event of an armed attack. The USA should be prepared for such a situation. In connection with this, the case of Afghanistan — a landlocked Central Asian country several thousand miles away from the continental United States — is worth mentioning. The USA intervention had a questionable, and at times wavering support from neighbouring countries and from countries having poor regional infrastructure. However, it did not prevent Americans from conducting full-scaled military operations there. The conclusion is that with the right planning and preparation the USA and NATO could do the same in the Baltics, even with Russia's Anti-Access/Area-Denial (A2/AD) strategy in the region and even without Sweden or Finland's support (though it will be not easy).

Historical examples that prove the necessity for military operations to have an access to Swedish and Finnish airspace, sea, and land are used as additional arguments. For example, during the Crimean War (1853—1856) and the Allied intervention in the Russian Civil War (1918—1920), the Swedish fortress of Viapori (known today as Suomenlinna in Finland) and the Åland Islands played a crucial role. During both World Wars, the Skagerrak and Øresund Straits — both of which border Swedish waters and serve as a gateway to the Baltic Sea—were highly contested. During the Cold War, Denmark's Bornholm Island was an area of contention between the Soviet Union and NATO. In the 21st century these considerations have not disappeared.

The Danish Straits consist of three channels — Øresund, the Great Belt and the Little Belt — connecting the Baltic Sea to the North Sea via the Kattegat and Skagerrak Seas. These straits serve the Baltic Sea countries as import and export routes. They are especially important for Russia, which has increasingly shipped its crude oil exports to Europe through them [20, c. 225]. Overall, approximately 125,000 ships per year transit these straits. The conclusion is made that if the USA needed to intervene militarily in the Baltic States, access to the Danish Straits would be vital. According to American strategists, it would be naïve in the extreme to think that Russia did not factor the importance of these three islands and the Danish Straits into their Baltic Sea contingency planning. It would be just as irresponsible for the U.S. not to do the same [21].

Another extremely important matter in the military confrontation in the Baltics is the Kaliningrad Oblast. American specialists have the following vision of the situation: Kaliningrad is a small Russian exclave along the Baltic Sea (slightly larger than Connecticut), bordering both Lithuania and Poland. Kaliningrad is part of Russia's Western Military District, and approximately 25,000 Russian soldiers and security personnel are stationed there. It is home to Russia's Baltic Navy, which consists of around 50 vessels, including submarines. However, the most important fact is that Kaliningrad is the heart of Russia's A2/AD strategy [21]. Russia has the advanced S400 air defense system in Kaliningrad. In October 2016, it deployed Iskander-M missiles there. The Kremlin spokesman Dmitry Peskov explained that it was Russia's reaction to NATO creating an "entire anti-Russian missile system" in Europe [22]. NATO strategists are mainly worried that these missiles can carry nuclear or conventional warheads and have a range of 250 miles, placing Riga, Vilnius, and Warsaw within their reach. Besides, Russia has facilities for storage of tactical nuclear weapons in the Kaliningrad region. Whether nuclear weapons are presently there is a matter of much debate. Western Russia is modernizing runways at its Chernyakhovsk and Donskoye air bases in Kaliningrad that can be used to fly near NATO airspace. It is Russian planes flying from or to the airbases in Kaliningrad that are blamed for causing aerial incidents with NATO planes.

American specialists have no doubts that Russia's A2/AD coverage over the Baltic Region, coupled with Finland and Sweden's reluctance to join NATO, makes defending the Baltic States a highly difficult task. That is why they propose a number of measures that could help the USA to fulfill their NATO obligations concerning Estonia, Latvia and Lithuania [21].

Firstly, to make all possible steps in order to improve relations with the Nordic countries. Automatically it will lead to developing cooperation with the Baltic States that are under strong influence of the North European states

Secondly, to encourage Finland and Sweden to join NATO. The very wording of this task is worth citing: "Ultimately, the Swedish and Finnish populations will decide whether to join NATO, but the U.S. should pursue a policy that encourages NATO membership for these two Nordic countries. Until they join NATO, they will not benefit from the Alliance's security guarantee".

Thirdly, to prepare contingency operations to defend the Baltics that do not include support from Finland and Sweden. The U.S. should plan and rehearse defense of the Baltic States without these two countries. "However unlikely this might be, until Finland and Sweden become full members of NATO, it would be irresponsible for U.S. military strategists not to plan this scenario". This training should include scenarios in which Russian forces capture the Åland Islands and Gotland.

Fourthly, to prepare for a fast military reinforcement of Europe. During the Cold War, the USA could move conventional military forces rapidly from the United States to Germany in the event of a war with the Soviet Union. The USA should consider holding a similar exercise focused on defending the Baltic States.

It is also necessary to pay special attention to the so-called "Kaliningrad Factor". The USA needs to work with its NATO allies to develop a strategy dealing with the Russian A2/AD capabilities in Kaliningrad. In particular, this requires close cooperation and planning with Poland. "No credible defense of the Baltics can be carried out without neutralizing the threat from Kaliningrad".

And finally, "Moscow should not interpret Sweden and Finland's non-NATO status as a green light to intervene in the Baltic States because NATO cannot come to their defense. Conversely, until they decide to become full-fledged members of NATO, Stockholm and Helsinki should not expect the Alliance to come automatically to their assistance if they are attacked by Russia, and NATO members should not give that impression. NATO needs to plan for all eventualities in the Baltics—otherwise Russia will take advantage of the situation".

Hybrid Wars in the Baltics — a Myth or Reality?

A number of western experts think that in case of a conflict between Russia and the Baltic States there are high chances for the involvement of the Russian-speaking minorities in it that will give Russia an opportunity to use the idea of their rights protection for justifying military intervention. The former NATO adviser on security matters, retired Major General Frank van Kappen, a member of the upper house of the Parliament of the Netherlands, presupposes that activities in the spirit of a modern 'hybrid war' could be the following ones [23]: "Putin in any case is not going to enter the Baltic States in a tank, because then he would openly declares war on NATO. Article 5 of the North Atlantic Treaty states that an attack on one NATO country is an attack on all member countries. Instead, we can see the same scenario that has been observed so far. One can, for example, escalate the situation in the Estonian town of Narva, where many Russians live. Another hybrid war, contacts with local organizations, and then Narva declares independence. Estonia reacts harshly. Russia declares its duty to protect Narva's Russian speaking population from neo-Nazis. If Russia attacked Estonia, then everything would be simple. It would be a war against NATO, and he would lose it. I am absolutely sure. The price of war is millions of lives. However, nobody wants a war. If Putin resorts to a hybrid war, then NATO will not resort to Article 5. Simply a new People's Republic of Narva will be proclaimed. Narva will ask to join Russia. Is it a reason for applying Article 5? And if not, then all NATO members from Eastern Europe will exclaim: NATO is worth nothing. In this sense, Putin will score NATO a goal".

Estonian experts from the International Centre for Defense and Security Kalev Stoicescu and Henrik Praks [15], analyzing the same scenario, think that Russia would make a decision, depending on NATO and EU's reaction, and the degree of resilience of the attacked countries. In the worst case, such a conflict would evolve into a full- scale war.

At the same time, in their opinion, the Kremlin attempts to follow any Donbas-like scenario (no matter what they consider it to be) in the Baltic States would have notable limitations and deficiencies. First, the Kremlin has not achieved its desired results in Ukraine with these tactics. Second, the North Atlantic Alliance and its "Eastern Flank" have carefully studied Russia's "hybrid warfare" and Ukraine's counter actions, which would help if necessary to respond swiftly and adequately. In addition, in this case Russia would compromise its primary advantage — rapidly gaining the initiative and upper hand by exploiting the elements of surprise and time. The first days would be crucial, and if Russia hesitated to intervene militarily, the Allies would likely have time to respond and take control of the situation. More than that, without unambiguous Russian military support, the "separatists" would have little chance to control sections of Russia's borders with the Baltic States, which would be vital for their success. However, Russian military support would lead inevitably to open conflict with NATO.

Another scenario widely discussed in NATO is a Russian military incursion following a sudden incident (i. e. a provocation). Western military specialists accuse the Russian armed forces (especially airborne troops, army aviation etc.) of constant preparation for such scenarios by training for example the takeover of "unknown airfields" just behind the eastern borders of Latvia and Estonia, e. g. military exercises in the Pskov Oblast taken place from 15 to 20 February 2016 with the participation Of 2,500 troops.

Such a sudden "incursion" would undoubtedly surprise the attacked nation and NATO, and might be exploited by Russia to demonstrate the Alliance's vulnerability and inability to defend its entire territory, and to provoke political divisions in the Western camp. Nevertheless, such an overt aggression would automatically be seen as an act of war against NATO (Article 5), which would lead to a political, economic and military response.

The third scenario, described by NATO strategists, is based on the idea that Russia will try to separate the Baltic states from the rest of the territory controlled by NATO and then will occupy them. In this context they mention large-scale military exercises "Zapad", involving the Western MD and other forces, and "Union Shield" together with Belarus), as well as massive no-notice combat control exercises (e.g. in December 2014 and March 2015). According to the western military specialists, Russia has attacked Georgia in August 2008 and Ukraine closely following such scenarios. This would be a far bigger political blow to NATO and the EU that — if successful — would also allow Russia uncontested strategic military advantage in the Baltic Sea area, and could possibly "solve" the question of the Kaliningrad exclave. The Kremlin would have no problem finding a pretext, especially if US/NATO-Russian relations become critical elsewhere (e.g. in Syria).

NATO experts are forced to recognize the fact that Russia has proved its ability to impose effectively A2/AD in the maritime environment and the airspace surrounding the Baltic States. The conclusion is that a Russian invasion through Belorussian territory towards the Kaliningrad Oblast through the 100 km wide Suwałki Gap (Polish and Lithuanian territory), coupled with operations against Estonia and Latvia from the Leningrad and Pskov Oblasts could follow the air and maritime blockade if NATO did not react in a timely and forceful manner, and did not have a proper forward presence in place.

The main conclusion is the following one: while any of the scenarios described above may occur, NATO's military planners must be aware that Russia — even if it does not wish a large-scale war with NATO — would not miss a opportunity to benefit from NATO's political differences and sub-regional weakness in the Baltic Sea area.

Donald Trump and the "Baltic Problem"

The main question today is whether there have been any changes in the NATO Baltic Sea strategy since President Trump and his team came to power in the USA. Donald Trump statements during his electoral campaign regarding NATO and particularly the Baltic States caused panic among political elites of this region. They were worried by his answer to the question about his commitment to defending NATO allies if an enemy attacks them. He said that he would first look at their contribution to the alliance [24]. Moreover, the situation in this sphere was not as favourable as the American administration would like it to be: Estonia met its defense commitment spending a little bit more than 2% of GDP, the basic minimum on defense, the situation with Latvia and Lithuania was much worse. The governments of these two countries had given a promise to the previous USA administration during the Baltic Forum held in Riga in August 2016 and attended by Vice-President Joseph Biden to increase defense spending [25]. These promises were given in the situation when the Baltic allies of the USA expected a considerable financial help from Washington.

As it was stressed after the meeting in Riga, "each of the Baltic allies has received more than \$ 30 million" within the framework of the American programme for supporting the European Allies for NATO. Only in 2016, each of the three countries received more than \$ 9 million [25]. Now it will not be easy for the Baltic countries, especially for Latvia, given their economic situation, to increase their contribution to NATO. At the same time, it should be noted that other countries of the North Atlantic Alliance do not all share calls for increasing military spending. Thus, the German Minister for Foreign Affairs Sigmar Gabriel during his visit to Estonia in March 2017 reminded about the lessons of the World War II, stressing the fact that the increase in military spending would inevitably cause concerns among neighbouring countries. Earlier, in February European Commission President Jean-Claude Juncker said in his speech on the sidelines of the international Munich Security Conference that Europe must not cave in to U.S demands to raise military spending, arguing that development and humanitarian aid could also count as security [6].

Despite the change of power in the White House, it is difficult to imagine that the new American administration will someday reject the idea of NATO expansion in the Baltic Sea region, or the idea of making Finland and Sweden join the Allience. No wonder that during the visit of the Defense Secretary Jim Mattis to Finland in March 2017, the 'Russian aggression' was habitually discussed, but the main attention was paid to the military contribution of Finland to the counter-ISIS fight [27]. In any case, we are sure that the key role will be played not by the United States but by public opinion and political elites of the Nordic countries. Sweden may make some practical steps in NATO direction only after the 2018 parliamentary elections if the Moderates and their potential right-wing allies win. The current centre-left government does not think it necessary for the country to become a NATO member. Peter Hultqvist, the defense minister reiterated his opposition to joining NATO, despite recognizing a rising threat from Russia. "Whatever happens, the countries around the Baltic Sea need to keep together. However, the solution for us is not a NATO membership. We have our geographic position and our own history, as does Finland". Mr. Hultqvist said Sweden was increasing its military capabilities and boosting its relationships with two other Baltic countries, Poland and Germany [28].

At the same time Donald Trump's unpredictability is used as a new argument by NATO supporters who are trying to prove to the Swedish society that under the new US administration the bilateral defense agreement signed by Sweden and Finland with the Barack Obama administration can be inadequate [29]. The main argument is that cooperation with 28 states, and not one (even if it is as powerful as the USA), can be more effective.

The Finnish government is against seeking a NATO membership at the moment but keeps this option in mind. Alex Stubb, the former Finnish prime minister, wrote recently in the Financial Times that he was concerned Mr Trump could do a deal with President Vladimir Putin of Russia to stop NATO enlargement. "This would leave a security political vacuum in northern Europe, especially Finland and Sweden... [whose] 'NATO option' would be made null and void," he added [30].

We should not think that "President Trump will leave the Baltic States as they are" [5]. Firstly, the defense cooperation agreements signed in January 2017 by the previous US administration with Lithuania and Estonia, which formalize the deployment of new military units in these countries and the status of American servicemen is still in effect [31]. Secondly, since the beginning of 2017, in the framework of the so-called strengthening of the "Eastern Flank" of the Alliance, the forces and assets of the US 3rd Armored Brigade Combat Team and the battalion tactical groups of the bloc member countries arrived in Poland and the Baltic States, which together with the national armed forces continued to improve the Baltic bridgehead [32].

No matter what Donald Trump's personal opinion is, he has to take into account the system of military-political relations that has already developed in the United States and in the world, the geopolitical interests of America and their interpretation by the country's power elites, the nature and degree of influence of the military-industrial complex on the political decision-making process in Washington. In this respect, it seems appropriate to quote an abstract from President Dwight D. Eisenhower's "Farewell Address" delivered 17 January 1961: "In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist. We must never let the weight of this combination endanger our liberties or democratic processes. We should take nothing for granted. Only an alert and knowledgeable citizenry can compel the proper meshing of the huge industrial and military machinery of defense with our peaceful methods and goals, so that security and liberty may prosper together" [33]. We are sure that it is the interests of the military-industrial complex that are behind the escalation of tension in Russian-American relations. And it is extremely difficult to resist them. Hence, we can assume that even if there is some softening of bellicose rhetoric, the strengthening of pragmatism in US foreign policy, the Baltic region will unfortunately remain the arena of confrontation between NATO and Russia.

At the same time, certain shifts in the US policy will inevitably influence the position of the NATO leaders, since it is this country that plays a system-building role in this military-political organization. Thus, NATO chief Jens Stoltenberg during his official visit to Denmark in March 2017 had to confess: "NATO sees the concern about terrorism and cyber attacks, but we don't see any imminent threat against any NATO ally, including the Baltic States" [34].

It is also necessary to take into account the fact that, as American defense expert Samuel Gardiner points out, the security of the Baltic States is not included in the top 10 most important topics for the new US administration [5]. Obviously, for President Donald Trump, problems related to the Middle East and North Korea seem much more important, which, however, does not mean a loss of interest in the Baltic region, which is a zone of direct contact between NATO and Russia. Hence, one can conclude with some confidence that the situation in the Baltics directly depends on the general context of the relationship in the framework of the US-Europe-Russia triangle. Meanwhile we have to agree with the opinion of the President of the Russian Association of Baltic Studies N. M. Mezhevich that "the geopolitical configuration in the Baltic region acquires an increasingly pronounced character 'all against Russia' or 'Russia against all'. It does not answer the interests neither of the European Union, nor of Russia, and in an atmosphere of mutual distrust and suspicion creates the potential threat of escalating misjudgments into a direct military confrontation with unpredictable consequences" [2].

Conclusion

The analysis of the NATO experts and generals' views on the security problems in the Baltic Sea region allows us to draw a number of conclusions.

Firstly, there is an obvious trend toward a direct confrontation with Russia. As an excuse, the situation in Ukraine and the problem of Crimea are used. However, if there were not a Ukrainian crisis, the situation in the Baltic would worsen anyway. The very logic of the development of relations between Russia and NATO in recent years is a quite convincing evidence of this.

Secondly, the main goal is to involve neutral states — Sweden and Finland — in the orbit of the Alliance's activities. Thus, the expansion of NATO to the East is complemented by the desire to expand it to the North, which certainly worries Russia and, first of all, its bordering regions with Finland — the Leningrad Oblast and the Republic of Karelia. If these two countries join NATO it will not only increase tension in the region, but also inevitably lead to significant additional defense spending by the RF. At the same time there is a polarization of public opinion in Finland and Sweden, a growing split in the society over the issue of NATO membership and relations with Russia.

Thirdly, the hysteria over Russia's aggressive intentions in the Baltic region is also used for solving financial problems. It is quite natural that the USA seeks to pass part of the military spending on its NATO allies, who, without seeing a direct military threat to themselves, are reluctant to take steps that are unpopular among voters. At the NATO summit in

Wales in 2014, it was agreed that each of the member countries would allocate at least 2% of their budget for defense. However, this agreement has not yet been implemented by all [35, c. 50].

Fourthly, pointing out on the internal vulnerability of the Baltic States that have a significant percentage of the Russian-speaking population, NATO strategists practically do not even raise the issue of the ethnopolitical tension causes, do not call for the development and implementation of programs for their integration into the society, which would increase the level of loyalty of Russian-speaking communities to the countries of their permanent residence, thereby leaving no opportunity for Russia to win them over.

Fifthly, the focus of NATO and, above all, the United States on strengthening its presence in the Baltic Sea region (in the broad sense of this concept) threatens the ties that have developed as a result of many years of cooperation between the Baltic countries, including Russia. The emphasis on the military component clearly draws lines of division between NATO member states (Denmark, Poland, Germany, the Baltic countries and Norway), neutral states (Sweden, Finland), and the CSTO allies (Russia and Belarus).

Sixthly, assessing the NATO overall strategy as a military-political bloc, it is necessary to take into account the existing differences among members of this organization in understanding the situation and their readiness to follow Washington policy. And here we are talking not only about the traditional opposition of the 'old' and 'new' Europe, typical of the political process within the EU, but also about a more complex configuration based on the attitude towards Russia and its individual political decisions.

The increasing tension in the Baltic Sea region causes a great concern to Russia that is forced to retaliate to growing NATO presence in the region. In this respect, not denying the importance of the military component, we would like to accentuate the necessity of intensifying the information efforts to explain the Russian position with regard to the most acute problems in relations with the Baltic countries, Sweden and Finland in order to prevent speculations about the real interests of the Russian Federation in the region.

The military rhetoric of NATO strategists, accompanying the discussion of any topics related to the presence of Russia in the Baltics, is a concern not only to Russia, but to other Baltic countries. The most reasonable groups of the Baltic States political elites are aware of the danger of escalating tensions in the region that even during the Cold War strove to follow the slogan "The Baltic Sea is a sea of friendship." Only in this case it will be possible to hope for the opening of a certain window of opportunity, if not to improve, or at least to stabilize relations between Russia, the Baltic countries and NATO in the Baltic Sea region.

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EAST BALTICS: ECONOMIC DILEMMAS OF SECURITY

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This article considers military security in the Eastern Baltic. The research focuses on the economic sustainability of Estonia. Latvia, and Lithuania in the context of military spending. The authors maintain that an increase in military spending can either strengthen or weaken national economic and technological potential. In Germany or Sweden, military spending accounts for a smaller proportion of the GDP or budget revenues, but it is integrated into the general model of innovative and technological development. In the case of the Baltics, it is advisable to estimate military spending as a proportion of budget revenues rather than that of GDP — this recommendation applies to all smaller states. The authors stress that the central component of any national military and economic development is a focus on general national objectives rather than solely military ones. Economically advanced countries integrate defence spending into their investment and innovation strategies and industrial policies. Smaller countries and the Baltics are no exception — do not apply this principle. Their military spending does not contribute to the technological and economic agenda. The article shows that the military spending of Lithuania, Latvia and Estonia undermines their investment potential and serves as a critical factor in their national and governmental development. The authors suggest estimating military spending as a proportion of budget revenues rather than that of GDP.

Keywords: military spending, economic development, Baltic states, GDP, budget, strategy

Introduction

The assessment of security problems is not an exclusive task of international relation, regional studies, and military

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analysts. In a geographically small but politically significant region of the Baltic Sea, any military preparations should naturally be linked to the objective economic capacities of the state.

Imbalanced military expenditures can threaten the country's security no less than external threats. In the understanding of this circumstance, the expert and scientific community of Russia relies on the relatively recent Soviet experience.

The military spending growth is specific for the majority of the leading world economies. High military expenditures in these countries ensure the technological development of dual-use industries. For instance, it is practically impossible to separate economic indicators, the number of employees, and investment amount into civilian and military sectors in Boeing or Saab Group.

At the same time, small countries, and, above all, Estonia, Latvia, Lithuania do not have such experience. In the same way, they have limited experience of statehood in general. In these conditions, ensuring military security according to the principle "that's what I want" is a threat not only to the Baltic States but also paradoxically to all their neighbors. Economic and political instability in the 21st century easily crosses borders, which is why there is a question of ensuring any possible security, its limits and quality.

For a long time after 1991, the Baltic Sea Region has been a territory of relative economic prosperity and political stability. The political course of the Baltic States implied limited cooperation with Russia. Finland and Sweden were ready to act as partners in the integration of Russia into the European and world systems. The Council of the Baltic Sea States (CBSS) and the Nordic Council of Ministers implemented a number of programs to introduce best practices on a wide range of issues, from environment to local government.

At the same time, both objective and subjective contradictions gradually accumulated. Russia's expectations for cooperation with Europe and Europe's expectations for cooperation with Russia are not the same. This mismatch was not a quick reaction to an event, it was more likely to be a trend. This question has been discussed in the modern research papers [1-5, etc.].

However, within the framework of this article, the issue of the Baltic States' role in the general context of the RU-EU relations seems to be more important. Meanwhile, the subject of this research is the militarization of the Eastern Baltic region, which began long before the events in Ukraine. The fact that "Political leaders of Estonia, Latvia, and Lithuania have considered participation in the alliance as an important element of Euro-Atlantic solidarity which allows smaller — from all viewpoints — states claim their participation in the decision-making process on global issues" [6, p. 15] is quite obvious.

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At the same time, "smaller — from all viewpoints — states" presuppose the imperative of a rigorous economic assessment of any political decisions. Ralph Norman Angell, the winner of the Nobel Peace Prize in his program work "The Great Illusion: A Study of the Relation of Military Power in Nations to their Economic and Social Advantage notes: "The success of smaller states is a fact that further demonstrates that wealth can be provided in addition to armament"[7, p. 40].

The militarization of the Baltic States occurs in the era of postmodernism: "The distinctions between the political and the economic, the public and the private, the military and the civil are blurred.

To introduce new coercive forms of economic exchange, political control is needed. A new, reactionary configuration of social relations is being set up, where the economy and violence are closely intertwined within the political paradigm" [8, p. 222]. It is noteworthy that the given processes are observed in many countries. However, this interrelation is more apparent in smaller countries.

The hypothesis mentioned above needs certain argumentation. Consequently, this research is aimed at identifying objective economic limitations to the present day strategy for militarization in the Baltic States.

Another goal of this study is to demonstrate that the sustainable social and economic development is impossible given the growing military spending and shrinking economic ties with Russia.

The study also aims to prove that the present day model of military construction developed in the Baltic States after 2004 (joining NATO) and before the events in Ukraine (2014).

As an additional task, it is presumed to prove that course on militarization is not connected with events in Ukraine and is a part of Baltic States' political agenda.

Moreover, the goal of this study is to assess the indirect impact of macroeconomic regional military spending.

The hypothesis of the study, which was confirmed, was the expediency of analyzing military expenditures not as part of GDP, but as part of the revenue side of the budget.

Baltic States: Dynamics of Military Capabilities and Their Economic Assessment

Existing information indicates that the military spending in the Baltic States started increasing when they joined NATO. The Baltic Air Policing program was launched on March 30, 2004. The modernization of former Soviet airbase Zokniai, the biggest one in the Baltic States, cost

43 million euros [10]. Since April 2014, the Estonian air base Ämari has been involved in the Baltic Air Policing Mission. Four NATO fighters on a rotational basis have been deployed. This is former Soviet airbase Suurkül, for the modernization of which NATO has allocated 30 million Euros [11].

In 2012, the Baltic States' expenditures on the Baltic Air Policing Mission's support amounted to 2.2 million euros. In 2016 they went up to 10 million Euros [12, 13]. It is important to mention that at this stage the infrastructure costs were covered not by the recipient countries, but directly from NATO budget.

A former Soviet airfield Lielvārde, located in Latvia, has become another major military infrastructural facility in the Baltic States. It underwent a major modernization in 2007—2014 when NATO spent 45 million euros [14]. Similarly, since 2015, the US Air Force planes have arrived regularly in Ämari to support the Atlantic Resolve Operation within the frameworks of so-called Theater Security Package (TSP). It's about the F-15 Eagle fighter and the A-10 Thunderbolt II attack aircraft [15]. It should be pointed out, that the deployment of the F-16 Fighting Falcon multi-purpose fighters capable of carrying American tactical nuclear bombs means not only military-political risks but also the corresponding economic expenditures [16; 17].

Since 2015—2016, economic structure support has been provided by the Baltic States' national budget. However, 6.5 million Euros for the further modernization of Ämari airbase has been allocated.

Since April 2014, NATO ground forces, mostly American, in addition to the air forces have become available. Thus, since February 2017 to June 2017, the 1st Battalion of the 68th Armored Regiment of the 3rd Armored Brigade Combat Team of the 4th Infantry Division (the 3rd brigade group was transferred to Europe from the United States for nine months in early January 2017) was deployed in Rukla (Lithuania), Adazi (Latvia) and Tapa (Estonia) bases. The battalion accounts 628 soldiers and officers, 29 M1A2 Abrams Main Battle Tanks (MBT) and 32 Bradley Infantry Fighting Vehicles (IFV) and Cavalry Fighting Vehicles (CFV) [20, p. 101—102].

Maintaining this military infrastructure requires heavy funding in accordance with the standards of NATO.

To speed up the American troops deploying in the Baltic Sea region, the depots for military equipment are constructed within the framework of the European Activity Set (EAS), which has been implemented by the USA since 2013. The first military depot was built in Lithuania in 2015. It houses nearly 200 military units and munitions (including M1A2 Abrams MBTs and Bradley IFVs), which is enough to arm a company-sized element. The same kind of storage depots was built in Lithuania and Estonia in 2017. As the result, every country of the Baltic Sea region

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must have a set for equipping the US mechanized infantry company (14 units of heavy armored vehicles (tanks and/or IFVs) plus light support vehicles) [9]. Taking into account weaponry and military equipment housed in Poland, all this would be enough to equip a combined battalion of the US land-forces [21].

At the NATO summit in Warsaw on July 8—9, 2016, it was decided to deploy four multinational tactical battalion groups to reinforce an advanced presence in Poland and three Baltic countries (one in each country). Their deployment began on January 24, 2017, and finished on June 19, the same year [22; 23].

Germany headed the battalion group in Rukla (Lithuania). The group also includes the military from Belgium, Netherlands, Luxemburg, and Norway (the total number of the group is about 1,022 personnel). French armed forces (about 1,100 personnel) joined Great Britain battalion group of Tapa (Estonia). The troops from Spain, Italy, Poland, Slovenia, and Albania (about 1,138 personnel) joined the Latvian base group Adazhi, which was led by Canada. Thus, all the joined tactical battalion in the Baltic Sea region accounts for approximately 3,260 NATO troops, which roughly corresponds to the size of one brigade [24].

The deployment of additional troops and the increase in the number of own armed forces required the creation of additional military infrastructure and the modernization of the existing one. For example, in 2016 Latvia invested 23.5 million euros in the development of military infrastructure, and by 2017—42 million euros [25]. In Lithuania, deployment of the NATO multinational battalion alone required an additional infrastructure expenditure of about 5.8 million euros [26]. Estonia in 2016 allocated 10.1 million euros for the development of infrastructure for NATO forces [27].

Expenditures of the Baltic countries and on the development of their armed forces have significantly increased, incl. arms purchases, including armored personnel carriers (APC) and infantry fighting vehicles (IFV), self-propelled guns (SPG), anti-tank guided missiles (ATGM), manportable air-defense systems (MANPADS), medium-range surface-to-air missile (SAM) systems, etc. (see for more details [28]). The equipment that is purchased has often been in use. An example of this was the purchase of old British armored vehicles by Latvia for the amount of 249 million euros, which brought about the scandal and investigation [29]. However, in some cases, the purchases are of some modern designs. For instance, Lithuania has bought German Boxer APC, Norwegian-American NASAMS-2 mobile medium-range SAM system, American Javelin ATGM and Stinger MANPADS, Latvia - Swedish RBS 70 NG MANPADS and Israeli Spike-LR ATGM, Estonia - South Korean K9 Thunder longrange self-propelled howitzers (together with Finland), Javelin ATGM and French Mistral-3MANPADS.

Given the economic aspect, a paradoxical situation arises. Infrastructural support of obsolete military equipment requires more costs, which is connected with the specifics of the maintenance. Similarly, the heterogeneity of military equipment and equipment characteristic of the Baltic states creates not only organizational but also economic problems.

Let's get down to the military-economic aspect of the problem in a more detailed way. The military needs of the state represent the totality of its economic needs, which are necessary for the material security of the country's military security, for the armed protection of its national interests. The greatest increase in military spending is typical for Central European countries in 2016. In 2016 compared to 2015 military expenditures grew mostly in Latvia (44% to 267.86 million euros) and Lithuania (35%, up to 575 million euros) [30].

According to the IHS Markit report, by 2020 the overall defense budgets of the three Baltic republics will reach \$ 2.1 billion, which is twice the corresponding costs in 2004 when the countries joined NATO, and is the fastest growth of the "military" budget in comparison to any region of the world [31]. However, what is important is the extent to which the economies of the Baltic States can develop under such budgetary rules?

The Baltic countries certainly have a strong potential for cooperation with Russia and could become a zone of contact between the West and Russia, but this does not happen. Moreover, according to expert estimates, the disruption of economic ties with Russia results in 8–12% of GDP losses in each of the Baltic states [32, p. 45].

The political decision to break the production chains adopted decades ago triggered the transformation of economic policy in the Baltic States and Russia. However, the interdependence in transit and logistics has proved to be stronger than economists and politicians assumed. The EU reforms and the new budget cycle (2020) are accompanied by a change in the model of financial planning, a reduction in budget subsidies to European states. Brexit also means a change in the model of financial relations between Brussels and the Baltic states.

Budget planning in these conditions is based on planning "from what has been achieved" and involves the analysis of expected change in both expenditures and revenues. It is unacceptable to adjust the projected budget figures according to the political decisions of simply advisory nature.

Under these conditions, disrupted economic ties with Russia mean losses of 3-5% of GDP or at least 10% of the budget revenue.

Military Expenditures versus Balanced Development: Traditional and New Approaches

Studies of the impact of military spending on the economy have had a long history. As it was written more than 60 years ago, "for the American people, of course, there is nothing new in the idea of ensuring the prosperity of the economy through spending on weapons" [33, p. 3]. American approaches to the economic analysis of military spending are very complex, their improvement is rightly associated with the post-war period [34].

Recognizing that the defense sector is potentially one of the most technologically advanced in the national economy in countries with high military expenditures, "the defense can hardly be denied as an inherent driving force for diversifying the market economy".

For this, double-use technologies are used, partnerships of state companies with commercial enterprises are formed to fulfil defense needs. The process was named as the "spiral development" method and the "spiral acquisition of weapons" principle, suggesting a reduced transition time to new technologies with the progressive build-up of necessary knowledge. It was assumed that these measures should not only promote the expansion of possibilities to bring down the cost of creating military equipment, but also enhance the activity of the technological transfer [36, p. 27].

Providing a source of demand for new technologies that do not yet have a niche in the market, military spending provides an important impetus for research and development, which affects more broadly innovation in general. Therefore, it is not surprising, according to researchers (including Dan Steinbock), that during the Cold War, defense R & D was a key "contributor" to national growth through large-scale development of important general-purpose technologies [37].

On the other hand, there is another point of view, suggesting that "high defense spending, security and pensions take money that could be invested in human and physical capital" [38, p. 6]. The authors believe that the growth of military spending and the growth of the military security component for the Baltic states lead to other economic consequences than for Sweden, the US or Russia.

There are some systemic economic signs of this situation.

Firstly, the increase in military spending causes a reduction in other national spending. This is guaranteed for infrastructure and health care costs.

Secondly, most of the expenses of wartime are formed even before the military conflict begins. For instance, the country strives for a steadily high level of military spending. However, political risks cause capital

outflow. Economic policy, political institutions, and political freedoms continue to deteriorate in the situation of growing of military threats, either imaginary or real once.

Even in case of a fairly successful economic development (e.g., Estonia), there is still an unresolved question how the economic indicators would be compared to the military spending of Germany (1.2%). In other words, can Lithuania afford to double its military spending, twice as high as those of Germany if the economy of the latter is 40—45 times as big? Large-scale economic growth is necessary to avoid this trap, but in the Baltic states it is impossible because of external and internal factors. An additional 2.2% of GDP military spending during a seven-year period leads to a permanent loss of about 2% of GDP [39].

Thirdly, the economic expenses of militarization are prolonged at least for the medium term. The chairman of fraction «Consent» in the Latvian Saeima (parliament) Janis Urbanovich named the state budget of 2017 a front-line one. According to the parliamentarian, the country is allegedly preparing to repel an attack from the east.

"Russia is not an enemy of Latvia. Enemies of Latvia are inner ones such as poverty, stupidity, weak health care and education systems", Urbanovich emphasized [40]. The number of local economic projects, which will be slowed down, still grows. "I think, because of the preparation for war, no one is ready to invest in the military," said OU Navesco (Estonia), a member of Tõnis Seesmaa in August, 2016 [41].

The aforementioned reason represent the real macroeconomic prospects of the national economies of the Baltic states. Existing mathematical approaches do not allow to unequivocally evaluate the impact of military spending on economic growth. This conclusion, which is based on the analysis of quantitative studies using mathematical models (mainly econometric methods and factorial analysis), is presented in the forthcoming study [42].

This situation was evaluated by other experts and we totally agree with their conclusions. "Numerous studies have neither convincingly supported the opinion of the negative impact of military spending on economic growth, nor have they refuted the hypothesis about a positive interdependence between defense spending and economic growth" [43, c. 27, 44].

The correlation between military and economic development priorities is not probably new in social and political sciences, and it has been discussed for a long time. Quantitative research methods, so popular in the 20th and especially 21st century, certainly contributed to the analysis of this issue. However, until now there has been no clear understanding of how to ensure a balanced economic development in the conditions of real or hypothetical military risks. There are different points of view on

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the impact of increasing military spending on the national economy. This issue which has been repeatedly analyzed for developed European countries, the USA, the Soviet Union, China, is now becoming more acute also for the Baltic states: Estonia, Latvia, Lithuania. These countries try to revitalize an old discussion about the consequences of increasing military spending.

Military Spending: Economic Consequences for Smaller Countries

There is a traditional question: to which extent does military spending facilitate economic development? Does it enhance or hamper it? The answer is obvious for leading economies. For us, it is more important to assess the consequences of mobilizing technical and military capacities in smaller countries.

From our point of view, there is no definite answer to this question. Moreover, when analyzing the Baltic Sea region, the scale effect proves to be particularly important. In other words, the quantitative and qualitative indicators of the economic development of Germany and Sweden cannot be compared directly with that of Estonia, Latvia, and Lithuania. In Germany and Sweden military construction contributes to the modernization of the existing infrastructure, stimulates the construction industry, and has a positive effect on certain service sectors, especially public catering. However, as for the Baltic States, military spending leads to an increase in innovation activity, development of high tech, including dualpurpose technologies, but not in every country.

Investing in the military-industrial complex (MIC) of Sweden or Germany is cost-effective since in the vast majority of cases the money is spent on dual-purpose technologies. As for the Baltic States, the situation is quite different. The Estonian robotic caterpillar tracks designed by MILREM and presented at the UMEX-2016 International Exhibition in Abu Dhabi are used for military purposes only. However, the development of this and other systems required enormous investment, too heavy a burden for Estonia's national economy.

The certification and compliance of these products with the NATO standards is a technological and, consequently, an economic problem. It is even more expensive than producing military equipment and the production cost per unit is very high. This problem does not exist in Germany. Germany's military spending is relatively low, but still the country has a well- developed military industry: its military export volume ranks fourth in the world. However, if Germany meets the NATO requirement

to invest 2% of its GDP in defense, then, according to some estimates, the country will have needed a budget which exceeds the present budget 1.2% (75 bln) by 2024 [45].

In 2016, Latvia's military budget amounted to 280 million US dollars [46]. Investing heavily in research and development, Germany and even politically neutral Sweden benefit greatly in many spheres. These countries develop dual-use technologies penetrating new markets. Politically neutral Sweden is a smaller country but it provides a wide range of military supplies to the NATO. However, this exception confirms the rule: modern high-tech production demands an appropriate system of staff training, whereas the absence of such production requires a completely different system of professional education [47].

The share of military spending in GDP is calculated as the aggregate of armament, military personnel costs, depreciation of fixed capital (barracks, structures, etc.) and operating costs. Let us explain it using an example. If Sweden adopts the Strf 9040 infantry fighting vehicle (IFV) manufactured by NV Utveckling AB, then it will be manufactured and maintained in Sweden which is beneficial for the national economy. That is why Sweden pays a different price for the Strf 9040 vehicle compared to Poland, which imports this IFV.

It is more complicated to calculate military spending taking into account dual-use infrastructure costs and expenditures related to it. How is it possible to assess one-off NATO payments? To which extent can they compensate for defense spending? According to the Ministry of Defense of Latvia, the country will have received 71 million euros from NATO by 2021. The funds received are planned to be used for the development of the country's military infrastructure, as well as for the deployment of the Allied troops that arrived in Latvia in 2017. Earlier, Latvian authorities announced the plans to meet one of the NATO requirements to allocate no less than 2% of GDP for military expenditures. As of today, 2% of GDP of Latvia will account for approximately 600 million US dollars a year, i.e. it will have doubled. Taking into account the fact that Latvia's national debt has increased from 1.5 billion to 9.5 billion euros [which is a one-year national budget of the country] during the last ten years [48], such a policy may lead to a loss of control over the key macroeconomic processes.

There is an even more difficult problem — the estimation of indirect losses. One of the world's largest insurance companies, American International Group (AIG), set up in Vilnius in 2015, decided to relocate its service centre and move it away from the Lithuanian capital in 2017. In 2016, the same decision was made by the manufacturer of soft drinks Coca-Cola and the manufacturer of chips Estrella [49]. The situation is similar in Estonia: instead of the planned investment in Estonia, Apple,

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an American multinational technology company, will invest in Denmark and Ireland [50]. There are several reasons for it: high electric energy costs in Estonia and the country's close proximity to Russia.

The focus is always on the military threat: on the one hand, it attracts military investment, but on the other hand, it deprives the country of the majority of long-term investments in the economy and, especially, social capital. Tactical benefits from dual-use infrastructure in the conditions of the destruction of social infrastructure cannot be compensated.

Conclusion

In conclusion, we note the necessity to adjust the basic methodology. We see it as incorrect to relate military spending calculation to GDP. The share of military expenditures should be compared to budget revenues. For instance, in Estonia, the state budget revenues in 2017 accounted for 9.42 billion euros. Defense spending for the first time grew up to 2.18% of GDP — almost 500 million euros. In addition, all the expenditures requiring the Allies presence in Estonia, including investments in the military town of Tapa, will be financed. Moreover, the funds of the defense investment program for 2018—2020 will be used in the total amount of 60 million euros and also the construction of the eastern border will continue [51]. Thus, 560 million euros are to be calculated out of 9.42 billion euros. In our case, open military expenditures on budget items amount to almost 6.0% of the budget revenue. A similar situation is typical for Latvia and especially Lithuania.

Given the above-mentioned analysis, three scenarios of the political situation in the Baltic States and Russian-Baltic relations can be identified [52]. Relating to the topic of this article, the strategy of managed conflict and direct local conflict bring the same outcome which is the destruction of the economy and political instability. Only peaceful coexistence and cessation of militarization in the Baltic region will contribute to the economic development of both the Baltic States and Russia.

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REGIONAL DEVELOPMENT: GEOGRAPHY AND ECONOMY

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THE KALININGRAD REGION: CHALLENGES OF THE EXCLAVE POSITION AND WAYS TO OFFSET THEM

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Recent geopolitical shifts and Russia's response to them have had a significant impact on the Kaliningrad region. This has created new challenges and warranted a revision of the old ones. The article investigates the reaction of the region's economy to the challenges of its exclave position and considers possible measures to offset related problems in the current geopolitical situation. The article employs statistics, regional strategies, cross-border cooperation programmes, and expert interviews conducted by the authors in Kaliningrad in 2012-2014. The vast body of empirical data is instrumental in analysing the views of different stakeholders and estimating the problems and prospects of the region's development as either Russia's military outpost in Europe or as a 'cooperation laboratory'. The analysis takes into account collaborations with the neighbouring states. In striving to identify the preferable regional development conception, the authors reveal low susceptibility of local cross-border cooperation actors to the belligerent rhetoric of national authorities on either side of the border. The study of the state of affairs in tourism, a promising area of regional specialization, demonstrates a dual effect of the exclave position, which can be considered both as a challenge and an opportunity.

Keywords: exclave, Kaliningrad region, border region economy, tourism, cross-border cooperation

After the demise of the USSR, the Kaliningrad region and the prospects of its development remain in focus of attention of the Russian and foreign researchers. Since there were many

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publications devoted to the analysis of the exclavity phenomenon [1], as well as influence of exclave position on the development of the Kaliningrad region [7; 16; 17]. A successful attempt to represent sixteen hypothetical regional development concepts, reflecting current diversity of opinions, was made in the book "Development strategies of the Kaliningrad region" published in 2011. Without getting into details and inherently unrealistic approaches including those presupposing secession from the country, it is possible to distinguish two main organically interrelated lines in the discussion on the regional development problems. Some researchers were primarily focused on a search for Russia's internal opportunities and incentives for the development of this territory. Within the framework of this approach, different models of interrelation between the federal centre and the region development were regarded [8; 18].

Another no less important line of the discussion was an attempt to associate economic development of the region with an external context: geographical position, processes of Euro-Atlantic integration, etc. Some Russian and foreign researchers emphasized that exclavity generates not only hazards, but also new development opportunities. According to their opinion, the Kaliningrad region should have become a 'region of cooperation' [8], which could have potentially led to confidence building initially between countries of the Baltic region [23], and then between Russia and the EU as a whole [22; 24]. As a 'natural laboratory of cooperation' aimed at the development of relations between Russia and the EU [32], the Kaliningrad *oblast*' could have got significant economic advantages and, while modernizing the economy, become a kind of driving force for Russia's rapprochement with the European Union.

A new crisis in Russia — EU relations in 2014 revitalized old perception of the Kaliningrad region as a 'double periphery' [19] and even a 'geopolitical hostage' [26] withdrawn from modernization processes in Russia and Europe. Just like in the old days, the Baltic exclave is more often regarded as one more 'unsinkable aircraft carrier', and a 'military outpost' of Russia in the West [3; 21].

The change of geopolitical situation and mutual sanctions of the Russian Federation and the West had exerted a significant impact on the position of the Russian exclave; these create new challenges for regional development.

The aim of this work is an attempt to analyze challenges of exclave position as well as responses on them proposed by federal authorities and regional development strategies and cross-border cooperation programs. The exclave and near-border position do not only impose certain restrictions but are an important resource. The paper demonstrates its dual role using an example of tourism as one of prospective specializations of the region. The research is based on statistical material and a series of interviews conducted by the authors in the Kaliningrad region in 2012, 2014, and 2017¹. The article explores regional development strategies and cross-border cooperation programmes, analyses departmental statistics, describes tourist flows and results of surveys provided by the Ministry of Tourism of the Kaliningrad region, the Kaliningrad Tourism Information Centre, and the Agency for Foreign Affairs and Regional Cooperation.

Exclavity as a Challenge for the Regional Development

The exclave position influences practically all aspects of the regional development. The region is separated from mainland Russia by territories of Lithuania and Belarus, and the sea route to St. Petersburg is over 1,000 km long. Considerable experience has been accumulated in the world in the management of exclave territories, including those that used to exist in the territory of today's Kaliningrad *oblast*' [16] but the application of this experience is restricted due to the peculiarities of the region. Firstly, the Kaliningrad region is one of the largest exclave territories in recent history. The region stands out from other similar territories due to its big number of population (986,000 people in 2017) and a relatively diversified economy. Secondly, under the current conditions, the enclave status of the region within the European Union and the NATO countries creates a significant conflict potential because the Russian exclave is not an independent state unlike other similar areas (for instance, Andorra or Vatican).

Similarly to other exclaves, the Kaliningrad region faces four main groups of problems. Firstly, providing access to the exclave territory from the main territory of the state; this is the most obvious cause of serious and frequently emerging conflicts. In case of Kaliningrad, the issues of transit (personal, cargo, and military one) have provoked such disputes. Secondly, there have been some management difficulties caused by the impossibility to solve inner problems without taking into account the opinion of the neighboring countries. Trying to provide the region with power by the construction of the Baltic Nuclear Power Plant, Russia met serious objections from the neighbouring countries who failed to propose any adequate alternatives while making diplomatic demarches only. Thirdly, exclave territories face economic problems resulting from the insufficient capacity of their internal market as well as from additional expenses entailed by customs and border barriers. Fourthly, there is a possibility of the formation of a special identity which can be, on the one hand, conservative due to the isolation from the main territory of the

¹ The authors conducted over 40 interviews with representatives of business and expert communities, regional and local authorities, customs services, religious and noncommercial organizations.

country, and, on the other hand, extremely flexibility due to the influence exerted by the nearest neighbours [14; 5]. This possibility, fraught with the risk of the region drifting away from Russia, causes major concerns in the federal centre. This is clearly visible in the results of the federal discourse analysis [9] and in the interviews by local experts.

Negative effects of the exclavity were not observed immediately after the demise of the USSR; they developed gradually. It is possible to say that a gradual process of 'exclavization' evolving from a legal to a real exclavity of the region [7] (Fig. 1).



Fig. 1. Exclavization and the development of cross-border cooperation in the Kaliningrad region

Russia's Internal Response to Exclavity

Federal and regional authorities have made significant efforts in order to *compensate costs of 'exclavization'* sticking to two main lines of a scientific and political discussion. The first line was a search work into a *balance of powers between the federal centre and regional authorities*. At the turn of the 1990s, most researchers and regional politicians pushed the idea to broaden economic and political independence of the Kaliningrad region; this idea complied with the decentralization processes characteristic of the relations between the federal centre and other regions at that time. In 1993, the draft law "On the Special Status of the Kaliningrad *oblast*" was prepared, but it was not passed. An alternative proposal was made to emphasize the role of the Kaliningrad region as a military outpost of the country; it meant that Kaliningrad remained a recipient region. Nevertheless, the process of the region's demilitarization was well underway.

In the late 1990s and the early 2000s, when a trend to power centralization and unification of the federation entities rights prevailed in the country, the idea of enlarging the federal presence in the region [18] and increasing direct investments by the state and government-controlled companies became more popular. Large investments were initially aimed at improving communication between the region and mainland Russia (ferry at Baltiysk) and at decreasing energy dependence on Lithuania.

During the preparation for the 2018 FIFA World Cup significant funds were allocated for the development of transport infrastructure in the region (e.g. *Primorskoye Kol'tso* motorway and a cruise terminal in Pionerskoye), and for improvement of urban services in Kaliningrad and some resort towns. The ambitious Government Programme "Socioeconomic development of Kaliningrad *oblast*' up to 2020" was adopted in 2013, however, some adjustments were already made in it due to the Federal Budget cuts.

The federal authorities provided their support in the form of the creation of special conditions for economic activities within the region. Since the beginning of the 1990s, the region has enjoyed significant customs and taxation benefits as well as tariff support for the transportation of goods. The establishment of the Yantar Free Economic Zone and the status of the Special Economic Zone in 1996 (SEZ-1996) made it possible for their residents to import raw and semi-processed materials duty-free and to export end products on the condition that the added value, created within the region, was not less than 30% (15% for electronics and household appliances). This contributed to the formation of a new economy based on imported raw and semi-processed materials from abroad and the delivery of the manufactured goods to the all-Russia market. As a result, large clusters of automobile, electronic, and electric equipment industries, based on an import-substituting principle, formed in the region [19]. In the mid-2000s, according to the Federal Service of State Statistics (Rosstat), almost 86% of Russian TV sets, 84% of vacuum cleaners, a quarter of tinned meat, etc. were manufactured in Kaliningrad.

The crisis of 2008 demonstrated a significant vulnerability of the economic model of the region based on the preferential position of assembly plants, oriented towards the all-Russia's market. It was impossible to fully compensate exclavity costs because of the Eurasian integration and the preparation for Russia's accession to the WTO. The interests of the exclave as a territorial system relatively isolated from the rest of the country did not always coincide with the interests of other Russia's regions and the state as a whole. Decisions with the aim to overcome the exclavity resulted in additional advantages of the region over other regions with similar economic profiles. This provoked interregional conflicts of economical and political character.

This experience was partly taken into account by the Federal Law No. 16 "On SEZ in Kaliningrad *oblast*" of January 10, 2006 (SEZ-2006) which established ten-year transitional period for the transfer from customs privileges to tax advantages. During this period, duty relief remained valid for legal entities registered before April 1, 2006 only. New

residents of the SEZ could enjoy tax preferences only. Despite these measures, however, most manufacturing plants in the Kaliningrad region enjoyed customs privileges provided by SEZ-1996 regime even up to 2016. After the repeal of these benefits in April 1, 2016, enterprises started to receive compensations from the federal budget. About 26 billion rubles were allocated for these purposes in 2016, including almost 14 billion rubles for car assembly enterprises. In order to support local manufactures, such measures were taken to delay of import VAT payments, subsidies for rail transportation of goods, and support for the regional labor market [15]. However, the procedures of paying subsidies to local business operators remain non-transparent [2].

In 2016, emphasizing the necessity of additional support to Kaliningrad entrepreneurs, who are uncompetitive compared with any mainland Russia manufacturers, the Kaliningrad authorities started developing an entire complex of measures to attract investments and simplify conditions of business activities in the region.

In 2017, amendments to the Federal Law FZ-16 "On SEZ in the Kaliningrad *oblast*" were adopted extending the SEZ territory to land and water areas of sea ports, prolonging the time of the SEZ operation up to 2045, and introducing some additional preferences for residents.² According to local experts, however, all these amendments are insignificant in comparison to principal proposals made by the local government but rejected by federal authorities. [13]. At the same time, many experts believe that it is not a matter of concrete procedures, but a matter of instability of the such economic model, basing not on specific regional factors, but on artificially created institutional conditions, changes of which could make many production facilities, created in the region, incapable to exist [4; 12].

Neighborhood as a Method to Compensate the Exclavity: the Role of Cross-border Cooperation

External conditions of the region development were also a subject of an active scientific discussion, the results of which are partly fixed in regional strategies. The assessment of these conditions and methods to overcome the exclavity depend, first, upon parameters which should be regarded as prior ones while evaluating geographical position of the region — the exclavity per se or the neighborhood factor [12], and, secondly, upon the assessment of the neighborhood factor itself and the entire

²Abolition of utilization fee, simplification of procedures of various expert evaluations, reduction of insurance payments as well as income and property tax rates for new residents of the SEZ, lowering of minimal investment threshold.

complex of relations between Russia and the EU as a whole. The diversity of emerging opinions on the issue may be reduced to two main approaches.

The first approach, becoming increasingly popular in recent years, is a possibility and even necessity to make the Kaliningrad region Russia's "military outpost" again. Despite the fact that the majority of people, who advocate this approach in its most extreme forms, are rather political writers than scientists, the probability of such scenario cannot be completely excluded. This approach is described in research literature in a softer form [21; 3], and is not reflected at all in regional strategies worked out up to date.

The second approach stipulates that benefitting from the neighborhood position may be a way to compensate the region's exclavity. In the 1990s, when the relations between Russia and the EU seemed to be evolving to the level of not just mere cooperation but even of strategic partnership and integration, an idea of a 'pilot region' of Russia-EU cooperation appeared [18]. The Kaliningrad region was regarded both by Russia and by the EU as a specific region under the sovereignty of Russia, as a platform for EU-Russia cooperation. This referred to the testing of new forms of economic integration, cross-border cooperation, people mobility, etc. This idea was supported by both Russian and foreign scientists [8; 31], by regional authorities, It was even proclaimed as Russia's official negotiating position at different EU summits in the early 2000s.

In the mid-2000s, when the top-level cooperation between Russia and the EU started to slow down, a less ambitious and less obliging idea of "the region of cooperation" was discussed. Even this idea, however, became excessively revolutionary in a little while, and this has not allowed to implement the "Strategy of socioeconomic development of Kaliningrad *oblast*' as a cooperation region for the period up to 2010" to the full extent. Regional authorities within their powers focused on most depoliticized and, as time has shown, most stabile form of international cooperation— cross-border one.

The regional authorities initially regarded cross-border cooperation as a method to mitigate the consequences exclavity and the socioeconomic crisis after the demise of the USSR. In the 1990s, the process of active formation of institutional infrastructure and cross-border cooperation practices was going on at the regional level under the control of the central government. Russian-Polish (1992) and Russian-Lithuanian (1999) cooperation councils were established in the Kaliningrad region during that period; many issues of current interest, ranging from border delimitation and demarcation to economic cooperation, were within the scope of competence of their different commissions.

An important role in the formation of the existing cooperation frameworks was played by TACIS programme launched in the Kalinin-

grad region in 1991. The region became one of priorities of this programme in 1994; in particular, this entailed a significant increase in financial support. TACIS projects concerned mainly environment protection, modernization of some plants, development of transport networks, and trainings for managers and professional employees.

In the late 1990s and the early 2000s, Euroregions became one of the main forms and platforms of regional cooperation. Five of them were established with the Kaliningrad region, namely "Neman" (founded in 1997), "Baltic" (1998), "Saule" (1999), "Sheshupe (Šešupė)" (2003), and "Łyna-Lava" (2003). Most intensive cooperation took place in the Euroregions "Baltic" and "Neman". The total amount of the EU grants for the Euroregion "Baltic" ran to 8,9 million euros in the period from 1998 to 2005 while that for the Euroregion "Neman" amounted to 13,2 million euros [20].

According to the official documents of the Ministry of Foreign Affairs, in 2012 the activities of the Euroregions were ineffective because of several issues, first of all due to a lack of financial resources in municipalities for the implementation of joint initiatives together with foreign colleagues as well as due to significant contradictions between partners. The participation of the Kaliningrad region in the Euroregions is gradually being reduced while there are no new projects. International activities are limited to several small international events at best.

After the EU enlargement the Kaliningrad region took an active part in the programme of cross-border cooperation "Lithuania - Poland -Russia 2004-2006" financed by INTERREG (for the EU member countries) as well as PHARE (for countries which are candidates for the EU accession) and TACIS (for the rest of participants). The bulk of projects, implemented through these programmes, was aimed at developing cooperation in the spheres of environment protection, civil society development, cultural and scientific exchanges. However, programmes of crossborder cooperation were repeatedly criticized by the expert community. It was noted that the projects were obviously asymmetric in their character because most funds were spent within the EU countries, having no serious impact on the socioeconomic situation in neighboring regions involved in the programme [6; 27]. Financing of the first cross-border cooperation programmes was performed by the EU and contractors in the Kaliningrad region had the status of partners without any financial participation and, therefore, could not promote their interests.

In 2007, Kaliningrad *oblast*' took part in the development of a new program of cross-border cooperation "Lithuania — Poland — Russia" (2007—2013) taking into account the experience of the previous program implementation. Thus, instead of complicated financing through different funds and European programmes (INTERREG, TACIS, PHARE) a unit-

ed financial system was created — European Neighborhood and Partnership Instrument (ENPI) — with a single set of rules and procedures for all participants; co-funding threshold for projects bidders was lowered; more opportunities emerged for adaptation of the European Commission priorities to local realities.

As far as the content and implementation practices are concerned, the ENPI programmes of cross-border cooperation (2007—2013) differed significantly from the INTERREG, PHARE, and TACIS programs (2004—2006). First, systematic monitoring of programmes efficiency allowed the region to decrease costs of socioeconomic development asymmetry in near-border areas. It was the result of the experience gained by local actors during international projects and, most notably, a tangible financial contribution of the Russian side to the overall budget of the programme (44,000,000 Euro or about 25 percent).

Secondly, cross-border cooperation came "closer to the border": new programmes were focused on border areas to a greater degree than earlier (Fig. 2). The programmes of 2007—2013 demonstrated long-established patterns; they shifted the emphasis partially from large cities to municipal centres located closely to the border. They became platforms for large-scale infrastructural projects aimed mainly at the improvement of transport accessibility of these towns from the adjoining territories of the neighboring countries. These programmes were also aimed at the reduction of negative influence of these towns on the environmental situation in trans-border river basins.

Thirdly, "soft" projects, relatively small in terms of funding allocation, are accompanied in cooperation programs with larger projects aimed at modernization or creation of up-to-date infrastructure.

The analysis of implemented projects in the sphere of cross-border cooperation demonstrates that the Kaliningrad region has made good progress during the last ten years, as far as the deepening of interaction with neighboring countries (first of all, Poland) is concerned. An institutional model of cross-border cooperation was gradually constructed which led to the formation of real partnership networks, both crosssectoral ones and those concerning individual branches (environment protection, tourism, etc.). Today, it is difficult to forecast the stability of such networks and their capacity to initiate independent projects. Nevertheless it is quite clear that there is continuity in partnership relations because any new programme demonstrates reproduction of the already established contact groups. Common interests of their participants provide prerequisite for further cooperation even under conditions of geopolitical tension.

A key distinction of the new programme period (2014—2020) is a transition from a trilateral cooperation format to a bilateral one. As in the previous years, among priorities proposed by the European Commission,

the programme participants can choose and adopt those of them, which meet their interest the most. It was decided that primary focuses of the "Poland-Russia" programme should be the improvement of near-border areas accessibility and environment protection. It is expected that in the "Lithuania-Russia" programme a lot of attention will be paid to antipoverty measures as well as the support of cooperation between local and regional authorities. Nevertheless, cooperation in the sphere of historical, natural, and cultural heritage preservation and also in the field of border security management and migratory movements control remained a common priority of both programs.



Fig. 2. Partnership network emerged as a result of cross-border cooperation projects according to INTERREG IIIa and ENPI programmes in 2004—2013

By the beginning of 2018, financial agreements between Russia and the European Union as well as framework documents concerning the programmes "Poland-Russia 2014—2020" and "Lithuania-Russia 2014—2020" have already been signed, and a joint monitoring committee of the programme has started its work. A package of requests for large-scale projects with obligatory infrastructural components is being formed. These projects include "From Spit to Spit" bikeway, the construction of a waste treatment facilities in Yantarny and Rybachy, the construction of a beach promenade, a park and marina in Svetly, improwing water supply and waste water treatment, the construction of a road in Gusev, and many others.

It is known that the total allocated budget of the Poland-Russia crossborder cooperation programme will run to 61,900,000 Euro (41,3 million euros from funds of the European Union and 20,6 million euros from funds of the Russian Federation) while that of the Lithuania-Russia programme will exceed 23,5 million euros (including 7,8 million euros contributed by Russia). The first period of tender applications according to the Russian-Lithuanian programme started in January 2018 and will continue until April (most probably there will be another round). The results of tenders will be announced in the summer 2018. A regular tender within the framework of the Russian-Polish programme will begin in February-March 2018 because the agreement was signed only at the end of December 2017 as a result of the Polish Cabinet reshuffles and a tension in the relations between Russia and Poland.

Despite positive experience of the cross-border cooperation, it does not meet all expectations. First of all, its positive influence on the structure of the Kaliningrad region economy was not significant. The idea of production cooperation with the neighbours in a bipolar (Tricity Gdańsk-Gdynia-Sopot — Kaliningrad) or a tripolar format (Tricity — Kaliningrad — Klaipėda) was not implemented. As a result, the most intensive cross-border contacts of the region were until recently related to supplies of consumer goods as well as raw and semi-processed materials for further processing at the region's plants and a subsequent delivery to Russia's market. Steps, taken by the Russian government in response to Western sanctions, have inflicted a blow at these already established relations. The events of recent years have also done harm to the tourism which is one of prior branches both for cross-border cooperation and for regional development.

Exclavity and Tourism: Opportunities for Cross-border Cooperation

The tourist industry has been one of the regional priorities since the early 2000s when the development of economic strategies became systematic in its character. Although the contribution of tourism to the region's GRP is rather humble and, according to optimistic assessments, does not exceed 2%. And yet, the branch is on the rise (Fig. 3). According to the data of the Kaliningrad *oblast*' ministry of tourism, the number of tourists visiting Kaliningrad went up one-and-a-half times during the post-Soviet period (from 400,000 in the late 1980s to 600,000 in 2014). The growth of the number of tourists was achieved thanks to domestic

tourism, the percentage of which increased from 68.3 in 1997 to 93.7 in 2014. The main purposes to visit the Kaliningrad *oblast* was the same as in the Soviet time: health and wellness (48%) and culture-related tourism (28%).



Fig. 3. The number of tourists visiting the Kaliningrad *oblast'* (thousand people)

When the region was officially opened for foreign visitors in 1991, the first tourists, who visited the region, were so called 'nostalgic tourists', i.e. citizens of Germany born in the former East Prussia. In the late 1990s and the early 2000s, their children and grandchildren as well as inquisitive Germans interested in their history started coming to Kaliningrad.

In contrast to Russian tourists, most foreigners visit the Kaliningrad *oblast*' on business (35%) and for pleasure (46%). Besides citizens of Germany, whose percentage was 60-70% during the post-Soviet period, tourists from Lithuania and Poland were interested in visiting the region, but their percentage was not large (3-5% on average).

International programmes of cross-border cooperation, regional strategies, and regional programmes of tourism development tried to take into account the structure of tourist flows as well as the needs of individual tourist groups. The work on all these documents went on simultaneously, providing good opportunities for coordinated actions [28; 11]. There was one idea that ran through all these documents in 2003—2006. It was the idea of creating a comprehensive tourist and recreational space based on "Prussian heritage". Since 2007, the regional strategies and programmes of tourism development have been oriented mainly towards the region's own tourist brands, such as "European Russia", "Russia in Europe", "Amber Region" (*Yantarny kray*), etc. It looks odd because cross-border cooperation opportunities and the creation of a common tourist and recreational space with the neighbours were disregarded whereas a common tourist product, based on "Prussian heritage" seemed to be the most competitive and appealing.

The border regime is one of the main principal barriers for the development of cross-border cooperation in the sphere of tourism and for the formation of a comprehensive tourist and recreational space. The first experiment with visa regime liberalization for the citizens of the Schengen zone countries, Great Britain, and Japan began in 2002 when the Foreign Ministry Representation office in Kaliningrad established three consular offices at three border crossing points in Mamonovo, Bargationovsk (both for motor vehicles), and Khrabrovo Airport. In order to get a72-hour visa, it was necessary to buy a tourist product at one of six accredited travel agencies. The service *visa at border* was most frequently used by citizens of Germany, France, Great Britain, Scandinavian countries, and Poland.

According to the Foreign Ministry officials, 500 to 1,500 foreign tourists received their visas at the border yearly; that is why consular offices were open, when accredited travel agencies asked them for it and from 9.00 to 18.00 on weekdays only. Because of a limited demand for this service and a negative background created by the new regulations of the Schengen visa procurement for Russian citizens, the Foreign Ministry decided to stop the experiment in January 1, 2015. However, the visa experiment was extended to December 31, 2016 at the request of the regional government. One of reasons for making the service "visa at the border" unpopular, was a short period of visa validity.

Since 2009, visa-free entry (no longer than 72 hours has been in effect for foreign citizens coming to the region aboard cruise ships. However, there are serious infrastructural restrictions for the development of cruise travels, namely the absence of the necessary port infrastructure. According to the Kaliningrad branch of the Federal Agency for Maritime and River Transport (*Rosmorrechflot*), the sea port of Kaliningrad received only 15 cruise ships in 2011—2013, while the neighbouring port of Klaipėda was visited by 44 cruise liners in 2012 and the port of Gdynia by 70.

Another instrument, potentially increasing the capability of the region to attract tourists, was the instrument of local border traffic (LBT) introduced in 2012 and abolished in 2016 at the initiative of Poland. This mechanism granted people residing in border areas the right to mutual trips using special LBT cards. Russia and Poland managed to introduced changes in the EU rules in order to extend the LBT zone and include Tricity into it [25]. According to the Central Statistical Board of Poland, 88% of Russian-Polish border crossings were made just by Polish citizens, and 50% of them used their LBT cards [29; 30]. About 96% of Poles went shopping within 30 kilometers from the border; they did not go to Kaliningrad and tried to minimize their travel and reduce it to visiting the nearest petrol station. Consequently, even those residents of adjacent voivodeships of Poland, who frequently visited the Kaliningrad region, are not interested in the region as a potential place for excursion tourism or recreation.

According to Tomasz Omański, chief of the Polish cultural centre in Kaliningrad, the main reason why the Poles are not interested in the Kaliningrad *oblast* is a lack of information on events in the region as well as negative stereotypes which are still strong even among near-border residents. The elaboration of a comprehensive strategy for the development of tourism, including a system of marketing and advertising of various events in the region, such as concerts, festivals, sales, etc., could improve the situation.

The abolition of the LBT regime had a negative influence on the development of cross-border contacts and limits opportunities of compensation for the exclave position of the region [10].

The development of cross-border tourism is also significantly limited due to the insufficient number of border crossing points, their low traffic capacity as well as a special border zone regime on the Russian side. The border zone regime though imposing some restrictions on mobility and economic activities, was extended in 2013 to many areas regarded as potential objects for cross-border tourism development, namely the famous Romintenskaya (Romincka) Forest at the border with Poland, and Lake Vishtynetskoye (Vištytis) at the border with Lithuania (the European Baikal cluster).

The development of incoming tourism is also impeded by special zones offering only a limited access for foreigners. These zones include vast areas in the Nesterov and Krasnoznamensk municipalities, Zelenogradsk and the Guryevsk municipalities. Such a special zone in the Baltiysk municipality impedes the implementation of one of main projects in the region — the constriction of "From Spit to Spit" bikepath construction.

The border regime hampers the development of water tourism. The fact that the state borders go along the rivers (Neman, Sheshupe (Šešupė), and others) and across the Curonian and Vistula lagoons, makes it extremely difficult to use these water areas for tourism. There is little communication between the ports of Baltiysk and Elblag since there are practically no border crossing points necessary for the development of small shipping and yachting. There are no special regulations for yachts crossing the maritime border are not worked out. Although a seasonal checkpoint "Rybachy-Nida" was established in 2013, it is functioning on request only and is visited by extremely small number of ship (less than 20 for a season). One of the methods to overcome border barriers could be the practice when visa-free entry (no longer as for 72 hours) would be accessible for owners and passengers of sports, sailing, and recreational crafts as well.

The introduction of a simplified online procedure of visa processing for foreigners visiting the region since 2018 could be an important mechanism for compensation of the LBT abolition. In this case, the exclavity of the region could play a positive role because a tourist coming with a special digital visa will have no possibility to travel to mainland Russia omitting border crossing checkpoints.

Conclusion

The choice of a concept for the Kaliningrad *oblast* long-term development seems to be a difficult problem, which cannot be resolved only by efforts of the regional government. Unlike other regions of the Russian Federation, whose strategies take into consideration regional and federal interests, the Kaliningrad *oblast* due to its exclavity has to pay attention to the interests of the neighboring countries as well. Attempts to find a reasonable balance between the three groups of interests are reflected in all regional development strategies. However, this problem remains unresolved.

Firstly, the Kaliningrad authorities have no powers allowing them to influence risks related to the foreign policy or, vice versa, to use the external situation for regional development. Secondly, the interests and policy of the region's direct neighbours changed rapidly and were infused with the interests of economic and military-political groupings, which determine rules of the game in the Baltic Sea region. Thirdly, the federal centre in its Europe-related foreign policy not always respected regional interests of The Kaliningrad region as far as was necessary.

Since the early 1990s, the main emphasis of the regional development has been focused on internal factors given new geopolitical circumstances; this resulted in the creation of special conditions for the economic development of the region (SEZ) and in an increase of direct government investments. The weakness of this model became obvious during the crisis of 2008 and later, when there was a shift from customs privileges to tax advantages.

An aggravation of the international situation at the beginning of the Ukrainian crisis made geopolitical position of the region even more complicated. Nevertheless interviews with Russian and Polish experts, performed in 2012, 2014, and 2017, testify that local and regional actors of cross-border cooperation demonstrate relatively low sensitivity to hostile rhetoric on both sides of the border. The transition to a real militarization of common border areas, however, could lead to a loss of accumulated experience of cooperation, as it already happened with the LBT.

A balanced development of the region economy on the basis of internal and external factors is possible when the emphasis is made on those branches, which are interesting both for the region itself and for its neighbours. The creation of a common tourist and recreational space is an idea interesting for all; there are many prerequisites for its realization in the region, including its exclave position. Lowering or abolition of visa barriers for tourists visiting the region would be an important step aimed not only at the branch development but also at changes in relations with the neighbours.

It is known that cross-border cooperation as one of the most depoliticized forms of international relations fosters the growth of confidence and facilitates the improvement of relations on a state-by-state basis. By establishing close contacts between people, it will be easier for the region to integrate itself into all-European space and to overcome negative consequences both of its political isolation from the West and its isolation from mainland Russia. Despite all complexities of negotiations, the tense international situation had no impact on the funding and implementation of cross-border cooperation projects in 2014—2018. Regional level officials on both sides of the border hope that the recently launched ENPI cross-border cooperation programmes will not suffer from mutual sanctions exchange; they consider these programmes to be "the last bridgehead"³ of cooperation.

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THE EFFECT OF MIGRATION ON LATVIA'S SEX AND AGE COMPOSITION

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The theory of Demographic Transition stipulates that the number of countries with the replacement and sub-replacement level of the total fertility rate is growing. In these conditions, population dynamics and the sex and age composition are increasingly affected by migration. The above holds true for Eastern European countries. Population decline has haunted Latvia for two and a half decades. Since 1990, the net migration rate has been negative, which contributes to depopulation. This study aims to reveal the effect of migration on the sex and age composition across Latvia and its largest cities. The authors consider hypothetical transformations in the country's age structure in 2000–2015 in the case of zero net migration. The study uses the cohort component methods and considers the actual age-specific mortality and birth rates. The analysis of the results obtained for the population of Latvia and its individual cities makes it possible to identify temporal and age/space features of migration. A comparison of the official data with net migration rates calculated for different age groups ensures a more accurate estimate of the actual volume and direction of migration flows for certain Latvian cities. The method for calculating net migration for the selected age groups, described in the article, may narrow the gaps in the current migration statistics and reveal the territorial inhomogeneity of demographic processes.

Keywords: sex and age composition, population, emigration, Latvia, international migration, demographic situation, depopulation

The number of states experiencing population decline is growing each decade. Depopulation affected eight

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countries in the 1990s and over two dozen states — most of them, European — in 2015 [1]. Among the countries with the most rapid population decline are the Baltics. In 1992—2015, resident population decreased by 15.4% in Estonia, by 22.1% in Lithuania, and by 25.5% in Latvia [2]. These rates are much higher in the Baltics than in any other Eastern European country, to say nothing of Western Europe, which was the first to experience the *demographic transition* [3].

A low birth rate and a high mortality rate, which can be attributed to a skewed age and sex structure, are not the only causes of the rapid population decline in the Baltics. A significant contribution to the process is made by a negative net migration rate. In 1992—2015, migration accounted for 63% of the total population decline in Estonia, 77% in Lithuania, and 61% in Latvia [2]. The age of people leaving the country is 18—40. This circumstance distorts the age and sex profile and exacerbates natural decline. In recent decades, Latvia has been an absolute leader — in Europe and the world alike — in losing population. However, the rates of depopulation differ significantly across the country [4, p. 37—39].

Latvia's demography has been addressed by many international scholars, including those from Russia. Naturally, a significant contribution has been made by Latvian demographers, economic geographers, and sociologists, namely, E. Apsite, A. Bauls, M. Berzins, V. V. Volkov, I. Indans, Z. Krišjāne, and P. Eglite [5—12].

The demographic processes in Latvia are often examined in the context of population change and migration across the Baltic States. This is a viable approach, since the three countries have developed within a common geoeconomic and geopolitical space for over two centuries. Many Russian [13—18] and international [19; 20] researchers have stressed the similarities between the natural change and migration patterns in Estonia, Latvia, and Lithuania. A more detailed analysis reveals some distinguishing features of the countries' demographic development. They relate to both changes in natural increase and migration rates and transformations in the age and sex and ethnic profile. Recent works focus on the population change in the coastal cities of the Baltic region [21], regional aspects [22], and the ethnic structures and population ageing in the Baltic States [24]. Studies addressing the Baltics often examine the problems of internal migration and urbanisation [25].

Although many researchers emphasise the effect of migration on population change in the Baltics and their regions, only few works consider the connection between migration and the age and sex structure of migrants [26].

Most demographic studies conducted in Europe examine the effect of migration on the destination society — subsequent population change in the destination country, ethnic tensions, crime rates, and labour markets
[27]. Among the works on the dependence between migrations and changes in the sex and age structure, it is worth mentioning those focusing on interregional migrations in the US after the Baby boom [28].

However, studies into the effect that migration has on the origin countries are not as numerous. The most prominent works consider the impact of emigration on the subsequent economic development of the origin country or 'brain drain' and its effect on the sex and age profile [29; 30].

We aim to fill in this gap and to describe the effect of migration on the sex and age profile of the population of Latvia and its largest cities.

To attain this goal, we will:

— analyse the population change and migration observed in Latvia in recent decades;

— interpret changes in the age and sex profiles that occurred in 1898-2015;

— calculate the demographic damage inflicted on the age and sex structure by negative net migration in 1989—2015;

— consider the effect of migration on the population size and the age and sex structure of Latvia;

— calculate the age structure of net migration in selected Latvian regions.

Natural Change and Net Migration in Latvia the at the Turn of the Century

At the end of the Soviet period, the demographic situation in Latvia was dire. In the early 1990s, the populous generation of 1955—1964 was being replaced as the most fertile cohort by the much less populous generation born in 1965—1970. Combined with the previous decades' changes in the replacement pattern, this caused the fertility rate to decrease dramatically. Over twelve years, from 1986 to 1998, the *total fertility rate* (TFR) halved, having dropped from 2.21 to 1.11 [31], whereas the *crude birth rate* (CBR) fell from 16.1 to 7.6‰ [32]. In 1992, Latvia became a nation with sub-replacement fertility — the mortality rate exceeded the birth rate. The rate of natural decline reached its peak in 1994—1995 (-7.0% per year). Although later the rate would not fall below 3—5‰ per year, the number of deaths in Latvia is still 30—50% above the number of births (by 6.5—10.0 thousand people) [32] (fig. 1).

One of the causes of the ongoing demographic crisis is that the fertility rate¹ has not returned to the levels of the 1980s. Today, there are 1.5— 1.6 births per one Latvian woman, i. e. the total birth rate is 20—25% below the replacement level [31] (table 1).

¹ The number of births per 1,000 women in their childbearing years.



Fig. 1. Natural population change in Latvia, 1989-2015

Compiled by the authors and is based on [32].

Table 1

Period	Total birth rate (TBR)	Crude birth rate (CBR), ‰	Total mortality rate (TMR), ‱	Rate of natural increase (RNI), %0	Net migration rate (NMR), ‰	Total population increase, ‰
1986—1990	2.13	15.3	12.3	+ 3.0	+ 2.2	+ 5.2
1991—1995	1.56	10.8	14.8	- 4.0	- 10.8	- 14.8
1996—2000	1.17	8.0	13.9	- 5.9	- 3.8	- 9.7
2001—2005	1.30	9.0	14.2	- 5.2	- 5.8	- 11.0
2006—2010	1.48	10.4	14.5	- 4.1	- 10.2	- 14.3
2011—2015	1.54	10.2	14.2	- 4.0	- 6.4	- 10.4

Average annual natural increase and migration rate in Latvia, 1986–2015

Source: compiled by the authors based on [32].

It would be a mistake to say that the only causes of the post-Soviet rapid population decline in Latvia were the changes in the replacement pattern. As mentioned above, natural decrease accounts for less than 40% of the population decline that has been observed in Latvia in recent

decades. The effect of migration on the changes in the age and sex profile is much stronger than that. In the post-Soviet period, from 1992 to 2016, 421,000 people left Latvia², and it comprises 16% of the country's population as in the early 1990s [33]. There were two emigration peaks over the last quarter of a century. The first peak occurred when the republic's ethnic Russians were leaving for Russia and the other CIS countries. In the first half of the 1990s, Latvia's annual net migration ranged from -20 to -30 thousand people. (In 1992, the country lost 53,000 people due to emigration.) Over a very short period, Latvia turned from a country of immigration to that of emigration [34].

From the mid-1990s, the emigration rate was falling. However, at the end of the century, the number of people leaving Latvia to live abroad permanently started to grow again. Western European countries replaced Russia and Belarus as primary destinations. After Latvia's accession to the EU in 2004, emigration increased even more sharply (fig. 2) [35].



Fig. 2. Latvia's net migration and its primary destinations, 1992—2015, thousand people

Compiled by the authors and is based on [35].

The second and all the subsequent emigration waves after the independence affected not only the ethnic Russians but also the ethnic Latvians [7]. In 2011—2015, the proportion of ethnic Latvians in the total number of the country's emigrants increased from 39 to 51%. However, the emigration rate among Latvia's ethnic Russians is still much higher than among the ethnic Latvians (10.9 people per 1,000 and 8.4‰ respectively) [36].

² I. e. net international migration.

Changes in the Age and Sex Structure of Latvia in 1989–2016

In recent decades, the population decline observed in Latvia was not homogeneous across different age groups. Mass emigration and a dramatic natural decrease at the turn of the century caused a radical transformation in the age and sex structure of the country's population. According to the 1989 census, persons below legal working age (0-14) accounted for 21.4% of the population. They comprised 18% of the country's population in 2000 and only 15.2% in 2016. The opposite was observed in the case of senior citizens (aged 65 and over). Their proportion increased from 11.8 to 19.6% in 1989—2015 [37; 38] (table 2).

Table 2

Year ³	Proportion in the population					
i cai	aged 0—14	aged 15-64	aged 65 and over			
1989	21.4	66.8	11.8			
1996	20.5	65.7	13.8			
2000	18.0	67.2	14.8			
2011	14.2	67.4	18.4			
2016	15.2	65.2	19.6			

Changes in the age structure of Latvia, 1989-2016

Source: [37; 38].

An examination of Latvia's age and sex pyramids of 1989 and 2016 shows that only selected age groups were significantly affected by the process (fig. 3). In 1989—2015, the total size of the country's population decreased by 26%, whereas the number of people aged 25—29 declined by 47%, aged 15—19 by 52%, and aged 0—4 by 50%. At the same time, the size of groups aged over 70 increased. The number of Latvians aged 70—74 grew by 31% in 1989—2015 (from 70 to 92 thousand people) and of those aged 85 and over by 64% (from 27 to 44 thousand people) [37; 38].

Combined with the growing life expectancy⁴, the rapid ageing of Latvia's population is fraught with an increase in the dependency ratio. The age structure of today's Latvia is strongly affected by the structure of the Soviet migrants. The growing dependency ratio has been alleviated by a reduction in the number of children. However, in the future, the diminishing proportion of taxpayers will pose serious economic and social problems.

³ As at the beginning of the year.

⁴ In 1989—1994, average life expectancy at birth dropped from 71.0 to 66.4 years but increased to 74.7 years by 2016.



Fig. 3. The age and sex distribution of Latvia's population in 1989-2016

Compiled by the authors based on [37; 38].

The Effect of Emigration on the Age and Sex structure of Latvia in 2000-2016

A rapid population decline and a significant transformation in the age and sex structure, which took place in Latvia at the turn of the century, could not be caused merely by a change in the rate of natural increase. The demographic situation in the republic was aggravated by emigration. The scale of migration losses was considered above. Below, we will focus on how emigration from Latvia affected the age and sex structure of the republic and its cities.

Unfortunately, open access data on Latvia give a detailed picture of the structure of international migration only from the year 2000. There is no breakdown of migration data by cities and regions. However, an analysis of the available data casts light on the contribution of migrations to the transformation of the age and sex structure of Latvia and its regional centres.

Over the 16 years — from 2000 to 2015 — the negative net migration in Latvia reached 257.4 thousand people. Depending on the socioeconomic situation in Latvia and the destination countries (the UK, Germany, the US, Russia, and Ireland), the net migration rate ranged from 7.9 thousand people (2007) to 35.6 thousand people (2010) per year. Over the 25 years, the West replaced the East as the preferred destination. In 1992, 90% of almost 60 thousand people, who had left Latvia, settled in Russia and the other CIS countries. In 2010-2015, only 12-16% of Latvia's emigrants left for the East [35]. In some years (2005-2006; 2012; 2014–2015), more people were coming to Latvia from the CIS countries than leaving for them. At the same time, Western Europe was becoming increasingly popular as a migration destination. In 1993–2004, the proportion of the 15 EU countries increased from 2.5 to 55% in the structure of Latvia's emigration. After the country's accession to the EU, Western Europe (EU-15) accounted for 60-70% of emigrations. The economic crisis of 2008-2009 became another incentive for Latvian citizen to leave for the West. After 2009, 70-76% of Latvian emigrants have been choosing the economically developed European countries as their destinations [35].

Obviously, most Latvia's international migrants are people aged 15—34, i. e. the most mobile cohort. In 2000—2015, this group accounted for 53% of the country's migration losses. This rate changed dramatically over the years — from 31% in 2000 to 72% in 2006. In the recent years, it has remained at 50% [39] (fig. 4).



Fig. 4. The proportion of people aged 15—34 in Latvia's population losses, 2000—2015

Compiled by the authors and is based on [39].

Over the study period, people aged 15—34 accounted for 28—34% of Latvia's population. The proportion of young people among the emigrants was twice as high. The age structure of international migration underwent significant changes after 2000. In 2000—2004, before Latvia acceded to the EU, the group aged over 60 had accounted for 10—15% of emigrations. In 2005—2006, more people aged 60 and over came to the country than left it. Later, the net migration rate for senior citizens returned to negative values. Today, Latvians aged 60 and over account for 1.5—3.5% of emigrations [39].

Of interest is the gender structure of migration. Overall, females comprise 52% of Latvia's emigrants. However, this rate has been changing over the years. When the economic situation in the country is favourable and emigration rate is rather low, the females account for 55-60% of emigrations (the peak values of 63-68% were reached in 2006–2007). The proportions of males and females are equal if one considers the country's net migration rate. However, in the groups aged 50 and over, the number of females exceeds that of males dramatically. In the age group of 60 and over, women account for 90% of international net migration, this is well above the proportion of females in Latvia's population [39].

The difference in the number of people coming to live in the country (immigrants)⁵ and leaving to settle abroad permanently (emigrants) is not the only factor that affects Latvia's demographic potential. Indirect damage is caused by most Latvian emigrants being of fertile age. The country is losing not only those who have emigrated but also their children born abroad. Using the cohort projection method and age-adjusted birth and mortality rates, one can calculate the total size of population that Latvia lost in 2000—2015. As mentioned above, over the 16 years, Latvia's direct migration losses amounted to 257.4 people. In view of the age structure of migration and using current birth and mortality rates, we calculate the natural increase for Latvia's emigrant population.⁶ The result is 21.5 thousand people or 8.4% of the net migration rate. Thus, in 2000—2015, the country lost 278.9 thousand people to international migration. Table 3 shows the age and sex distribution of Latvia's demographic losses es to migration.

A comparison between the country's actual age and sex pyramid as at the beginning of 2016 [40] and a distribution that could exist if net migration had been zero from 2000 illustrate the demographic damage caused by a negative net migration rate. Overall, Latvia lost 14% of its

⁵ Most immigrants leave Latvia to return to the country after some time.

⁶ The calculations used age-adjusted 2000—2015 birth and mortality rates for Latvia rather than for the destination countries.

population over the study period. However, the difference between the actual and potential size of selected age group is well above that level. The difference reaches 20% for the group aged 0-4 and 29% for that aged 30-34 (fig. 5). The group aged 25-40 is characterised by the greatest difference, which reached 27% over the 16 years. The minimum divergence between the actual and possible population size (2-4%) is observed in the age cohorts aged 65 and over.

Table 3

Age group	Total population decline, people			Proportion of the age group, %			
	Males	Females	Total	Males	Females	Total	
0—4	10,086	10,174	20,260	3.62	3.65	7.27	
5—9	9,237	9,324	18,561	3.31	3.34	6.66	
10—14	6,568	6,429	12,997	2.36	2.31	4.66	
15—19	4,501	4,494	8,995	1.61	1.61	3.23	
20—24	8,806	9,732	18,538	3.16	3.49	6.65	
25—29	18,562	19,600	38,162	6.66	7.03	13.69	
30—34	20,096	20,315	40,411	7.21	7.28	14.49	
35—39	15,719	15,507	31,226	5.64	5.56	11.20	
40—44	11,644	10,938	22,582	4.18	3.92	8.10	
45—49	8,497	9,276	17,773	3.05	3.33	6.37	
50—54	7,304	8,547	15,851	2.62	3.06	5.68	
55—59	5,887	7,626	13,513	2.11	2.73	4.85	
60—64	3,673	5,123	8,796	1.32	1.84	3.15	
65—69	1,845	2,713	4,558	0.66	0.97	1.63	
70—74	660	1,104	1,764	0.24	0.40	0.63	
75—79	702	1,466	2,168	0.25	0.53	0.78	
80—84	396	1,012	1,408	0.14	0.36	0.50	
> 85	291	1,012	1,303	0.10	0.36	0.47	
Total	134 474	144 392	278 866	48.22	51.78	100.00	

The size and age and sex distribution of Latvia's demographic losses to international migration in 2000—2015, age-adjusted, as at the beginning of 2016, people

Source: [39].



Fig. 5. Actual and potential (zero-net-migration scenario) age and sex structure of Latvia, as at the beginning of 2016

Compiled by the authors using the author's own calculations is based on [40].

International migration did not only distort the age and sex structure of Latvia but also increased the dependency ratio (table 4).

Table 4

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Dependency ratio on Latvia (as at the beginning of 2016)

	Dependency ratio (per 1,000 persons of productive age)					
Age and sex structure	People aged 0—14 (dependent part)	People aged 65 and over (dependent part)	Dependency ratio			
Actual	234	302	536			
Potential	235	266	501			

Source: compiled by the authors, based on [40] and based on the author's own calculations.

The Effect of Migration on the Age and Sex structure of Latvia: Regional aspects

Over the 16 years, from 2000 to 2015, the country lost 14% of its population to migration. This rate differed significantly across Latvian regions. Unfortunately, open access data do not contain a breakdown of the age and sex distribution (ASD) of migrants by administrative units.

Thus, when calculating the effect of migration on the ASD of selected territories in 2000—2015, we will use the same age and sex proportion as we did when considering the total population of Latvia.

We will examine Latvia's nine largest regions, which were granted the status of independent administrative units by the 2008 reform. These are Riga, Daugavpils, Jelgava, Jēkabpils, Jūrmala, Liepāja, Rēzekne, Valmiera, and Ventspils. Unlike Latvia's other administrative units established by the reform, these cities reported not only the census data on the ASD (2000, 2011) but also more recent information (2016). This makes it possible to trace changes in the numbers and proportions of selected age cohorts, caused by the natural change and migration over the period under consideration (2000–2015).

As mentioned above, Latvia's population decreased by 412.8 thousand people or 17.3% of the total population size at the turn of the century. Across Latvia's largest cities, this rate ranged from 10.5% (Jelgava) to 27.2% (Rēzekne) [41] (table 5).

Table 5

City	at the be	on size as eginning ar, people 2016	Natural increase (decline) in 2000—2015, people	Population growth rate, 2000—2015 (2000 = 100)	Contribution of migration to the total popu lation increase (decline), %	
Riga	766,381	639,630	- 126,751	83.5	68.3	
Daugavpils	115,574	85,858	- 29,716	74.3	70.9	
Liepāja	89,641	70,630	- 19,011	78.8	76.2	
Jelgava	63,743	57,053	- 6,690	89.5	74.0	
Jūrmala	55,673	49,182	- 6,491	88.3	36.2	
Ventspils	43,999	35,903	- 8,096	81.6	65.0	
Rēzekne	39,430	28,692	- 10,738	72.8	67.8	
Jēkabpils	27,911	22,750	- 5,161	81.5	72.2	
Valmiera	27,799	23,248	-4,551	83.6	78.7	

Changes in the size of population in Latvia's major cities, 2000-2015

Source: Compiled by the authors based on [41].

A comparison of the 2000 and 2016 age and sex pyramids of Latvian cities shows that changes in the numbers of certain age cohort were not symmetrical over the 16 years. In all the cities, the absolute numbers of people aged $0-4^7$ and those aged over 75 was increasing. Another com-

⁷ The exceptions are Ventspils and Rēzekne, where the numbers of the group aged 0-4 declined by 5.7 and 2.8% respectively in 2000-2015.

mon development is a significant -41-57% - decrease in the numbers of the cohort aged 10-19 (fig. 6). These changes in the age structure of the cities are in line with the national trend. However, there are significant differences in selected age groups [42].



Fig. 6. A comparison of the age and sex structure of Latvian cities in 2000 and 2016

Compiled by the authors based on [42].

In some Latvian cities (Daugavpils, Liepāja, Rēzekne, Valmiera) the proportion of groups aged 35—39 is diminishing. In other cities (Jelgava, Jūrmala, Rēzekne) this process is affecting people aged 70—74. Over this period Jūrmala and Rēzekne witnessed a significant increase in the number of residents aged 55—59 (table 6).

Table 6

Age	Latvia	Riga	Daugavpils	Liepāja	Jelgava	Jūrmala	Ventspils	Rēzekne	Jēkabpils	Valmiera
0—4	108.0	139.8	108.3	110.0	137.2	115.2	94.3	97.2	116.8	151.0
5—9	71.5	89.8	69.1	74.9	89.8	80.7	75.4	74.4	91.2	95.8
10—14	49.7	50.8	42.1	55.9	61.7	54.1	52.6	45.7	60.1	58.8
15—19	48.4	41.3	40.6	52.5	53.6	46.4	51.9	41.4	53.8	51.1
20—24	70.2	58.2	53.8	68.2	69.4	61.5	68.4	51.8	67.3	73.3
25—29	86.2	94.2	69.7	71.7	90.4	82.5	64.9	63.7	84.7	87.5
30—34	86.2	104.4	58.6	73.0	97.8	92.4	71.5	67.6	85.6	80.8
35—39	71.7	78.4	57.5	62.0	81.0	80.7	67.3	56.1	67.6	63.1
40—44	77.3	73.4	67.8	76.5	84.5	86.9	78.5	61.8	73.1	71.2
45—49	86.2	75.7	82.5	79.7	86.6	90.5	84.0	71.6	83.6	80.3
50—54	100.8	87.3	89.9	91.1	97.7	100.6	92.0	93.0	89.9	89.8
55—59	100.6	99.6	99.2	83.9	100.7	113.9	96.9	111.0	102.6	97.3
60—64	83.6	79.7	84.0	70.4	82.2	93.9	80.6	85.2	77.3	75.9
65—69	88.8	90.0	93.3	86.3	93.8	113.7	108.2	86.8	82.9	87.4
70—74	86.8	73.2	81.9	81.6	60.2	58.0	69.1	51.6	74.3	91.7
75 and over	148.0	149.8	163.8	179.6	311.9	282.0	332.5	269.6	129.1	143.3
Total	82.7	83.5	74.3	78.8	89.5	88.3	81.6	72.8	81.5	83.6

Population growth rates in Latvia and its major regions for five-year cohorts in 2000—2015, % (2000 = 100 %)

Source: compiled by the authors and is based on [42].

Using data on the age and sex structure of Latvian cities in 2000 and at the beginning of 2016 and being familiar with the age-adjusted birth and mortality rates for the total national population, we can calculate net migration rates for selected age cohorts. Under a zero-net-migration scenario, the five-year cohort aged 14—18 turns into the group aged 30—34 with a 1.6% loss due to mortality.

Similarly, when the age group aged 24—28 turns 40—44, 3.4% of the initial numbers are lost. The transition of the cohort aged 39—43 into that aged 55—59 is associated with a 10.8% loss. Naturally, losses increase in older age groups. The transition from the 59—63-year-old cohort to that aged 75—79 produces a 36% loss. The same way, an analyst can calculate the possible numbers of younger age groups — those from 0 to 16 years old. The mortality rate in the younger age groups is very low (hundredths of a percent per year), thus their numbers depend primarily on the age-adjusted birth rate per 1,000 female population of fertile age.

The cohort projection method produces an age distribution of Latvia's population for 2016 under the zero-migration scenario. The difference between the actual and possible numbers of selected age groups can be accounted for only by migration.

We will use the age-adjusted birth and mortality rates to check the calculations performed for Latvia's major cities. In 2000—2015, all the nine cities were losing population, migration being the major cause of that (see table 6). In six cities, the difference between the actual population size as at the beginning of 2016 and the calculated data was very close to the net migration rate observed over the 16 years [43]. In Riga, Daugavpils, Liepāja, Jelgava, Valmiera, and Jēkabpils, the difference between the official and calculated data on net migration was within 10%. Only in Rēzekne, Ventspils, and Jūrmala, the actual migration calculated using the cohort projection method deviated from the official statistics by more than 10%. In Daugavpils, Liepāja, Jelgava, Jūrmala, Ventspils, and Rēzekne the obtained data on population decline were above the official ones. In Riga, Valmiera, and Jēkabpils, the official statistics exaggerated the demographic losses to migration.

A comparative analysis of the age structure of migration in Latvia's cities produces results that are even more surprising (fig. 7). Daugavpils, Liepāja, Ventspils, and Rēzekne have a similar structure of migration, which does not deviate significantly from the national trends observed over the 16 years (see table 3 and fig. 5). Migration losses affected all the age cohorts — but, most significantly, that aged 25—39 and the least so those aged 15—19 (0—4 in Liepāja) and 65 and over.

The age structure of migrants in other Latvian cities differs considerably from that in the nine considered above. In Riga, the greatest migration losses of 2000—2015 affected the group aged 40—59, which accounts for almost 38% of the net migration rate. The least affected group was the cohort age 25—29. In Jūrmala, on the contrary, the numbers of the cohort aged 50—57 increased due to migration, whereas the group aged 25—34 sustained the greatest losses over the 16 years. In Valmiera and Jēkabpils, population growth due to net migration was observed in the group aged 15—24.



Fig. 7. The age structure of net migration rate for Latvian cities, 2000—2015, people

Compiled by the authors and is based on [43] and the authors' own calculations.

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Conclusions

The characteristics of migration processes in Latvia allow us to draw a number of conclusions.

1) Over the past twenty-five years, Latvia has been an absolute leader — in Europe and the world alike — in losing population. Migration accounts for most of the population decline (64.2%). However, from the 1990s, the primary destination of Latvian migration changed. Today, the European Union is the preferred destination. Latvia's ethnic Russians who live predominantly in the cities — are the most likely emigrants.

2) Latvia's population decline rate differs significantly across age groups — and this distorts the age and sex distribution of the population. From the late 1980s, the proportion of the pre-productive population (aged 0—14) decreased by a third (from 21.4 to 15.2%) and that of the post-productive population (aged 65 and over) increased by more than half (from 11.8 to 19.6%). The increase in dependency ratio caused by a growing proportion of the senior population is offset by the falling numbers of children. However, this situation cannot last forever. In the near future, the increasing lifespan of Latvians will translate into a decline in productive population (aged 15—64) and an increase in the dependency ratio. However, emigration is accelerating this process — over the past fifteen years, people of the most fertile age (20—29) accounted for most emigrations.

3) The effect of international migration on the age and sex structure of Latvia's population is not the mere outflow of population aged 15—29 and 30—49. In 2000—2015, the direct losses to emigration amounted to 257.4 thousand people or 10.8% of Latvia's population.⁸ The potential birth and mortality rates among migrants suggest that, in the sixteen years, the country lost 278.9 thousand people or 14.2% of the population as at the beginning of 2016. In the cohorts aged 25—29 and 30—34, this loss amounted to 26.8% and 29.4% respectively. Overall, the most fertile group aged 25—39 accounted for 40% of Latvia's demographic losses to migration. This led to even greater disproportions in the age and sex structure of Latvia's population and blighted the prospects for overcoming the grave demographic crisis.

4) The age structure of Latvia's demographic losses to migration has pronounced regional differences. Using the age projection method and the age-adjusted mortality and birth rates, we calculated the actual scope and age structure of the 2000—2015 international migration of Latvia's

⁸ As at the beginning of 2000.

nine major cities. A comparison of the calculation results and the actual population size revealed a discrepancy between the official migration statistics and the values obtained. For Riga, Daugavpils, Liepāja, Jelgava, and Valmiera, this difference did not exceed 3—7%, whereas it reached 12% in Ventspils, 13% in Rēzekne, and 24% in Jūrmala, with the official statistics providing much smaller numbers. However, the migration losses of Jēkabpils in 2000—2015 turned out to be 9% below the official data.

The most important finding is that the age structure of migrants differs significantly across Latvia's major cities. In Daugavpils, Liepāja, Ventspils, and Rēzekne (and Latvia in general), the greatest migration losses over the study period were sustained by the group aged 25—39 the most mobile cohort. In the capital, which attracts ambitious young people, this group is not associated with considerable losses, which affected the cohorts aged 45—59 and over 75. A similar migration loss structure is observed in the adjacent city of Jelgava, where people over 75 years comprise the most populous group of emigrants.

An interesting case is Jūrmala, where the age structure of migration is completely different. People under forty are leaving the resort town, looking for employment. At the same time, affluent Latvians aged 50—74 find Jūrmala an attractive place to live. Moreover, this resort town — a popular real estate choice for Russian citizens — is a convenient way to obtain a residence permit in the European Union.

It is more difficult to explain the migratory increase in the groups aged 15—24 in the smallest of Latvia's major cities — Valmiera and Jēkabpils. Whereas Valmiera's 'youth magnet' is its university (Vidzemes augstskola), it is not quite clear why younger Latvians find Jēkabpils attractive. However, this study does not aim to explain the cause-effect relationships behind the revealed migratory processes.

The methods used to estimate the effect of migration on the changes in the age and sex distribution and to identify regional differences in the migration structure in Latvia contribute to a better understanding of demographic development in selected countries and regions. These methods will not only help to narrow the gaps in migration statistics but also contribute to the design of relevant models and improve the quality of demographic projections.

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ESTIMATING THE DEVELOPMENT OF THE LATVIAN — ESTONIAN — RUSSIAN TRANSBOUNDARY TOURISM AND RECREATION REGION

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In 2004, the Pskov — Livonia Euroregion was established across the borders of Estonia, Latvia and Russia (the Pskov region). Tourism became a cooperation priority in the Euroregion. This necessitated research on the local tourism and recreation areas. This study aims to estimate the development prospects of transboundary microregions which have been identified by the authors within the Latvian — Estonian — Russian tourism and recreation mesoregion. The authors employ ten additional criteria proposed in the general conception of transboundary tourism and recreation regions. The article identifies five microregions: Pskov — Pechory — Tartu and Pskov — Izborsk — Cesis (first level), Pytalovo — Rezekne (second level), and Izborsk - Pechorv district-Setomaa and Lake Chudskoe area (third level). The authors classify the microregions according to their level of development. The development of the Izborsk — Pechory district-Setomaa microregion is defined as 'above average', that of Pskov — Pechory — Tartu as 'average', and that of Pskov — Izborsk — Cesis as 'below average', and finally, the development of Pvtalovo — Rezekne microregion is described as 'poor'. The Lake Chudskoe area microregion is classified as an 'emerging' one. The overall level of development of transboundary tourism and recreation microregions is assessed as 'below average'. The results of the study can be used in preparing recommendations for the development of transboundary microregions within the Latvian — Estonian — Russian tourism and recreation mesoregion.

Keywords: transboundary region, tourism, recreation, Pskov region, Estonia, Latvia

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In 2004, at the junction of Estonian, Latvian and Russian borders, an association for promoting cooperation among cross-border regions, the Pskov — Livonia Euroregion, was established. Originally it included four Latvian districts, three Estonian counties and five administrative districts in the Pskov region [1]. Eventually this association expanded due to changes in the administrative division of the neighbouring countries, and a total of thirty municipalities participated in the Euroregion's functioning at different times [8].

Tourism activity is one of the most important directions of collaboration in the Pskov — Livonia Euroregion. The Euroregion has a number of advantages that contribute to the development of tourism and recreation, for instance, pollution-free land areas and numerous cultural and historical heritage sites, which makes the region more attractive for tourists. At the same time, there are a number of complicating factors in developing tourism and recreation within this Euroregion: its weak economic position, low population density, etc. [1].

In our point of view, the impetus towards development of tourism and recreation in the border areas can come from coordinated efforts of the neighbouring states within a transboundary region with specialisation in tourism and recreation. Its external boundaries do not have to correspond to the common borders of the members of the Pskov — Livonia Euroregion, which is formed on a voluntary basis. To establish a transboundary tourist and recreational region, a number of prerequisites are necessary, and they are discussed in this article.

The aim of the study is to determine a degree of regional formation for the transboundary Latvian-Estonian-Russian tourist and recreational region by assessing signs of regional formation at the level of its territorial components (microregions).

Background knowledge. The phenomenon of development of transboundary tourist and recreational regions is given a lot of attention by both foreign and Russian researchers. For instance, general issues of development of transboundary tourism are covered in works by W. Cudny [14], K.-L. Lepik, [17], M. Milencovic [19], N. Seric and S. V. Marcovic [21], T. Studzieniencki [22], H. Wachowiak [27], A. Weidenfeld [28] and others. The formation of transboundary tourist regions on the border of Poland and Russia was studied by R. Anisiewicz, V. Korneevets, T. Palmowski, T. Studzieniencki [13; 23] and others, on the border of Russia and Finland — by K. Jakocuo [16], on the border of Finland and Sweden — by E.-K. Prokkola [20], on the border of Slovenia and Croatia — by K. Vodeb [26], on the border of Hungary and Serbia — by P. Gulyás, V. Majstorović, U. Stankov, S. Stojanov [18], on the border of the USA and Canada — by D. Tymothy [24].

Several works by E. G. Kropinova [4—6] addressed the problems of formation of transboundary tourist and recreational regions in the Baltic

Sea area. In particular, E. G. Kropinova developed basic and additional markers of the formation of a region, worked out a hierarchy of regions and identified transboundary tourist and recreational regions of the meso-level in the Baltic Sea area, including the Latvian-Estonian-Russian tourist and recreational region, which is examined in this article. The overall level of its development was estimated as 'medium' [5, p. 119].

In our previous works [2; 9], we also analyzed the prerequisites for formation of this transboundary tourist and recreational mesoregion as well as tourism potential and special aspects of formation of one of its microregions.

The hierarchy of microregions. E. G. Kropinova suggests marking three hierarchic levels of transboundary tourist and recreational microregions. A microregion of the first level includes several municipalities of the highest level of the country's administrative division. A microregion of the second level consists of municipal units of the lowest administrative level but it can also include small municipalities of the highest level. Microregions of the third level include parts of municipalities or small municipal units of the lowest level. Transboundary tourist and recreation-al regions of the lowest level can constitute parts of the regions of a higher level [5; p. 167].

In the Pskov region, there are two urban districts and 24 municipal districts that are referred to the highest level, and there are urban and rural settlements (mostly townships) that are referred to the lowest level. In Estonia, there are 15 counties that are the highest level administrative units, and they are divided into urban and rural municipalities. Since 2009, Latvia has been divided into 110 one-level municipalities and 9 republican cities. One-level municipalities are subdivided into municipality parishes and municipality towns. These one-level municipalities are considered to be administrative subdivisions of the highest level, but in terms of their size and population they are smaller than Estonian counties and Russian municipal districts. Latvia's former administrative division (i. e. 26 districts and 7 republican cities until 2009) was much more similar to those of Estonia and Russia. This fact was taken into account in ranking transboundary tourist and recreational microregions.

Within the transboundary Latvian-Estonian-Russian tourist and recreational mesoregion, we suggest identifying two microregions of the first level (Pskov — Pechoru — Tartu and Pskov — Izborsk — Cesis), one microregion of the second level (Pytalovo — Rezekne) and several microregions of the third level, with the Izborsk-Pechory district / Setomaa and the Lake Peipsi / Chudskoe district amongst them. The evaluation of the development of the Latvian-Estonian-Russian mesoregion is based on the analysis of region formation undertaken for these microregions they illustrate different stages of formation: from the final stage to the initial one, which is characteristic of "potential" transboundary tourist and recreational microregions.



Fig. Transboundary tourist and recreational microregions within the Latvian-Estonian-Russian mesoregion
Borders: 1 — state; 2 — the subjects of the RF; 3 — municipalities

of the highest level; 4 — centers of the microregions of the first level; territories: 5 — microregions of the first level (Pskov — Pechory — Tartu and Pskov — Izborsk — Cesis); 6 — microregion of the third level (Izborsk-Pechory district / Setomaa); 7 — microregion of the third level (Lake Peipsi district); 8 — microregion of the second level (Pytalovo — Rezekne)

Region-forming markers. To identify a transboundary tourist and recreational region, six basic (region-forming) and four additional (optional) characteristics are applied [3; 5]. Provided below is an analysis of the degree of presence of these characteristics within the five transboundary tourist and recreational microregions: three Russian-Estonian microregions (Pskov — Pechory — Tartu, Izborsk-Pechory district / Setomaa and the Lake Peipsi district), one Russian-Estonian-Latvian microregion (Pskov — Izborsk — Cesis) and one Russian-Latvian microregion (Pytalovo — Rezekne). First, six basic characteristics of region formation are analyzed.

1. Continuity of the territory, i. e. availability of direct transportation links, without a need to cross the borders of the transboundary region.

In almost all transboundary microregions, there are direct transport routes that connect the constituent territories. Their usage, however, has reduced since the dissolution of the Soviet Union, and now it depends on traffic capacity of the border-crossing points on the borders between Russia and the EU member states. In fact, transport routes (first and foremost, road transport routes) are the connective links that 'form' the transboundary microregions. The border-crossing point Kunichina Gora (Pechory) — Koidula (Estonia) is located on the road transport route Pskov — Tartu; the border-crossing point Shumilkino (Pechory district) — Luhamaa (Estonia) operates on the road transport route Pskov — Riga (including Cesis and Riga); the border-crossing point Ubylinka (Pytalovo district) — Grebnevo (Latvia) is located on the road transport route Pytalovo — Daugavpils (including Rezekne). Only the Lake Peipsi district is an exception in this respect as nowadays there is no passenger traffic in this transboundary area, although there are some plans to resume it.

2. Complementarity of natural, cultural and historical potential of tourism development that encourages tourist flows.

On the whole, the Latvian-Estonian-Russian mesoregion is not characterized by high biodiversity, and there are no rich recreational resources that can be provided, for instance, by seashores or mountains. However there are some landscape distinctions resulting from contrasting landforms (the Haanya Upland in Estonia, the Aluskene Upland, the Vidzeme Upland and the Latgale Upland in Latvia, and the lowland area on the shores of Lake Pskov and Lake Peipsi) and an important land boundary between two natural subzones (south boreal forest and sub-boreal forest) that goes along the south end of Lake Pskov. At the same time, this transboundary tourist and recreational mesoregion is notable for wide cultural and historical heritage variety, especially at the heart of the region — in the Izborsk-Pechory district / Setomaa microregion, which also belongs to two microregions of a higher level (i.e. Pskov - Pechory -Tartu and Pskov - Izborsk - Cesis). The mesoregion is also characterized by ethno-cultural diversity, which is discussed below. Together with the region's cultural and historical heritage, it serves an important resource for developing tourism.

3. Common or coordinated transport infrastructure.

A substantial level of coordination of passenger traffic has already been achieved on the opposite sides of the borders of Latvia and Estonia, on the one side, and the Pskov region, on the other side, which makes it convenient for people to cross the border by car or bus (motor transport) or even on foot (for instance, at the border-crossing point Kunichina Gora in Pechory). Moreover, a transport and logistics hub is planned to be built in the Pskov region. Although this project is aimed, first and foremost, at increasing cargo traffic across the region, it can also solve some problems relating to border crossing procedures.

4. Close links between the subjects of tourism that are members of the transboundary region.

Latvia and Estonia are among the most popular destinations of outbound tourism in the Pskov region, which is predetermined by the political and geographical location of the region [12]. The tourist flow is stimulated by increasing a validity period of visas issued by the neighboring states. For instance, the Pskov office of the Consulate General of the Republic of Estonia in St. Petersburg and the Latvian Consulate in Pskov provide the residents of the Pskov region with long-term multiple-entry visas for a period of two to five years. The presence of offices (authorized agencies) of major tour operators in the centers of municipalities of the neighboring countries is an important factor in the development of tourism in the transboundary region. For instance, the tour operator 'Tez Tour' has offices in Pskov in Russia, in Rezekne, Balvi, Cesis and Daugavpils in Latvia, and in Tartu, Pylva and Vyru in Estonia [29]. The upcoming celebrations of the Hanseatic Days-2019 in Pskov will also contribute to the growth of international contacts.

5. Transboundary tourist trails.

Within the microregions, there are a number of transboundary tourist trails that are parts of 'longer' routes linking Pskov with the capitals of Estonia and Latvia or other tourist centers located outside the transboundary microregions. At the same time, there are tourist trails (routes) developed particularly within the microregions, for example, an ethnographic tour across Russian and Estonian territories on the borders of Setomaa (it is mostly aimed at individual tourists).

The largest number of tourists is recorded in Pskov — Pechory — Tartu, the microregion of the first level. It offers several routes, ending not only in the centres of the microregions but also in Vyru (visits to Vastelina and Otepya). In the microregion Pskov — Izbork — Cesis, there are tourist routes that run through the three centres only or have final destinations in Sigulda and Riga. The microregion of the second level, Pytalovo — Rezekne, has not developed full-fledged tourist programmes so far; however the statistics show a large number of tourists visiting these two towns. In the future it will be possible to include Balvi and Gulbene in the tourist trails.

In the microregions of the third level, the highest tourist flow is recorded in the Pskov-Pechory district / Setomaa. This miscroregion benefits from its transit location, and unique natural, cultural and historical heritage. The development of tourist trails in the Lake Peipsi district is constrained by the lack of passenger traffic. After water transport infrastructure is developed here, it will be possible to initiate tourist programmes with visits to Gdov, the Trutnev Caves, Spitsino (Russia), Alatskivi, Pyltsmaa, Kallaste, Mustvee (Estonia), etc. Excursions to the islands in Lake Peipsi and Lake Pskov can also become part of these programmes.

Every year, travel agencies in Estonia, Latvia and the Pskov region develop unique routes that cover new territories and sites. Travel agencies in Pskov are responsible for the Russian part of the programmes, and their foreign partners develop the Estonian and Latvian parts. Such cooperation leads to gaining experience in development of cross-border tourist routes.

6. Availability of state and/or public institutions organising and coordinating transboundary tourist flows.

Nowadays there are several projects of transboundary cooperation, including tourism and recreation, the implementation of which involves governmental agencies and public organisations of the neighbouring states. In 2014—2020, a number of large scale projects will be implemented in the framework of the cross-border cooperation programmes 'Russia — Estonia' and 'Russia — Latvia'. These programmes are co-financed by the European Union (from the European Neighborhood Instrument (ENI) and the European Regional Development Fund (ERDF)), the Russian Federation, the Republic of Estonia and the Republic of Latvia.

The project 'Preservation and promotion of cultural heritage in Latvia and Russia' is one of the examples. It is jointly implemented by the Administration of Pskov, several Latvian municipalities and the state joint stock company 'State Real Estate'. The project aims to preserve cultural and historical heritage and to promote cross-border tourism between Russia and Latvia [30].

Further, the additional features of the development of transboundary tourist and recreational regions are examined.

7. The general level of social and economic development.

The north-eastern part of Latvia and the south-eastern part of Estonia are socially and economically inferior to the capitals and the adjacent (neighbouring) regions, being, in fact, the peripheral territories of these countries. The development of international tourism is also characterized by a gap. For instance, in 2016, Tartu accounted for only 5% of overnight stays of foreign tourists (and only 4% of Russian tourists) in Estonian hotels [25]. A similar situation is typical for Vidzeme and Latgale, Russia's neighbouring regions, in Latvia.

Although the Pskov region is among the least developed Russian regions in social and economic spheres, it has a more favourable position compared to its neighbours. The most densely populated areas, including the regional center, adjoin the junction of the borders of the three countries. The most developed tourist and recreational area in the region, including the city of Pskov and the Pechory municipal region, has also been formed here [10]. Due to this fact, the level of tourism development in this part of the Pskov region is equal in many aspects to the development of the tourism sector in the neighbouring regions of Estonia and Latvia or even surpasses them [8]. On the whole, tourism development should provide an impetus for socioeconomic development of these areas, which have been faced with a difficult (peripheral) socioeconomic situation, especially in the post-Soviet period, due to the barrier nature of state borders.

8. Ethnic similarity of population as the potential for developing ethnic and ethnographic tourism.

The states borders, dividing this tourist and recreational mesoregion, have a threshold nature in terms of ethnic population structure. However, in this case, the ethnic and cultural distinctions are an additional tourist resource. This small territory is an area of junction of five nations and three religions: the Lutherans (the Estonians and the Latvians), the Catholics (the Latgalls) and the Orthodox Christians (the Russians and the Setu). It is also necessary to mention the culture of Old Believers (mostly the Russians), whose small communities spread over the transboundary region (especially in Estonia and Latvia). For example, the descendants of Old Believers live on the Estonian shore of Lake Peipsi (Mustvee and Kalastee); they settled there in the 18th — the 19th centuries. More Old Believers live in the southern regions of Latgale, the eastern part of Latvia.

The exception is the transboundary microregion "Setomaa" (translated as 'the land of Seto'). Its unity is determined by the historical area of residence of a Finno-Ugric people Setu (native name — Seto), who converted to Orthodox Christianity. Now they live in the Pechory district of the Pskov region (about 250 people) and in the neighboring Estonian townships — Vyrumaa and Pylvamaa [11]. Historically, Lake Peipsi has not always served a distinct ethnic divider. From the end of the 19th century to the first half of the 20th century, large groups of the Estonians and the Latvians, who accounted at that time for more than 10% of local population in the eastern part of the Lake Peipsi district, lived on its shores. They were descendants of the settlers from Livonia and Estonia, who arrived to these lands in the second half of the 19th century, immediately after the abolition of serfage in Russia [7].

9. Common historical past.

Although the territory of the transboundary mesoregion is not characterized by a common historical background, this fact, along with the region's ethnic and cultural diversity, can be viewed as an additional tourist resource. Since the 13th century, over a period of five and a half centuries, these lands were parts of different state formations. They were part of one state only for two and a half centuries (1721—1917 — in the Russian Empire, 1940—1991 — in the Soviet Union). Being parts of different state formations led to differences in cultural landscapes and cultural and historical heritage (types and forms of constructions, architectural styles, etc).

The only exception is the transboundary microregion Izborsk-Pechory district / Setomaa. It was divided by the state border only a quarter of a century ago, after the dissolution of the USSR. Before that, the territory of this microregion had been developing as a constituent part of one political and administrative formation: first, it subordinated to Pskov (from the 13th century to 1920), then it was part of the Republic of Estonia (from 1920 to 1944), later on it was divided between the Estonian SSR and the RSFSR (from 1944 to 1991) but even at that time Setomaa was within the borders of one state (the USSR) [8].

10. Developed relations in the social sphere (culture, sports, medicine, education, science, etc.).

Pskov (Russia) and Tartu (Estonia) — two regional centers as well as large university centers — are located near the border. This fact provides a more stimulating environment for developing relations in the social sphere (especially in education and research) in the microregion Pskov — Pechory — Tartu, compared to the Russian-Estonian-Latvian microregion Pskov — Izborsk — Cesis. It is worth mentioning that Pskov is a twin town for several towns in Latvia (Cesis, Valmiera, Rezekne, Daugavpils) and in Estonia (Tartu and Varska) [30]. The Russian-Latvian microregion Pytalovo - Rezekne finds itself in a less favourable position. The microregion of the third level Izborsk-Pechory district / Setomaa successfully takes advantage of its transit position between Pskov and Tartu. The Lake Peipsi district microregion loses a lot in this respect; although the resumption of water transport between Pskov and Tartu and the development of new water routes can help to regain close social contacts that were lost in the post-Soviet period. The implementation of the cross-border cooperation programmes 'Russia - Estonia 2014-2020' and 'Russia - Latvia 2014-2020' stimulates the development of relations in the social sphere.

Summary. Based on the above analysis of the signs of regional formation at the level of transboundary tourist and recreational microregions, as well as taking into account current flows of tourists, the following levels of region formation can be determined: 'average' for the Russian-Estonian microregion of the first level Pskov — Tartu; 'below average' for the Russian-Estonian microregion of the first level Pskov — Izborsk — Cesis; 'low' for the Russian-Latvian microregion of the second level Pytalovo — Rezekne; 'above average' for the Russian-Estonian microregion of the third level Izborsk-Pechory district / Setomaa; 'initial' for the Russian-Estonian microregion of the third level the Lake Peipsi district (it can be considered as a potential transboundary tourist and recreational microregion). On the whole, the level of formation of the transboundary Latvian-Estonian-Russian mesoregion should be identified as 'below average' if all the above-mentioned microregions are taken into account, or as 'average" if two peripheral microregions (the Lake Peipsi district and Pytalovo — Rezekne) are excluded due to the initial stage of their development.

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