Analysis to Dynamics of Socio-Economic Development of Regions

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Abstract: The article analyzes the dynamics of socio-economic development in the regions in recent years, and the factors that have changed the quantitative and qualitative changes in them. Indicators of the impact of the new economic and social facilities on the living standards of different economic regions and Baku city were also given, including the Theil index and Gini coefficient for economic regions. The article uses systematic analysis, scientific logical summarization, economic classification and other research methods. At the end of the analysis, the relevant findings were substantiated.

Keywords: Economic objects, development of regions, State Programs, economic district.

INTRODUCTION

Growth of Gross Domestic Product in the country has led to the expansion of domestic sources for financing economic development and the opportunity to attract foreign loans. Thus, the gross domestic product in the country in 2016 increased by 4.5 times compared to 2000, 3.0 times compared to 2003, and by about 1.1 per cent compared to 2010. As a result, the volume of capital investments in the country in 2016 increased by 12.0 times compared to 2000, by 3.1 times compared to 2003, and by 1.2 times in 2010. Nevertheless, there has been a decline in investments in fixed capital during 2014-2016. This has been the result of a decline in the country's revenues as a result of oil production and decline in world prices. Thus, oil production in the country in 2016 fell by 5.0 percent compared to 2013, and the price of Brent crude oil in the world market decreased from $ 106.4 in January 2014 and down to $ 56.82 in December 2016 (Karmanovskaya et al. 2020; Barashkin and Samar in 2005; Khytrova et al. 2020).

Improvement of key economic indicators in 2003-2016 led to increased demand in the domestic market and increased social welfare of the population. Thus, the volume of consumer market in 2016 has increased by 5.6 times compared to 2000, by 4.2 times compared to 2003, and by 1.6 times in comparison with 2010. During the mentioned periods, the retail trade turnover increased by 5.0 times, by 3.7 times and by 1.6 times respectively, public catering by 21.8 times, by 13.1 times and 2.3 times respectively, and paid services by 8.0 times, 3 times and 1.4 times respectively (Alieva et al. 2020; Barabanshchikov et al. 2016; Bayboltaeva et al. 2018).

Also, in households, the nominal increase in per capita income compared to 2001 exceeded the consumer price index by 3.3 times in 2016. Thus, as seen, the economic growth in the country in 2000-2016 has had a positive impact on all sides of socio-economic development. Nevertheless, the economic growth being mainly due to the oil factor in the country in 2000-2009, the oil and gas fields being mainly located around the city of Baku, the formation of significant part of country's economic potential in this city has increased the role of Baku in the national economy (Sultanbekov and Nazarova 2019a; Bogaevskaya et al. 2020; Bondarenko et al. 2018; Koryahin et al. 2018; Shandruk et al. 2019; Trusova et al. 2019).

It should be noted that historically, the differences between the regions in the socioeconomic development level were great, and the differences in the transitional period were slightly increased. After 2000, the rapid development of the oil and gas sector and the growth of state revenues have created opportunities for the financing of socio-economic development of the regions. Under such conditions, the government has prepared and implemented "State Program on Socio-Economic Development of the Republic of Azerbaijan (2004-2008)". According to the State Program on Socio-Economic Development of the Regions of the Republic of Azerbaijan (2004-2008), there are 10 economic regions identified in the country except for Baku. Since 2009, the second state program covering the 2009-2013 regional development has been adopted and implemented (Borisova et al. 2020; Daurenbekova et al. 2020; Kostruba and Hyliaka 2020; Shormakova et al. 2019; Sorokin and Novikov 2019; Sultanbekov and Nazarova 2019b).

Currently, the State Program on Socio-Economic Development of the Regions of the Republic of

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Azerbaijan for 2014-2018 is being implemented by Decree No 118 of the President of the Republic of Azerbaijan dated February 27, 2014. A number of measures have been designed under these programs to effectively utilize existing labor resources, natural and economic potentials in the regions, to accelerate the development of the non-oil sector, to deepen reforms in the agrarian sector, to increase employment, to reduce poverty, to modernize the infrastructure, to establish favorable investment climate, modern enterprises, new jobs and the main part of these measures have already been implemented.

**STATE PROGRAM ON SOCIO-ECONOMIC DEVELOPMENT OF THE REPUBLIC OF AZERBAIJAN**: IMPLEMENTATION RESULTS

Recent measures taken in the socioeconomic development of the regions and the increase in the state budget expenditures have resulted in an increase in the overall output of major sectors. The calculations show that average annual growth rate in economic regions in 2004-2016 was 9.3%. Over the period of 2003-2010, the average annual growth rate across the country was higher than in the regions, and since 2011 the regions developed at a relatively high pace. This was mainly due to the dynamics of oil production in the country. Thus, oil production has dropped since 2011, though it has been rising by 2010.

As it is seen from the Table 1, during 2004-2016 gross product production in economic regions increased more than 3 times. At the same time, except for the economic regions of Nakhchivan and Kalbajar-Lachin, the growth in other economic regions was close to the country level. This factor did not lead to a substantial decrease in the proportion of gross commodity output per capita on major sectors in economic regions across the country. While this ratio was 3.0 in 2003, it was 3.8 in 2008, 3.6 in 2010, and 2.9 in 2016 (Komilova et al. 2020a; Komilova et al. 2020b; Krasilshchikov et al. 2014; Kurbanova et al. 2020; Tabachenko et al. 2012; Trusova et al. 2020a).

It should be noted that in the period of high oil and gas production in the country and rise in oil prices on the world market, Baku has significantly exceeded the economic regions by the volume of gross output per capita. In 2010, oil production in the country was 50838 thousand tons, while in 2011 it was 45626 thousand tons, in 2012 - 43375 thousand tons, and in 2016 - 41050 thousand tons. This factor had a significant impact on the dynamics of the overall output in Baku.

As can be seen in Table 2, the highest growth in the economic regions in 2003-2016 was in the field of construction. Namely construction has had a significant impact on the development of the construction materials industry in the regions. 12 power plants with a total capacity of 1619 MW were constructed in the regions, 19929.5 km of gas lines were constructed and repaired within the gasification works, 890 km. roads of republican significance, 2172.5 km roads of local significance were constructed and repaired, 790.4 thousand lineal meter of collector-drainage network, 1196.2 thousand lineal meter of irrigation canals, 39,2 thousand lineal meter of stone concrete pavement, 2950.5 km of water and 1738.8 km of sewer line were installed, 13 water and sewage pumping stations and

<table>
<thead>
<tr>
<th>Table 1: Dynamics of Gross Product Output on Key Industries in Economic Regions (2003=100)</th>
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<tr>
<td><strong>Year</strong></td>
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<tr>
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<tr>
<td>Baku city</td>
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<td>Total economic regions</td>
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<td>Absheron</td>
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<td>Ganja-Gazakh</td>
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<td>Sheki-Zagatala</td>
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<td>Lankaran</td>
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<td>Guba-Khachmaz</td>
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<td>Mountainous Shirvan</td>
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<td>Nakhchivan</td>
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76 water reservoirs were built and reconstructed, and 39.3 km of heating lines were laid, 59 boiler-houses were built and repaired, 239 post offices were built, 175 electronic ATSs were commissioned, 113,426 numbers have been increased and other measures have been implemented in 2004-2012 (Alimbayev et al. 2020; Degtyarev et al. 2019; Komilova et al. 2019a; Komilova et al. 2019b; Kostruba and Vasylyeva 2020a; Kostruba and Vasylyeva 2020b; Magsumov et al. 2019a; Magsumov et al. 2019b; Trusova et al. 2020b).

Large-scale investments were also implemented in the social sphere. Thus, 663 school buildings, 83 therapeutic and diagnostic centers, hospitals, polyclinics, doctors and other medical institutions and 17 Olympic sports complexes were constructed and repaired in 2009-2012 (Report of the Cabinet of Ministers... 2013) process continued in the years to come. Thus, the Aluminum Plant complex in Ganja, Azerbaijan Steel Production Complex Closed Joint Stock Company, Sumgayt Chemical Industrial Park, Gazakh and Nakhchivan cement production, Gold and Copper Processing in Gadabay and other facilities were put into operation in 2013-2016 (Komilova et al. 2019c; Kostruba 2018a; Kostruba 2018b; Molchanova et al. 2019a; Molchanova et al. 2019b; Trusova 2016; Trusova et al. 2017; Ushakov and Ermilova 2020).

Apparently, large-scale work has been done to develop both social and production infrastructure. Implementation of these activities, along with direct investment in the regions, has also contributed to the growth of employment and income. As a result, the volume of trade turnover in the regions in 2016 increased by 4.3 times compared to 2003, and the volume of trade services increased by 3.8 times.

As can be seen in Table 3, economic regions have a significant share in the three regions of the country. These are agriculture, construction and trade services. Agriculture has been developed in the economic regions as it is linked to land plots and natural factors. Thus, most of the economic regions are rural areas. Moreover, the opportunities for the development of agriculture are limited in Baku city. In recent years, the increase in the volume of construction works in the economic regions has been mainly due to the investment activity of the state. As a result of this

### Table 2: Growth Dynamics of General Product and its Elements in Economic Regions (Excluding Baku) (2003=100)

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</thead>
<tbody>
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<td>Production in the main areas</td>
<td>110.3</td>
<td>162.4</td>
<td>205.9</td>
<td>214.1</td>
<td>259.7</td>
<td>299.7</td>
<td>317.0</td>
<td>304.7</td>
<td>307.4</td>
<td>316.6</td>
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<tr>
<td>Industry</td>
<td>113.0</td>
<td>148.0</td>
<td>165.0</td>
<td>197.2</td>
<td>253.3</td>
<td>293.8</td>
<td>300.7</td>
<td>318.9</td>
<td>302.3</td>
<td>332.2</td>
</tr>
<tr>
<td>Agriculture, forestry and fishing</td>
<td>104.6</td>
<td>117.6</td>
<td>124.7</td>
<td>126.2</td>
<td>133.5</td>
<td>142.0</td>
<td>150.8</td>
<td>148.7</td>
<td>158.7</td>
<td>162.4</td>
</tr>
<tr>
<td>Construction and installation works</td>
<td>139.8</td>
<td>666.6</td>
<td>1333.9</td>
<td>1264.6</td>
<td>1899.4</td>
<td>2506.5</td>
<td>2686.0</td>
<td>2154.8</td>
<td>1931.8</td>
<td>1909.0</td>
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<tr>
<td>Transportation and storage</td>
<td>106.6</td>
<td>147.3</td>
<td>193.1</td>
<td>234.4</td>
<td>275.2</td>
<td>298.1</td>
<td>298.2</td>
<td>316.8</td>
<td>325.3</td>
<td>368.7</td>
</tr>
<tr>
<td>Information and communication</td>
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<td>208.1</td>
<td>257.6</td>
<td>353.1</td>
<td>371.1</td>
<td>404.9</td>
<td>430.7</td>
<td>490.1</td>
<td>521.9</td>
<td>568.6</td>
</tr>
<tr>
<td>Trade services</td>
<td>112.7</td>
<td>176.8</td>
<td>207.4</td>
<td>247.9</td>
<td>277.2</td>
<td>300.0</td>
<td>318.1</td>
<td>341.8</td>
<td>363.5</td>
<td>375.1</td>
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### Table 3: Share of Economic Regions in Product Output in the Country (by Percentage)

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</thead>
<tbody>
<tr>
<td>Product output in major areas</td>
<td>25.4</td>
<td>20.4</td>
<td>19.8</td>
<td>20.5</td>
<td>22.0</td>
<td>22.8</td>
<td>24.0</td>
<td>26.1</td>
<td>27.7</td>
<td>26.9</td>
<td>29.7</td>
<td>28.3</td>
</tr>
<tr>
<td>Industry</td>
<td>12.6</td>
<td>8.0</td>
<td>6.6</td>
<td>5.9</td>
<td>6.0</td>
<td>6.3</td>
<td>7.0</td>
<td>7.9</td>
<td>8.4</td>
<td>9.8</td>
<td>12.2</td>
<td>13.1</td>
</tr>
<tr>
<td>Agriculture, forestry and fishing</td>
<td>99.6</td>
<td>99.4</td>
<td>99.4</td>
<td>99.4</td>
<td>99.5</td>
<td>99.4</td>
<td>90.8</td>
<td>90.3</td>
<td>99.5</td>
<td>99.6</td>
<td>99.6</td>
<td>99.5</td>
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<tr>
<td>Construction and installation works</td>
<td>9.3</td>
<td>19.4</td>
<td>29.4</td>
<td>37.2</td>
<td>27.6</td>
<td>38.2</td>
<td>40.3</td>
<td>44.1</td>
<td>47.9</td>
<td>35.1</td>
<td>34.2</td>
<td>32.3</td>
</tr>
<tr>
<td>Transportation and storage</td>
<td>11.6</td>
<td>8.5</td>
<td>6.6</td>
<td>7.6</td>
<td>7.6</td>
<td>7.4</td>
<td>8.3</td>
<td>8.2</td>
<td>8.4</td>
<td>8.9</td>
<td>8.0</td>
<td>6.7</td>
</tr>
<tr>
<td>Information and communication</td>
<td>7.7</td>
<td>6.7</td>
<td>5.3</td>
<td>7.1</td>
<td>7.4</td>
<td>6.7</td>
<td>6.4</td>
<td>6.2</td>
<td>6.0</td>
<td>6.2</td>
<td>6.3</td>
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<tr>
<td>Trade services</td>
<td>53.4</td>
<td>55.2</td>
<td>55.8</td>
<td>55.0</td>
<td>55.8</td>
<td>56.6</td>
<td>57.3</td>
<td>56.6</td>
<td>54.4</td>
<td>53.0</td>
<td>50.8</td>
<td>50.7</td>
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activity, the volume of investments invested in the economic regions has sharply increased. As a result, the share of economic regions in total capital investment in the country increased from 5.5% in 2003 to 34.5% in 2013 and amounted to 25.4% in 2016. The partial increase in the share of economic regions in trade services has been affected by the increase in the income of the local population as a result of the increase in this investment activity as well as the increase in pensions and social benefits (Konurbayeva et al. 2015; Konurbayeva et al. 2018; Kostruba 2019a; Kostruba 2019b; Magsumov et al. 2018; Molchanova et al. 2020).

DEVELOPMENT OF INDUSTRIAL POTENTIAL OF BAKU

However, Baku has surpassed the economic zones by increasing the trade turnover rate in 2003-2016. As a result, there was no significant rapprochement in the per capita trade turnover. The role of the economic areas in other fields is limited in the country’s economy. Thus, the industrial potential of the country is mainly concentrated in Baku. In recent years, the state has been implementing measures to establish industrial enterprises in the economically-vulnerable regions (Alpysbayev et al. 2020; Ashikbayeva et al. 2018; Denissova et al. 2018).

Thus, the construction of power plants in the economic regions has been carried out, and non-ferrous and ferrous metallurgy plants are being constructed in Ganja-Gazakh economic region, construction materials, food and light industrial enterprises have been established, and so on. However, the share of oil and gas production in industrial production is high. Thus, in 2016, this figure was approximately 62.1 percent. This factor has also increased the share of Baku in the industrial production. In 2016 the volume of agricultural production in the economic regions increased by 1.6 times in comparison to 2003.

In our opinion, it is possible to increase the volume of production by strengthening the material and technical basis of the agricultural sector, as well as the improvement of the structure of the produced products. The number of the minority agricultural producers reduces their interest in the outcome of the consumption, and limit the effectiveness of building productive relationships with processing facilities. Despite the high development rates of transport and warehousing areas in economic regions, big role of Baku in these areas is due to the fact that significant part of economic activity in the country is concentrated in this city (Astapov et al. 2019; Molchanova et al. 2018; Montaev et al. 2020; Zhukovskyi et al. 2019).

Transport and warehousing are mainly service areas (especially service for production) and the demand for these services is high in regions with high economic activity. The share of economic resources in information and communication services is low in the

Table 4: Structure of the General Product Output on Key Areas in Economic Regions of the Country (Total by Percentage)

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<tbody>
<tr>
<td>Total countrywide</td>
<td>100</td>
<td>100</td>
<td>100</td>
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<td>100</td>
<td>100</td>
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<tr>
<td>Baku</td>
<td>74.0</td>
<td>74.6</td>
<td>77.5</td>
<td>79.6</td>
<td>80.2</td>
<td>79.4</td>
<td>76.0</td>
<td>77.2</td>
<td>76.0</td>
<td>73.9</td>
<td>72.2</td>
<td>73.1</td>
<td>70.3</td>
<td>71.7</td>
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<tr>
<td>Total for economic</td>
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<td>26.0</td>
<td>25.4</td>
<td>22.5</td>
<td>20.4</td>
<td>19.8</td>
<td>20.6</td>
<td>24.1</td>
<td>22.9</td>
<td>24.1</td>
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<td>regions</td>
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<td>2.2</td>
<td>1.8</td>
<td>1.6</td>
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<td>Ganja-Gazakh</td>
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<td>4.8</td>
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<td>1.4</td>
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country. Thus, the total number capacity of ATSs in economic regions in 2016 increased by 1.8 times compared to 2003, while the share of economic regions in this period decreased from 51.2% to 50.1%. Also, according to the number of apparatus falling to each 100 families in 2016, the economic regions fall behind about 2 times comparing to Baku city.

As can be seen from the Table 4, the share of economic regions in the total output of the last two years has increased significantly. Nevertheless, the main part of production in the country is concentrated in Baku. One of the key factors that attracts Baku city to the private sector is the high density here. So, 1049 people fell to 1 sq. km in Baku by the end of 2012, whereas in economic regions this figure was 89 people, 1 sq. km., the retail trade turnover was AZN 7750.2 thousand and AZN 161.1 thousand correspondingly. In addition, the volume of retail trade turnover per capita of Baku city, exceeded the figure of the economic regions by 4.1 times in 2016 (Aubakirov et al. 2019; Dychkovskiy et al. 2018; Dychkovskiy et al. 2019).

Apparently, the market density in Baku is relatively high compared to economic regions. This factor reduces sales costs of products produced relative to economic regions. Also, while 2.5% of the country’s territory and 23.0% of the population fall to part of Baku, in 2016, 52.5 percent of automobiles in the country, including 42.7 percent of freight cars, 41.6 percent of freight traffic, 90.0 percent of the country’s information and communication services fell to this city. These factors make it ideal to place production in Baku. The idea behind Krugman’s prices level, which is expected to be relatively low in the region where there are many industrial enterprises compared to the regions with less industrial enterprises, was not justified in Azerbaijan (Krugman 1991; Galamandjuk et al. 2017; Galamandjuk et al. 2019; Mykhyda et al. 2019).

Thus, the prices for consumer goods and services in the country in 2016 increased by 71.6% compared to 2007, while in Baku this figure was 76.3%. In our view, this is due to the structure of consumption of the population. Since, the prices of products and services (light, water, gas, transport, etc.), which are directed to other significant consumption costs, are regulated by the state and are largely determined by the same level throughout the country, food prices have a significant impact on the consumer price index. In these regions, the prices were relatively low, as the agricultural sector, which is the main source of food supply, is located in the economic regions.

As can be seen in Table 5, the volume of gross output per capita in both Baku and in economic regions has increased dramatically over recent years. Thus, in 2016, this increase was 5 times higher in Baku than in 2003 and 5.8 times in the economic region. Taking into account that in the period under review the deflator of the GDP was 2.6 times, we conclude that the real increase exceeded 2 times. In addition, the city of Baku has significantly exceeded economic zones by the volume of gross product per capita per capita. Thus,

Table 5: Gross Product Output Per Capita on Key Areas in the Economic Regions (AZN)

<table>
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</thead>
<tbody>
<tr>
<td>Total countrywide</td>
<td>1301.5</td>
<td>1544.4</td>
<td>4084.4</td>
<td>5453.6</td>
<td>5428.6</td>
<td>6792.1</td>
<td>7058.4</td>
<td>7104.8</td>
<td>6446.5</td>
<td>7223.2</td>
<td></td>
</tr>
<tr>
<td>Baku</td>
<td>4261.3</td>
<td>5015.7</td>
<td>14652.3</td>
<td>19253.2</td>
<td>16981.6</td>
<td>19888.3</td>
<td>20755.1</td>
<td>20528.8</td>
<td>18200.9</td>
<td>21163.1</td>
<td></td>
</tr>
<tr>
<td>Total for economic regions</td>
<td>436.9</td>
<td>509.8</td>
<td>1013.1</td>
<td>1438.8</td>
<td>1520.6</td>
<td>2226.2</td>
<td>2354.9</td>
<td>2295</td>
<td>2331.7</td>
<td>2519.7</td>
<td></td>
</tr>
<tr>
<td>Absheron</td>
<td>543.6</td>
<td>786.1</td>
<td>1609.4</td>
<td>2374.9</td>
<td>1331.6</td>
<td>2255.6</td>
<td>2504.6</td>
<td>2794.8</td>
<td>2805.6</td>
<td>3407.1</td>
<td></td>
</tr>
<tr>
<td>Ganja-Gazakh</td>
<td>437.1</td>
<td>511.7</td>
<td>1007.6</td>
<td>1375.8</td>
<td>1547.9</td>
<td>2109.6</td>
<td>2258.4</td>
<td>2179.8</td>
<td>2200.6</td>
<td>2371.8</td>
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<tr>
<td>Sheki-Zagatala</td>
<td>353.2</td>
<td>399.6</td>
<td>926.6</td>
<td>1257.9</td>
<td>1373.1</td>
<td>2529.1</td>
<td>2355.7</td>
<td>1718.9</td>
<td>1876.3</td>
<td>2007.2</td>
<td></td>
</tr>
<tr>
<td>Lankaran</td>
<td>328.8</td>
<td>373.1</td>
<td>679.2</td>
<td>918.1</td>
<td>999.8</td>
<td>1032.8</td>
<td>1434.7</td>
<td>1551.5</td>
<td>1618.8</td>
<td>1793.3</td>
<td></td>
</tr>
<tr>
<td>Guba-Khachmaz</td>
<td>506.4</td>
<td>552.5</td>
<td>1170</td>
<td>2294.8</td>
<td>2229.2</td>
<td>2259.5</td>
<td>2528</td>
<td>2388.1</td>
<td>2294.9</td>
<td>2511.5</td>
<td></td>
</tr>
<tr>
<td>Aran</td>
<td>585.5</td>
<td>639.4</td>
<td>1186.7</td>
<td>1561.2</td>
<td>1631.5</td>
<td>2309.9</td>
<td>2542.9</td>
<td>2520.8</td>
<td>2509.6</td>
<td>2566.1</td>
<td></td>
</tr>
<tr>
<td>Upper Garabagh</td>
<td>165.4</td>
<td>180</td>
<td>413.3</td>
<td>565</td>
<td>537.4</td>
<td>708.7</td>
<td>706.3</td>
<td>772.5</td>
<td>688.7</td>
<td>855.7</td>
<td></td>
</tr>
<tr>
<td>Kalbajar-Lachin</td>
<td>34</td>
<td>45.3</td>
<td>79.4</td>
<td>92.8</td>
<td>119.3</td>
<td>364.3</td>
<td>434.1</td>
<td>298.6</td>
<td>296.9</td>
<td>277.5</td>
<td></td>
</tr>
<tr>
<td>Mountainous Shirvan</td>
<td>370</td>
<td>432</td>
<td>879.8</td>
<td>1248.3</td>
<td>1505.6</td>
<td>1794.5</td>
<td>1853.5</td>
<td>1821.9</td>
<td>1925</td>
<td>2104.2</td>
<td></td>
</tr>
<tr>
<td>Nakhchivan</td>
<td>534.1</td>
<td>703.3</td>
<td>1651.8</td>
<td>2421.9</td>
<td>3607.6</td>
<td>6336.4</td>
<td>6661.9</td>
<td>6517.4</td>
<td>6842.6</td>
<td>7371.8</td>
<td></td>
</tr>
</tbody>
</table>
the volume of gross output per capita in Baku was 9.8 times more compared to economic regions in 2003, 11.2 times in 2010 and 8.4 times in 2016 respectively.

**USING THE THEIL INDEX TO MEASURE INTER-REGIONAL INEQUALITY IN A COUNTRY**

The Theil index is used to estimate the inter-regional disparity in the country. This indicator is calculated as follows (Raevneva and Bobkova 2010, Feng et al. 2016):

\[ T = \sum_{i} \frac{Y_i}{Y} \ln \frac{Y_i}{Y} / \frac{P_i}{P} \]  

(1)

where, \( Y \) – country’s total product; \( Y_i \) – total product of region \( i \); \( P \) – population of the country; \( P_i \) – population of region \( i \).

The Theil index is equal to zero if the total production output per capita in different regions of the country is similar to each other (Chen et al. 2018, Wu et al. 2018). If all the product output in the country is implemented in a region having least population, the Theil index will reach its maximum level.

As can be seen from Figure 1, the Theil index has grown steadily in 2003-2007 and has started to decline since then. Changes in the value of this index have been affected by the volume of oil and gas production and the price of oil, as well as the volumes of funds directed to the regions in recent years. It should be noted that in 2003-2016, if the total product in the country had been concentrated in Baku, then the value of the Theil coefficient would have ranged from 1.339 to 1.489. Apparently, this indicator remains high in the country. However, the inequality between economic regions (excluding Baku) is relatively low by socio-economic development level compared to the country’s indicator (Bakashbayev et al. 2020; Haiduchok et al. 2020).

As can be seen from Figure 2, the level of inequality between economic regions is very low. In 2016, the Theil Index for economic regions was about 4 times the volume of gross output per capita in Baku was 9.8 times more compared to economic regions in 2003, 11.2 times in 2010 and 8.4 times in 2016 respectively.
less than the national average. Also, the Theil Index shows an increase in inequality in economic regions in 2007-2016 (Regions of Azerbaijan... 2017).

While the maximum level of Theil index, which reflects the inequality between the economic regions according to the level of socioeconomic development, depends on the interregional distribution of the population, the maximum indicator of Gini coefficient is equal to one. From this point of view, analysis of regional inequality based on Gini coefficient is also important. Gini coefficient (G) is based on Braun’s formula as follows:

\[
G = \left| 1 - \sum_{k=2}^{n} \left( X_k - X_{k-1} \right) \left( Y_k + Y_{k-1} \right) \right| 
\]

(2)

where, \( X_k \) – the cumulative share of the regions, with revenues revamped in the increasing range, in the country’s population; \( Y_k \) – share of revenues from \( X_k \).

\( Y_k \) – share of revenues from \( X_k \).

As can be seen in Figure 1 and 3, both the Theil Index and the Gini Index show that there is a tendency in the dynamics of interregional inequality. The Gini Index also shows the high level of regional inequality in the socio-economic development level in the country.

According to Gini coefficient, despite little difference between the economic regions, it was changeable. While investment in the country is one of the key factors of economic growth, investment is the most volatile element of the overall product. In particular, the possibility of continuously maintaining economic activity through state investment is limited. Thus, the fact that public investment is mainly focused on the construction of social facilities and the limited financing of private sector development is a factor that adversely affects the development of the region. For example, in 2012, the number of small entrepreneurship subjects per 1000 population in Baku was 34, while this figure was 16 in economic regions (Bakhmat et al. 2020; Kalchenko et al. 2018; Natolochnaya et al. 2020;
The conducted analysis shows that the share of economic regions in the total output of the recent years has increased significantly. However, despite this, the high economic growth in economic regions in recent years has not significantly increased their role in the national economy. The main part of production in the country is concentrated in the capital city of Baku.

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As a result, in 2015, 50.3 percent of small businesses and 61.2 percent of their production fell to Baku. In our opinion, the shortage of jobs in the economic regions leads to the country-wide migration of the economically active population, which in turn causes the society to meet some of the losses. In such circumstances, ensuring the sustainable growth of production in the economic regions and increasing the number of constant jobs are one of the most important issues ahead (Seisenbayeva et al. 2020; Shakbutova et al. 2020; Zyкова et al. 2021).

It should be noted that, in addition to the high share of Baku city in the economy, its share of the social sphere also remains high. Thus, 26.5% of the country's hospitals, 41.6% of hospital beds, 17.0% of the outpatient clinics, 62.1% of the employed doctors, 37.7% of the middle medical workers in the country fell to the share Baku city in 2016. In recent years, the measures taken for the development of secondary education have led to the distribution of educational institutions to the needs of the population across the country. In secondary schools, the proportion of the pupils of the first shift to the total number of pupils was 85.4% in 2016-2017, which is 20.1 percentage points more than in 2000-2001 academic years. This indicator was higher in the economic regions than in Baku. However, the number of pre-school educational institutions does not meet the requirements. So, about 14.2 per cent of children were covered in preschool education in 2016. In addition, 33.4 per cent of children attending pre-school education in the country in 2016 fell to the share of Baku city.

CONCLUSIONS

 Provision of sustainable economic development in the country implies the provision of socioeconomic development on the basis of full and effective use of economic potential of the regions and reduction of inter-regional differences in this area. Therefore, one of the main directions of the economic reforms being implemented in Azerbaijan is to ensure the socioeconomic development of the regions. In recent years, the measures taken in the socioeconomic development of the regions and the increase in the state budget expenditures have resulted in an increase in the overall output of major sectors (industrial, construction, agriculture, trade, transport and warehousing, information and communications) in the economic regions.

Polvakova and Balanyuk 2018; Zhusupbekov et al. 2020).


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