

Analysis of Efficiency Indicators of a Macro Region's Economy (On the Example of the Central Federal District)

Marina Valentinovna Vladyka, Oksana Valeryevna Vaganova,
Svetlana Alekseevna Kucheryavenko and Natalya Igorevna Bykanova
Belgorod State National Research University, Pobedy Str., B.85, 308015 Belgorod, Russia

Abstract: This study analyzes the main indicators of economic efficiency of the macro-region on the example of the Central Federal district of the Russian Federation which allowed to draw conclusions about the extent of its economic development. In addition, the study gives the comparative analysis of the Central Federal district's regions of the Russian Federation in terms of production of goods and services per capita, investment in fixed capital per capita, the share of profitable enterprises of constituent entities, the proportion and influence of the Central Federal district of the Russian Federation on the economy of the country. The researchers identified the problems and directions of improving the efficiency of the economy of a macro region.

Key words: Indicators of economic efficiency, investment in fixed capital, production of goods and services, the profitable enterprises of a region, macro region

INTRODUCTION

Central Federal District (further-CFD) is one of the leading regions among the subjects of the Russian Federation according to the basic indicators of socio-economic development. The macro-region ranks first in the country's industrial production, population, agricultural production, amount of scientific and technical workers. District covers 20% of the country's industry and consumes >20% of imported goods.

However, these indicators do not fully reflect the economic situation in the Russian Federation's subjects. The relevance of the research conducted is to determine the most important indicators of assessment of economic efficiency of a macro-region in order to increase its competitiveness and to attract investments in the region's economy.

There are many key indicators allowing to determine the rank of a region in terms of economic development. Conditionally they can be divided into 4 groups: indicators of the scale of the economy; indicators of economic efficiency; indicators of the budgetary sphere; indicators of the social sphere.

The study considers and analyzes the efficiency indicators of the economy of the Central Federal district of the Russian Federation which can be defined as the indicators of the economic activity efficiency of the Russian leading regions.

MATERIALS AND METHODS

The main part: In the course of the analysis, we used the following indicators:

- Production volume
- production of goods and services per capita
- investments in fixed capital per capita
- The share of profitable enterprises among the large and medium-sized enterprises in the total number of registered companies

These indicators describe labor productivity, investment activity, financial performance of regions' enterprises. The average value of production of goods and services per capita in Russia and Central Federal district for the period 2005-2014 are presented in Fig. 1.

Figure 1 reflects a positive trend of this indicator during the period in question. The figure at the end of 2014 in the Central Federal district amounted to 437,88 thous.rub. whereas in 2005 only 125,42 thous.rub. which is 3 times less compared to the total period.

The volume of production of goods and services per capita across regions of the Central Federal district during 2005-2014 had a steady positive trend. While there is an overall growth, there is high level of regional differentiation by value of this index which varied in 2005 from 50,49-195,23 thous.rub. and in 2014 from 171,89-630,85 thous.rub.

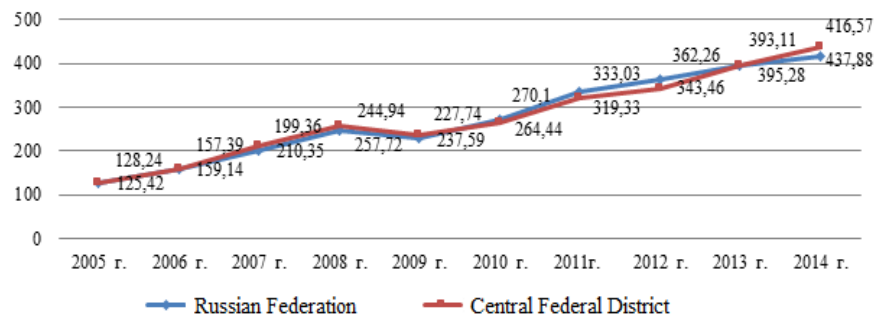


Fig. 1: The change in the volume of production of goods and services per capita in Russia and Central Federal district in 2005-2014 (thous.rub.)

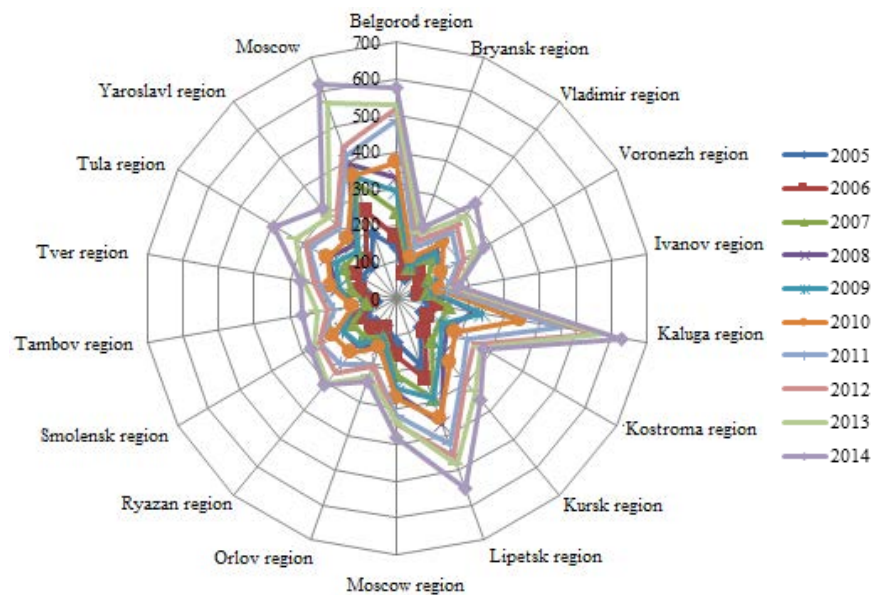


Fig. 2: Dynamics of volume of production of goods and services per capita across regions of the Central Federal district of Russia in 2005-2014 (thous.rub)

It should be noted that for the past 10 years the leading regions of the Central Federal district in terms of production of goods and services per capita are: Kaluga region, Moscow, Lipetsk and Belgorod region which is confirmed by the data in Fig. 2.

The lowest rates are found in Orel, Bryansk, Ivanovo regions. Such ranks of these regions are due to the low absolute volumes of production of goods and services (Matviychuk and Kucheryavenko, 2016). Analysis of this indicator suggests that its significance is influenced by two factors: sectoral specialization and population. And for sparsely populated regions, it is the impact of population that matters.

Another important economic indicator that characterizes the development of any region is the amount of investment in fixed capital per capita. It

indicates long-term economic interest of domestic and foreign investors in business development in a particular area (Migunova, 2012).

RESULTS AND DISCUSSION

As a result of a general decline in investment activity in the Russian Federation over the past 2 years the situation with investments in fixed capital per capita in the regions of Central Federal district has been heterogeneous in a number of subjects the volume of investments into fixed capital has substantially grown in others on the contrary, declined significantly which is confirmed by Fig. 3.

The data in Fig. 3 suggests a steady increase in investment in fixed capital per capita in the Federal district

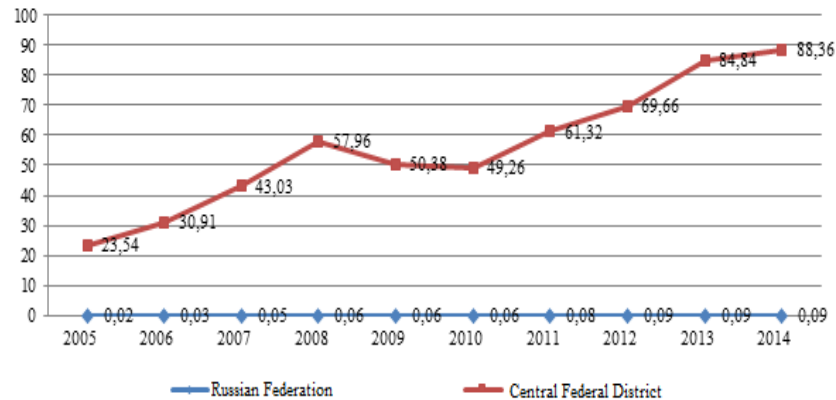


Fig. 3: The volume of investments in fixed capital per capita in Russia and Central Federal district in 2005-2014 (thous.rub)

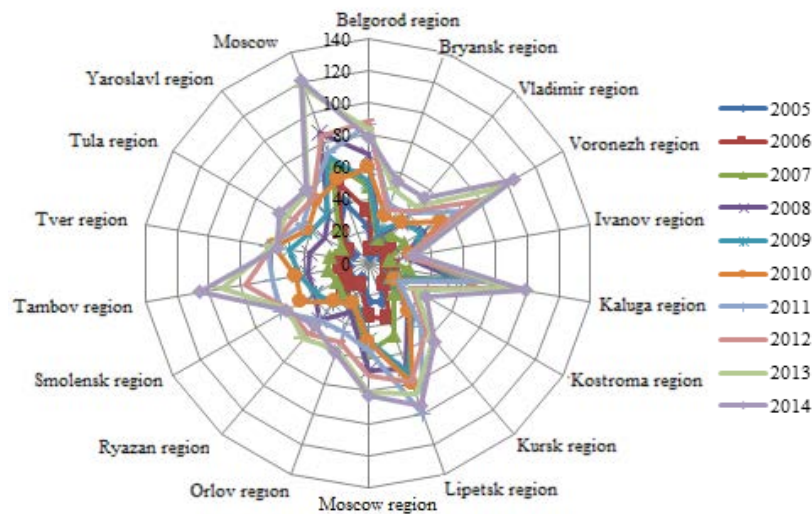


Fig. 4: Dynamics of investments into fixed capital per capita by regions of the Central Federal district of Russia in 2005-2014 (thous.rub.)

from 2005-2014. It should be noted that the subjects of the Central Federal district in which in 2014 this figure exceeds the average for the CFA (worth 88.36 thous.rub.) are Moscow -121,57 thous.rub., Tambov region -105,76 thous.rub., Voronezh region of 104,40 thous.rub., Kaluga region -99,04 thous.rub., Lipetsk region -95.00 thous.rub. The average position in the rank are occupied by Kursk, Tula, Yaroslavl, Smolensk, Orel, Tver, Bryansk, Vladimir and Ryazan regions. "Outsiders" according to this indicator are Ivanovo (28,66 thous.rub.) and Kostroma (41,98 thous.rub.) regions. The highest level of these indicators belongs to Tambov and Voronezh regions (Fig. 4).

The lowest volume of investment in fixed capital per capita among the subjects of the Central Federal district for 2005-2014 was noted in the Ivanovo and Kostroma

regions. An important feature that confirms this is an indicator of the amount of foreign direct investment per capita (Fig. 5).

According to Fig. 5, years with the highest values of the analyzed index in CFA are 2007 (497,73 \$ USA) and 2013 (365,20 \$ USA). In the period from 2007-2012 there was a decrease in the volume of foreign direct investment per capita which is common for 2014. The reasons for such a sharp decline in investor interest in the CFD regions are the economic crisis of 2007-2008, "bleak" forecasts of the development of the economy and sanctions against Russia (Khutyzy, 2013).

The analyze of volumes of foreign direct investment per capita among regions in the Central Federal district of the Russian Federation entails that during 2005-2014 there was a high level of differentiation of regions by value of

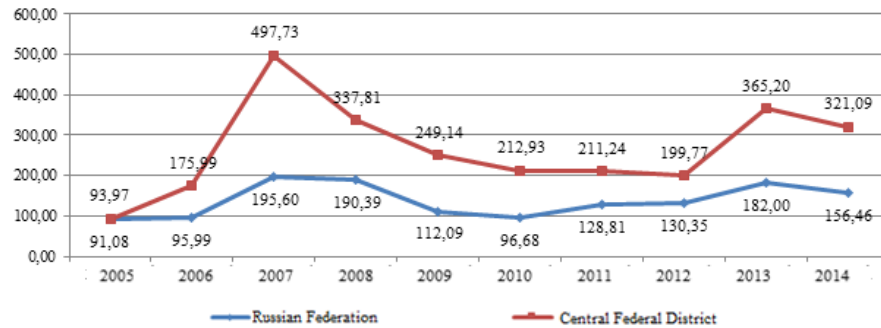


Fig. 5: Dynamics of direct foreign investments per capita in Russia and Central Federal district for 2005-2014 (\$ USA)

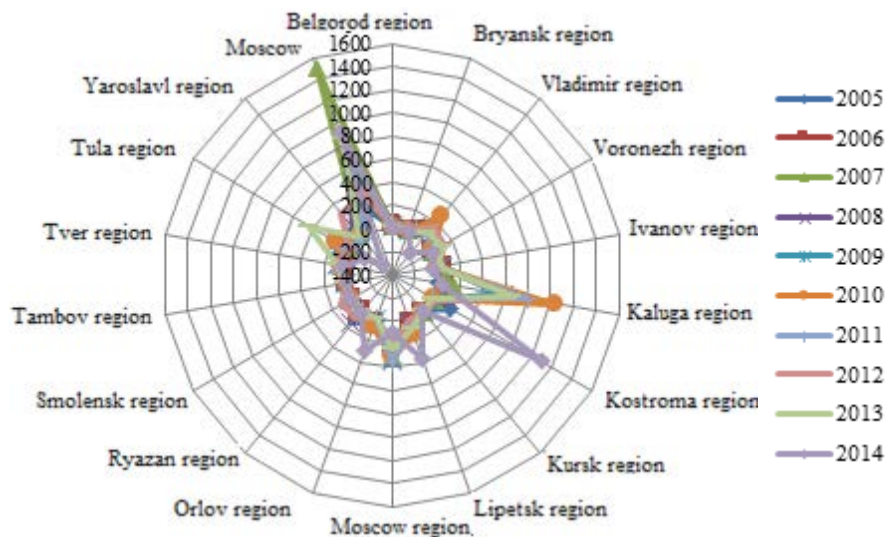


Fig. 6: Change of foreign direct investment per capita in the Central Federal district of Russia in 2005-2014 (\$ USA)

this index which varies in 2005 from 0.30 \$ USA to 193,21 \$. USA and in 2014 from -272,08 to 1098,57 \$ USA.

Besides, the leading positions in attracting direct foreign investment per capita during the period in question belong to Moscow, Moscow and Kaluga region (Fig. 6). Over the past 2 years the situation has changed: Kostroma and Lipetsk regions became the leaders. The lowest values for this indicator belong to Yaroslavl, Vladimir, Tula and Ivanovo regions.

In general, it is possible to note a positive growth rate of foreign direct investment per capita for all regions of the CFA in relation to the basic 2005.

Another important indicator of economic efficiency of the regions is the share of profitable large and medium-sized enterprises in the total number of enterprises registered on the territory of the Central Federal district of the Russian Federation.

According to Fig. 7, it can be concluded that during the period analyzed, the figure for the Central Federal district is higher than the similar indicator of the average for the Russian Federation (Kormishkin, 2011).

Examine of the data on profitable enterprises on the territory of the Central Federal district of the Russian Federation for 2005-2014 entails that the highest share belongs to Lipetsk, Moscow regions and Moscow (Fig. 8).

Along with the high level of the indicator being analyzed there was the instability of the share of profitable enterprises in Moscow in 2005-2014. Such regions should also be noted as Ryazan (73.6%), Belgorod (73.4%), Tambov (73.2%), Voronezh (73.0%) regions with the performance in 2014 above average in the Central Federal district (71.2%).

Eight regions of the Central Federal district had relatively stable value of this indicator from 2005-2014: Bryansk, Ivanovo, Kaluga, Kostroma, Kursk, Orel, Tula,

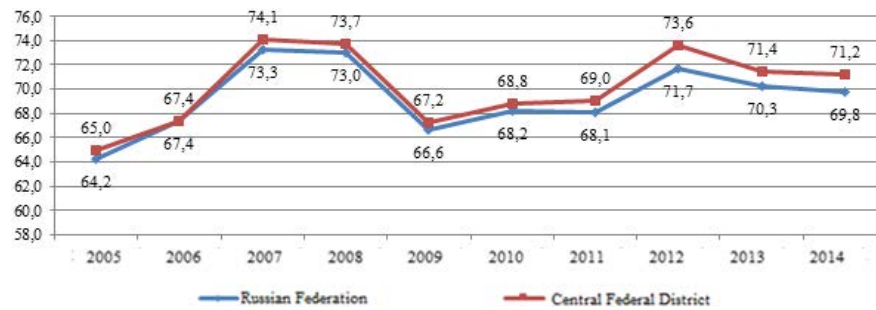


Fig. 7: The change in the share of profitable enterprises in Russia and Central Federal district for 2005-2014 (%)

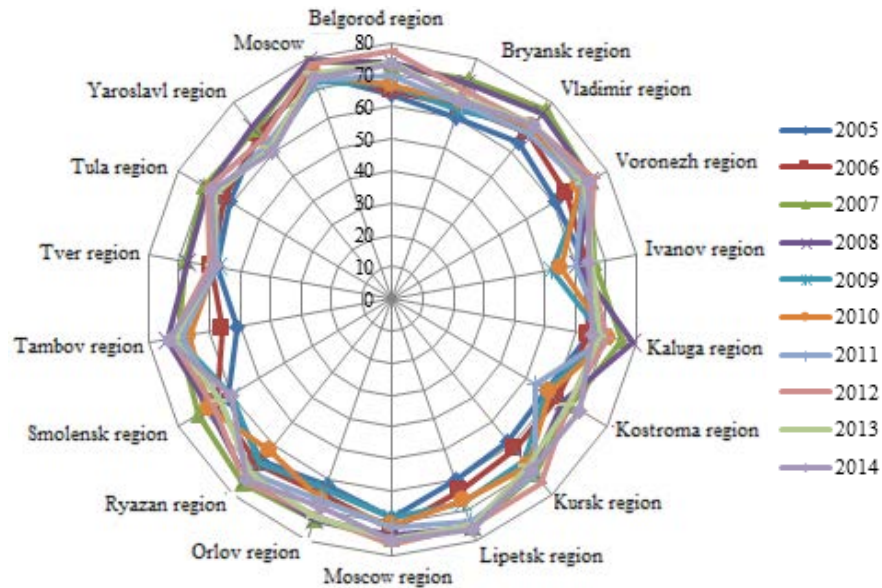


Fig. 8: The change in the share of profitable enterprises among the subjects of the Central Federal district of Russia in 2005-2014

Vladimir regions. Along with this, there are three subject in the Central Federal district having the lowest values of the share of profitable enterprises: Yaroslavl, Smolensk, Tver regions.

Having considered data on the share of profitable large and medium-sized enterprises in the total number of registered enterprises in the Central Federal district of the Russian Federation, it is important to note that the largest increase in the share of profitable enterprises in 10 years is observed in Tambov, Kaluga, Kostroma, Lipetsk and Voronezh regions (over 20%).

CONCLUSION

Thus, the Central Federal district plays an important role in the economic development of the country. Having the status of the Metropolitan area, it is a leader among other Federal districts in terms of economic development. However, due to the deteriorating external environment,

inflationary weakening of the national currency, reduction in financial lending institutions and Western sanctions, development of the real sector of the economy should become a priority.

Central Federal district is one of the leading regions by indicators of economic efficiency that allows to make a conclusion about the high degree of efficiency of use of available regional capacity.

In terms of production of goods and services per capita it can be concluded that there is a sufficient level of economic development of Central Federal district regions and the efficiency of use of production resources.

Significant differences in the change in the volume of investments in fixed capital per capita in Central Federal district reflect a high level of investment activity of the macro-region and determine the positive preconditions for further economic development.

Analysis of the profitability of the enterprises analyzed suggests that the leading positions belong to the regions with a relatively high level of economic diversification and well-developed manufacturing and service sectors.

ACKNOWLEDGEMENT

The study has been done in the scope of state task of SIU "BelGU", project code #315.

REFERENCES

- Khutyz, Z.M., 2013. The Crisis of development of regional systems of contemporary Russia. *Regional Econ.: Theory Pract.*, 16: 10-14.
- Kormishkin, E.D., 2011. Growing differentiation in the levels of socio-economic development of regions in the context of the transition to the model of innovative development of economy. *Regional Econ. Theory Pract.*, 14: 49-53.
- Matviychuk, L.N. and S.A. Kucheryavenko, 2016. Methodical principles of forming of efficient mechanism of planning and forecasting of socio-economic development of the region. *Mod. Sci.: Actual Probl. Theory Pract. Ser.: law Econ.*, 1: 44-47.
- Migunova, M.S., 2012. Innovative development as a basis of strengthening of economy of the central federal district. *Bull. Volgograd State Univ.*, 7: 13-19.