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EVALUATION OF REALIZED INVESTMENTS IN BELGRADE'S AND DANUBE REGION¹

JONEL SUBIĆ², LANA NASTIĆ³, MARIJANA JOVANOVIĆ⁴

Abstract. *Investments in the economy are the basic driver of economic development of the country, or areas where the investment is made. To accomplish the economic development requires constant investment in development activities carried out in that area, but the limiting factor is shortage of own funds to commercial entities invested in the expansion and modernization of its products. Among the most important problems that arise in the Republic of Serbia are the problem of obtaining funds from favourable financing conditions and unstable market system, especially for agricultural products, which in addition to other macroeconomic indicators show a high risk of investing in the entire economy, as well as in agriculture, as one of the most important sectors of the Serbian economy. Given the importance of this investment research has focused on the area of Belgrade and the Danube area, which has a very favourable geographical position and as such it is a favourable area for investment.*

Key words: *investments, economy, agriculture*

INTRODUCTION

The Belgrade's region and Danube region consist the Belgrade city, which in its structure has 17 city municipalities and the city of Smederevo, which is located in Danube region and geographically is belongs to Central Serbia. According the last census of inhabitants, which was carried in 2011. year, on this area has lived 1.767.649 inhabitants, out of which on Belgrade's region and city of Belgrade, which is and administrative centre of the Republic of Serbia and largest city of area of Republic were enumerated 1.659.440 inhabitants, until of the area of Smederevo city has lived 108.209 inhabitants.

Belgrade's area and Danube region covers in total 25 3604 hectares of agricultural land (Belgrade's area 21 5414 hectares and Danube region 38.190 hectares), of which is 78.89% arable land. This area have a large advantages for development of agriculture in general, as well for development the agricultural activity, first of all because of geographical position, proximity of market, infrastructure development, availability of qualified personnel for all activities, as well and large areas with quality soil, water resources and others necessary conditions for dealing with agricultural production.

Although on the territory of Belgrade's and Danube region are located two large cities, this area covers large areas of agricultural land and it is significant in production of agricultural products and products of food industry.

Signification of investments in general development of economy and agricultural activity is multiple. According to Subić (2007) investment growth in agriculture represents condition his technical and technological modernization and ultimately is one of condition of economic stability of all national economy. Without an adequate scope and meaningfulness structure of investment cannot be provide growth of fixed and current assets, increasing the number of working places, raising the performance of working tools, better productivity of work, multifirmity of production, etc., on every regional agrarian and rural level, even at national level.

Starting from the assumption that investments as invested resources of social accumulation, a necessary precondition, can be concluded that economic development, after all, can be observed as well

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like function of investment, with the fact that exist a reverse functional dependency between this two category. Development and increasing of production capacity and productivity in functional interdependence with investments, and by the rule with that part of investments which is routed to fixed assets (Subic 2010).

To achieve better insight in moving of investment activity in economy in general, in table 1. is shown the level of investment, not only on territory of Republic of Serbia, but also on the territory of Central Serbia and Belgrade's and Danube areas. Listed indicators has shown for time period since 2001. until 2011. year.

Table 1. Realized investments in economy* (000 RSD)

| Year | Republic of Serbia** | Central Serbia | | Belgrade's and Danube region | |
|-------|----------------------|----------------|---|------------------------------|---|
| | RSD | RSD | % of total investment in Republic of Serbia | RSD | % of total investment in Republic of Serbia |
| 2001. | 55.188.399 | 41.840.003 | 75,81 | 21.002.168 | 38,06 |
| 2002. | 102.860.663 | 79.557.972 | 77,35 | 39.968.468 | 38,86 |
| 2003. | 115.662.223 | 89.976.409 | 77,79 | 50.786.973 | 43,91 |
| 2004. | 152.929.464 | 123.445.066 | 80,72 | 69.551.531 | 45,48 |
| 2005. | 163.549.507 | 133.776.108 | 81,80 | 85.724.905 | 52,42 |
| 2006. | 340.795.050 | 246.477.735 | 72,32 | 128.417.334 | 37,68 |
| 2007. | 482.340.888 | 366.865.027 | 76,06 | 198.883.036 | 41,23 |
| 2008. | 472.746.680 | 360.307.995 | 76,33 | 234.954.950 | 49,70 |
| 2009. | 369.438.089 | 280.898.157 | 76,03 | 182.660.713 | 49,44 |
| 2010. | 425.400.001 | 325.375.393 | 76,49 | 193.785.764 | 45,55 |
| 2011. | 493.100.031 | 359.940.418 | 73,00 | 210.281.902 | 42,64 |

* Investments in fixed assets.

** Without data for Kosovo and Metohija (with exception in 2010th).

Source: Statistical Office of the Republic of Serbia. Municipalities in Serbia 2002-2012.

Realized investment in Republic had growth tendency in period 2001. – 2007th, after which comes to their decline during 2008th and 2009th. After that, i.e. 2010. and 2011. year, they making the positive trend, i.e. show growth tendency.

Investments in economy of Central Serbia in investment of Republic achieved share from 72,32% (2006. year) to 81,80% (in 2005. year). In period 2007-2010. year, this indicator was equalized and amounted something more than 76%, while in the last year of observing is decline to 73%. In absolute amount tendency of investment moving on territory Central Serbia is the same as on level of Serbia. Accordingly, until 2007th is been showed the growth tendency, after that in period 2008-2009. year decreases, and after that again comes to increasing a level of investments activity in economy of this area. Investment in economy of Belgrade's area and Danube region since beginning of analysed period (2001. year) until 2008th are in constantly increasing, and the in 2009. year comes to significant decline, until 2010th, when again showing the growth tendency. Belgrade's and Danube region have significantly share in total investment of Republic Serbia and ranges from 37,68% till 52,42%. Although this indicator is exceptionally high relative to the surface which occupying mentioned area, however must be taken into consideration that it is area in which are located largest city in country and that this area is especially interested for investors.

According to Subic and authors (2012), investments represent basic material factor of economic and social development of any country, region and local community. The scope, structure and efficiency of investing in greatest extent depends how and until which level will be resolved basic question of sustainable development of agriculture.

The level of investment resources in agriculture, hunting, forestry and water management on level of republic of Serbia, Central Serbia and Belgrade's and Danube area is shown in table 2.

Table 2. Realized investments* in agriculture** (000 RSD)

| Year | Republic of Serbia** | Central Serbia | | Belgrade's and Danube region | |
|-------|----------------------|----------------|---|------------------------------|---|
| | RSD | RSD | % of total investment in Republic of Serbia | RSD | % of total investment in Republic of Serbia |
| 2001. | 3.146.845 | 998.683 | 31,74 | 278.503,00 | 8,85 |
| 2002. | 5.206.654 | 2.012.596 | 38,65 | 844.026,00 | 16,21 |
| 2003. | 3.260.612 | 1.219.717 | 37,41 | 684.400,00 | 20,99 |
| 2004. | 3.721.166 | 1.702.354 | 45,75 | 1.038.959,00 | 27,92 |
| 2005. | 5.028.793 | 2.881.800 | 57,31 | 1.952.072,00 | 38,82 |
| 2006. | 13.250.369 | 5.170.798 | 39,02 | 2.829.159,00 | 21,35 |
| 2007. | 14.384.811 | 5.736.605 | 39,88 | 4.617.389,00 | 32,10 |
| 2008. | 21.357.929 | 5.306.541 | 24,85 | 2.739.063,00 | 12,82 |
| 2009. | 14.174.921 | 4.376.208 | 30,87 | 2.820.282,00 | 19,90 |
| 2010. | 9.219.328 | 2.535.698 | 27,50 | 1.543.726,00 | 16,74 |
| 2011. | 12.211.147 | 2.152.174 | 17,62 | 1.631.087,00 | 13,36 |

* Investments in fixed assets.

**Agriculture, hunting, forestry and water management.

*** Without data for Kosovo and Metohija (with exception in 2010th).

Source: Statistical Office of the Republic of Serbia. Municipalities in Serbia 2002-2012.

On the level of republic of Serbia, realized investments in agriculture, in period since 2001.-2008. year (with exception in 2003. year), shown growth tendency, then in period 2009-2010., this indicator is on the decline. In last analysed year (2011), comes to increasing of investment activity in agriculture.

Moving of investments in agriculture on level of Central Serbia shows the tendency of growing in period 2001-2007. year, with exception in 2003rd. In period from 2008. year until the end of observed period (2011. year), level of investments in agriculture is on constant decline. Also, share of investments this activity from area of central Serbia in investments in Republic of Serbia are lowest in last year and it amounts 17,62%, until the highest share is realized in 2005.

Investments on area of Belgrade's and Danube region have the same moving as on the territory of Central Serbia, with the fact that in this area in last analysed year is come to slight growth this indicator. Share of investments this domain in total investments of Republic is extremely varies, but in the last year has been realized one of the most lower values this indicator in analysed period (beside 2001. and year of 2008.).

The average year growth rate for economy during period 2001-2011. year is highest on area of Belgrade's and Danube region and it amounts 25,91%, while on the territory of Serbia is somewhat lower and amounts 24,48%. The average growth rate in Central Serbia is the lowest and it amounts 24,01%.

Investments in agriculture, also at all levels had a positive average annual growth rate, and as in the first case, i.e. total economy, the highest growth rate was achieved in the area of Belgrade and the Danube region (19,33%), followed by the Republic as a whole (14,52%), while lowest value achieved at the level of Central Serbia (7,98%).

MATERIALS AND METHODS

During the research, we used the literature from the area of investments, agriculture, industry, etc., and a large number of statistical and scientific publications.

In this paper was performed the evaluation of realized investments in the economy, with special emphasis on investments in agriculture, as one of the most important economic branches in the Republic,

which has a significant share in value of total exports of the Republic. Analysis of realized investments was based on the following indicators⁵:

- realized investments in the economy per inhabitant;
- realized investments in the economy per employee;
- realized investments in agriculture per person employed;
- realized investments in agriculture per unit of agricultural land;
- realized investment in agriculture per unit of arable land;
- realized investments in agriculture per unit of ploughed land;
- realized investments in agriculture per holding.

Macroeconomic indicators presented here are of great importance for the follow-up of the next development of this area, i.e. the economy as a whole, and as well agriculture.

RESULTS AND DISCUSSION

Rating of realized investments in the economy, and agriculture is based on a number of indicators. Indicators used for the evaluation of total investments in the economy are realized investments in the economy per inhabitant and gross fixed capital per employee (Table 3). This type of investment evaluation is carried out to their more realistic rated, and indicators were calculated both for industry and for agriculture, presented at the national level, of the Central Serbia and Belgrade, and the Danube area. Calculation of indicators was carried out for two years, 2002nd, and 2011th year.

At analysed indicators of investment in the economy, higher value was obtained from investments in the economy per employee in relation to the investment per inhabitant in the interrelated:

- at the level of the Republic of Serbia in 2002nd year (5,14:1) and in 2011th year (5,35:1);
- Central Serbia in 2002nd year (5,08:1) and in 2011th year (5,32:1);
- and Belgrade's and Danube area in 2002nd year (4,31:1) and in 2011th year (3,70:1).

Table 3. Evaluation the realized investments* in economy

| Indicator | Unit | Year | Territory | | |
|--|------|------|----------------------|----------------|----------------------------|
| | | | Republic of Serbia** | Central Serbia | Belgrade's and Danube area |
| Realized investments in economy per inhabitant | RSD | 2002 | 13,72 | 14,56 | 23,71 |
| | | 2011 | 68,61 | 68,49 | 118,96 |
| realized investments in economy per employee | RSD | 2002 | 70,52 | 73,91 | 102,27 |
| | | 2011 | 367,19 | 364,14 | 439,94 |

* Investments in fixed assets

** Without data for Kosovo and Metohija

Source: Statistical Office of the Republic of Serbia. Municipalities in Serbia 2002-2012.

Realized investments in the economy, if we analyse the observed areas are the lowest, either per inhabitant or per employee, at the level of the Serbia, and the highest in Belgrade's and the Danube area. Rating of realized investments in the agriculture was done using four indicators (Table 4). The highest values were obtained in actual investment in agriculture per person employed, and the lowest values in of realized investments in agriculture per unit of agricultural land, in the following proportions:

- Republic of Serbia: 2002. year (43,16:1) and in the 2011th year (146,14:1);
- Central Serbia: 2002. year (120,34:1) and in the 2011th year (233,94:1);
- Belgrade's and Danube area: 2002. year (35,11:1) and in the 2011th year (51,86:1).

⁵ Part of indicators taken from the methodology presented in the monograph written by: Cvijanovic D., Hamović, V., Popovic V., Subic, J., Katic, b. and Paraušić, V. (2007). *Multifunctional Agriculture and Rural Development in AP Vojvodina*. Belgrade, Serbia. Institute of Agricultural Economics.

At area of Belgrade's and Danube region are in 2002. year, the highest value of realized investments are per person employed, while the lowest value is realized in area of Republic in general. Shown indicator in 2011. year, the highest value had at national, while the lowest is in Central Serbia.

Table 4. Evaluation of realized investments* in agriculture**

| Indicator | Unit | Year | Territory | | |
|--|------|------|-----------------------|----------------|------------------------------|
| | | | Republic of Serbia*** | Central Serbia | Belgrade's and Danube region |
| Realize investments in agriculture per person employee | RSD | 2002 | 44,02 | 73,41 | 113,75 |
| | | 2011 | 350,74 | 152,06 | 333,49 |
| Realized investment in agriculture per unit of agricultural land | RSD | 2002 | 1,02 | 0,61 | 3,24 |
| | | 2011 | 2,40 | 0,65 | 6,43 |
| Realized investments in agriculture per unit of arable land | RSD | 2002 | 1,22 | 0,77 | 3,41 |
| | | 2011 | 2,87 | 0,83 | 7,58 |
| Realized investment in agriculture per unit ploughed land | RSD | 2002 | 1,55 | 1,14 | 4,00 |
| | | 2011 | 3,71 | 1,25 | 8,15 |

* Investments in fixed assets.

**Agriculture, hunting, forestry and water management.

*** Without data for Kosovo and Metohija (with exception in 2010th).

Source: Statistical Office of the Republic of Serbia. Municipalities in Serbia 2002-2012.

In Belgrade's and Danube region were achieved better results in the other three indicators (realized investments in agriculture per unit of agricultural land, realized investments in agriculture per unit of arable land and realized investments in agriculture per unit of ploughed land) in both analyzed year, until on the territory of Central Serbia are lowest values of listed indicators.

Table 5 are shown the realized investment in agriculture at agricultural holding. The source of data about the number of agricultural holdings is the Treasury of the Republic of Serbia. Data are given for 31.12.2011. years, and have been recorded by branches, which for the Republic of Serbia has 34. In the area of Belgrade's and Danube area there are 6 branches: Smederevo, Novi Beograd, Zemun, Novi Beograd, Zemun and the Stari Grad, and the total number of farms in the area is 34.432 agricultural holding.

Table 5. Realized investments per agricultural holding*

| Unit | Republic of Serbia | Central Serbia | Belgrade's and Danube |
|------|--------------------|----------------|-----------------------|
| RSD | 26,98 | 6,76 | 47,37 |

* Agricultural holdings that include the legal entities and individuals

Source: *The number of registered of agricultural holdings* by branches of the Treasury. Treasury. Ministry of Finance of the Republic of Serbia, Belgrade. 2011

Investments per agricultural holding are highest in Belgrade's and Danube area, amounting to 47,37 thousand per holding (Table 5). The lowest value was achieved in Central Serbia, where this ratio is only 6,76.

CONCLUSIONS

Based on the evaluation of realized investments in the areas of Belgrade and the Danube area, Central Serbia and the Republic can be drawn the following conclusions:

- Investments in the economy and the Danube in the Belgrade area are at a much higher level than the other two areas, and the average annual growth rates calculated from the absolute value of investing investments;

- The average annual growth rate of investment in agriculture, like in the overall economy of the highest in Belgrade and the Danube area, and at all three levels were achieved positive values of average annual growth rates;
- Rate of realized investments in the economy of the highest value was recorded in the District, as in most indicators of gross assessment for agriculture (excluding realized investment in agriculture per person employed in 2011.)
- Belgrade and the Danube region also has a much higher investment per agricultural holding compared to other areas.

Of the three analysed levels of the most important investments in the Investment industry and agriculture are carried out in Belgrade and the Danube area, as this area is classified into areas where economic and social security of citizens at a higher level than in most other areas.

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