

INVESTMENT ACTIVITIES IN AGRICULTURE AND PROCESSING INDUSTRY ON THE TERRITORY OF THE VRBAS MUNICIPALITY – STATE AND POSSIBILITIES

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Abstract

Paper presents the investment activities on the territory of the Vrbas municipality, with special emphasis on agriculture and processing industry, which represent the branches with the highest growth of investments in observed period (2006-2012). By consideration of the spatial distribution of totally realized investments within the Vrbas municipality, generally weak and insufficient investment activity can be noticed, and it ranges from 0,23%-0,45% of totally realized investments on the territory of the Republic of Serbia, whereby the highest investments in municipality are realized during the 2011. Identically to republic and to regional level, on the level of the Vrbas municipality comes to similar trends in distribution of investments in agriculture and processing industry per employed resident, in other word it is possible to the make differentiation between the period with growth and decrease of investment activities. It should be underlined a rapid growth of investments in last year of observed period, despite the presence of the trend of total number of employees reduction. Territorially observed, all average growth rates of investments in agriculture and processing industry per employee are positive, therewith the highest rates are realized on the territory if the Vrbas municipality. In paper are presented so far realized projects within the territory of Vrbas municipality, as well as planned investment activities that are based on fact that on the observed territory exist real opportunities for further improvement and widening of current production capacities.

Keywords

agriculture, processing industry, investment activity, municipality of Vrbas.

Introduction

According to one of adopted classifications, investments are divided on the *economic* and *non-economic investments*. Basic function of economic investments is to secure continuity of production process on the same level, i.e. achieving of the level of basic reproduction. Mentioned investments have a role to enable a permanent replacement of worn out fixed assets. Also, they serve to make possible a reproduction of social process of production on higher level, i.e. achieving of expanded production (Subić, 2007). On the other hand, non-economic investments represent all investments in development and improvement of culture, health care, education, science, etc. (Vukadinović, Jović, 2012), in other words they are in function of raising of general quality of life standard in certain society. Investment activity represents necessary element of the complete reproduction process, as well as precondition of effective performing of material production in long term period.

Consequences of economic crisis are noticeable in all economic sectors, as on global level, as well as in Republic of Serbia, where decrease in investment activities additionally slowed down economic growth. Within the period of accessing to European Union, Republic of Serbia has harmonized their goals with the *Europe 2020* strategy (European Commission, 2010), which is based on competitiveness, sustainability, knowledge and innovations, as well as social and territorial cohesion. Mentioned document was initiated the establishment of developmental strategy of Republic of Serbia until 2020, that is set on new model of economy growth, based on

sustainable and dynamic industry development which can be easily fit into the unique EU market, providing on that way certain inflow of investments. On the current level of economic development, many companies in Serbia are characterized by unfavourable business performances that are manifested throughout fall of market-share and achieved profitability, increase of indebtedness, inadequate investment and increased volume of diversified business activities instead of the primary work (*Subić, 2008*).

As a consequence of global economic crisis, changes in way and dynamic of investing have not bypassed agriculture too. Although investments are one of the basic factor of development of agricultural activity, growth of investments depend a lot from technical and technological modernization of agriculture, so they represent a precondition of stability of national economy (*Subić et al., 2012*). In line with that, from significant importance has to be knowing of current state of investment activity in agriculture, in order to create adequate base for future investment (both domestic and foreign investors). Because of that, it has to be expected enhanced state activity through institution building, improvement of investment ambient, increase and restructure of export, reform of educational system in line with economy needs, more proactive collaboration between sector of production and scientific institutions, as well as a reform of labour market and employment policy.

Investment trend within the period 2006-2012, indicates the strong correlation between political-economic credibility of country and investment risk, so it can be possible to conclude that in Serbia exists expressed oscillatory in investments inflow. Global conditions of investments attractiveness depend on: geographic position of the area, labour profile, accuracy and devotion of local administration, successful examples of foreign investment, etc. Economic situation present in all segments of national economy, inevitably affects to the economic situation within the territory of Vojvodina region, as well as in the territory of the Vrbas municipality (South Bačka district), which was taken as a referent territorial unit in this research.

Materials and methods

For research purposes, in paper are used statistical data of investment activity on the territory of Vrbas municipality, with emphasis on realized investments on the territory of South Bačka district, Vojvodina region and complete Republic of Serbia. Relevant data about totally achieved investments and data about investments realized in certain economy segments (agriculture and processing industry) were being used, as well as data taken from scientific and professional publications. In focus of the research were realized investments in economy, achieved investments in primary agriculture and processing industry per employee, as well as average annual growth rates of obtained investments for both observed branches, and examples of up today implemented projects on the territory of Vrbas municipality. Data analysis will enable an establishment of basis for future development and widening of investment activities.

Results and discussion

For better presentation of the level of importance of domestic and foreign investments for the economic development on the territory of Vrbas municipality, it was given a review of total investments, as on national, as well as on regional level. In other words, research included multiannual investment trend within the economy of Vrbas municipality, as well as economy of South Bačka district, Vojvodina region and complete Serbia (table 1).

In observed period (2006-2012), it can be noted that Vrbas municipality is characterized with weak and insufficient investment activity, along with expressed oscillations. Totally realized investments in Vrbas municipality during 2012 are covering 2.96% of totally realized investments at the level of South Bačka district, or 1.18% of totally realized investments at the level of Vojvodina region, or just 0.29% of investments achieved at national level. Investment

activities on the territory of Vrbas municipality, in observed period, ranged from 0.23% to 0.45% of totally realized investments on the territory of the Republic of Serbia. Absolutely expressed, the highest volume of investments in Vrbas municipality was realized during the 2011 (around 2,208,483,000 RSD), when its share in totally achieved investment at national level was around 0.45%. On the other hand, absolutely the lowest volume of investments in Vrbas municipality were realized in 2006 (about 799,999,000 RSD), when its share in totally realized investments at the national level amounted about 0.23%. Although the total value of realized investments in the municipality in 2012, compared to 2010 has an upward trend, their share in totally gained investments at the national level had been recorded a fall. Decreasing of participation is the result of, before all, lower growth of the volume of realized investments on the territory of the Vrbas municipality compared to an increase of investment activity at the national level.

Table 1. Spatial distribution of totally realized investments* (in 000 RSD)

Year	UM	Territory			
		Republic of Serbia**	Vojvodina Region	South Backa District	Vrbas Municipality
2006	RSD	340.795.050	94.317.316	36.361.563	799.999
	%	100,00	27,68	10,67	0,23
2007	RSD	482.340.888	115.475.861	38.065.109	1.542.695
	%	100,00	23,94	7,89	0,32
2008	RSD	566.836.857	135.206.492	52.622.804	1.852.824
	%	100,00	23,85	9,28	0,33
2009	RSD	455.485.248	103.034.938	42.558.027	1.032.556
	%	100,00	22,62	9,34	0,23
2010	RSD	425.400.001	100.024.608	52.339.704	1.326.219
	%	100,00	23,51	12,30	0,31
2011	RSD	493.100.031	124.208.129	53.419.549	2.208.483
	%	100,00	25,19	10,83	0,45
2012	RSD	608.508.303	150.382.309	59.862.549	1.770.846
	%	100,00	24,71	9,84	0,29

Source: Municipalities in Serbia (2007, 2008, 2009 and 2010) and Municipalities and regions in the Republic of Serbia (2011, 2012 and 2013), Statistical Office of the Republic of Serbia (SORS), Belgrade.

* Investments in new fixed assets (for all legal entities, except those one that are classified, according to the article 7. of the Law of Accounting and Audit, as a small companies), in current prices.

** Data about Kosovo and Metohija are not covered (for the period 2006-2012).

Focusing the economic branches, it is necessary to mention that during the period 2006-2012 was came to significant changes within the structure of realized investments per individual activities, not only on the territory of Vrbas municipality, but also on the territory of South Backa district, Vojvodina Region and complete Serbia. All production activities on the municipal territory achieved the negligible share within the totally realized investments on national level, but it is obvious that the greatest growth were obtained in processing (food) industry and primary agriculture (including hunting, forestry and fishery). Also, it should be mentioned that the highest fall of investment activity was recorded in following sectors of economy: retail and production of gas, energy and water. More completely and more real analysis of achieved investments in observed territorial levels will be done by presentation of investments distribution per employee in *processing industry and primary agriculture* (table 2).

Table 2. Realized investments* in agriculture and processing industry, per employee (in 000 RSD)

Indicator/ territory level	Year/ Average annual growth rate	Agriculture, hunting, forestry and fishery	Employees in agriculture	Investments per employee in agriculture	Processing industry	Employees in processing industry	Investments per employee in processing industry
Republic of Serbia**	2006	13.250.369	71.487	185,35	75.140.099	511.850	147
	2007	14.384.811	65.025	221,22	104.204.035	466.942	223
	2008	21.357.929	68.896	310,00	123.853.505	483.654	256
	2009	14.174.921	63.878	221,91	98.029.228	459.950	213
	2010	9.219.328	43.000	214	78.074.541	312.000	250
	2011	12.211.147	34.815	351	123.436.591	295.363	418
	2012	16.970.492	33.002	514	205.326.541	289.286	710
	rate	4,21	-12,09	18,54	18,24	-9,07	30,04
Vojvodina Region	2006	8.079.570	44.073	183,32	29.076.776	140.725	207
	2007	8.648.206	40.563	213,20	40.872.790	129.789	315
	2008	16.296.382	41.399	393,64	47.328.434	134.107	353
	2009	9.990.816	38.367	260,40	32.317.466	126.960	255
	2010	6.683.630	25.000	267	33.031.321	93.000	355
	2011	10.058.973	20.663	487	55.458.360	90.714	611
	2012	11.890.772	19.759	602	66.435.946	89.130	745
	rate	6,65	-12,52	21,91	14,77	-7,33	23,84
South Backa District	2006	1.057.355	8.846	119,53	9.331.034	41.073	227
	2007	2.246.769	8.626	260,46	11.470.006	38.608	297
	2008	4.661.306	9.459	492,79	19.061.960	43.110	442
	2009	2.702.818	9.103	296,92	9.711.607	40.840	238
	2010	2.345.670	6.000	391	15.898.276	28.000	568
	2011	1.472.910	5.368	274	12.384.967	27.210	455
	2012	2.523.011	5.294	477	9.279.404	25.742	360
	rate	15,60	-8,20	25,92	-0,09	-7,49	8,00
Vrbas Municipality	2006	171.566	603	284,52	252.350	6.148	41
	2007	274.633	589	466,27	376.425	5.988	63
	2008	503.226	723	696,02	455.521	5.261	87
	2009	159.208	839	189,76	421.187	4.925	86
	2010	138.589	473	293	663.479	3.000	221
	2011	112.004	433	259	1.480.804	2.757	537
	2012	580.016	411	1.411	783.729	2.197	357
	rate	22,51	-6,19	30,59	20,79	-15,76	43,39

Source: Municipalities in Serbia (2007, 2008, 2009 and 2010) and Municipalities and regions in the Republic of Serbia (2011, 2012 and 2013), Statistical Office of the Republic of Serbia (SORS), Belgrade.

* Investments in new fixed assets (for all legal entities, except those one that are classified, according to the article 7. of the Law of Accounting and Audit, as a small companies), in current prices.

** Data about Kosovo and Metohija are not covered (for the period 2006-2012).

Obtained investments in observed economy branch **at the level of Republic of Serbia** during the analysed period are characterized by increase until 2008, after which came to rapid decrease in investment activity (even for 66,37%), influenced primarily by global economic crisis to the national economy. After 2010, it came to increase of realized investments in agriculture. Number of employees in agriculture has a negative trend, and it recorded its minimum in 2012. According to aforementioned, to a tangible increase in realized investments in agriculture per employee comes after 2010, and achieves its maximal value in 2012 (514.000 RSD).

Within the observed period the investment activities in processing industry were characterized by similar trend, such was appeared in primary agriculture. Until 2008 it were recording a growth of realized investments, after what came to significant fall in investment activity. With the 2010 it came again to increase in realized investments, where in 2012 was recorded nearly three times more achieved investments than in the initial year of the observed period. Number of employees in this economy segment was in constant decline, wherein at least of employees were recorded in 2012. As like in the case of realized investments per employee in primary agriculture, realized investments per employee in processing industry were had growing trend and they reached their highest value in 2012 (710,000 RSD).

Obtained investments at the territory of **Vojvodina region**, in observed period were characterized by trend similar to those one achieved at republic level. Until 2008, it was noticeable a growth of investments in agriculture (realized investments in 2008 were two times larger than realized investments in 2006). During the 2009 and 2010, it can be seen rapid fall in investment activities, after which come to their constant growth. Number of employees in primary agriculture was constantly decreasing (for almost 25.000 employees within the whole period). So, investments achieved per employee in agriculture were characterized by steady growth in observed period, with their, absolutely maximal value in 2012 (602.000 RSD).

Investments realized in processing industry are also characterized by small fluctuations. In the period of 2006-2008 their increase were recorded. With the 2009 came to sharp fall in investment activity (aftermath of global economic crisis), and then to emergence of their positive trend, so in 2012 it was recorded twice time more realized investments than in 2009. Number of employees in the processing industry was characterized by an identical trend as it was presented in primary agriculture, so achieved investments per employee, it can be said, were showing constant growth during the observed period.

At the territory of **South Backa district**, it was recorded the same trend of realized investments in primary agriculture, as like at previously presented territorial level, so in period 2006-2008 came to their growth, that was changed by period of rapid fall in investment activities (2009-2011), wherein in last observed year (2012) came to jump for almost the 60% in compare to previous year. Number of employees in primary agriculture was negative trend, especially in sub period 2009 - 2012, when it was almost halve. Such trends were completely affect to realized investments per employee, so in whole period it was recorded certain level of oscillations of achieved investments in agriculture.

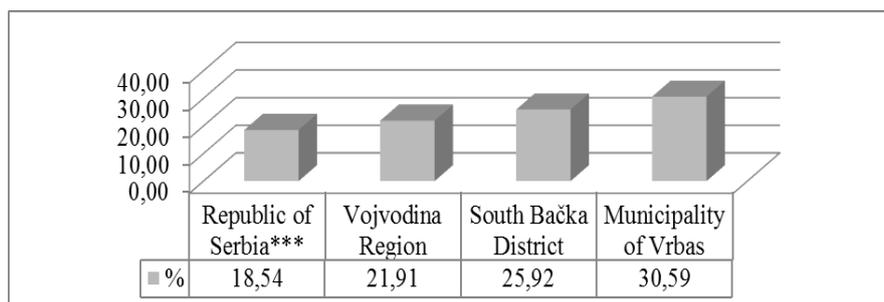
Realized investments in processing industry are also followed by oscillatory trend, with the highest peak achieved in 2008. Unfortunately, within the last three years, it can be noticed a significant decrease in investment activity, with reaching of the absolute minimum in 2012. Trend of number of employees in the processing industry was pretty much similar to the achieved trend in primary agriculture at the level of mentioned territorial unit, so it can be noticed frequent changes of achieved investments per employee in both directions.

Referring to realized investments in agriculture in **Vrbas municipality** in observed period, it can be noticed few sub periods: period 2006-2008, when was recorded the growth of investment activities; period 2009-2011, when came to fall of investment activities; during the last observed year (2012) came to rapid increase of realized investments, that are for five times larger than

investments achieved in 2011. Number of employees in primary agriculture, observed at the level of local community, was changed from year to year, therewith it was recorded its constant fall within the period 2008-2012. After a focus at realized investments per employee in agriculture on the territory Vrbas municipality, expressed oscillations are also noticeable. During the sub period 2006-2008 they have positive trend, and in 2009 they were decreased for 3.5 times. Observing just last three years, it is interesting that in 2012 came to rapid and expressed growth of realized activities per employee in agriculture (they were for even 5.5 times higher than the level recorded in 2011).

Obtained investments in processing industry were characterized by positive trend in period 2006-2008, after that came to slight decrease (in 2009), and then started intensive growth of investment activities (investment maximum was achieved in 2011). During the last year within of observed period (2012), it came to sudden decrease in realized investment, for even two times. Number of employees in processing industry within the complete observed period had a negative trend, with absolute minimum reached in 2012. According to aforementioned, achieved investments per employee in mentioned economic branch in observed period are characterized by a general increase, with a slight decrease in last year (2012).

Based on the collected data about realized investments and number of employed persons in primary agriculture, it can be possible to present average annual growth rates of realized investment in agriculture per employee for the period 2006-2012. Depending on the territorial unit in focus, following growth rates are recorded: at the level of the Vrbas municipality (30.59%), at the level of South Bačka district (25.92%), in the Vojvodina region (21.91%) and at the national level (15.54%). Achieved average annual growth rates are positive, while at the municipal level it obtained the highest value (figure 1).



Source: Municipalities in Serbia (2007, 2008, 2009 and 2010) and Municipalities and regions in the Republic of Serbia (2011, 2012 and 2013), Statistical Office of the Republic of Serbia (SORS), Belgrade.

* Investments in new fixed assets (for all legal entities, except those one that are classified, according to the article 7. of the Law of Accounting and Audit, as a small companies), in current prices.

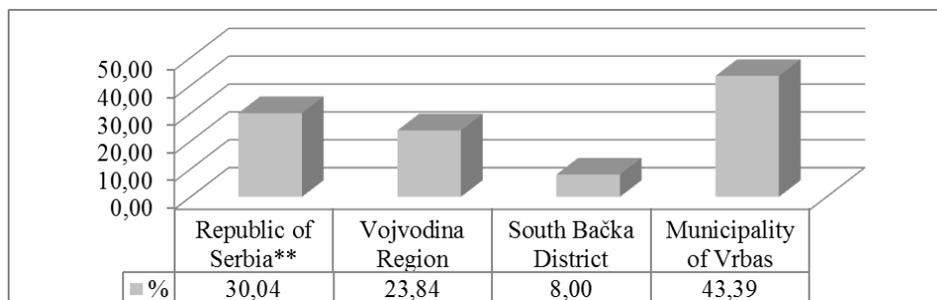
** Agriculture, hunting and fishery.

*** Data about Kosovo and Metohija are not covered (for the period 2006-2012).

Fig. 1 Average annual growth rates of realized investments* in agriculture per employed person (period 2006-2012)**

According to observed data for realized investments in processing industry per employee, it can be possible to calculate the average annual growth rates on researched territories for the period 2006-2012. So, mentioned annual growth rates were had following values: at the level of the Vrbas municipality (43.39%), South Bačka district (8.00%), the region of Vojvodina (23.84%)

and at the level of Republic of Serbia (30.04%). All achieved growth rates were positive, and the highest one was obtained at the level of Vrbas municipality (figure 2).



Source: Municipalities in Serbia (2007, 2008, 2009 and 2010) and Municipalities and regions in the Republic of Serbia (2011, 2012 and 2013), Statistical Office of the Republic of Serbia (SORS), Belgrade.

* Investments in new fixed assets (for all legal entities, except those one that are classified, according to the article 7. of the Law of Accounting and Audit, as a small companies), in current prices.

** Data about Kosovo and Metohija are not covered (for the period 2006-2012).

Fig. 2. Average annual growth rates of realized investments* in processing industry per employed person (period 2006-2012)

Future planning of investment activities will be based on the fact that on municipal territory there are opportunities for further improvement and widening of existing production capacity. *Favourable geographical position of the Vrbas municipality (closeness to the European Corridor X), long tradition in industrial production, spacious and well equipped industrial and commercial zones, level of local market development in relation to industrial development, level of organization of the municipal administration, available and well-trained labour, availability of natural resources and large areas under high quality soils, existence of a set of local incentives for future investors,* are just some of the reasons why it is considered that any argument investment in economic activities in the municipality of Vrbas is economically justified.

In previous couple of years (2011 and 2012) on the territory of Vrbas municipality are invest some financial assets in implementation of projects for different purposes¹. Projects for which were done the transfer of assets toward municipality, and that are later realized are mostly refer to:

- Projects of waste management improvement at the municipal level;
- Projects of sport facilities building;
- Projects of investing into the building of nurseries for plant production and ecological properties;
- Project of construction of station for the acceptance of animal waste;
- Projects with the main purpose of multilingual expression;
- Projects of soil reclamation and remediation;
- Projects of building and renewal of physical and social infrastructure; etc.

¹ The data were taken from the official web presentation of the Office for Local Economic Development of Vrbas municipality (KLER).

Mentioned projects are mainly financed from the provincial funds (Secretariat of Urban Planning, Construction and Environmental protection; Secretariat of Education, Administration and National Communities; Secretariat for Energy and Mineral Resources; Secretariat of Agriculture, Forestry and Water Management; etc.), as well as from pre-accession funds of the European Union (for example, cross-border projects within Serbia and Hungary).

In next short-term period, realization of next projects is planned:

- a. Ecological projects:
 - Building of drinking water factory (better water supply on the territory of Vrbas municipality);
 - Last phases in building of central facility for wastewater treatment on the territory of municipalities Vrbas and Kula (CPPOV Vrbas and Kula).
- b. Projects of so called investment destinations:
 - Building of commercial-housing zones in settlements of Vrbas;
 - Building of commercial zones (near the corridor X – highway E-75).
- c. Project of realization of freight-transport terminal in commercial zone "Istok".
- d. Projects of building of touristic, sport and recreation centres and facilities.

Quick economic development will contribute to strengthening of the Vrbas municipality competitiveness, so achieving of preconditions and opportunities, on the municipal territory, toward to economic development based on the principles of sustainable development (development that requires socially responsible approach to available natural and social resources, environment and cultural heritage) will be quite possible. Beside attraction of investments from national level, imperative should be set on attraction of foreign investors that will directed their funds toward strengthening of national economy, increase of employment and improvement of the living standards of local population.

Conclusion

Based on the analysed data, conclusions go into direction that on the territory of Vrbas municipality exist real opportunities for improvement and widening of current economic capacities, particularly in agriculture and processing industry.

Despite the fact that in spatial distribution of totally realized investments, Vrbas municipality participates with negligible share (it has characteristics of weak and insufficient investment activity), it is possible to expect the economic strengthening of mentioned regional centre by adequate use of all positive characteristics and available resources.

In all production activities Vrbas municipality participates with negligible share into the totally achieved investments at the republic level, however, it is noticeable that within them the highest growth have investments oriented to processing industry and primary agriculture (including hunting, forestry and fishing).

Although in observed period the number of employees in mentioned economic branches has been constantly decreased, after putting of these branches into the forefront it can be expected a higher inflow of national and foreign investments, and thus increasing of employment and creation of favourable conditions for the stay of the working age population on the territory of municipality.

Favourable geographical position, closeness to the European Corridor X, as well as orientation towards agricultural production and processing (primarily to the processing of sugar beet, sunflower, meat, milk, etc.) and the existence of good raw material base, represent a good opportunities for continuous improvement and strengthening of the competitiveness of the economy of the Vrbas municipality. Also, some efforts have to be

directed towards the improvement of market infrastructure, as to production of goods and services that are obviously demand in foreign market.

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