FORECAST OF FUTURE INVESTMENT TRENDS IN AGRICULTURE WITHIN THE DANUBE REGION IN REPUBLIC OF SERBIA¹

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Abstract

Since investments represent a basic material factor of socio-economic development, their volume, structure and efficiency largely affect on how will be and until what level will be solved basic issues of sustainable development of agriculture, as within the Danube region, as well as in whole Republic of Serbia. Having in mind the perspectives that come for Serbia from the process of European Union (EU) enlargement, as well as that in sustainable development of agricultural husbandries investments will play a key role, borders of this study are framed by forecast of future investment trends in agriculture within the Danube region in Serbia. For forecasting of future investment trends in agriculture of Danube region in Republic of Serbia was used scenario analysis based on two methodological approaches. First methodological approach tries to answer the question: What could happen? Second methodological approach aims to answer the question: What would have to happen if we want to achieve certain strategic objectives?

Key words: investments, fixed assets, agriculture, Danube region, Republic of Serbia.

Introduction

As it lost 10 transition years (last decade of the previous century - period of devastation of all development resources) and started with transformation at 2001, the Republic of Serbia is currently in the central phase of transition and

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process of intensive redirection to market economy. At a time when developmental performances rank our country behind all European countries⁴, sectoral changes, as a factor of socio-economic progress, points to the necessity of expanding of activities that will lead to better competitiveness and export, and along with that to economic growth.

Republic of Serbia, within its territory, has on disposal rich natural diversity of the regional structure, as well as resources that provide conditions for economic development and quality life standard. However, the favourable natural conditions for the development and established economic capacities have not distributed equally within the all regions of the Republic of Serbia, so conditions for entry of fresh capital and future economic development are not equal too (Jakopin et al., 2009).

Acute shortage of investments imposes the necessity that all regions in Republic of Serbia have to make more attractive for capital attraction and its efficient investment, as it is main prerequisite for economic growth. In accordance with the concept of sustainable development, technological revitalization is necessary, as like development of competitive agricultural production with full integration of the modern technological solutions towards social acceptability, pollution minimization, environmental protection and economic justification. Accordingly, sustainable development of agriculture should be a component of a strategy that predicts not only medium-term development goals, but also the possible scenarios under which they can be achieved.

Main goal of this paper is to consider the current state and possible development directions that are a prerequisite for defining the objectives and instruments of sustainable development, as well as adjustment of agriculture in the Danube region within the Republic of Serbia. In that context, for better planning of certain measures, as for expressing of forms and future support to sustainable development of agriculture, was appeared the necessity for expert assessment of the possible future trends that relate to investments in fixed assets (Subić et al., 2008).

Territory of the Danube region within the Republic of Serbia, related to the purposes of this research, is observed in broader contextand involves next subregions:

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⁴ Current economic structure of Serbia is caused by the delayed process of transition, long-term isolation and absence from the world market, long-lasting disinvestment and significant technological backwardness towards developed economies (Jakopinet al., 2009).

- Territory of Upper Danube region;
- The Metropolitan area Belgrade- Novi Sad (for this area is also used term Central Danube region);
- Territory of the Carpathians within the Republic of Serbia (for this area is also used termLower Danube region).

According to theme and goals of this research, forecast of future investments in agriculture refers to the investment trend within the administrative areas of following local communities:

- Within the Upper Danube region: city of Sombor and municipalities Apatin, Bač and Bačka Palanka;
- Within the Central Danube region: cities Belgrade, Novi Sad, Pančevo and Smederevo, as well as municipalities Beočin, Irig, Sremski Karlovci, Inđija, Ruma, Pećinci and Stara Pazova;
- Within the Lower Danube region: municipalities Golubac, Kučevo, Majdanpek, Kladovo and Negotin.

Since 2001, the adoption of a large number of legal acts led to a significant improvement of the business environment within the Danube region in the Republic of Serbia (primarily in the Metropolitan area Belgrade - Novi Sad). In accession process, main goals of many newly established reforms that are in accordance with the European Union (EU) legislation, point out in foreground business easiness and security of investment. Among many factors that describe the Danube region in the Republic of Serbia as one of the most attractive locations for business conduction in this part of Europe, especially are expressed: market size; business costs; human resources; geographical position; investment infrastructure.

For the most of industrial and agricultural products, Danube region in the Republic of Serbia provides the large sale potential to all investors, both on world and national market, which comes from: tax-free access to market of EU, USA, Russian Federation and South East Europe countries (SEE) - CEFTA Agreement; dynamic growth of wages and purchasing power of local population, whose average monthly income is cca. 350 EUR (net).

Openness to each potential investor is particularly directed to attraction of foreign direct investment, what will significantly increase the growth rate of gross domestic product (GDP) and reduce the unemployment rate (Subić et al., 2009).

Compared to other regions within the neighbouring countries, potential for investment attraction, according to business costs, is relatively more favourable on the territory of the Danube region in the Republic of Serbia, primarily because (Subić et al., 2013):

- Low tax rates (profit tax of 15%; the value added tax, 8% or 20%; income tax of 10%);
- *Numerous investment incentives*, which include state subsidies for direct investments (3.000 10.000 EUR per employee), then exemption from payment of profit tax for 10 years period in case of large investments, as well as exemption from payment of income tax and social security contributions for workers younger than 30 and older than 45 years;
- *Cheaper utilities* (such as electricity, gas or water);
- Quality and price of labour, which are, after general assessment of investors, one of the key reasons for investing in the Danube region and the Republic of Serbia (human resources are expressed by high productivity, excellent technical education, significantly lower labour costs);
- *Transport infrastructure* (European transport corridor 7, that links the EU countries with the Middle East);
- Development of cross-border and regional cooperation (Danube region in Republic of Serbia is bordered with several members of the European Union: Croatia, Hungary, Romania, Bulgaria);
- *Closeness of European market* (goods for a short time can be transported to and from the major European markets).

Considering the principles of sustainable development, because of establishing of strategic directions for mid-term development of agriculture in the Danube region in the Republic of Serbia (until 2016), in this paper are presented the volume of totally realized investments, realized investments in agriculture and estimations of future investment trends in agriculture.

Methodology and data sources

Investments are the main material factor of economic and social development. From the size, structure and efficiency of investment largely depends how and to what level will be resolved basic issues of economic and social development of any country, region or local community, as like (Subić, 2010): economic growth; balance of economic development; employment; level of standard of living; etc.

No matters on field of research, mostly of prognosis of future mowing are based on three scenarios: *pessimistic, most probably* and *optimistic*. Observing the field of agriculture, FAO (Food and Agriculture Organization of the United Nations) use the methodologies which are established on one base scenario, but with two variant (*optimistic* and *pessimistic*). Concrete, it makes one scenario with intervals in plus, apropos in minus (Cvijanović et al., 2010).

So, in the way to get to possibly better prognosis of future investments in agriculture in area of Danube region in Republic of Serbia, in which focus is medium-term period since 2011-2016., the scenario analysis which is given in this paper predict two possible scenarios. In the other words, it creates a scenario with minimal, optimal and maximal values, apropos scenario of high of investments depending of external and internal factors.

Prognosis are were done based on data for period 2001-2011, apropos based on data for 11 years. Reason because of which the prognosis are establish exactly until 2016, is to establish the proper relation between periods for which data exist and period on which is applying the prognosis. The prognoses can also be done for longer period, but on that way are decreasing the quality of given trend (apropos, it calls into question the accuracy of obtained estimations) (Subić et al. 2008.).

According the previous words, for prognosis of future investments in agriculture on area of Danube region in Republic of Serbia, were been used two methodological approaches. With first approach, is tries to give the answer on question: What could be happened? With other approach is tries to give the answer on question: What should be happens, accordingly to strategic goals which we want to achieve in function of sustainable agricultural and rural development?

In order to get the fuller insight in possible future mowing of investments in agriculture of Danube region in Republic of Serbia, using the *first methodological approach* (*FMA*), have been used three types of function: *linear, logarithmic* and *exponential*. Mentioned function is in a wide use, in theory and in practice, and can give very useful information for solving similar problems. Their results must provide, on first place, overview of expected *maximum* and *minimum* volume of investments in fixed assets, as well as getting an average values, apropos values which most realistic can be expected. Comparing the results obtained with use of certain types of function, easily can throw away prognosis which largely differing from realistically possible in observed period of time. During the analysis of results obtained by using

different types of function, must be taken into consideration the fact that prognosis were done based on available statistical data (apropos, based on recent investments in fixed assets).

Considering that future movements will depend not only on their previous amounts, but also on the socio-economic circumstances in which the investment process takes place, imposes the necessity of applying the *second methodological approach*(*SMA*)which leads to prognosis of investment level depending on external and internal factors.

In most important internal factors, for prognosis of the future movements of investments in agriculture in area of Danube region in Republic of Serbia, are include:

- agricultural resources;
- geographical position;
- human resources;
- agricultural capacities;
- private sector;
- agricultural structure;
- traffic and other infrastructure;
- segments of transition;
- administration;
- image in world;
- structure of use the realized gross domestic product (GDP);
- existing trends and attained level of investment in agriculture in the previous period;
- technology of production;
- dynamics and achieved level of modernization;
- level of competitiveness of important agricultural products;
- changes in macroeconomic framework, movement in economy in general and trier influence on standard of inhabitant living; which will reflect on the changes in supply and demand of agricultural products on the market:
- development of tourism, as an important factor of induction of demand for domestic products;
- costumer's relation to the local produced food, etc.

Between external factors for prognosis of the future movements of investments in agriculture in area of Danube region in Republic of Serbia, are include:

- dynamics of valorization of agricultural resources unused capacities;

- inflow of foreign direct investment (FDI), on the first place greenfield investment:
- involvement of Republic of Serbia in international transport and energetic corridors;
- possibility of increasing public-private partnership;
- integration process of Republic of Serbia in European Union;
- world financial and economic crisis;
- transitional condition of economics related to the surrounding;
- movement and tendencies on food market in region, European Union and global market;
- reached level of negotiation in frame of World Trade Organization about global liberalization of food trade;
- state of market in our region and state of bilateral agreements which Republic of Serbia is signed and which are in implementation process (CEFTA);
- liberalization of trade in frame of expected access of Republic of Serbia to World Trade Organization;
- trade liberalization in frame of upcoming Stabilization and Association Agreement id Serbia to European Union, etc.

Scenario analysis becomes from fact that is not realistic to expect big annual changes in investment movement in agriculture at area of Danube area in Republic of Serbia. In extreme situations, there is possibility to achieve maximal grow rate, until in some specific cases are possible to achieve and prominent jumps.

Results with discussion

In terms of the contemporary scientific and technical progress, investments strongly stimulate process of development, the economic growth in any area of economy. Practice is show that in initiation of any business activity, no matter on size and character, process of investment have role of *impulse*, app. *lever* which enables her to concretize, to take place and to develop in the accordance with the market mechanisms. According to that, can be said that for the economy investments represents same thing what represents motor for one active system (Românu et al., 1997).

As a moving instrument of quantitative and qualitative growth of total agricultural productivity factors and production, but also creating of better conditions for social security of people on village, investments have crucial place in realization of goals and priorities of sustainable agricultural and rural

development. Investments in agriculture represents a condition of providing growth fixed and current assets, increasing the number of working places, raising the performance of working tools, better productivity of work, diversity of production etc. (Subić, 2007).

Process of investment contains in itself and process of scientific and technical progress, i.e. every investment, by rule, inevitably makes possible process of reproduction on one quality higher level.

Accordingly to that, investment growth in agriculture in area of Danube region in Republic of Serbia represents not only condition of its technical and technological modernization, but also condition of economic stability of domestic economy as a whole (Subić et al., 2009).

In order to evaluate the more precise movement of investments height is it shown its movement though longer time period, app. during eleven years (2001-2011). Besides the total achieved investments in Danube region, also is shown the area of Republic of Serbia, in general (Table 1.)

Amount of total realized investments in area of Danube region, from the beginning of analyzed period (2001) in is constantly growth, until 2008. After that, in 2009th it comes to sudden decreasing of investments activity, and after that to their gradual re-growth.

Share of total realized investments in Danube region in total realized investment of Republic of Serbia shows tendency to growth during the period since 2001-2005, but after that coming to decreasing of share and its smaller oscillation. However, share of analyzed indicator is relatively equable and it ranges from 51.19-64.53%.

Based on absolute amounts of total realized investments in area of Danube region and Republic of Serbia and their movement during the analyzed period, can be shown an average annual growth rate.

Were realized positive growth rate on both analyzed level. In the area of Danube region, average annual growth rate amounts 24,54%, until in the area of republic of Serbia realized rate is something smaller (24,48%).

Table 1. Spatial distribution of totally realized investments* within the Danube region (in 000 RSD)

	U.M.	Territory			
Year		Republic of Serbia**	Danube region		
2001.	RSD	55,188,399	28,249,419		
	%	100.00	51.19		
2002.	RSD	102,860,663	53,353,886		
2002.	%	100.00	51.87		
2003.	RSD	115,662,223	62,375,206		
2003.	%	100.00	53.93		
2004.	RSD	152,929,464	85,321,807		
2004.	%	100.00	55.79		
2005.	RSD	163,549,507	104,655,023		
2003.	%	100.00	63.99		
2006.	RSD	291,845,739	170,224,981		
2000.	%	100.00	58.33		
2007.	RSD	398,990,391	250,599,881		
2007.	%	100.00	62.81		
2008.	RSD	472,746,680	305,046,151		
2006.	%	100.00	64.53		
2009.	RSD	369,438,089	235,622,920		
2009.	%	100.00	63.78		
2010.	RSD	425,400,001	253,314,348		
	%	100.00	59.55		
2011.	RSD	493,100,031	297,287,839		
2011.	%	100.00	60.29		

Source: Statistical office of the Republic of Serbia (2002-2012): Municipalities and regions in Republic of Serbia 2001-2011. SORS, Belgrade; Statistical office of the Republic of Serbia (2002-2010): Investments in Republic of Serbia 2000-2009. SORS, Belgrade.

Amount of realized investments in agriculture in the Danube region and Republic of Serbia represents the same tendencies of movement. Until 2008th realized investments in agriculture achieved increase, after that in period 2009-2010th is expressed declining trend, but in 2011th coming to slight increasing of investments in agriculture (Table 2).

Amount of realized investments in agriculture of Danube region in total realized investments in agriculture of republic of Serbia, in period 2001-2011th show largely oscillations. Of particular importance is period 2008-2011, when is expressed the declining period, so share decrease from 67.12% to 27.72%.

The average annual growth rate of realized investments in agriculture in area of Danube region, during the period 2001-2011, amounts 14.07% until in area of Republic of Serbia growth rate is on a same level and it amounts 14.52%.

 $[^]st$ Investments in fixed assets. stst Without data for KiM.

Table 2. Spatial distribution of realized investments* in agriculture within the

Danube region (in 000 RSD)

Year	U.M.	Territory			
		Republic of Serbia**	Danube region		
2001.	RSD	3,146,845	907,429		
	%	100.00	28.84		
2002.	RSD	4,947,895	1671,990		
2002.	%	100.00	33.79		
2003.	RSD	3,260,612	1481,522		
	%	100.00	45.44		
2004.	RSD	3,721,166	2169,738		
2004.	%	100.00	58.31		
2005.	RSD	5,028,799	2562,207		
2003.	%	100.00	50.95		
2006.	RSD	13,016,883	4639,395		
2000.	%	100.00	35.64		
2007.	RSD	14,111,462	8231,812		
2007.	%	100.00	58,33		
2008.	RSD	21,099,194	14162,120		
2008.	%	100.00	67,12		
2009.	RSD	13,203,838	5568,260		
	%	100.00	42,17		
2010.	RSD	9,219,328	3167,677		
2010.	%	100.00	34,36		
2011.	RSD	12,211,147	3385,463		
2011.	%	100.00	27,72		

Source: Statistical office of the Republic of Serbia (2002-2012): Municipalities and regions in Republic of Serbia 2001-2011. SORS, Belgrade; Statistical office of the Republic of Serbia (2002-2010): Investments in Republic of Serbia 2000-2009. SORS, Belgrade.

As well is already said, in frame of Danube region in Republic of Serbia, there are three administrative unity: area of Upper Danube region, Metropolitan area Belgrade – Novi Sad (i.e. Middle Danube region) and Carpathian area (i.e. Lower Danube region); which all have different significance in forming of total realized investments and investments realized in agriculture.

Highest importance in forming of total realized investments of Danube region (Table 3), have the area of Middle Danube region (which includes big cities cores, like Belgrade and Novi Sad), which share is from 94.19% to 96.38% during the analyzed period (since 2007-2011), until the lowest significance have the area of Lower Danube region, which share is from 0.51% to 1.71%.

Based on absolute values of total realized investments in period 2007-2011, by administrative unities of Danube region, has been reached next growth rate: 35,11% for Lower Danube region, 4,55% for Middle Danube region and -11,48% for Upper Danube region (in this case is identify negative growth rate).

^{*} Investments in fixed assets. ** Without data for KiM.

Table 3. Structure of spatial distribution of totally realized investments* within the Danube region (in 000 RSD)

Territory	U.M.	Year					
		2007	2008	2009	2010	2011	
Danube region	RSD	250,599,881	305,046,151	235,622,920	253,314,348	297,287,839	
	%	100.00	100.00	100.00	100.00	100.00	
Upper Danube region	RSD	9,262,916	16,178,900	7,329,942	8,446,205	5,686,875	
	%	3.70	5.30	3.11	3.33	1.91	
Central Danube region	RSD	239,815,515	287,312,769	225,899,778	240,589,911	286,530,538	
	%	95.70	94.19	95.87	94.98	96.38	
Lower Danube region	RSD	1,521,450	1,554,482	2,393,200	4,278,232	5,070,426	
	%	0.61	0.51	1.02	1.69	1.71	

Source: Statistical office of the Republic of Serbia (2002-2012): Municipalities and regions in Republic of Serbia 2001-2011. SORS, Belgrade; Statistical office of the Republic of Serbia (2002-2010): Investments in Republic of Serbia 2000-2009. SORS, Belgrade.

In care of forming of investments in agriculture during fifth year analyzed period is visible extremely varying of share of some areas in frame of Danube region (Table 4). Biggest contributions have Middle Danube region, as in formation of total realized investments, as well in forming of realized investments in agriculture. From the other hand, regarding both indicators, share of Lower Danube region is almost negligible.

Table 4.Structure of spatial distribution of realized investments* in agriculture within the Danube region (in 000 RSD)

Territory	U.M.	Year				
Territory		2007	2008	2009	2010	2011
Danube region	RSD	8,231,812	14,162,120	5,568,260	3,167,677	3,385,463
Danube region	%	100.00	100.00	100.00	100.00	100.00
Upper Danube region	RSD	713,588	5,698,310	383,768	656,937	477,600
Opper Danube region	%	8.67	40.24	6.89	20.74	14.11
Central Danube region	RSD	7,462,489	8,451,244	5,184,492	2,510,740	2,889,763
Central Danube region	%	90.65	59.67	93.11	79.26	85.36
Lower Danube region	RSD	55,735	12,566	0	0	18,100
Lower Danuoe region	%	0.68	0.09	0.00	0.00	0.53

Source: Statistical office of the Republic of Serbia (2002-2012): Municipalities and regions in Republic of Serbia 2001-2011. SORS, Belgrade; Statistical office of the Republic of Serbia (2002-2010): Investments in Republic of Serbia 2000-2009. SORS, Belgrade.

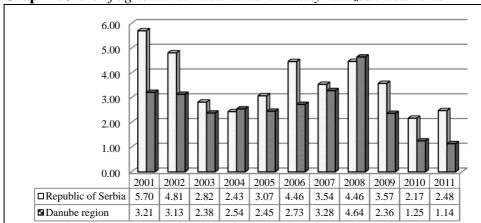
Annual growth rate of realized investments in agriculture, at all levels of administrative unities of Danube region, have negative values, i.e. it is come to decreasing of investment activities which in certainly influent on slower growth

^{*} Investments in fixed assets. ** Without data for KiM.

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of agricultural production. Contrite, annual growth rate at level of Upper Danube is -9.55%, at level of Middle Danube region amount -21.11%, until at the level of Lower Danube region it amount -24.51%.

Share of realized investments in agriculture in total realized investments at level of Danube region, as well at the level of Republic of Serbia in general is given with help of graphical review (Graph 1).



Graph 1. Share of agricultural investments* in totally realized investments

Source: Statistical office of the Republic of Serbia (2002-2012): Municipalities and regions in Republic of Serbia 2001-2011. SORS, Belgrade; Statistical office of the Republic of Serbia (2002-2010): Investments in Republic of Serbia 2000-2009. SORS, Belgrade.

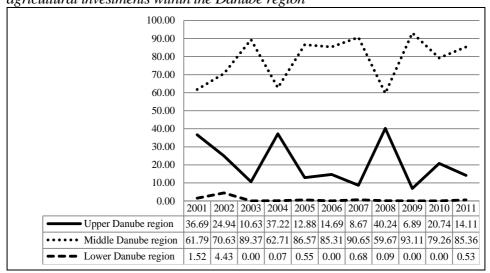
During the observed period (2001-2011), share of realized investments in agriculture in total realized investments at area in Danube region is decreased from 3.21% to 1.14%. During the same period, in Republic of Serbia in general, the observed indicator also marked a decrease (from 5.70% to 2.48%). Observing the annual growth rate reached results reflecting negative values, as for the Republic of Serbia in general, also and for Danube region (-9.85%).

Participation of realized investments in agriculture at the level of administrative units in total realized investments in agriculture at the level of Danube region as a whole is given using graphical representation (Graph 2). By the analysis of administrative units in the formation of total realized investments in agriculture of entire Danube region, in the long term period (from 2001 to 2011), it can be noticed that the top priority area has Middle Danube area (with achieved positive

^{*}Investments in fixed assets.**Without data for KiM.

average annual growth rate of 3.28%). Looking at the same time period, one can conclude that the other two administrative units have negative values for the aforementioned indicator (i.e. the results were as follows: -9.12% for the level of Upper Danube and -9.94% for the level of Lower Danube Region).

Graph 2. Share of agricultural investments* of sub-regions in totally realized agricultural investments within the Danube region



Source: Statistical office of the Republic of Serbia (2002-2012): Municipalities and regions in Republic of Serbia 2001-2011. SORS, Belgrade; Statistical office of the Republic of Serbia (2002-2010): Investments in Republic of Serbia 2000-2009. SORS, Belgrade.

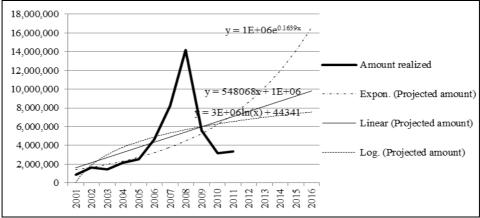
As the driving instrument of growth of total production factors and production, investments play a crucial role in realizing the goals and priorities of sustainable agricultural and rural development. In this context, future trends of investment in agriculture in the Danube region in Serbia were analyzed in detail, and thereby the division was made at the following investment activities (Subic et al., 2009): realized investments in agriculture at the level of Danube region; participation of realized investments in agriculture at the level of Danube region in total realized investments in agriculture at the level of Serbia as a whole.

Taking into account *the first methodological approach*, for the prediction of future trends of investment in agriculture in the Danube region in Serbia, we applied three types of functions. In particular, exponential, linear and logarithmic functions were used, and based onused functiondifferent resultswere obtained.

^{*} Investments in fixed assets. ** Without data for KiM.

Based on the *exponential function*, it was obtained the highest expected amount of investments in agriculture in the Danube region in Serbia (for the medium time interval until 2016.), which was 16,650,177.58 thousand RSD (where the average annual growth rate for the period 2011-2016, was 37.52%). Using a *linear function*, we gott the amount of 9,839,555.82 RSD (where the average annual growth rate for the period 2001-2016was 23.79%), while the lowest expected amount based on *logarithmic function*was 7,562,588.53 RSD (where the average annual growth rate for the period 2011-2016 was 17.44%) (Graph 3)

Graph 3. Projected amount of investments* in agriculture within the Danube region (000 RSD) - FMA

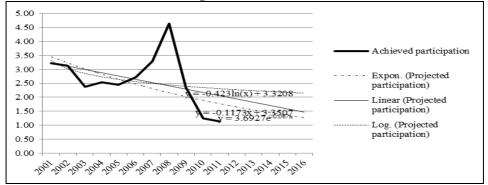


Source: Statistical office of the Republic of Serbia (2002-2012): Municipalities and regions in Republic of Serbia 2001-2011. SORS, Belgrade; Statistical office of the Republic of Serbia (2002-2010): Investments in Republic of Serbia 2000-2009. SORS, Belgrade.

Trend forecast for future participation of realized investments in agriculture in total realized investments in Danube region in Serbia, which was also obtained by using the above- mentioned functions, in all three cases reflected a continuing decline (Graph 4). The highest projected participation of realized investments in agriculture in total realized investments (for the medium period untill 2016), was obtained basedonthe logarithmic function (i.e. 2.15%). On the other hand, by using linear and exponential function, significantly lower results were obtained (i.e. 1.47% and 1.26%).

^{*} Investments in fixed assets.

Graph 4. Projected participation of agricultural investments* in totally realized investmentswithin the Danube region- FMA



Source: Statistical office of the Republic of Serbia (2002-2012): Municipalities and regions in Republic of Serbia 2001-2011. SORS, Belgrade; Statistical office of the Republic of Serbia (2002-2010): Investments in Republic of Serbia 2000-2009. SORS, Belgrade.

Based on the projected amounts obtained for the 2016, we got the average annual growth rates for the period 2011-2016, which have positive values for all three used functions (namely: 13.53% for logarithmic, 5.29% for linear and 1.26% for the exponential function).

The second methodological approach, beside it takes into consideration an amount of the previous investments, also pays special attention to social-economic circumstances, which are expected in a time period in which the prognosis is done. Accordingly, in this case the future investments prognosis, in the Danube region in the Republic of Serbia, bases on economic trends' tendencies, a planned macro-economic policy, planned structural reforms and measures, anticipated activities of sustainable agricultural and rural development, taking into account the tendencies in the EU economy and the global economy, as a whole.

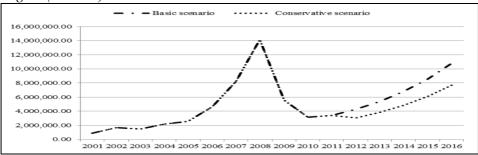
Taking into consideration a strong influence of the world financial and economic crisis to agriculture, as well as the entire Republic of Serbia economy, in the following mid-term period (up to 2016) is expecting moderately increase of demand on the foreign market, which will lead to a lesser amount of foreign direct investments' (FDI) inflow and slower increase of domestic economic activities. In that context, there is estimated a lesser inflow of FDI in the period 2011-2014.

^{*} Investments in fixed assets.

Considering a fact that expectations are in favour of complete recovery of the world economy to 2015, it is possible to anticipate accelerated increase of an investment activity in the period 2014-2016. Accordingly were analyzed two scenarios of future investment trends in agriculture of the Danube region in the Republic of Serbia: *a conservative scenario* and *a basic scenario* (to which should strive).

In the all above mentioned context, the projections of expected realized investments in agriculture, in the Danube region in the Republic of Serbia (for the mid-term period 2011-2016) point out to the following amounts (Graph 5): 7,707,140.21 thousand RSD (with average annual growth rate of 17.88%), for the conservative scenario; 10,789,996.29 thousand RSD (with the average annual growth rate of 26.09%), for the basic scenario.

Graph 5. Projected amount of investments * in agriculture within the Danube Region (000 ∂ uH) - SMA



Source: Statistical office of the Republic of Serbia (2002-2012): Municipalities and regions in Republic of Serbia 2001-2011. SORS, Belgrade; Statistical office of the Republic of Serbia (2002-2010): Investments in Republic of Serbia 2000-2009. SORS, Belgrade.

Also, according to the second methodological approach can project the expected participation of realized investments in agriculture in the totally realized investments in the Danube region in the Republic of Serbia (for mid-term period 2011-2016). Consequently, the got results point out to the following amounts (graph 6): 1.77% (with average annual growth rate of 9.23%), for the conservative scenario; 2.48% (with average annual growth rate of 16.83%), for the basic scenario.

^{*} Investments in fixed assets.

Graph 6. Projected participation of agricultural investments* in totally realized investmentswithin the Danube Region–SMA

Source: Statistical office of the Republic of Serbia (2002-2012): Municipalities and regions in Republic of Serbia 2001-2011. SORS, Belgrade; Statistical office of the Republic of Serbia (2002-2010): Investments in Republic of Serbia 2000-2009. SORS, Belgrade.

Neither the conservative, nor the basic scenario can be realized without big systematic and structural changes, which can be done only by coordinated macro-economic and structural policies. More concrete, the realization of both scenarios prefers the essential implementation of strategic measures and activities of sustainable agricultural and rural development. Hence, a difference between the conservative and the basic scenario reflects in a level of sustainable agricultural and rural development strategic goals' realization in the Danube region in the Republic of Serbia.

Conclusion

In the following mid-term period (up to 2016), the agrarian policy measures should conceptualize in a way that they can contribute to new opportunities and needs of investments in all fields which can be of significance for economic growth and sustainable development, not only agriculture, but the entire economy in the Danube region in the Republic of Serbia.

Focusing to the projections got according to the second methodological approach, realization of the basic goals of the conservative and the basic scenario (which reflect through: prolongation of economic growth high rates trends, decrease of unemployment and increase of productivity), require significant changes, as in economic structure, as well as in pursuing the economic policy.

^{*}Investments in fixed assets.

Aiming to increase competitiveness of agricultural sector, construction of a competitive food sector, as well as preservation and protection of natural resources and revitalization of polluted environment, the assumptions on which base the two above mentioned scenarios, are:

- Realization of high annual inflows of FDI for export growth (first of all by green field investments). Accordingly, there is necessary to make favourable business climate for foreign investments, which implies also overall decrease of a country's risk.
- Realization of ambitious growth rate of goods and services export. In that context, there must make the structural changes and increase of international competitiveness of the entire domestic economy.
- Realization of significant change in structure of a realized gross domestic product (GDP) use. Accordingly, there should increase the investment activity, not only in agriculture, but in the economy as a whole.

Literature

- 1. Cvijanović Drago, Subić Jonel, Cvijanović Gorica (2010): Evaluation of future movements in production of potato and vegetables on the city of Belgrade area. Chapter III in International Monograph "Agriculture in the process of adjustement to the common agriculture policy", University Ss Kiril and Methodius in Skopje Faculty of Agricultural Sciences and Food, pp. 46-56.
- Jakopin, E., Radosavljević, S. (edt.), (2009): Strategija prostornog razvoja Republike Srbije do 2020 godine (Studijsko-analitička osnova)

 Privredni sistem (1), Republička agencija za prostorno planiranje, Beograd, Srbija.
- 3. Românu Ion, Vasilescu Ion (coordonatori) (1997): *Managementul investițiilor*, Ed. Mărgăritar, București.
- 4. Statistical office of the Republic of Serbia (2002-2012): *Municipalities* and regions in Republic of Serbia 2001-2011. SORS, Belgrade.
- 5. Statistical office of the Republic of Serbia (2002-2010): *Investments in Republic of Serbia 2000-2009*. SORS, Belgrade.

- 6. Subić Jonel (2007): Mesto Južnog Banata u poljoprivredi Srbije i Crne Gore na putu ka evropskoj integraciji. Monografija. Institut za ekonomiku poljoprivrede, Beograd.
- 7. Subić Jonel, Vasiljević Zorica, Ivanović Sanjin (2008): Assessment of future investment in agriculture in the city of Belgrade. Themetic proceedings from International Scientific Meeting Multifunctional Agriculture and Rural Development, III rural development and (un)limited resources. IAE BelgradeSerbia, book I, pp. 268-275.
- 8. Subic Jonel, Done Ioan, Vasiljevic Zorica, Ionita Ion, Andrei Jean, Matei Mirela (2009): *Investments and agriculture development in the city of Belgrade area*. Proceedings of The 13th International Business Information Management Association Conference "Knowledge Management and Innovation in Advancing Economies: Analyses & Solutions", November 9-10, 2009 Marrakech Morocco, International Business Information Management Association (IBIMA) (http://www.ibima.org/), USA, pp. 338-353.
- 9. Subić Jonel (2010): *Specifičnosti procesa investiranja u poljoprivredi*. Monografija. Institut za ekonomiku poljoprivrede, Beograd.
- 10. Subić Jonel, Brankov Tatjana, Njegovan Nikola (2013): *Stanovništvo i privredna struktura*. Poglavlje u Monografiji "Stanje i mogućnosti razvoja održive poljoprivrede i ruralnog razvoja u Podunavlju". Institut za ekonomiku poljoprivrede Beograd, str. 90-119.