

## INVESTMENT AS A WAY FOR THE IMPROVEMENT OF AGRICULTURE OF THE REPUBLIC OF SERBIA

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### Abstract

*The aim of the paper is to point out the significance of agriculture in Serbia along with the specificities that accompany it. The purpose of the paper is to show that the selection of an adequate source of funding can contribute to the improvement of agrarian production which would not only mean production for its own needs, but also export to the world market. The methodology of writing the paper is based on the use of adequate professional literature that describes and monitors the specificities of agricultural production together with the specifics of financing. The following indicators of investments were used: a) the participation of total realized investments in fixed assets in agriculture, forestry and fishing (AFF) in total; b) the participation of the total payed investments in the fixed assets in the activities of the AFF in the total; c) structure of payments for investments by sources of financing; d) investments made in the rural areas by rural inhabitants. The mentioned indicators are presented for the period 2013-2016.*

**Key words:** agriculture, investments, sources of financing

### INTRODUCTION

Investments are important for the economic development of each country as they influence the creation of economic policy. However, for the economic development of the Republic of Serbia, the most important place are investments in agriculture.

The problem of financing Serbian agriculture is rooted in the 20th century. More precisely, the issue of financing agriculture has not been resolved to this day, and the financial markets for agricultural products have not sufficiently ensured a uniform product allocation. In order to create a more efficient system of financing agriculture in the coming period it is necessary to educate staff. This implies that more financial managers need to be employed to follow the trends and jobs that are being implemented on the financial market in order to further improve the rural and agrarian production. Financial managers would assist farmers in choosing a short-term or long-term model of financing their own production and services. In this way farmers would realize that dealing with agricultural production requires their own effort and financial resources. Therefore, a more active attitude of the agrarian sector in the

financing process is necessary in order for farmers to understand that no one is in charge of providing them with funds, but that they have to do this on their own. This attitude leads them to the conclusion that they have to produce commercially profitable goods or contracted by established balance sheets and quotas for domestic needs and exports.

The aforementioned facts reduce the importance and essence of agricultural production for our country. Whether agriculture is viewed in a narrow and spread meaning, it requires technical, technological and innovation changes to develop faster with the provision of sufficient amount of food. However, the application of modern mechanization in production processes can make this activity more attractive for business. In order to facilitate the identification of the essence of financing agriculture, this activity needs to be seen in a narrow and spread meaning. Numerous authors dealt with the definition of agriculture, its divisions and interpretations, but their adequacy depends on the angle of observation. Agrarian expert [2] has divided agriculture on: a) *agro-technical and economic*; b) *Extensive and intensive*. *Agro-technical agriculture* implies the application of

agro-technology (farming, cattle breeding, vegetable growing, fruit growing, viticulture, etc.) and *economic agriculture* takes into account the purpose of agricultural products (cereals, vegetables, fodder, industrial and fodder plants). *Extensive agriculture* involves small roles of labor and capital that yield small yields from the arable land unit, and *intensive agriculture* implies large roles of labor and capital with large yields from the arable unit.

The author [6] cited the division of agriculture in the wider and broader sense. *Agriculture in a narrow meaning* implies dealing with agriculture for its own needs, and *agriculture in a spread meaning* implies linking economic areas and branches at the horizontal and vertical levels. The common name of such agricultural production is an *agro-industrial complex or agribusiness*.

Some agrarian experts believe that the currently bad state of the agricultural sector is due to the inadequate lending and capital policy that has been implemented over the past 30 years. Authors [1] state that agricultural loans were granted in the form of grants or under privileged terms, and the interest rate had the role of maintaining the productivity of capital in terms of demand and consumption. Since the interest rate was lower than the productivity of capital, it stimulated the demand for loans above the real level. Although such low interest rates have reduced the costs to agricultural enterprises and individuals, they have led to an increase in costs at the level of the economy, as agricultural production has become ineffective.

The essence of today's system of financing agriculture is in support of agricultural producers and the strengthening of the manufacturing sector. This is due to the fact that products at a higher level of processing are known to achieve higher market value. Consequently, even when exporting, a higher price would significantly contribute to the reduction of the foreign trade deficit. Therefore, regardless of the source of funding, it is necessary to start from the goal that is achieved, which is the development of the agrarian sector and the implementation of technical and technological innovations.

In order to create a complete picture of agriculture as a business, it is necessary to

mention its specifics. Primary agrarian production is characterized by numerous biological, organic, technical-technological, social and economic specifics, and numerous problems have been addressed and emphasized by many authors. The answer is contained in the fact that agrarian production is subordinate to natural factors (climate, soil, water, etc.). In today's conditions of production, and thanks to genetics, biological phases in the development and development of plant culture can only accelerate but not skip. Thanks to more modern machinery, production processes can be made easier by making this activity to some extent more attractive for dealing and business.

All these specificities have their own causes, but from the economic point of view, the available and initial investments that are necessary for the start-up and/or expansion of the production cycle take the key place. The farmer wants to have certainty that the favorable business conditions will be maintained even in the future when the growth/yield is due as a result of his investments [2].

The data of the Census of Agricultural conducted in Serbia in 2012 show that the plots are fragmented, the farms are aging, that they have 1-2 members of the elderly, with the predominant presence of family agricultural holdings (legal persons and enterprises have about 0.5%) [10]. According to the legal form, there are 34% of companies with limited liability, 16% of entrepreneurs and 13% of agricultural cooperatives [8].

After the specificity of agricultural production, it is also necessary to mention the specificity of financing of agricultural production [6]:

- The high risk of agricultural production can be covered by production insurance;
- The slow turnover of capital requires higher financial resources, while commercial banks borrow their funds from activities where the turnover of capital is faster;
- Mismatch between production time and collection time influences the creation of a loan repayment plan that is adapted to the seasonal character of agricultural production, which will reduce the need for additional borrowing by farmers;

-Specialized production could not be developed (production of only one product) due to the necessary of the crop, which requires additional financial resources;

-The degree of utilization of agricultural machinery could not be measured because mechanization can be used only in optimal deadlines.

In the period of financing of agriculture from the primary issue of the Central Bank (National Bank of Yugoslavia), Serbian agriculture declined because the funds were short-term and used to finance current production costs. More detailed analysis of the placement of primary emission funds for individual purposes points to its insignificant position. An illustrative example of directing the means of primary emissions into the agrarian sector in Vojvodina shows that a liquidity loan for one purpose is greater than the total amount of primary emissions for agriculture. This sector has reached the bottom of all interventions carried out by the Central Bank. This conclusion points to the conclusion of the determination of the real price of the capital employed in the agrarian sector [1].

In the period 2013-2016 the highest share of realized (4%) and paid investments (3.7%) in fixed assets in the AFF in total in Serbia was recorded in 2013.

Analyzing the structure of total paid out investments in fixed assets by sources of financing in the period 2013-2016. year. The largest share is taken by own resources (from 67.3% in 2015 to 77.2% in 2013), then financial assets (from 12.5% in 2014 to 20.7% in 2015), while the rest is made up of pooled resources and resources from other funds.

Analysis of the paid-investments in the AFF per rural inhabitant of Serbia leads to the conclusion that these values are very low. From 2013 to 2015 the value is constantly decreasing, from 58.2 EUR to 43.1 EUR, in 2016 increased by 50.3 Euros per rural inhabitant, which is below the value of 2013.

Generally, Serbia has a lot of potential in the agricultural production segment, but there is no safety in investments. More precisely, in order to realize investments, there must be a stable system

that would provide agricultural producers with a return on invested funds and then earnings.

These facts point to the conclusion that agricultural production is very specific, but by providing stable and continuous financing, more farmers will want to deal seriously with not only production, but also processing.

## MATERIALS AND METHODS

In order to determine the significance of investments for agriculture in Serbia, the following indicators were used: share of realized and paid investments in fixed assets in the activities of the AFF; structure of paid investments in fixed assets by sources of financing; the value of paid investments in the AFF per rural inhabitant.

The analyzed indicators were presented for the period 2013-2016 by searching books, journals, statistical bases of the Statistical Office of the Republic of Serbia (SORS) and other professional publications. After the collected statistical data, the author's calculations were applied and graphically presented.

## RESULTS AND DISCUSSIONS

Serbia should turn to current sources of financing for the agrarian sector if it intends to improve and modernize it to improve the living conditions in the countryside. Primarily, internal and external factors must be analyzed which enable and / or make it difficult to implement the financing of agricultural policy measures. Differences and difficulties can exist in different areas of Serbia, but applying the appropriate method and the principle of difference can be minimized. Also, Serbia is a diverse country and not all areas are suitable for dealing with all types of agricultural production (farming, vegetables, fruit growing, viticulture, cattle breeding, etc.). It is free to say that Serbia lacks investment in the agricultural sector, which will be more in continuous of paper.

Previous experiences in the field of agriculture financing have shown that it is necessary to include scientific and technical progress. Business advancement (production and processing of agricultural and food

products) determines the purpose and possible forms of future investments. In the early eighties of the 20th century in the Yugoslavia, was improved the so-called *project approach to investments*. This approach implies the existence of an appropriately prescribed methodology for the preparation and implementation of financing projects. In this process, all phases are interconnected and rely on one another. The project financing phases are as follows [1]: *identification, preparation, evaluation, realization, monitoring and evaluation of the project during exploitation*. This form of financing proved to be more acceptable because the state is able to attract funds from international funds, and may also be joined by local government units.

Distinguished economists [3] emphasize that investing is a very complex process with a large number of activities and participants. Such an investment does not necessarily mean purchasing and/or investing in new goods and services, but it can also be an investment in existing infrastructure, equipment, etc.

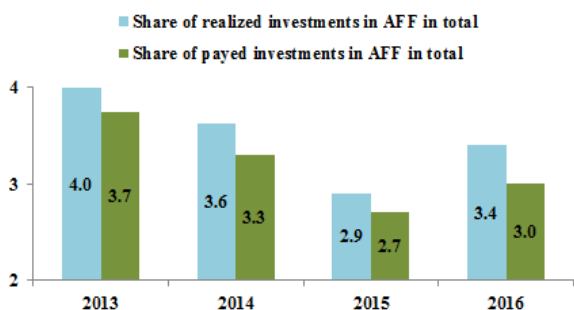


Fig. 1. The share of total realized and payments for investments in fixed assets in AFF in total in Serbia (2013-2016, in %)

Source: SORS, STAT database.

Fig.1. shows the participation of total realized and payed investments in fixed assets in AFF in Serbia during the period 2013-2016. *Realized investments in fixed assets* in the reporting year present the value of effectively finalised constructions, production or acquisition of facilities, equipment and other fixed assets, disregarding whether these investments were accomplished and whether they were paid out (excluding revaluation). *Payments for investments* are the monetary investment in fixed assets during the year in

which the payments were actually made, irrespective of the time of their construction or acquisition [7].

The graphic illustration above shows that the participation of *total realized investments in fixed assets* in the AFF are ranged from 2.9% in 2015 to 4.0% in 2013, annually about 3.5%. As a possible reason for such a decrease, the fact that the economic activity of the rural population and legal entities is diminishing is decreasing, as the demolition of the village and the overcrowding of the cities is growing. Therefore, it is necessary to motivate agricultural producers to deal more intensively with this branch, which can certainly bring profit if it is approached in an adequate way.

The average annual share of *payed investments in fixed assets* in AFF in the total has an approximate value as well as the previous indicator and amounts to 3.2%. This indicator also shows a decline in the share of payed investments funds for agricultural activity, as well as the previous ones, moving in the range of 3.7% in 2013 to 2.7% in 2015. Thus, a reduction of 1.0 p.p. only indicates a decline in investments in this business. One of the solutions to stop this trend and a slight increase will also be the fact that more and more young people need to be involved in agricultural production and encourage investments. This fact is a special contribution made by the Rulebook on incentives for programs for income diversification and improvement of quality of life in rural areas through support to young farmers [5]. Article 6 of this Rulebook emphasizes that it is necessary that persons aged 18-40 years old and have settled debts to the line Ministry.

By showing the paid value of investment funds in the agrarian sector, can see how much is interested in this type of investments. However, the structure of payments for investments in fixed assets for all activities by sources of financing (Fig. 2) will be presented below in the period 2013-2016.

Based on a graphical overview, the following conclusions can be made:

-the financing of investments from own resources in 2016 will have a share of 75.3% and

1.9 p.p. are smaller compared to 2013 when they made 77.2%;

-funding from pooled resources registered a slight increase of 0.2 p.p., from 0.4% in 2013 to 0.6% in 2016;

-financing from financial assets in 2016 registered a decline of 1.2 p.p. in comparison with 2013, ie. participation was reduced from 15% to 13.8%;

-resources from other funds registered a slight increase, which increased by 2.9 p.p. during the reporting period (from 7.4% to 10.3%).

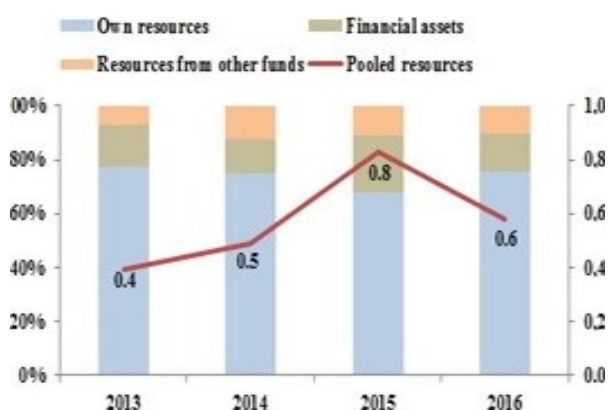


Fig. 2. The structure of payments for investments in fixed assets by financing sources (2013-2016, in %)

Source: SORS, STAT database.

Such indicators can only point to the conclusion that the decline in own funds as a source of funding, as opposed to an increase in the share of funding from pooled assets, leads to an increase in confidence in the banking and financial sectors. In favor of this fact, interest rates on borrowed capital are also being gradually reduced, making agricultural loans more accessible to more farmers.

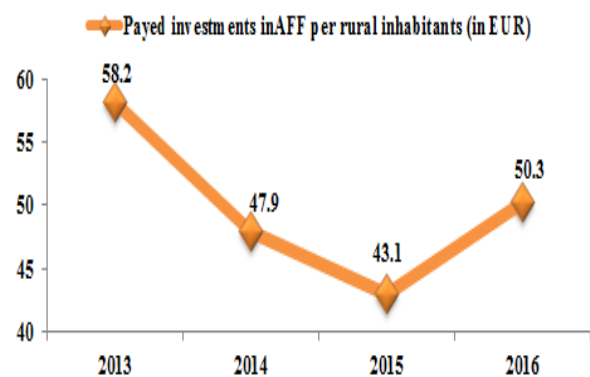


Fig. 3. Payments for investments in AFF per rural inhabitants

Source: SORS, STAT database.

After all, the value of investments in AFF by the rural inhabitant will be shown (Fig. 3). This indicator will only confirm the level of seriously of the rural population by which they approach the performance of this activity.

The graphic representation shows that there is a tendency of declining investment value in the AFF according to the rural inhabitant as a result of the reduction, on the one hand, of investments, and on the other, the number of rural inhabitant. Consequently, in a given presentation of the paid investments per rural inhabitant in 2015, they are by 15.1 EUR less than in 2013, or by 26%. However, in 2016, there is a slight increase in the value of investments by rural inhabitant by EUR 7.2 compared to 2015.

Generally, with the increase in the number of rural population, investments will increase. But in order to keep the population back or to return to the village, it is necessary to provide adequate agricultural standards to adequate living standards for farmers. Otherwise, the discharging the village it's gonna with increasing dynamics.

## CONCLUSIONS

The current system of financing (primarily from the primary issue of the Central Bank) has led to a significant decline in the business functions and profitable capacity of companies in this area, which is accompanied by major problems in liquidity and the increase in the level of indebtedness.

Based on the above, it is not difficult to draw the conclusion that, if the growth of agricultural production is to accelerate, more stable conditions of business, market and export of agro-food products, special credit arrangements for agro-food products are needed. Since the financial system for the development of agriculture is underdeveloped, it is necessary to approach the elimination of all those obstacles that slow down the growth and development of the agrarian sector.

Also, the improvement of financial institutions and their successful functioning in the field of agriculture financing will yield significant results in the long run. Although agriculture is less profitable economically, including all the specificities that accompany it, and that the area on which further economic development of the

country is based, it is necessary to establish a financing system as it is represented in developed countries in Europe and the world.

It can be said that the potential chance for the development of Serbian agriculture is in fact the production of health-safe food and inclusion in international financial institutions

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## ACKNOWLEDGEMENTS

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