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# EVALUATING THE ATTRACTIVENESS OF SERBIAN AGRIBUSINESS FOR FDI<sup>1</sup>

FILIPOVIC SANJA<sup>2</sup>, ZUBOVIC JOVAN<sup>3</sup>

## Summary

*The aim of this paper is to research potentials for attraction of foreign direct investment (FDI) into agricultural and food processing sector of Serbia. After reviewing the statistical data on agribusiness in Serbia and the framework for FDI, we have designed a special methodology for the purpose of this research. The methodology was based on integrated vertical and horizontal approach, which provides analysis of agricultural and food processing sector up to the sub-sector level. The survey was carried out on the sample of 100 companies per set of criteria which are defined as important for foreign investors. The paper consists of four sections and concluding remarks. At the beginning we have presented the methodology used in the research. The second section emphasizes the importance of agriculture and food processing sector for national economy. The third section provides a picture of national comparative advantages for attraction of FDI into agriculture and food processing industry. The fourth and most important section presents the results of empirical research where we have found that the subsector of fruit and vegetable processing is most interesting for FDI. Finally, the last section summarizes key conclusions from the research undertaken in agribusiness sector of Serbia.*

**Key word:** *Agribusiness, FDI, Serbia, Sub-sectors evaluation*

## INTRODUCTION

Prices of agricultural products are steadily rising [4]. Such trends in prices of agricultural products have attracted new private investors in all stages of the value chain in agriculture. In addition, there is significantly intensified stock of purchases of agricultural products, with a proliferation of speculative investors eager to cash in on the sale of the brokerage. Since the crisis in Serbia and the liquidity problems have diminished the capacity of local investors, foreign investment should be able to fill the investment gap. As Furtan and Holzman note FDI bring positive results to the whole of the economy [10]. Moreover Marchant, Cornell, and Koo had developed a model by which they proved that there is a positive correlation between a countries export and the level of FDI in agribusiness [14]. The world's FDI inflow to agriculture sector in recent years has been increasing gradually [21, 22]. In 1990s, FDI capital in the world's agriculture reached nearly USD 1 billion a year while in 2005-2007 the figure climbed to USD 3 billion/year. Despite the significant impact of the global financial crisis on all sectors of the economy, agriculture is expected to be relatively better off, as a result of relatively higher income in recent period and income-inelastic demand for food [9].

The aim of this paper is to research potentials for attracting foreign direct investment into agribusiness (agriculture and food processing industry) in Serbia. Paper is divided in five sections. At the beginning we are presenting the methodology of the research used in the paper. Further on we give a brief review of the agricultural sector in Serbia. In the next section we present the most important aspects of the FDI in Serbian agribusiness. The fourth section of the paper is devoted to findings from the empirical research in Serbia. Finally we close our paper with conclusions from the research on the attractiveness of Serbia for FDI in agribusiness.

## THE METODOLOGY OF RESEARCH

The theoretical section of the paper presents the review of agriculture in Serbia and the importance of FDI for its current and future growth. Having understood why agriculture and agribusiness have an important role in Serbian economy and why the FDI are important, we have in the

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empirical section defined a special methodology, which provides analysis of agricultural and food processing sector on seven sub-sector levels (wheat processing, industrial plant processing, confectionary sector, fodder, fruit and vegetables processing, production of wine and distillates, and processing of products of animal origin) per defined set of criteria which are highly important for foreign investors: availability of raw material base, competition on the market, production facilities, property transformation, availability of staff. Herewith we intended to evaluate which of the subsectors in Serbian agribusiness is most attractive for foreign investors.

Moreover the evaluation of competition was made based on attitudes of the surveyed companies within the sector in relation to: quality, assortment, prices, production and sales trends, market research and marketing activities. Analysis was made especially for each sector: logistic processes, purchase market and sales market, restrictions and branding. With the aim of collecting as much representative data as possible based on which realistic image about condition in each sector can be gained, we have created a questionnaire which served as the basis for making survey in the sample of 100 companies [3]. The survey was based on: i) structured written questionnaire and ii) unstructured phone interviews with the management and experts from leading producers in this sector. The survey was filled in by representatives of company management, mostly with university education, with considerable years of service and experience in their job.

## **DYNAMICS OF AGRICULTURE IN SERBIA**

At the beginning of the 1980s, Serbia had achieved impressive growth in agricultural production (3.5% - 4% annually), which stagnated in the late 1980s and rapidly decreased during the 1990s. However, the decrease in agricultural production was much smaller compared to the rest of the economy. During the 2000s, agricultural production has continued to record very high annual fluctuations. The fluctuations were a consequence of low investment, reduced agricultural techniques, excessive share of farming in primary agricultural production (especially wheat), as well as the adverse impact of weather conditions. The price shock of 2006–08 had a significant impact [5]. Moreover, different net trade positions and different policy responses to changing price and income shocks held the key to the range of outcomes [1]. In the period 2005-2011, agro-industrial sector recorded average annual growth in production of about 1.1%, while the overall industrial production had an average growth of 0.4% per year [19].

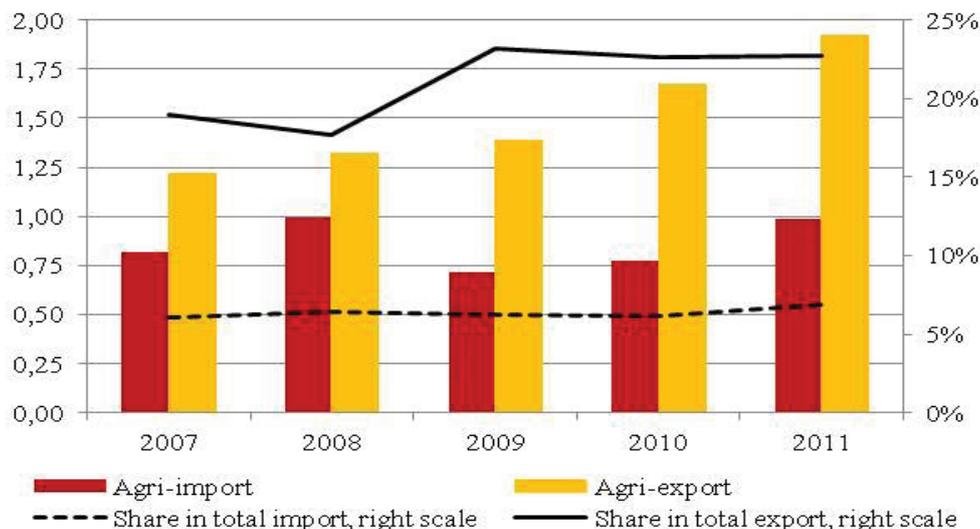
Therefore the agriculture has a very high importance for national economy and social stability in Serbia. The main reason is slow restructuring of the rest of the economy, low investment activity and reduced employment opportunities in other sectors of the economy [2]. Even though the share of agriculture in GDP in 2010 declined to about 9.1%, the importance of agriculture in Serbia is similar or higher than in other countries in the region that have significant agricultural production - e.g. Turkey 9.5%, Bulgaria 5.4%, Ukraine 8.2%, B&H 7.6%, Romania 7.1%, Croatia 5.5%, Hungary 3.5%, etc. [23].

Besides primary agricultural production, agribusiness sector also includes agro - industry. Agro-industrial sector consists of production of food and beverage, tobacco products, fertilizers and production of agricultural machinery. In total industrial production of Serbia the agro-industry have a share of 26.7%. The production of food and beverage generate 87.1% of total agro-industry production, while the production of machinery for agriculture and the chemical account for just about 2%.

Agriculture is the only sector in Serbia with a positive foreign trade balance. Agriculture plays a significant part in the overall foreign trade, with 22.7% share in total exports and 6.4% share in imports. However, raw materials have the highest share in export, while the share of high final processing products is modest. Four products make more than two fifths of the total export of agribusiness sector: corn, fruit and fruit products that do not include fruit juices, sugar and vegetable fat and oil. On the regional level, the concentration is even more expressed – almost half of the total exports of agro-business sector of Vojvodina are generated by three products: corn, sugar and alcoholic beverages [7, 8]. On the import side, fertilizers dominate with 15% of total import (mainly from the Russian Federation). The import of fertilizers has been increasing in recent

years partly as a consequence of the complete disappearance of the domestic production of agro chemicals.

**Figure 1 – Foreign trade and share of agribusiness in foreign trade, bill. EUR**



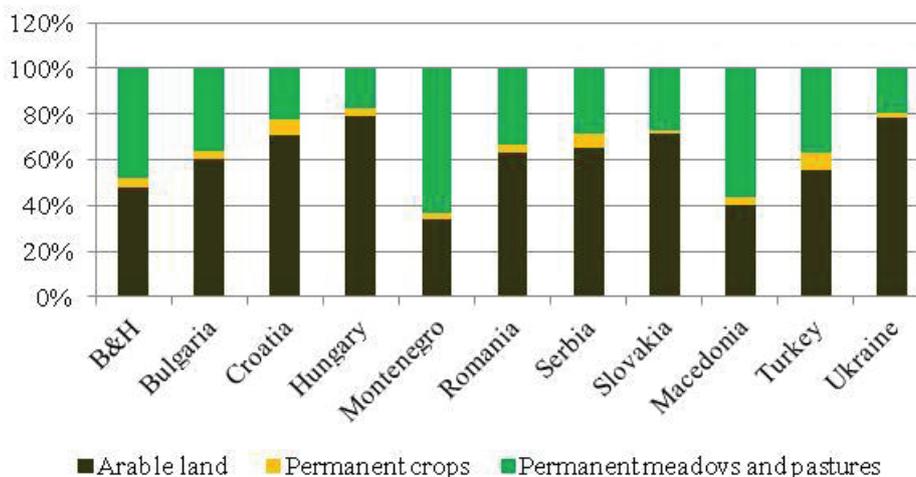
Source: <http://www.trademap.org>

Foreign trade in agricultural and fishery products of the Republic of Serbia is constantly rising. The highest value of trade, in the amount of about EUR 3 billion, was reached in 2011, where the surplus realised was about EUR 1 billion, more than imports value for the same year (Figure 1).

### ATTRACTIVENESS FOR FDI

Serbia has 5.093 million ha of agricultural land, which is more than 65% of the total territory. The agricultural land is mostly fields and gardens with 64.8%, followed by pastures 16.4%, meadows 12.2%, orchards 4.7% and vineyards 1.1%. Arable land and permanent crops cover over 70% of agricultural land, which is higher than in the most countries in the region [3]. Comparison of Serbia with other countries in the region is presented in Figure 2.

**Figure 2 - Structure of agricultural land**

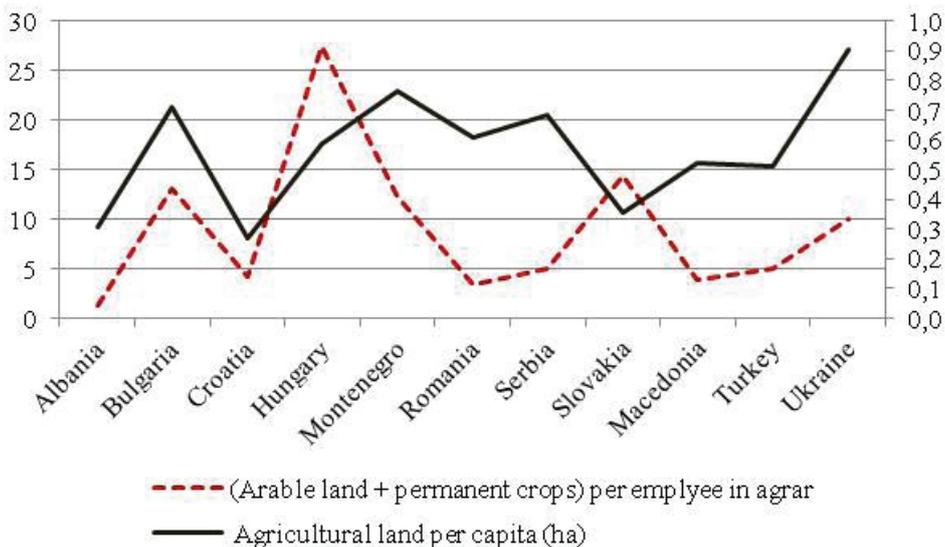


Source: FAO data base <http://faostat.fao.org>

Available agricultural land per capita in Serbia amounts to 0.68 ha, which is more than in most countries in Central and South-eastern Europe [9]. High availability of agricultural land per

capita is particularly pronounced in the northern region of Vojvodina, where the level of 0.86 ha is significantly above the EU average and it is an important comparative advantage (figure 3). Regarding the relationship between farmland and the employed in agriculture, Serbia is in line with the average for this part of Europe (5.08 ha per employee).

**Figure 3 - Available land resources**

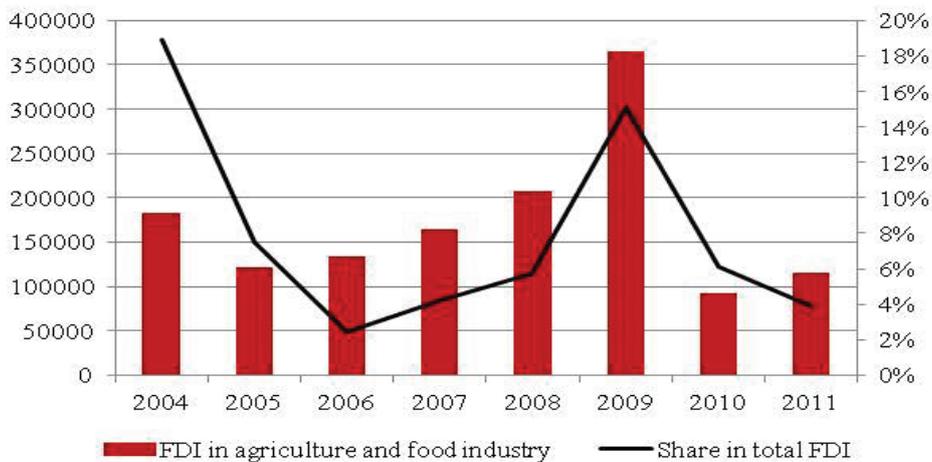


Source: FAO data base <http://faostat.fao.org>

A good business climate and opportunities for investment are assisted in particular through state subsidy programs for foreign direct investment. In financial terms, grants are offered for both green-field and brown-field projects in agricultural and food sector production activities, and in research and development.

The total amount of foreign investment into Serbian agricultural and food sector in the period 2004-2011 reached USD 1.4 billion. The highest amount of foreign investment in agribusiness was in 2009. The amount of USD 366 million was about 15% of total foreign investments into the Republic of Serbia. In the last two years the amount of investments in this sector was modest – only USD 93 mil. and USD 116 mil. respectively.

**Figure 4 – FDI in Serbian agriculture and food processing industry, mil. USD**



Source: NBS database <http://www.nbs.org>

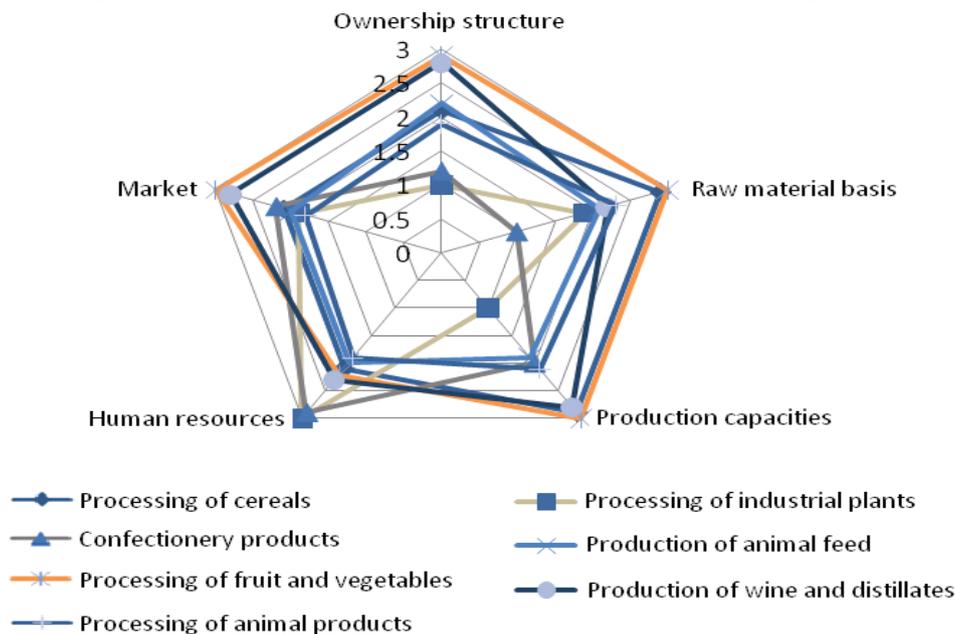
The investments in Serbian agriculture have been realized through privatisation of former state-owned companies [12]. State-owned agricultural companies and cooperatives were bought mostly

by large domestic private investors. Foreign investors and companies participated in this process either directly through privatisation or indirectly through resale of privatised companies [13]. Largest volume of investments is registered in beer, tobacco, confectionary and sugar industries. As noted above, FDI are important source for investments in agribusiness. Therefore we wanted to research on which of the subsectors might be interesting for future foreign investors.

## RESEARCH RESULTS AND DISCUSSION

Based on comparative analysis of all seven surveyed sub-sectors per set criteria, we have found that the sub-sector of fruit and vegetable processing has the highest potential for investment in food processing industry. The results of research are presented in figure 5.

**Figure 5 - Comparative advantage of sub-sector for attracting FDI per surveyed factors**



In the sector of fruit and vegetable processing, there are high possibilities for direct foreign investment into production, warehousing, primary production and higher stages of processing of standard and differentiated products intended for foreign markets. In the sector of fruit and vegetable processing, possibilities for direct foreign investments are seen in the following areas:

- classification and standardization of fruit and vegetables for use in fresh state for export;
- production of standardized high-quality and safe dried, frozen or lyophilized products;
- development of top quality product lines for consumers with higher purchasing capacity and for foreign market;
- production and processing of organic products.

Intensive agricultural production with use of plant protection chemicals – which is especially characteristic in fruit and vegetable growing, with accelerated adjustment to international quality and environmental sustainability standards, impose need for more significant and urgent investment into construction of facilities for safe destruction of packaging material for plant protection chemicals (pesticides, herbicides, etc.).

Apart from fruit and vegetable sector, there are other sectors which might become interesting for FDI. In production of wine and distillates, possibilities for direct foreign investments are in extension, arrangement and improvement of vineyards and wine cellars, direct marketing and production and positioning of top quality wines and wines made of autochthonous grape sorts. There are investment potentials in the segment of production, branding and marketing of top quality

wines and wines with geographical origin, but also in branding of traditional alcoholic drinks. In processing of wheat and flour, there are special fields and possibilities for direct foreign investments, both into modernization and enlargement of plants, and into distribution network and production of differentiated product assortment.

Possibilities for direct foreign investments into production of industrial plants are relatively low, as market and production are kept by large multinational companies. Investment potentials are plants for production of bio-fuel and processing of waste and secondary raw materials from agricultural production and food production.

## ACKNOWLEDGMENT

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## CONCLUSION

Serbian agriculture and food processing industry have a important comparative advantages which might arise interest for foreign investment. The most significant comparative advantage of Serbia is an excellent raw material base for the development of food industry.

Despite the good raw material base for development of national food processing industry, raw materials have the largest share in the structure of agro-food export, while the share of high final processing products is low. In the export structure by product, four products make more than two fifths of the total export of agriculture and food sector (corn, raspberries, sugar and vegetable fats). With exports of 1.6 million tons of corn in 2009, Serbia was within top ten largest world exporter of corn. Being so important factor in Serbian economy, it is expected that there is a need for future high investments in agribusiness. Since domestic sources are very limited the other possibility is to attract foreign investors.

The results of research based on comparative analysis of all seven surveyed sub-sectors per set criteria, showed that the sector of fruit and vegetable processing has the highest potential for foreign investments in food processing industry. Summary result indicates that in terms of all said performances for development of agricultural and food processing industry, region of Vojvodina is the most suitable region for potential investors not only in the Republic of Serbia, but also in comparison to all other regions in the neighbouring countries of South-Eastern Europe.

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