

## ECONOMIC POSITION OF SERBIAN AGRICULTURE IN THE TRANSITION PERIOD<sup>1</sup>

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### Summary

*The authors wish to present economic position of agriculture in Serbia in the period of transition. Agriculture represents the base and starting point of economic development. Authors observe economic position of agriculture through four indicators by which is determined the importance of agriculture within the national economy. Mentioned indicators are: share of agricultural population in total population; share of agricultural population in total active population; share of agriculture in net national product creation; and participation of agriculture in creation of foreign trade balance. Later, authors provide a brief overview of transition process in Serbia, as well as its impact on the economic position of agriculture.*

**Key words:** *economic position of agriculture, Serbian agriculture, transition period.*

**JEL:** *O13, P2, Q15*

### Introduction

Agriculture is the oldest branch of the economy that people have always practiced. Currently the majority of world population is still engaged in agriculture. Up to XVIII century agriculture was in almost all countries the predominant economy branch. Just in XIX century with rapid industrial development in developed countries agriculture was pushed to the second and third place. There are not enough developed countries in true sense, considering that even today more than half of humanity is still engaged in agriculture.

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- 1 Paper is part of the research project III 46006 *Sustainable agriculture and rural development in order to achieve the strategic objectives of the Republic of Serbia within the Danube region*, financed by the Ministry of Education and Science of the Republic of Serbia.
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The importance of agriculture is higher in countries that are on lower level of economic development, and lesser in countries that were achieved through industrialization a higher degree of economic development.

Modernization and progress of agriculture depends in many ways from implementation of industrial methods, tools and organization of work. Mentioned makes us to believe that the development of agricultural production is forced by factors that are outside of agriculture. In fact, agriculture is just a base, or starting point of economic development, where developmental impetus comes from industry. Basically, that means when economic development is initiated by industrialization, functions of agriculture could be completely expressed, in other words begins a process of its industrialization.

Agriculture should be observed in two aspects. On the one hand, agriculture is important as a primary producer of food and other plant and animal products and this importance undoubtedly increases. Additionally, agriculture is the basis for initiation of economic development. To what extent the agriculture will be present as the basis for faster economic development depends not only from natural resources that is posses, but also from social, economic, political and other factors.

### **Indicators of the economic position of national agriculture**

According to economic science economic position of agriculture is determined on the basis of four indicators. By them it is possible to present the importance of agriculture within the national economy<sup>5</sup>, or in other words it could be measured the significance of agriculture in complete economic development. Mentioned indicators include:

- Share of agricultural population in total population;
- Share of active agricultural population in the total agricultural population;
- Share of agriculture in the creation of net national product (NNP); and
- Participation of agriculture in creation of foreign trade balance.

First indicator, share of agricultural population in total population is the most general indicator that describes importance of agriculture within the total economy. High share of agricultural population within the total population indicates the great importance of agriculture for national economy. Domination of agriculture and agricultural population could be considered as a sign of economic underdevelopment. In particular, traditional agriculture is synonym for economic underdevelopment. Percentage of agricultural population in developed countries was reduced to a negligible number. In some EU countries also have come to decrease of the number of inhabitants that are active in agriculture. According to data from 2007, in the UK 1,4% of total population were involved in agriculture, in the Belgium (1,9), Germany (2,2%), Denmark (3,0%), Netherlands (3,1%), France (3,4%), Bulgaria (7,5%), Slovenia (9,9%), Greece (11,5%), Poland (14,7%), Romania (29,5%), etc<sup>6</sup>. Serbia has also followed mentioned global

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5 Stipetić, V. (1968): *Ekonomika Jugoslavije - II deo*, Informator, Zagreb, str. 7.

6 *Agriculture in the European Union - Statistical and economic information 2008*, European Union, Directorate general for agriculture and rural development, Brussels, 2009, p. 149.

trend. According to data from 2009, percent of agriculturalists within the total number of population was 10,9%, what is much lower than value of same indicator in 1991 (17,3%)<sup>7</sup>.

Share of agricultural population within the total active population represents more precise indicator by which could be determined the importance of agriculture for the national economy. For the years development of non-agricultural activities was taking place mainly at the expense of manpower from agriculture. In line with that higher level of agricultural development is conditioned by the relative decrease of the share of active population in agriculture.

From the economic aspect, maybe the best indicator that describes the importance of agriculture within the national economy is the share of agriculture in creation of net national product. Parallel with the development of economy comes to decrease of the share of agriculture in creation of net national product, while in same time comes to increase of non-agricultural activities.

As like in previous cases, by the last indicator, participation of agriculture in creation of foreign trade balance, it could be concluded that share of agriculture in total export decreases with the development of economy. Within the economies that are at lower level of development export of agro-food products has a dominant role in the creation of total export value.

Share of agricultural population in observed period was expressed by rapid process of deagrarization. Share was reduced from 66,0% to 10,9%. The largest fall was within the period 1971-1981, when share of agricultural population in total population was almost halved, Table 1.

**Table 1.** Share of agricultural and active agricultural population (in%)

Year	Share of agricultural within the total population (in %)	Share of active agricultural population in total agricultural population (in %)	Activity rate of agricultural population
1953	66,0	73,2	56,0
1961	55,0	62,0	55,4
1971	42,7	53,3	61,3
1981	25,5	35,0	51,5
1991	17,3	22,8	67,7
2002	10,9	15,6	69,3

Source: Population census, 1953-2002.

According to census in 2002, percent of agricultural population in Serbia was fallen to 10,9% of total population. Mentioned percent of agricultural population is still high in compare to developed countries. Similar trends are if is observed decrease of active

7 Stanovništvo i domaćinstva Srbije prema popisu 2002, Republički zavod za statistiku Srbije, Beograd 2006, str. 243.

agricultural population in total agricultural population, from 73,2% in 1953 to 15,6% in 2002. The largest decrease was also happened within the period 1971-1981 (21,6 %) .

In last ten years, share of agriculture in net national product (NNP) creation was relatively unchanged (Table 2). The lowest share of agriculture was recorded in 2010 (7,9%), while its maximum was reached in 2000 (19,9%). Within the observed period (1997-2010) indicator had moderate oscillations and unfortunately under the affects of global economic crisis in last two years it had again negative trend.

**Table 2.** The share of agriculture in net national product creation (in %)

Year	1997	1998	1999	2000	2001	2002	2003
Share of agriculture in NNP (in %)	16,0	15,3	18,8	19,9	19,8	15,0	13,3
Year	2004	2005	2006	2007	2008	2009	2010
Share of agriculture in NNP (in %)	13,9	12,1	11,2	8,2	9,0	9,3	7,9

Source: Bilten no. 523, Poljoprivreda, 2009, Republički zavod za statistiku.

From the economic point of view the best indicator that describes importance of agriculture within the economy is certainly share of agriculture in creating the NNP. It is understandable that economic development leads to decrease of share of agriculture in NNP, while the share of non-agricultural activities is increasing. In other words with economic development decreases the importance of agriculture in the creation of national net product<sup>8</sup>.

Observing the importance of agriculture according to its participation in creation of foreign trade balance, it could be noticed its positive contribution within the total foreign trade. With the exception of 2001 in all years of the observed period foreign trade balance of agriculture was positive (surplus). On the other hand, according to natural potentials and production predispositions, agriculture had (Table 3) relatively low share in the value of total Serbian export.

**Table 3.** Share of agriculture in the value of total national export and import (in %)

Year	Export	Import
2001	2,6	3,8
2002	6,3	2,8
2003	3,8	2,5
2004	3,3	2,6
2005	4,3	2,2
2006	4,8	2,0
2007	4,0	2,0
2008	3,5	1,7
2009	6,4	2,2

Source: Bilten 523. Poljoprivreda 2009. Izdanje Republičkog zavoda za statistiku.

8 Popović, R. (2001): Ekonomski položaj poljoprivrede u Jugoslaviji, Anali ekonomskog fakulteta u Subotici, br. 6, Subotica, p. 222.

Additionally, it has to be noted that global economic crisis significantly affected the size of budget expenditures directed to the Ministry of Agriculture. Although the agriculture has great importance for national economy, in next table can be seen that official budgetary support to agriculture unfortunately was sorely restricted (it was in range of around 3,5% of total budget expenditures)<sup>9</sup>.

**Table 4.** Share of agricultural budget in total budget of Republic of Serbia (in mil RSD)

Year	Total budget expenditures	Agricultural budget (I+II)	Assets from budget (I)	Expenditures from additional incomes (II)	Share of agricultural within total budget (in %)
2009.	748.652,9	25.616,4	20.502,7	5.113,7	3,42
2010.	762.971,0	25.621,8	19.907,9	5.713,9	3,36
2011.	846.919,9	32.593,8	22.033,8	10.560,0	3,85
2012.	940.157,5	49.485,5	22.858,4	26.627,1	5,26

Source: Law on budget of Republic of Serbia for certain years

Mentioned could lead to conclusion that Serbian agriculture in observed period realized its primary function to provide enough food for its own population and to export certain volume of surpluses.

### Transition period and economic position of agriculture

The official policy of the countries in transition has evolved. It was reoriented again to market-based agriculture concentrated on private land ownership. Organization of agricultural production is based on the individual producer, while cooperative farms started to lose its importance<sup>10</sup>. With 1990<sup>th</sup>, entire region of Eastern and Southeastern Europe began with transformation of their economies from governmental (planning) to market economy. All former socialist countries within the mentioned regions accepted almost identical directives for reform of their economic systems (sector of agriculture was assumed), identified in:

1. liberalization of prices and market;
2. privatization of land ownership and transformation of economic structures;
3. de-monopolization and privatization of systems for food production and trade;
4. establishment of functional system with developed institutional structure, as well as governmental system adapted to market economy<sup>11</sup>.

9 Dynamic development of agriculture can be expected only in situation if agricultural budget is minimally around the level of participation of agriculture within total GDP.

10 Lekman, Z., Csaki, C., Feder, G. (2004): Agriculture in transition land policies and evolving farm structures in post-Soviet countries, Lexington Books, Lanham, p. 61.

11 Csaki, C., Nash, J. (1998): The agrarian economies of Central and Eastern Europe and the Commonwealth of Independent State, Situation and perspectives 1997, World Bank discussion paper no. 387, Washington, p. 10.

After a decade of reforms, within the period 2001-2003, countries of Central and Eastern Europe were achieved positive growth rates of real GDP (average growth rate of GDP was 4,4%), parallel with establishment of price stability on their markets<sup>12</sup>.

Accession of twelve newcomers into the EU has led to doubling of available agricultural labour and surfaces under arable land within the new community. Although the share of agricultural population and participation of agriculture in total GDP, with the fall of socialism, were decreased in transition countries, they were still higher than achieved indicators in EU countries<sup>13</sup>.

In Serbia transition period also began with fall of the Berlin Wall in late eighties of XX century. Interesting fact is that countries of former Yugoslavia at the beginning of transition period were within the group of countries that were best prepared for transition processes (Yugoslavia was one of the few socialist countries in which functioned system of market economy, where the major volume of foreign exchange was with the Western Europe countries)<sup>14</sup>. It was initiated with many external constraints, before all economic sanctions of world community (UN) and physical destruction of economy by bombing in 1999<sup>15</sup>. These circumstances have affected stopping of transition process flow on several occasions<sup>16</sup>. In other words, estimates are that real beginning of transition process in Serbia, in compare to other countries in transition, was delayed for nearly a decade. This fact puts Serbia to the bottom of the list of transition countries (clear example of country with late transition).

Based on above mentioned, it could be concluded that transition greatly affects on economic position of agriculture in Serbia. The transition of Serbian agriculture created certain negative effects, but on the other hand it provides clearer picture of national agriculture, thereby creating the conditions for new investments. Additionally, actual situation of Serbian agriculture in final stage of transition can be presented by next SWOT matrix<sup>17</sup>.

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12 European Central Bank, National Statistics, DIW Berlin calculations, 2004.

13 Cvijanović, D., Simonović, Z., Mihailović, B. (2011): Težišta i ciljevi novijih reformi agrarne i regionalne politike Evropske unije, *Ekonomika poljoprivrede*, p. 359-370.

14 Stevanović, S., Đorović, M., Milanović, M. (2009): Reciprocity between level of development of economy and results of transition, *Ekonomika poljoprivrede*, p. 551-564.

15 Mihailović, B., Simonović, Z., Cvijanović, D. (2009): Uzroci, karakteristike i ciljevi tranzicije u Srbiji, *Ekonomika*, p. 151-157.

16 Simonović, D., Simonović, Z. (2005): Problemi tranzicije poljoprivrede i procesi integracije u Evropi, *Međunarodni naučni skup - Procesi integracije u Evropi*, Ekonomski fakultet u Nišu, *Ekonomske teme* no. 1-2, p. 333 – 339.

17 SWOT analysis represents method that provides an opportunity for establishment of balance between internal abilities and external possibilities of certain branch of economy, enterprise, or territorial unit. In represented case, concept estimated how much agriculture as part of economy is competitively capable to use possibilities to stop or redirect threats, or in negative scenario to engage available resources and assets to overcome the threats.

**Table 5.** SWOT matrix of Serbian agriculture

<b>INTERNAL FACTORS</b>	
<b>STRENGTHS (advantages)</b>	<b>WEAKNESSES (disadvantages)</b>
<ul style="list-style-type: none"> <li>- Favorable geographical position, climatic conditions and rich hydrography as preconditions for agriculture;</li> <li>- Natural resources (mineral-raw complex, agricultural land, thermo-mineral water, forests, forests fruits and medicinal plants, richness in biodiversity, etc.);</li> <li>- Existence of unpolluted environment as good capacities for organic food production;</li> <li>- Tradition in production of autochthonous species and products (honey, cheese, schnapps, meat and meat products, etc.);</li> <li>- Supply infrastructure (cooperative farms, repurchase centres, production and processing facilities, etc.);</li> <li>- Certain projects in field of cross-border cooperation, development of agriculture and rural tourism;</li> <li>- Fast access to Pan-European Corridors X, Vc and partly IV, as well as nearness of Pan-European Corridor VII (Danube River);</li> <li>- Free trade agreements with countries in Southeast Europe (CEFTA), Russia, and great preferences in trade with EU and USA ListenRead phonetically, etc.;</li> <li>- Tradition and commitment to agriculture and experience in processing industry;</li> <li>- Certain level of agricultural products/food price competitiveness;</li> <li>- Surplus in foreign trade balance of agriculture.</li> </ul>	<ul style="list-style-type: none"> <li>- Large share of extensive in total agricultural production;</li> <li>- Low share of livestock breeding;</li> <li>- Un-established ecological profile of soil;</li> <li>- Unfavorable education structure of rural population and lack of motivation at young population to continue with agriculture;</li> <li>- Insufficiently developed physical, social and communal infrastructure in rural areas;</li> <li>- Obsolete mechanization, atomized estates, underdeveloped irrigation systems and insufficient usage of agro-technique;</li> <li>- Insufficiently developed SME's sector, as well as presence of inactivity in actual associations of entrepreneurs, or shortage of new professional associations;</li> <li>- Disorganization of agriculturalists and lack of agro-clusters;</li> <li>- Insecure channels for realization of agricultural-food products (lack of contracted production, disorganized repurchase, high influence of black market, monopolized market, etc.);</li> <li>- General lack of adequate quality certificates and insufficient integration of innovative technologies among agricultural producers;</li> <li>- Small agricultural budget;</li> <li>- Unfavorable investment activity in maintaining of existing and building new physical and social infrastructural elements in rural areas.</li> </ul>

<b>EXTERNAL FACTORS</b>	
<b>OPPORTUNITIES (possibilities)</b>	<b>THREATS (risks)</b>
<ul style="list-style-type: none"> <li>- Choice of multifunctional agriculture and sustainable rural development;</li> <li>- Utilization of demand and offer trend of organic food, medicinal herbs and forest fruits, as well as for branded and products with geographical indications;</li> <li>- Branding of agricultural products by establishing of agri-business centres;</li> <li>- Support to use of alternative/ecological resources of energy;</li> <li>- Potentials for development of spa, rural, excursion, eco, hunting and fishing tourism;</li> <li>- Use of state (ministry, NIP, funds for organization of public works, etc.) and other funds (pre-accession funds of EU/ IPA, international projects and programs, etc.);</li> <li>- Arrival of foreign investors and cooperation with potential returnees from abroad;</li> <li>- Membership in the WTO.</li> </ul>	<ul style="list-style-type: none"> <li>- Migration of population and low rate of natural increase;</li> <li>- Destruction of natural resources, increase of pollution of environment and strong dependence of weather conditions;</li> <li>- Increase of demand for GMO food and appearance of modified animal and plant diseases;</li> <li>- Insufficiently developed market of agricultural products;</li> <li>- Unstable political-economic situation and unbalanced regional development;</li> <li>- Eventual stopping of accession process to EU;</li> <li>- Underdeveloped financial and agricultural credit markets;</li> <li>- Sophisticated foreign demand and high requirements in terms of food safety and quality standards.</li> </ul>

### **Conclusion**

Besides time analysis, for gaining of more realistic picture of economic position of agriculture within the transition process, it is also necessary to include spatial analysis. Therefore, in comparison were involved countries of Eastern and Central Europe that have gone through this process. Comparison was made according to data from 2004.

Based on presented data it can be concluded that importance of agriculture in economic system of Serbia is significantly higher than in systems of the countries that exit the transition process (these countries are now full members of EU). According to observed criteria (Table 6) may be noticed that after Poland Serbia has the highest share of active agriculturalists within the total labour fund.



**Table 6.** Indicators of agriculture in some transition countries (in 2004)

Country	Agricultural land (000 ha)	Active farmers (000)	Share of active farmers in total labor (%)	Share of agriculture in GDP (%)	Share of agriculture in foreign trade (%)	
					Export	Import
Czech Republic	4.273	427	7,5	3,3	3,6	5,4
Estonia	698	76	10,5	4,3	8,4	11,3
Hungary	5.867	454	9,6	3,8	7,6	3,6
Latvia	2.474	139	11,0	4,4	12,1	21,0
Lithuania	3.487	191	10,8	5,9	10,6	8,0
Poland	18.345	4.073	20,2	5,1	7,8	5,8
Slovakia	2.433	249	8,3	3,6	3,2	5,3
Slovenia	505	15	1,5	2,7	3,7	6,4
Serbia	5.734	539	15,6	11,4	3,3	2,6

Source: [www.faostat.fao.org](http://www.faostat.fao.org) [www.earthtrends.wri.org](http://www.earthtrends.wri.org)

If it is observed the share of agriculture in GDP, Serbia gains the highest value of this indicator (11,4%), or share of agriculture in national GDP creation is much more expressed than in other countries. Participation of agriculture in foreign trade balance (especially export) is relatively low, although the constant presence of surplus. Finally, next can be concluded - National agriculture still exists despite the lower level of economic development.

On the other hand, the economic position of agriculture in Serbia is worse than in the observed countries. Nevertheless, according to presented SWOT matrix it can be noticed that agriculture in Serbia has great opportunities for further development. State has to be the one that will through their measures (subsidies, tax reliefs and other financial supports) accelerate the development of agriculture.

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## EKONOMSKI POLOŽAJ POLJOPRIVREDE SRBIJE U PERIODU TRANZICIJE

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### Rezime

*Radom autori žele da pokažu kakav je ekonomski položaj poljoprivrede u Srbije u periodu tranzicije. Poljoprivreda predstavlja osnovnu i polaznu bazu privrednog razvoja. Ekonomski položaj poljoprivrede je posmatran kroz četiri pokazatelja pomoću kojih se određuju značaj poljoprivrede u privredi. To su: udeo poljoprivrednog stanovništva u ukupnom stanovništvu, udeo poljoprivrednog stanovništva u ukupnom aktivnom stanovništvu, učešće poljoprivrede u stvaranju nacionalnog dohodka i učešće poljoprivrede u stvaranju spoljno-trgovinskog bilansa. U nastavku autori daju kratak osvrt na proces tranzicije u Srbiji i njen uticaj na ekonomski položaj poljoprivrede.*

**Ključne reči:** *ekonomski položaj poljoprivrede, poljoprivreda Srbije, tranzicija.*

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