IMPACTS OF THE GLOBAL FINANCIAL AND ECONOMIC CRISIS ON THE AGRO-FOOD INDUSTRY AND RURAL LIVELIHOODS IN SERBIA

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Abstract: Sixty-five per cent of the Serbian land area is agricultural and 55% of the population is rural. Agriculture share of GDP is more than 10% and about 47% of the rural labour force deals with agriculture. The aim of this work is to analyse the impacts of the global financial and economic crisis on the Serbian agro-food sector and rural communities. Measures introduced, mainly by public institutions, for relieving the consequences of the crisis are presented and discussed. Easily accessible yet high quality data from the central Office of Statistics in Serbia and specialized literature have been used. Impacts have been assessed by analyzing and discussing the trends of many socio-economic indicators. The crisis has had general impacts on the Serbian economy (low GDP growth, unemployment increase, price volatility, purchasing power decrease, etc.). Due to the crisis growth in agricultural production has been very low (0.1% in 2009). Agro-food exports decreased dramatically in 2008. About 9000 agricultural jobs were lost in 2008 and 2009. Reduced exports and lower domestic demand impacted negatively on agricultural commodity prices and agricultural household incomes. Access to credit became more difficult especially for small producers. However, agriculture is still a very important safety net. Agricultural employment share has increased both for men and women. The importance of agriculture is even higher if we consider the "grey agricultural economy". To mitigate the crisis effects, the Government provided subsidies to rural people and will adopt the National Strategic Plan and Programme for Rural Development. Nevertheless, public institutions - in partnership with private, civil society and international organisations - should improve rural producers' access to market information and credits and foster investments in rural areas including non-agricultural ones and those aiming at improving physical capital.

Keywords: Crisis; Impacts; Rural economy; Serbia

Introduction

The agro-food sector plays an important socio-economic role in Serbia. According to Eurostat data, farmland comprises 65% of the total surface area of Serbia [European Commission, 2011]. The share of agriculture in gross domestic product (GDP) was almost 20%, during the period 2000-2005 [EC, 2011], and is currently more than 10%. Agriculture and the food and beverage processing industry represent the largest single sector of the Serbian economy [Hopic, 2009]. Moreover, according to the OECD definition, rural areas in Serbia cover 85% of the territory where 55% of the population live [Bogdanov, 2007]. Agriculture and agro-processing employ a large share of the labour force [Arcotrass et al., 2006]. For all these reasons, it is very likely that the world economic crisis has had major consequences for Serbian agriculture in particular and the rural economy in general.

Recent data show the crisis beginning in late 2007 and accelerating in 2008 and 2009 [USAID, 2009]. Most analysts link the beginnings of the crisis to a great real estate boom in the United States, where the crisis was created at the centre of the world's financial system [Stamatović et al., 2010]. While the crisis started off as financial, it has spilled over to the production sectors and real economy [Živkov et al., 2009]. Even if the crisis started in the USA, it has had impacts not only on the United States' economy, including agriculture, [e.g. Shane et al., 2009] but also on other countries such as Serbia [Stamatović et al., 2010].

Živkov et al. [2009] pointed out that the crisis can affect Serbia's agriculture, as well as the rest of the economy, in two main ways: reduced demand and reduced credit activity. According to Stamatović et al. [2010], main problems are reflected in reduced demand and difficult access to export and capital markets.

Despite a period of steady growth with an annual average rate of 6% between 2005 and 2008 [*EC*, 2010; *Matković et al.*, 2010], the first signs of the crisis appeared in the third quarter of 2008 [*Matković et al.*, 2010]. In 2009, Serbia's GDP shrank by 3% in real terms [*EC*, 2010]. Moreover, by end-July 2010, gross external debt had risen to \notin 23.3 billion [*EC*, 2010]. At the end of December 2009, the consumer price index (CPI) rate of inflation stood at 6.6% bringing the yearly average inflation rate to 8.1% [*EC*, 2010].

Serbia was not prepared for the crisis as the private sector is small; the public sector is too large and mostly redistributive; and salaries and pensions are excessively high . The result is an economy with low productivity, low savings and low exports [*International Monetary Fund*, 2009]. Therefore, Serbia has faced a serious fiscal problem [*Grozdanić*, 2011] and its macroeconomic policy has been anchored by an economic programme supported by the International Monetary Fund (IMF) since early 2009 [*EC*, 2010].

The aim of this paper is to analyse the impacts of the global financial and economic crisis on the agro-food sector and rural economy in Serbia. Measures that have been introduced, mainly by public institutions for relieving the consequences of the global economic crisis on the rural economy and population have been presented and discussed. Some other measures have been proposed. Moreover, some coping strategies adopted by households, especially in rural areas, have been presented.

Materials and methods

This paper is based mainly on secondary data from specialised literature using different sources: Statistical data from the Statistical Office of the Republic of Serbia (SORS) as well as the Government of the Republic of Serbia; Ministry of Agriculture, Forestry and Water Management (MAFWM); Ministry of Economic Affairs and Regional Development; the World Bank (WB), the IMF, the European Commission (EC), etc.; and existing national and international reports and publications.

Easily accessible yet objectively verifiable and high quality data have been used. This multifaceted research is based on a set of SMART (Specific, Measurable, Achievable, Relevant and Time-bound) indicators. Impacts have been assessed by analyzing and discussing the trends of different indicators dealing with many relevant economic, social and environmental issues such as: the labour force market (rural employment/unemployment), inflation, agricultural exports/ imports, domestic consumption, prices of agricultural commodities, agricultural production, access to credits, agricultural budget, women and gender, migration, poverty, land use and allocation, agriculture intensification (e.g. use of agricultural inputs and machines), organic agriculture, agro-food products certification, investments in agriculture and the rural economy, rural wages, etc. Impacts have been assessed by identifying trends in selected indicators from the

pre-crisis period to the most recent date, depending on data availability.

The main problem faced during the preparation of this paper was that there are a very few publications and articles covering the issue of the effects of the crisis on Serbia in general and Serbian agriculture and rural economy in particular. Furthermore, another limitation - that was also faced by the authors that tried to analyse the impacts of the crisis on Serbian agriculture [e.g. Živkov et al., 2009] - was that when analyzing a global crisis it is not that easy to distinguish between global impacts and effects on some specific countries. It is even more difficult to determine the impacts of the crisis on individual sectors (e.g. agriculture). Analysing the crisis impacts on rural areas is much more difficult since it is hard to find data specific to rural areas especially those dealing with the non-farm and off-farm activities. Incongruence and inconsistency of some statistics and data was another problem faced during the preparation of this article.

Results and discussion

Many of the impacts generated by the global crisis on agriculture in Serbia are similar to those reported in other countries [*e.g.* USA, *Shane et al.*, 2009]. However, there are many peculiarities and specific dynamics. Certain crisis consequences have a short-term effect, but long-term changes will certainly be felt. The short term effects of the crisis on the Serbian agriculture are primary manifested as: (i) decreased production value; (ii) reduced income of agricultural producers, and (iii) changes in the functioning of market chains [$\check{Z}ivkov \ et \ al.$, 2009]. It was estimated that the agricultural production fell by 1.7% in 2010 [*Grozdanić*, 2011].

The first signs of crisis in the labour market were already apparent towards the end of 2008. Employment decreased slightly in October 2008, but by April 2009 there was a large decrease in employment of 5.8%. The greatest reduction in employment was in construction and catering. The decrease in employment in agriculture was also high (-9.2% during the period October 2008 - April 2009) [*Matkovi et al.*, 2010]. According to the OSRS, about 9,000 agricultural jobs were lost in 2008 and 2009.

The employment of women has decreased slightly more than the employment of men. By the second semester of 2008, the crisis almost equally hit employment in both urban and non-urban (rural and mixed) areas. Some regional differences were also evident: the most unfavourable trend in employment was present in Central Serbia (-10%), then Vojvodina (-6.8%), and Belgrade (+1.2%) [*Matković et al.*, 2010].

Unemployment grew significantly in October 2008 by 5.5% and again in April 2009 by 6.9%, reaching 488,600 persons. The unemployment rate reached 14.0% in October 2008. Unemployment grew similarly in all three large regions of Serbia. Urban areas have been more affected

[*Matković et al.*, 2010]. However, it should be said that unemployment in rural areas was recorded at high levels (21%) even before the crisis [*Hopic*, 2009]. The unemployment rate in 2009 increased to 16.1%. According to the national labour force survey of April 2010, the unemployment rate soared to 19.2% [*EC*, 2010]. As for agriculture, 2,054 people employed in the agricultural sector lost their jobs in the first seven months of 2009 [*Živkov et al.*, 2009].

Turbulence in international financial markets affects Serbian producers and exporters in two main ways: decreased buyer financing and tightened credit for producers [USAID, 2009]. The resultant contraction of credit has stemmed from the contraction of loan portfolios and an increase in risk aversion [Živkov et al., 2009]. The withdrawal of money from Central and Eastern Europe (CEE) has been especially severe. In fact, net inflows to CEE of \$217 billion in 2007 reversed sharply to a net outflow of \$27 billion in 2009 [USAID, 2009]. The withdrawal of bank financing means less credit and poorer terms for Serbian producers especially smallholders. Banks reduced their credit activity and agricultural producers were less interested in taking loans. When compared to August 2008 data, a drop in agricultural loans was evident, amounting to 7.5% of the total number of loans, and a 4.2% increase of the total sum of the written-off debt. There was a significant drop in agricultural credit activity in many banks (e.g. Komercijalna Banka, ProCredit bank, etc.). The fall in credit activity in agriculture was sharper than in other economic sectors. Agricultural loans, generally risky, were on the top of the reduction list [Živkov et al., 2009].

Growth in real wages was interrupted during 2009 [*Matković et al.*, 2010]. 2009 saw significant wage moderation with nominal wages increasing by only 6.9% on average (17.9% in 2008). Moreover, real wage growth slowed down to only 0.3% per annum (19.5% in 2007). While economic activity has been picking up gradually, the situation on the labour market worsened in 2010. Wage growth has remained broadly constrained during 2010 [*EC*, 2010]. Differences in wages between men and women decreased during the crisis period. Wages in urban and non-urban (rural and mixed) areas were equally affected, and the differences in wages between regions decreased [*Matković et al.*, 2010].

According to the Statistical Office data, the food industry saw the largest drop in salaries of 13.6% (the average for all sectors was 8.4%) between August 2008 and March 2009. Salaries in agriculture during the same period fell by 6.3%. When it comes to salaries and employment, the primary sector is among the industries most affected by the global economic crisis, since the food industry saw the largest drop in salaries, while agriculture and fishery saw the highest reduction in the number of jobs [*Živkov et al.*, 2009]. The ratio between average wages in urban and non-urban communities is certainly in favour of employees in urban areas [*Matković et al.*, 2010].

Since 2001, Serbian agriculture has recorded a constant rise in exports (average rate of 26% in the period 2001-2007)

generating a constant foreign trade surplus. However, in 2008 imports grew faster than exports. During the first quarter of 2009, total agricultural exports decreased by 22.59% when compared to the same period of 2008. The drastic drop in the unit value of exports is primarily the result of the drop in exports of grains and plant products [$\check{Z}ivkov \ et \ al.$, 2009]. According to the OSRS, agricultural production growth has been very low (0.1% in 2009). The trade balance in agriculture did not decline as far as other sectors when comparing January to March 2009 with the same period in 2008. Agriculture saw a more rapid decrease in imports than in exports [$\check{Z}ivkov \ et \ al.$, 2009].

Decreased global demand for export commodities reduced exports, which combined with a lower domestic demand lowered agricultural commodity prices (deflation), consequently, agricultural households' incomes [$\check{Z}ivkov \ et \ al.$, 2009]. The level of consumption has declined considerably in Serbia, as it has elsewhere. The average monthly consumption per equivalent adult has declined by 4.5% between the last quarter of 2008 and the first half of 2009 [*Matković et al.*, 2010]. One of the reasons for the reduction in total consumption is the decrease in salaries [$\check{Z}ivkov \ et \ al.$, 2009].

Underemployment is another structural problem in Serbian rural areas [*Hopic*, 2009]. Nevertheless, in the semester October 2008 – April 2009, the least real wage drop was observed in the industry and agriculture. Looking across occupations, the only increase of real wages in the crisis period, although minimal, was recorded in agriculture. However, wages in agriculture are below average [*Matković et al.*, 2010].

At times of crisis, when jobs are exceptionally threatened and wages decline, the social status of the vulnerable categories are comparatively worse [Matković et al., 2010]. Women and in particular disabled women, single mothers, older women and those living in rural areas still continue to face discrimination in the labour market [EC, 2010]. During the crisis, wages increase for certain groups and they move to higher quintiles per wage (the "winners"), while certain categories experience a drop in wages and move to lower quintiles (the "losers"). Wage sensitivity to crisis is measured by the percentage of employed who change quintiles per wage. The sensitivity of women's wages (10.2%) to crisis is somewhat lower than the average (11.4%), which includes women in non-urban areas and those working in agriculture. In general, explicit "winners" during the crisis included skilled workers in agriculture and fishing [Matković et al., 2010]. The greatest losers in any crisis are most often elderly households with insufficient capacities for competing on the market. Similarly, the ones doing business in areas with less favourable conditions for agricultural production are additionally threatened [Živkov et al., 2009].

Agriculture plays an important socio-economic role, especially in crisis periods, and is considered to be a safety net by many households. According to the Statistical Office data, April 2010, agricultural employment share increased during the crisis. There is a rough gender balance regarding agricultural employment as of April 2010 (23.9% of men and 21.3% of women employed in agriculture). Almost all active old people deal with agriculture. Real GDP growth slowed down in 2010, in all economic sectors except agriculture. Nowadays, agriculture and the rural economy, play an important role in the overall economic development of Serbia and in alleviating the effects of the crisis [Grozdanić, 2011]. The importance of agriculture is even higher if we consider the "grey/informal agricultural economy", not accounted for in official statistics, as many people that lose jobs start some agriculture realted income-generating activities. According to the Labour Force Survey (LFS), a sizeable share of the population is employed in the informal economy, especially agriculture, construction and trade [Matković et al., 2010]. Due to the crisis, a certain number of people enter the agriculture sector, especially those who have lost the possibility of doing business in other sectors. Engagement in agriculture offers, primarily, food security, which is important for jobless people [Živkov et al., 2009].

The crisis can have certain long term consequences whose intensity will depend primarily on the crisis duration and the intensity of its effects on agriculture and the other sectors [$Živkov \ et \ al.$, 2009]. These consequences will primarily influence the following processes [$Živkov \ et \ al.$, 2009]: abandonment of the agricultural sector; migration from rural areas; decrease of investment in machinery; falling asset price income; slowing down of reforms and EU integration processes in agriculture; slowing down of the introduction of new foreign direct investments and privatization; slowing down of the development of high value products (organic, GI, etc.); and an increase in protectionism.

The crisis period can certainly be described as a time of deteriorating living standards and increasing poverty in Serbia. The highest poverty rate of employed persons is found amongst individual agricultural producers [Matkovićet al., 2010]. Rural poverty is high among farmers in more remote areas, with small farms and/or those with land exhibiting low fertility [Hopic, 2009]. In line with labour market trends, the headcount poverty index reached 7.4% (about 550,000 people) in the first half of 2009 and the poverty gap index increased to 1.6%. In the first half of 2009, the poverty incidence in Central Serbia was higher than in Belgrade and Vojvodina [Matković et al., 2010]. The impacts of the economic crisis were particularly felt in Central and South Serbia [USAID, 2009] that recorded even before the crisis a higher level of rural poverty [Hopic, 2009]. A significant poverty increase was evident in non-urban areas where the poverty risk was two times higher (10.2%). Although increasing poverty hit both genders, it is somewhat surprising that households with male heads experienced a higher poverty rate (7.8%) compared to women-headed households (6.1%) [Matković et al., 2010].

As far as coping strategies are concerned, agricultural producers need to find their own strategy to alleviate the effects of the crisis. Many successful individual strategies may lead to a faster recovery for the country as a whole [Živkov et al., 2009]. The primary coping mechanism

adopted by Serbian households during the crisis was to postpone or cut down on expenditures. Other frequent coping strategies included the deferral of investments in the household's farming activity or the household's business, as well as the reduced requests for loans from other persons and institutions. Moreover, focus group findings [*Ipsos Strategic Marketing*, 2009] revealed that the vulnerable women in rural and mixed areas coped somewhat better than men in the crisis. In the absence of farming activities, women were capable of finding additional cleaning or home assistance jobs. For the poorest, qualitative studies suggest that the most important coping strategy is to gain work in "grey economy" [*Matković et al.*, 2010].

However, in addition to individual strategies, there also has to be a Government strategy to send out clear signals to the agricultural producers and other actors in the value chain. One of the main characteristics of agricultural policy in the period before the crisis was its unpredictability; frequent changes and the absence of a clear concept. Moreover, the program for 2009 was intended to alleviate the crisis effects but it is likely to have had the opposite effect [Živkov et al., 2009]. As a matter of fact, measures and actions taken at the beginning of the crisis period were weak and sometimes contradictory. They included [Živkov et al., 2009]: a reduction of almost 50% in the agrarian budget compared to 2008; suspension of support to agricultural producers not paying their pension insurance contributions; suspension of support to non-commercial holdings; an increase in the amount of money to be paid per hectare (ha), but introduction of stricter requirements for getting these funds; introduction of credit lines funded by the agrarian and municipal budgets; a further reduction in investment and structural support; and switching of funds from the operating funds for credit market development to one-time subsidies per ha.

To mitigate the effects of the crisis, the Government of Serbia adopted modest measures aiming primarily at ensuring financial stability, stimulating the real economy and fostering employment [Government of the Republic of Serbia, 2009]. In December 2008, the Serbian government adopted a document entitled "The economic crisis and its effect on Serbia", which was rather a list of the measures the Government was prepared to take. This document was rapidly superseded since it was based on an optimistic scenario. The Government soon changed its position, opting for budget rebalancing and an agreement with the IMF [Živkov et al., 2009]. Then, the Government of Serbia adopted the "Program of Measures for Neutralizing Negative Effects of the Global Economic Crisis" for 2010, which represents the continuation of 2009 measures aiming at preserving and/or creating new jobs as well as achieving economic growth [Grozdanić, 2011].

With already excessive public spending and a considerable budget deficit there were no financial resources and/or wide range of real options for large scale crisis intervention policies in Serbia. However, a crisis is always a good moment to reconsider all options [*Matković et al.*, 2010]. Public works programs were an important component of the overall safety net package during the crisis in some countries [*World Bank*, 2010]. It is possible to consider expanding the existing public works budget in Serbia as well as targeting the poor in the population in the areas mostly affected by crises. In line with the results on poverty and labour market analyses, Central Serbia – without Belgrade –and the rural and mixed areas are probably those that should be given priority. The same principle of additional targeting could be applied to other active labour market programs (*e.g.* subsidies and cheap loans) [*Matković et al.*, 2010].

Many measures have not been designed specifically to mitigate the effects of the crisis but they can nevertheless have an effect on the rural economy. The government adopted a Decree on the use of subsidies for rural development through support measures for the improvement of economic activities of rural households in 2009. The Directorate for Agrarian Payments, which is planned to serve as a future Instrument for Pre-Accession Assistance for Rural Development (IPARD) agency, has been established. However, implementation of the law on agriculture and rural development remains to be completed. The national strategy for agriculture and rural development, the national programme for agriculture and the national programme for rural development have not yet been adopted. An interministerial mechanism for coordinating rural development policies has yet to be established [EC, 2010].

Živkov et al. [2009] proposed many measures and recommendations to alleviate the effects of the crisis on Serbian agro-food sector and rural economy that can be summarised as follows:

- To improve information dissemination in order to raise awareness of the severity of the crisis and its potential effects, and to inform agricultural producers of potential strategies aimed at alleviating the consequences of the crisis. It is necessary to provide information on markets and trade (input and equipment prices; supply and demand; etc.); credit markets; effects of the crisis and strategies to alleviate them, etc.
- To provide predictability in policy making and markets by introducing a recognizable policy for a longer term period and ensuring market stability.
- To provide budgetary support for agriculture.
- To stimulate credit activity and the banking sector: loans are more necessary now than ever before. It is necessary to provide incentives for credits.
- To provide support to farmers ready to take on investment loans or to invest their own funds.
- To provide support for the vulnerable especially in rural and marginal areas.
- To promote cooperation with donors and give priority to building capacities for faster and better utilization of EU funds earmarked for agriculture and rural development (IPARD).

In times of crisis it is particularly necessary to make best use of funds through promoting cooperation with donors and developing joint programs to address the problems generated by the crisis. A particular opportunity is the IPARD funds, the 5th component of IPA funds. However, none of the eligibility requirements are currently met. These funds would be a significant contribution to the development of agriculture and overcoming the crisis. Therefore, it is necessary to have and/or to strengthen administrative capacities [Živkov et al., 2009]. Serbia's national IPA allocation for 2010 totalled €197.9 million. Serbia participates in the IPA multi-beneficiary programmes included in an IPA crisis response package developed in 2008 and fully operational in 2010. The first €0 million instalment under the IPA 2009 budget support initiative was disbursed in December 2009. The purpose of the budgetary support is to ease the social and economic consequences of the current economic crisis in Serbia and help pursue the pace of EU integration related reforms [EC, 2010]. In fact, the global economic crisis caused a slowdown in the implementation of economic reforms in Serbia [Grozdanić, 2011].

In times of financial crisis, when agricultural producers find access to funds for investment more difficult, budget funds for agriculture become more important. However, in Serbia, in 2009 budget expenditures for agriculture were reduced by 42.23% when compared to 2008. The agrarian budget was cut in the 2009 budget to a much greater extent than the budgets for other sectors. These data are dramatic since the agricultural budget is, according to all parameters, one of the smallest in Europe and it has constantly been subject to cuts in the last few years, while the overall budget increased so that the 5% agricultural budget share in 2004 and 2006 fell to 2.2% in 2009 [*Živkov et al.*, 2009].

Joining the EU club and family is also one of the proposed anti-crisis measures. *Stamatović et al.* [2010], stated that in a situation where it is necessary to absorb the effects of the global economic crisis, it is of crucial importance for Serbia to approach the EU and fulfil the criteria for accession. Agriculture is a sector where investments are necessary in order to make adequate preparations and reforms for the forthcoming EU accession. However, because of the crisis, the number of employees in the Ministry of Agriculture has been reduced by 10% and the agrarian budget by almost 50%, which can significantly slow down the reforms needed. Meanwhile, there is also a slowing down of reforms and investment (*e.g.* standards and certification) at the level of individual agricultural holdings [Živkov et al., 2009].

According to *Milovanovic* [2010], a good model for overcoming the crisis in Serbia is agriculture strategic development, especially the development of safe and high quality agro-food products. However, since the start of the global economic crisis, a drop in sales of organic products, products with geographic attributions and other high-value products has been recorded. These trends do not work to Serbia's benefit in the long term since these products represent an opportunity for the country to increase its agricultural competiveness and to differentiate and diversify its agro-food products supply [Živkov et al., 2009].

Conclusions

All in all, the Serbian economy has been affected by the crisis more than most other Eurozone or OECD countries. Moreover, agriculture has suffered the effects of the global economic crisis more than other sectors in relation to specific issues (e.g. employment, salaries, credit activities). However, agriculture has played an important socio-economic role during the crisis and is still a relevant element of the coping strategies of many rural households. Under the impact of the economic crisis labour market conditions deteriorated as unemployment approached 20% and salaries remained almost unchanged in real terms. However, macroeconomic stability was broadly preserved against this backdrop of global crisis owing to the adoption of some appropriate measures in agreement with the IMF, mildness of the recession in some partner countries of the EU, Serbia's relatively low dependence on exports, as well as the support of international institutions and certain timely interventions by the National Bank. Nevertheless, the Serbian economy continues to be affected by the global economic crisis while recovery has been slow and fragile. The recovery has been under way since early 2010 but the pick-up in economic activity has been slower than expected. In fact, Serbia's inflation was 10.3% in 2010 and the dinar has greatly much depreciated. However, in 2010, Serbia's GDP, expressed at constant prices of 2002, increased by 1.5% in comparison to the previous year. A positive trend in export growth was registered (+20.3% with respect to 2009) and the ratio of exports to imports has improved (57.2% in 2010 with respect to 51.2% in 2009). The return to a growing world gross domestic product and income, especially in Germany and other countries of the European Union, should lead to a recovery in Serbian agricultural exports thus improving the rural economy.

In the forthcoming period it is necessary to carefully analyze Serbian agriculture and the rural economy to design adequate policies, strategies and measures in order to mitigate crisis effects on agricultural producers and rural people. Nevertheless, for the alleviation of the crisis effects MAFWM – in partnership with the private stakeholders, civil society organisations and international donors - should try to improve rural producers' access to information, especially on the market; to ensure market and agricultural and rural policy stability; to provide subsidies and incentives to rural producers and to make their access to credits easier; to foster public and private investments in rural areas including nonagricultural investments and those aiming at improving the physical capital of rural areas; etc. Serbian policy makers should capitalise on the current crisis to make the necessary structural reforms that Serbia needs, reforms that have previously been postponed several times mainly for political and electoral reasons. Necessary reforms should render Serbian agriculture and the rural economy not only more resilient but also more competitive.

References

Arcotrass et al. [2006]. Study on the state of agriculture in five applicant countries; Serbia country report. A study, financed by the European Commission, and undertaken by Arcotrass GmbH (Germany), in association with Vakakis International SA (Greece), EuroCare GmbH (Germany) and AKI (Hungary). 78 p.

Bogdanov, Lj. N. [2007]. *Small rural households in Serbia and rural non-agricultural economy.* The United Nations Development Programme (UNDP) and Ministry of Agriculture, Forestry and Water Management of the Republic of Serbia; Belgrade.

EC [2011]. *Serbia* – *Agriculture and Enlargement*. European Commission (EC) – Agriculture and Rural development. < http://ec.europa.eu/agriculture/enlargement/countries/serbia/profile _en.pdf > (retrieved on April 20, 2011).

EC [2010]. Serbia 2010 progress report. European Commission (EC), Brussels. 58 p.

Government of the Republic of Serbia [2009]. *Revised Memorandum on the Budget and Economic and Fiscal Policy for the Year 2010 with Projection for the Years 2011 and 2012.* Belgrade.

Grozdani R. [2011]. Annual Review 2010 on Labour Relations and Social Dialogue in South East Europe: Serbia. Regional Project for Labour Relations and Social Dialogue in South East Europe; Friedrich-Ebert-Stiftung; Belgrade. 23 p.

Hopic, S. [2009]. Sector Analysis - Rural development in Serbia. EXCHANGE 2 project– Joint Support to Local Government; Standing Conference of Towns and Municipalities (SCTM); Belgrade.

IMF [2009]. *Republic of Serbia: Request for Stand-By Arrangement.* International Monetary Fund (IMF); Washington, DC.

Ipsos Strategic Marketing [2009]. *Crisis rapid assessment*. Report for the Social Inclusion and Poverty Reduction Unit within the Office of the Deputy Prime Minister for European Integration of Republic of Serbia and the World Bank. Belgrade.

Matković, G., Mijatović, B. and Petrović, M. [2010]. *The labor* market and living conditions outcomes. Center for Liberal-Democratic Studies; Belgrade. 75 p.

Milovanovic, R. [2010]. Strategic vectors of food production development in Serbia in terms of the global crisis. *International Cross-Industry Journal; Perspectives of Innovations, Economics & Business, 6/3,* 12-14.

Shane, M., Liefert, W., Morehart, M., Peters, M., Dillard, J., Torgerson, D. and Edmondson, W. [2009]. *The 2008/2009 World economic crisis: what it means for U.S. agriculture*. A Report from the Economic Research Service; WRS-09-02, United States Department of Agriculture (USDA); Washington, D.C.; 30 p.

Stamatović, M., Radonjić, S. and Anufrijev, A. [2010]. The world economic crisis impact on Serbia in the context of its association with the European Union. *Facta Universitatis; Series: Economics and Organization; 7/1*: 1-15.

USAID [2009]. South Serbia and Sandzak economic crisis impact assessment. Preparedness, Planning and Economic Security Program (PPES). United States Agency for International Development (USAID); Washington, D.C.; 20 p.

World Bank [2010]. *The crisis hits home – stress-testing households in Europe and Central Asia*. Washington, DC.

Živkov, G., Vonnegut, A., Obućina, B. and Popadić, N. [2009]. Study on the effects of the global economic crisis on agriculture in Serbia. US Agency for International Development (USAID), Serbia's Mission; Belgrade. 66 p.