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THE IMPACTS OF THE GLOBAL FINANCIAL CRISIS ON AGRICULTURE IN CENTRAL AND EASTERN EUROPE AND IN CENTRAL ASIA

DOPADY GLOBÁLNEJ FINANČNEJ KRÍZY NA POĽNOHOSPODÁRSTVO V STREDNEJ A VÝCHODNEJ EURÓPE A V STREDNEJ ÁZII

Mária KADLEČÍKOVÁ, Zuzana KAPSDORFEROVÁ, Michal FILO

Slovak University of Agriculture in Nitra, Slovakia

The number of financial crises has been growing in the world according to the International Monetary Fund. The recent global financial crisis caused a considerable slowdown in many countries in the world. The results have included the collapse of housing prices, massive unemployment, and the spread of distress throughout financial markets and economies around the globe. The economic slowdown hit the agricultural sector as well. The purpose of the presented article is to evaluate the impacts of the global economic and financial crisis on the agri-food sector and to present solutions for the existing problems.

Key words: financial crisis, agriculture, Central Asia, Central and Eastern Europe

The onset of the financial crisis was evident as early as mid-2007 when a real estate bubble in the United States and parts of Western Europe imploded, triggering multiple bank failures. In a short period of time, property values plummeted, the value of retirement accounts shrank, household savings evaporated, and general consumer and producer confidence disappeared. The financial crisis expanded into an economic crisis throughout United States and Western Europe, from where it spread to developing countries that had depended on foreign direct investments, consumer and mortgage credits, trade, and remittances. Deteriorating macroeconomic conditions led to deterioration in household welfare.

The effects of the global financial crisis were more acutely felt in the Eastern Europe and Central Asia region than in any other parts of the European continent (The World Bank, 2011b). The crisis risks reversing the region's recent gains and exposes the region to significant adverse economic and social impacts. The slowing economic growth from the economic crunch had an influence on agriculture in all countries around the world, not only in the analyzed region. The stagnant

demand for agricultural commodities and declining public expenditures for agriculture lead in many states to undesirable effects on the agro-food sector and to different responses of their governments.

Materials and methods

The goal of the article was to evaluate the impacts of the global financial crisis on the agricultural sector in the region of Central and Eastern Europe and in Central Asia. The aim was also to present possible solutions of the situation in this part of the world. In the paper, the methods of analysis and synthesis as well as some statistical indicators were applied. Multiple data sources were used: World Development Indicators, UnctadStat, EuroStat, IMF and FAO publications.

Results and discussion

Actual Economic Situation in the Region

Global economy is slowly recovering from the financial crisis. Figure 1 shows that global activity expanded at an annualized rate of just over 3.5 percent in the third quarter of 2010. This was caused especially by the growth of consumption in the United States and Japan. More generally, signs are increasing that private consumption is starting to gain a foothold in major advanced economies. Growth in emerging and developing economies remained also robust in the third quarter of the year 2010. During the second half of 2010, global financial conditions broadly improved – equity markets rose, risk spreads continued to tighten, and bank lending conditions in major advanced economies became less tight, even for small and medium-sized firms (World Economic Outlook UPDATE, 2011a).

The current economic situation of Central and Eastern Europe and Central Asia is described in Table 1. Real GDP growth decreased in the whole region mostly as the result of the

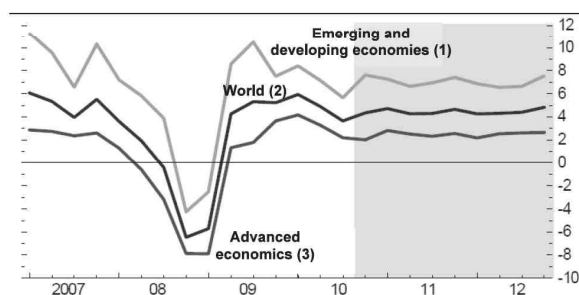


Figure 1 Global GDP Growth in percent; quarter over quarter, annualized
Source: World Economic Outlook UPDATE, 2011a

Obrázok 1 Svetový rast HDP v %; štvrťročne
Zdroj: World Economic Outlook UPDATE, 2011a
(1) vyspelé ekonomiky, (2) svet, (3) vychádzajúce a rozvíjajúce sa ekonomiky

Table 1 Real GDP Growth in % in the Analyzed Region

Country/Year (1)	Real GDP Growth (2)			Projections in % (3)	
	2007	2008	2009	2010	2011
World Output (4)	5.3	2.8	-0.6	4.8	4.2
United States (5)	1.9	0.0	-2.6	2.6	2.3
Euro Area (6)	2.9	0.5	-4.1	1.7	1.5
Central and Eastern Europe (7)	5.5	3.0	-3.6	3.7	3.1
Kazakhstan	8.9	3.2	1.2	5.4	5.1
Kyrgyz Republic	8.5	8.4	2.3	-3.5	7.1
Tajikistan	7.8	7.9	3.4	5.5	5.0
Turkmenistan	11.6	10.5	6.1	9.4	11.5
Uzbekistan	9.5	9.0	8.1	8.0	7.0

Source: International Monetary Fund, 2010a and 2010b
Zdroj: Source: International Monetary Fund, 2010a a 2010b

Tabuľka 1

Rast reálneho HDP v analyzovanom regióne

(1) krajina/rok, (2) rast reálneho HDP, (3) prognózy, (4) celosvetový výstup, (5) Spojené štáty americké, (6) eurozóna, (7) stredná a východná Európa

global economic slowdown. According to projections, the bottom was reached in Central and Eastern Europe and in most of the states of Central Asia in the year 2009. In comparison to the year 2007, the worst fall of GDP by 9.1 % in 2009 was observed in Central and Eastern Europe. The fact, that the economic growth in Uzbekistan remained stable during the analyzed period, is also interesting. The financial crisis boosted unemployment in Europe and Central Asia, especially in Latvia, Lithuania and Estonia. Due to this fact governments helped many families through a variety of initiatives, including unemployment benefits, public works programs, and in some cases, last resort social assistance programs. However, these initiatives only reached a minority of the families affected by the crisis. The inflation rate reached in Austria, Poland and the Slovak Republic less than 1 % in the year 2009.

Basic Facts about the Agricultural Sector in the Region

Central and Eastern Europe as well as Central Asia consist of countries with different level of economic development. The share of agricultural land is in many countries of this region 40 % of total land area or higher. The exception is for example the Russian Federation with 13.16 % of agricultural land in 2009. Kazakhstan, a country with a GDP per capita of 7 257 USD and 1.47 hectares of arable land per inhabitant, has around 76 % of agricultural land. But the low consumption of fertilizers in this country suggests that its agriculture is extensive. As for comparison, Austria with a 40 times higher fertilizers consumption disposes only with 0.17 hectares of arable land per person. Table 2 contains information about agricultural production as % of GDP in some states from this region.

The ratio of agricultural population in Central Asia declined from 25.7 % in the year 1998 to 20.3 % in the year 2008. The employment in agriculture was in Central Europe varying from 3.6 % in the Czech Republic to 5.7 % of total employment in Austria in 2007. This indicator was much higher only in Poland (14.7 %). As for Eastern Europe, the employment rate in agriculture was in Ukraine 16.70 % and in Moldova 32.80 % in the same year.

According to available data retrieved from the World Bank, food imports as a percent of merchandise imports rose in Moldova from 11.17 % in 2006 to 15.18 % in 2009 and in Hungary from 3.93 % to 5.25 %. In most of the other countries

Table 2 Agricultural production in % of GDP

Country/Year (1)	2005	2006	2007	2008	2009	
CE	Slovak Republic	3.65	3.58	3.52	3.10	2.61
	Hungary	4.23	4.06	3.96	4.31	–
	Poland	4.53	4.29	4.33	3.74	3.64
EE	Ukraine	10.40	8.68	7.46	8.33	8.22
	Belarus	9.77	9.75	9.34	9.78	9.59
	Moldova	19.53	17.38	12.01	10.71	10.03
CA	Kyrgyz Republic	31.95	32.77	31.08	29.23	–
	Tajikistan	23.98	24.79	22.43	24.71	22.42
	Uzbekistan	27.97	26.14	23.95	21.36	19.50

x – no data, CE – Central Europe, EE – Eastern Europe, CA – Central Asia
Source: The World Bank – World Development Indicators
x – žiadne údaje, CE – stredná Európa, EE – východná Európa, CA – Stredná Ázia
Zdroj: The World Bank – World Development Indicators

Tabuľka 2

Poľnohospodárska produkcia v % na HDP
(1) krajina/rok

of the region, the development of this quotient was similar. Food exports as a percent of merchandise exports increased dramatically in Moldova from 58.95 % in 2008 to 74.19 % in 2009 and in the Kyrgyz Republic from 15.44 % in 2008 to 23.92 % in 2009. This ratio was increasing during the analyzed period also in Poland, Hungary, Austria, Belarus and Ukraine.

The Impacts of the Global Economic Crisis

Since the Russian Federation financial crisis in 1998, the economies in Eastern Europe and Central Asia have been recovering from the macroeconomic and institutional problems that characterized the region since its transition from a centrally planned to a more market oriented economy. The economy started booming, which had a positive impact on agricultural productivity and poverty. However, in 2008 crisis period hit the region. First, in the first semester of 2008, the region was confronted with rising food prices as a consequence of a worldwide food crisis. Later, in the second semester of the same year, a second shock affected the region, when the effects of the worldwide financial crisis became clear. Although these two crises have different causes, it is impossible to analyze the effects of one crisis on the agricultural sector without considering the other, because both crises interacted through their implications for financial and economic stability, food security and political security (Swinnen and Van Herck, 2010).

The food crisis and financial crisis have lead to social unrest in scores of countries, including some in Eastern Europe, Turkey and Central Asia, and have added more than 140 million people to the number of hungry and undernourished people in the world, FAO, 2010b. In addition, these two crises reduced the level of food security through combination of high food prices, high prices of inputs, lack of credit access, decline of international financial aid and government transfers to agriculture, loss of employment or reduction of wages and incomes.

The consequence could be the reduction in quantity or quality of food purchases, reduction in food production and reduction of quality or quantity of food aid.

In response to the high food prices and to reduction of the negative effects of the financial crisis on food consumption, governments in the region intervened in the supply chain of primary products to reduce retail prices of these products in order to protect the poor's consumption of primary products. In Ukraine, the government set up mark-up limits on flour prices

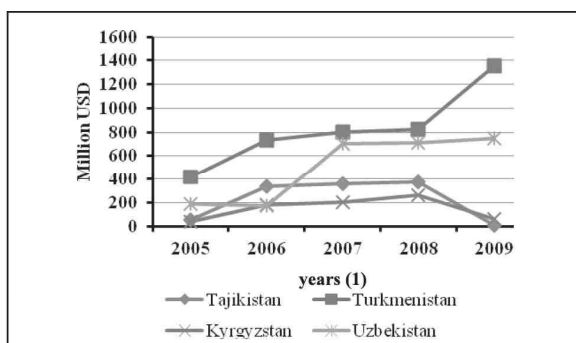


Figure 2 FDI Inflow in Central Asia (4 countries)

Source: Unctad Stat

Obrázok 2 Tok PZI (priame zahraničné investície) v Strednej Ázii (štyri krajiny)
Zdroj: Unctad Stat
(1) roky

and retail price limits on the bread. Also the Government of the Russian Federation implemented price controls on the prices of primary products, such as bread, milk, sunflower oil and eggs. In Kyrgyzstan, the Government sold bread and other primary products at lower prices to the poor (Swinnen and Van Heck, 2010).

Negative impacts of the financial crisis on the agricultural sector are the result of three main factors: reduced investment in agriculture, reduced demand for agricultural products and an increase in public intervention that could lead to a partial reversal of reforms in agriculture. One of the effects of the financial crisis was the drop or fluctuation in the inflow of foreign direct investment in the whole region after the year 2008. The only exception was Turkmenistan (Figure 2).

In times of economic instability banks are naturally less willing to provide loans. Unavailability of financial resources not only for agricultural enterprises and farmers is therefore the outcome of tougher collateral demands and higher interest rates. The fall of investment of domestic and foreign food processing companies is also important. However, it should be noted, that the crisis had no significant effect on grain production in most countries in the 2008/2009 crop year. Although it became more difficult to obtain money from banks even if credit applications were approved, wheat farmers, in general, were still able to finance their business, FAO, 2010b.

The financial crisis is also expected to lead to a decrease of domestic demand for higher value agricultural products and a switch to basic products due to a decrease of the household's disposal income. This decrease in income is caused by an increase in unemployment levels, macroeconomic instability and a decrease in remittances.

The governments in some countries, such as Kazakhstan and the Russian Federation, reacted to the crisis by increasing their expenditures on agriculture. In the Russian Federation, the Government provided RUB 25 billion to Rosselkhozbank, the Russian Agricultural Bank, at a special interest rate and RUB 4 billion to Rosagroleasing, a state owned leasing company of agricultural equipment. In addition to this, some supported banks are obliged to provide 100 percent subsidized loans for certain agricultural projects. Finally, the Government of the Russian Federation also provided RUB 60 billion for the agricultural budget in 2008 and another RUB 21 billion for the agricultural budget in 2009/2010. In Kazakhstan, the Government injected USD 1 billion into agriculture to deal with the crisis, FAO, 2010b.

Upon the request of the FAO Regional Office for Europe and Central Asia, the Research Institute of Agricultural Economics in Budapest carried out a research in four countries of this region – Hungary, Ukraine, Armenia and Kyrgyzstan (Research institute for Agricultural Economics, 2009). The study was focused on the effects of economic downturn, credit constraints and crisis impacts on the production, trade and consumption. The most important results were as follows:

- stakeholders throughout supply chain suffered from loss of confidence and sought to cut their costs and reduce their dependence on credits,
- arable farmers reduced their use of fertilizers and crop production products and purchases of machinery also declined,
- there was increased tendency to delay payments,
- input suppliers became more careful about which farmers to supply,
- most stakeholders throughout the supply chains postponed their investments,
- large enterprises acquired their weaker competitors, particularly those with attractive assets,
- less profitable stores were closed and special price offer became more frequent,
- banks cut back substantially on providing credit to the agro-food industry,
- banks prolonged the process of credit approvals, governments implemented in response a range of measures to local circumstances.

The principal causes of changes to the state of the agro-food sector were according to the research as follows:

- limited credits availability and consequent liquidity problems,
- high foreign exchange rates,
- increasing price volatility,
- decrease in consumer income and remittances.

Conclusion

Globalization has increased the frequency and spread of financial crises, but not necessarily their severity. However, the latest global financial and economic crisis exposed weaknesses in the functioning of the global economy and led to calls for the reform of the international financial architecture. Although the crisis was triggered by events in the United States housing market, it has spread to all regions of the world with dire consequences for global trade, investment and growth.

The recent financial and economic crisis naturally affected also the agriculture sector. Lower demand for food due to higher unemployment rates, decline in investment, banks averse to provide credits and loans, reduction of the use of fertilizers and obtaining of machinery were only some of the problems caused by the global economic crunch in Central and Eastern Europe and in Central Asia. Governments reacted in different ways – some decided to increase their expenditures on agriculture, others set up price mark-up limits. However, one should be careful that the increase in government intervention in the agriculture sector does not lead to a (partial) reversal of reforms in the agriculture sector, which could have a negative effect on the efficiency (FAO, 2010b).

As for policy responses to the crisis, governments should focus on social security safety nets to deal with the expected increase of poverty. They should also try to promote (foreign) investments, because investments used to be a driving force behind economic growth. Therefore it is necessary to provide a favorable institutional and policy environment for stimulating

more FDI. However, it is important to emphasize that all new policies must not conflict with the longer-term reform agenda and previous reforms should not be dismantled as part of short run policy reactions. Policies that facilitate a return to economic growth are the best strategy to reduce poverty and enhance agricultural productivity (FAO, 2010b).

Priority targets for mutual investments should be also set. Therefore it is important to improve cooperation for a healthy agricultural sector through joint knowledge and information system as well as to use chances to unite potentials for export of Belarus, Kazakhstan, Russia and Ukraine through the following investment opportunities:

- setting up a joint infrastructure for prompt response to changing conditions of agricultural markets and efficient product storage and delivery,
- development of routes (especially for grain) for the reduction of the transport component,
- establishment of a common market place of grain trade for importing countries.

In this context it is necessary to highlight that in 2010 the world including of Eastern Europe and Central Asia faced the second high food price crisis caused by the floods in Central Europe and in Australia and also by the droughts in the Russian Federation, Ukraine and Kazakhstan. Furthermore, it is rational to expect that the situation will get even worse. The consequences of the natural disaster in Japan on energy sources as well as the ongoing development in Near East could cause higher prices of energy. Regardless of these, we have to take into consideration that many governments in Europe and in other parts of the world have increased the VAT on the food products which virtually means the increase of the food prices.

Súhrn

Množstvo finančných kríz vo svete podľa Medzinárodného menového fondu rastie. Súčasná globálna finančná kríza spôsobila značnú recesiu v mnohých krajinách na svete. Výsledky hovoria o sprievodnom kolapse cien nehnuteľností, masívnej nezamestnanosti a šírení núdzových situácií na celom finančnom trhu a v ekonomikách celosvetovo. Recesia ekonomík zasiahla tiež poľnohospodársky sektor. Cieľom článku je zhodnotiť dopady svetovej ekonomiky a finančnej krízy na poľnohospodársko-potravinársky sektor a predstaviť riešenia vzniknutých problémov.

Kľúčové slová: finančná kríza, poľnohospodárstvo, Stredná Ázia, stredná a východná Európa

References

- AN ASSESSMENT of the Impacts of the Global Financial and Economic crisis on the Agro-food Sector of Central and Eastern European and Central Asian Countries: Synthesis Report. Budapest: Research institute for Agricultural Economics, 2009. 36 p. EUROSTAT. Available at <<http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/>>
- FAO. 2010. Selected Indicators of Food and Agricultural Development in the Asia-Pacific Region 1999-2009. [online] 2010. [Accessed 10.3.2011]. Available at <<http://www.fao.org/docrep/013/i1779e/i1779e00.htm>>
- INTERNATIONAL Monetary Fund. 2010. World Economic Outlook: Recovery, Risk, and Rebalancing – OCT 10. [online] 2010. [Accessed 16.3.2011]. Available at <<http://www.imf.org/external/pubs/ft/weo/2010/02/pdf/text.pdf>>, ISBN 978-92-5-106661-4.

- FAO. 2010. The Impact of the Economic and Financial Crises on Agriculture and Food Security in Europe and Central Asia: a Compendium. Budapest: FAO, 2010. 105 pp.
- INTERNATIONAL Monetary Fund. 2010. Regional Economic Outlook: Middle East and Central Asia – MAY 10. [online] 2010. [Accessed 16.3.2011]. Available at <<http://www.imf.org/external/pubs/ft/reo/2010/mcd/eng/mreo0510.pdf>>. ISBN 978-1-58906-920-6.
- INTERNATIONAL Monetary Fund. 2010. Regional Economic Outlook: Middle East and Central Asia – OCT 10. [online] 2010. [Accessed 16.3.2011]. Available at <<http://www.imf.org/external/pubs/ft/reo/2010/mcd/eng/10/mreo1024.pdf>>. ISBN 978-1-58906-922-7.
- INTERNATIONAL Monetary Fund. 2010. World Economic Outlook: Recovery, Risk and Rebalancing – OCT 10. [online] 2010. [Accessed 14.3.2011]. Available at <<http://www.imf.org/external/pubs/ft/weo/2010/02/pdf/text.pdf>>. ISBN 978-1-58906-947-3.
- MEYERS, W.H. – KURBANOVA, G. 2009. Impacts of the Global Economic and Financial Crisis on Food Security in Eastern Europe and Central Asia. Background Paper prepared for the UN/IFI Dialogue Meeting on the Social Impacts of the Global Economic and Financial Crisis in Eastern Europe and Central Asia, December 2009, Almaty. 45 p.
- ONCHAN, T. 2004. The Financial Crisis and Agricultural Productivity in Asia and the Pacific. Tokyo: Asian Productivity Organization, 2004. 206 pp. ISBN 92-833-7025-2.
- SCHIFFERS, S. 2007. Financial crises: Lessons from history. [online] 2007. [Accessed 18.3.2011]. Available at <<http://news.bbc.co.uk/2/hi/business/6958091.stm>>.
- SWINNEN, J. F. M. – VAN HERCK, K. 2010. Policy Response to Challenges in Agriculture and Rural Development in the Europe and Central Asia Region: Sharing Experience and Enhancing Cooperation in the Region. Budapest: FAO, 2010. 31 p.
- THE WORLD BANK – World Development Indicators. Available at <<http://data.worldbank.org/indicator>>.
- THE WORLD BANK. 2011. Public Programs Helped Families Weather Global Financial Crisis in Eastern Europe and Central Asia: New World Bank study identifies actions to improve responses to future crises. [online] 2011. [Accessed 14.3.2011]. Available at <<http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/ECAEXT/0,,contentMDK:22853848~menuPK:258604~pagePK:2865106~piPK:2865128~theSitePK:258599,00.html>>.
- THE WORLD BANK. 2011. The Jobs Crisis. Household and Government Responses to the Great Recession in Eastern Europe and Central Asia. [online] 2011. [Accessed 10.3.2011]. Available at <http://siteresources.worldbank.org/INTECA/Resources/257896-1293468285763/The_Jobs_Crisis_Client_Delivery.pdf>
- UNCTADSTAT. Available at <<http://unctadstat.unctad.org/TableViewer/tableView.aspx?ReportId=88>>.
- UNITED Nations Economic and Social Council: Economic Commission for Africa – African Union Commission. 2009. The global financial crisis: impact, responses and way forward. [online] 2009. [Accessed 10.3.2011]. Available at <<http://www.un.org/esa/ffd/events/2010GAWGFC/3/paper2.pdf>>
- VELDE, D. W. te. 2008. Background Note: The global financial crisis and developing countries. London: Overseas Development Institute. 5 pp. ISSN 1756-7610.
- WORLD BANK. Economic crisis boosted unemployment in Eastern Europe and central Asia. 2011. [online] [Accessed 12.3.2011]. Available at: <<http://bnn-news.com>>
- WORLD ECONOMIC OUTLOOK UPDATE: An update of the key WEO projections: Global Economy Advances but Remains Uneven [online]. 2011. [Accessed 12.3.2011]. Available at <<http://www.imf.org/external/pubs/ft/weo/2011/update/01/pdf/0111.pdf>>.
- WORLD ECONOMIC OUTLOOK UPDATE: An update of the key WEO projections: Restoring Confidence without Harming Recovery [online]. 2011. [Accessed 15.3.2011]. Available at <<http://www.imf.org/external/pubs/ft/weo/2010/update/02/pdf/0710.pdf>>.

Contact address:

doc. Ing. Mária Kadlečíková, CSc. Ing. Zuzana Kapsdorferová, PhD. Ing. Michal Filo, Slovak University of Agriculture in Nitra, Slovakia