Development and efficiency of agri-food foreign trade of the Slovak Republic in the international context

Vývoj a výkonnosť agropotravinárskeho zahraničného obchodu Slovenskej republiky v medzinárodnom kontexte

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Abstract: The contribution is aimed at changes in the foreign trade of the Slovak Republic with agricultural and food products from 2004. The attention was paid to mutual relations of the imported and exported agricultural products. The contribution was supplemented by the comparison of the SR agri-food trade performance with the other EU member countries. To attain the objective, an unconventional methodical practice based on the calculation of trade balance per one inhabitant was used.

Key words: agri-food foreign trade, balance, trade efficiency

Abstrakt: Príspevok je zameraný na zmeny v zahraničnom obchode Slovenskej republiky s poľnohospodárskymi a potravinárskymi výrobkami od roku 2004. Pri hodnotení sme sústredili pozornosť na vzájomné vzťahy dovážaných a vyvážaných agrárnych výrobkov. Príspevok sme doplnili aj o komparáciu výkonnosti agroobchodu SR s ostatnými členskými krajinami EÚ, k čomu sme využili netradičný metodický postup založený na vyjadrení obchodnej bilancie na jedného obyvateľa krajiny.

Kľúčové slová: agropotravinársky zahraničný obchod, saldo, výkonnosť obchodu

Food production, in contrast to industrial production, has many particularities. For the reason given, the foreign commodity exchange of agricultural and food products are influenced not only by the quantities of predictable factors but also by the casual and non-predictable factors.

In the Slovak Republic, the past decade was characterised by the reduction and concentration of the food industry and the retail network. However, agricultural primary production remains diffuse. Scepticism of agricultural enterprises, with regard to their forming production and marketing organizations, puts them to the strong marketing and price pressure from the processors. According to Buday et al. (2009), the solution of issues concerning the higher economic growth, creation of working places and higher competitiveness in the world markets is offered by supporting diversification.

Since 2004, Slovak producers and exporters have been adapting to the changed conditions very quickly and they have been switched to trading in the common EU market. Matošková and Gálik (2009a) confirmed that more than 95% of Slovak agri-food export was directed to the EU countries. However, they mentioned the negative fact that many times the products were exported cheaper and under the level of import prices. The competing business progressively embossed Slovak products from the markets of third countries. In their contribution, Qineti et al. (2009) aimed at the analysis of comparative advantages of the SR agri-food trade with Russia and Ukraine. The authors confirmed that during the followed period, the Slovak Republic lost comparative advantages of many products.

MATERIAL AND METHODS

Data used in the contribution were derived from the Statistical Office of the Slovak Republic and the

Statistical Office of the European Union (Eurostat). The adequate long time series (from 2004 to 2009) was selected in order to enhance the authenticity of the reached results. Preliminary data were used for 2009. Up to 2008, the data on the SR foreign trade were presented only in Slovak Crowns, so the conversion course (1 € = 30.1260 SKK) was used for the conversion of all values into €.

Several methods and indicators were used for the international comparison of the foreign agri-food trade. The final consumer of agrarian and food products is the consumer with a very similar structure of the basic consumption basket. For all that, the calculation per 1 inhabitant is eligible for the international comparison. The mentioned method was used by Matošková and Gálik (2009b). In terms of balance, using of the calculation of the total agri-food trade balance per 1 inhabitant seems to be optimal.

In the conclusion, we tried to evaluate the impact of the foreign agri-food trade (through a very simplified and indirect manner) on the consumption structure of inhabitants in the EU member countries. The scientific notation of the mentioned calculations is presented as follows:

$$PSOMM = \frac{PSO}{MMM} \times 100$$

$$PM = \frac{PSOMM}{PVP}$$

where:

PSOMM = share of the agri-food foreign trade balance per1 inhabitant, calculated per monthly minimal wage (in %)
PSO = share of agri-food foreign trade balance calculated per 1 inhabitant (in €)
MMM = minimal monthly wage (in €)
PM = number of months
PVP = share of expenditures (on foodstuffs, tobacco and alcohol) in the disposable income of an inhabitant (in %)

RESULTS AND DISCUSSION

The Slovak Republic is a small and open economy. Since 2004, the goods exchange regarding agri-food products has been more intensive. In the mentioned period, the inflows of foreign investors also culminated. It induced a significant increase of the technologies import. Therefore, the negative agri-food trade balance shared in the total trade balance with 20–30%. Since 2007, promising indicia of the pro-export-oriented foreign investment have been shown in the total trade balance improving. Vice versa, the agri-food trade balance deteriorated year after year. Consequently, the agri-food trade shared with 96% in the total trade balance in 2007 and with 115% in 2008. In 2009, the development was impacted by the world economic crisis. A significant demand decrease had its consequences on the total and also the agri-food foreign trade development. The total SR export decreased as much as by 19.8% per annum, the agri-food export decreased "only" by 13.5% (Table 1). The economic crisis affected more strongly the total import, its value was decreased as much as by 23.4%, the import of agricultural and food products decreased only by 6.8%. The economic crisis affected, to a larger extent, the sectors centred on the long-run consumption products, however, the food production and consumption was affected very lightly, even though the trade balance was highly different. A higher decline rate of import as compared to export was proved at a markedly positive total trade balance at the level of 1186.9 mill. €. The opposite development was recorded by the agri-food commodities. It resulted in the trade balance deterioration – to the highest negative value of –950.2 mill. € (an inter-annual increase by 9.0%) in the history of the Slovak Republic.

Since 2004, the share of the EU countries in the total SR agri-food trade has constantly increased. The Slovak Republic is dislodged from the third countries markets by the competing business or the export is supplemented by licensing production or our expan-

Table 1. Development of the total and agri-food foreign trade of the Slovak Republic (in mill. €)

	2004	2005	2006	2007	2008	2009
Total export	29 573	32 864	40 892	47 351	49 522	39 716
Total import	31 218	35 320	43 454	48 076	50 280	38 529
Total balance	–1 645	–2 456	–2 562	–725	–758	1 187
Agri-food export	1 142	1 556	1 735	2 000	2 037	1 762
Agri-food import	1 664	2 222	2 296	2 694	2 909	2 712
Balance of the agri-food trade	–521	–666	–561	–694	–872	–950

Source: Statistical Office of the SR, own calculations

sion is limited because of the small domestic production. In this connection, it is necessary to notice that the real share of third countries can be much higher. Pursuant to the customs statistics data it is not possible to identify and quantify the re-imports and re-exports of agricultural and food products in relation to the EU or third countries. Regarding that, the importance of the re-export and re-import can be declared only indirectly by the so-called non-competitive commodities that are not produced in Slovakia with respect to its geographic location. The trade exchange development with bananas is an ideal example of the functioning of the free goods movement within the European Union (re-export of products). In 2009, the import of bananas from the EU member countries shared by 23.3% (26.2% in 2006) in the total import of bananas. In 2008, within the scale of the most exported commodities, bananas occupied 38th position, their export value shared by 22% in the total bananas export from Slovakia and it reached 11.5 mill. €. It means that approximately one fifth of the imported bananas to the Slovak Republic were re-exported to the surrounding countries, it means that these bananas again became an object of the trade exchange.

As it was reflected, in 2009 the foreign trade exchange development was characterized by a decline of demand and it was the main reason of the crisis outbreak. It is very paradoxical that in the same period, there was observed an increase of the traded agricultural and food products in natural units. The import was increased by 4.1% per annum and the export by 18.3%. Therefore, the foreign agri-food trade development was influenced mainly by the price development of the traded products.

The price development is closely associated with the commodity structure of the agri-food foreign trade (import and export). Pursuant to the long term development of the commodity structure of the agri-food trade, it is possible to state that Slovak export is oriented on agricultural commodities (as raw material to the processing industry). The processed food products with a higher value added dominated in the import.

After the Slovak Republic accession into the European Union, the share of agricultural raw material in the total agri-food export has increased at the expense of the processed products. The worsened trading conditions within the European Union allow our producers (for example, pig meat, bird eggs, liquid milk) to search trading partners out of the SR territory. It means the partners who are able to make them a proposal of a higher purchase price. Consequently, the increasing export of raw material to other countries negatively affects the economic effectiveness of domestic processors. On the other side, the increasing export value of agricultural products positively affects the decrease of the negative trade balance. In 2009, the negative trade balance with the non-competitive and seasonal commodities was eliminated by the export growth of the competitive agricultural commodities of the temperate zone cultivated in the Slovak Republic.

The situation in the SR foreign trade with food products is more complicated. The share of food products (with the higher value added) in the total export of the Slovak Republic has been on the upgrade, but the value of their export does not reach the import value level. In 2009, the total negative trade balance of the foreign agri-food trade (–950 mill. €) was registered regarding the processed food products.

Several methods and indicators are used for the evaluation of effectiveness and competitiveness of the foreign trade. Each of indicators has its positives and negatives (advantages and weak spots). The structure of the agri-food foreign trade is created by agricultural raw materials, processed semi-finished products and final food products. However, the main part are the finalized food products serving for satisfying the basic needs of the population. The final consumer of agricultural and food products is the consumer with a very similar structure of the basic consumption basket. For all that, it is logical to use the calculation per one inhabitant for the international comparison and for the comparison of the agri-food foreign trade efficiency. The commodity foreign trade exchange is the bilateral trade relation (import and export of goods). So it seems to be optimal (from the balance viewpoint) to use the calculation of the total agri-food trade balance per one inhabitant (Table 2). The presented calculation allows to consider the degree of "self-sufficiency" or "deficiency" of the individual countries on the assumption that the inhabitants basic living needs (i.e. the demand for food) are be satisfied.

During the sexennial followed period, only 10 member countries of the European Union exceeded the level of 100% self-sufficiency and permanently reached the positive trade balance with agricultural and food products. In the long term, the privileged position belongs to the Netherlands that registered the "surplus" of agri-food products (approximately 1400 € per inhabitant). The Netherlands is ranked among the smaller EU countries, but following the United States of America and France, it is the third biggest world exporter of agrarian products. The full self-sufficiency degree is exceeded very significantly also in the agri-food sectors of Denmark, Ireland (in spite of the downward trend) and Belgium. As to

Central and Eastern Europe countries, the agri-food sector efficiency in Hungary, Poland and Lithuania is permanently above the coverage level of the population basic needs.

As to the "self-sufficiency level" calculated on the basis of the average trade balance per one inhabitant in 2004–2009 within the European Union, the fourteenth position belongs to the Slovak Republic closely before Italy and Germany. However, in contrast to the steady development of the negative trade balance in Germany and Italy, in the Slovak Republic, the negative trade balance per one inhabitant has gradually deepened.

In the terms of the unfavourable land and climatic conditions, the country size as well as the economic level, Sweden, Cyprus, Malta and Luxembourg are very significantly dependent on the food import for the domestic demand assurance.

Forasmuch as we are able to describe the "self-sufficiency level" through the share of the trade balance per one inhabitant, we try to estimate its impact on the structure of the inhabitants' consumption. However, it is not possible to estimate it directly and exactly. The data on the foreign trade indicate only the value of the traded goods, so they do not reflect the level of consumer prices. The data on the agri-food foreign trade balance per one inhabitant are taken as a value. At the same time, the different income level of the population in the individual EU countries must be taken into account. Concerning the data availability, the level of the minimal monthly wage was used in the calculations. The minimal wage reflects the level of living standard and the social policy in the individual EU countries and at the same time, it determines the minimal income level of the weakest social category of inhabitants that are the most sensitive to the food

Table 2. The share of the foreign agri-food trade balance in the EU countries calculated per 1 inhabitant (€)

	Year						Average 2004–2009
	2004	2005	2006	2007	2008	2009	
Netherlands	1 290	1 349	1 425	1 482	1 468	1 432	1 408
Denmark	991	999	1 013	965	931	957	976
Ireland	749	703	785	697	507	370	635
Belgium	216	255	272	247	217	253	243
Hungary	108	91	99	167	191	171	138
France	127	138	176	146	147	90	137
Lithuania	0	43	40	107	65	118	62
Poland	22	44	55	53	37	55	44
Spain	41	16	32	14	29	48	30
Bulgaria	26	39	20	–15	19	37	21
Austria	–68	–30	–10	–58	–69	–108	–57
Romania	–52	–62	–73	–103	–101	–73	–77
Czech Republic	–102	–82	–115	–114	–92	–103	–101
Slovak Republic	–79	–101	–80	–123	–163	–184	–122
Italy	–134	–129	–137	–132	–124	–116	–129
Germany	–139	–133	–149	–149	–139	–147	–143
Latvia	–153	–133	–163	–164	–156	–122	–148
Estonia	–185	–182	–173	–246	–248	–192	–204
Greece	–224	–178	–194	–249	–262	–218	–221
Portugal	–312	–309	–318	–350	–369	–320	–329
Slovenia	–264	–297	–316	–379	–418	–413	–348
Finland	–285	–314	–326	–345	–417	–443	–355
United Kingdom	–317	–347	–378	–395	–394	–362	–366
Sweden	–356	–374	–426	–469	–510	–479	–436
Cyprus	–501	–556	–634	–753	–935	–829	–701
Malta	–599	–614	–617	–728	–803	–853	–702
Luxembourg	–1 834	–1 710	–1 686	–1 800	–1 853	–1 746	–1 772

Source: http://epp.eurostat.ec.europa.eu, own calculations

price development. Obviously we must take into account also the different structure of the consumption basket of inhabitants in the individual EU countries. To simplify, the average expenditures on food, tobacco and alcohol accounts to 15% of the disposable income in developed countries (including Malta). In the Slovak Republic, the share of food expenditures accounts to 27% from the disposable income. The same share was also used for other countries of the Central and Eastern Europe.

The agri-food sector and trade of the Netherlands is so productive that it is able to generate surplus every year. The value of the mentioned surplus is equivalent to the level of the expenditures on food, tobacco and alcohol of an inhabitant whose income reached the minimal wage level for 7 months (Table 3). Otherwise said, the demand for food of their population (with the minimal income) for one year and seven months can be covered is able to cover by the domestic resources generated within one year in the Netherlands. In spite of the different living standard and the structure of expenditures, the agri-food sector covers the food demand of its population with minimal income from domestic resources for one year and three months in Ireland and for one year and two months in Hungary.

On the opposite, the negative value indicates the Netherlands deficit; it means "non self-sufficiency". The Slovak agri-food sector and trade is not able to cover the domestic demand. It means that with the view to mitigate his/her basic living needs, an inhabitant of the Slovak Republic (whose income is at the minimal wage level) must consume the imported foodstuffs approximately for two months within one year. An extreme case is again Malta along with Luxembourg, where the annual deficit of the agri-food foreign trade is equivalent to the level of expenditures on food, tobacco and alcohol of an inhabitant, whose income reached the minimal wage level, for 8 months.

CONCLUSION

From the analysis, it results that in spite of the permanently increasing intensity of the SR commodity exchange, the negative trade balance of the agri-food trade has been permanently deepened. The negative agri-food trade development culminated in 2009 when

Table 3. The share of the foreign agri-food trade balance in the EU per 1 inhabitant, calculated per minimal monthly wage (in %)

	Year						Average 2004–2009	Number of months[1]
	2004	2005	2006	2007	2008	2009		
Netherlands	102.0	106.7	112.0	114.0	110.0	103.7	108.0	7.2
Ireland	69.8	59.4	60.7	49.7	34.7	25.3	49.9	3.3
Belgium	18.2	21.1	22.1	19.6	16.6	18.2	19.3	1.3
Hungary	53.6	39.3	40.2	64.1	70.4	63.9	55.3	2.0
France	10.5	10.7	14.4	11.7	11.5	6.8	10.9	0.7
Lithuania	0.1	30.0	25.0	61.7	28.2	51.0	32.7	1.2
Poland	12.6	21.2	23.7	21.8	11.8	17.8	18.1	0.7
Spain	7.7	2.6	5.1	2.0	4.1	6.6	4.7	0.3
Bulgaria	41.9	50.4	24.2	–15.8	16.6	29.8	24.5	0.9
Romania	–76.3	–79.1	–81.1	–89.1	–73.0	–49.1	–74.6	–2.8
Czech Republic	–49.1	–34.8	–43.9	–39.1	–30.7	–34.6	–38.7	–1.4
Slovak Republic	–53.3	–60.0	–43.9	–55.8	–67.7	–62.2	–57.1	–2.1
Latvia	–128.3	–115.8	–125.7	–95.3	–67.9	–47.9	–96.8	–3.6
Estonia	–116.9	–105.8	–90.1	–106.9	–89.3	–69.2	–96.4	–3.6
Greece	–35.5	–26.7	–27.4	–34.1	–33.0	–26.7	–30.5	–2.0
Portugal	–73.1	–70.6	–70.6	–74.4	–74.3	–61.0	–70.7	–4.7
Slovenia	–56.1	–60.7	–61.8	–72.5	–77.5	–70.1	–66.5	–2.5
United Kingdom	–30.1	–30.6	–31.2	–30.0	–31.8	–36.3	–31.7	–2.1
Malta	–111.0	–110.6	–106.4	–124.7	–131.1	–134.4	–119.7	–8.0
Luxembourg	–130.7	–116.6	–112.2	–114.6	–118.0	–106.3	–116.4	–7.8

[1]The number of months calculated from the average value of 2004–2009

Source: http://epp.eurostat.ec.europa.eu, own calculations

the highest negative trade balance of € –950 million was recorded within the Slovak Republic history.

Since 2004, the administrative frugality, the simplified and cheaper trade regime have reflected in the increasing intensity of the foreign commodity exchange and also in the permanently increasing share of the EU countries on the total agri-food trade of the SR.

Decisions of foreign investors had a significant impact on the trade development and they led to the reduction or liquidation of the processing capacities. The mentioned facts were resulted in the non-sufficient domestic production. Consequently, it led to the increasing import value and the permanently deteriorating trade balance with the processed food products with a higher value added.

The structure and volume of domestic production is primarily affected by the subsidies and regulations within the Common Agricultural Policy of the European Union. Consequently, it was reflected in the agri-food commodity structure changes. The WTO commitment concerning the elimination of all forms of export subsidies evoked the tendency to reduce the surplus of the commodities depending on export subsidies. However, the European Commission adopted an unbalanced and insensible approach with a negative impact on the agri-food foreign trade development of Slovakia (only regarding sugar we can speak about the decrease of the positive trade balance approximately at the level of € 90 million). To achieve the production reduction at the expense of a large financial reimbursement is a big invitation for business subjects in the Central and Eastern Europe (sugar) because it enables the fast investment return to manufacturing corporations or the abolition of the subsidiary corporation within the West-European supranational concerns with conserving of the production and employment in the home country.

The penal system within the Common Organization of Agrarian Markets is deficient. The mentioned fact was shown during the milk crisis in 2009. In some member countries of the European Union, the overrun of the production quotas resulted in price instability in the whole EU. The milk crisis very significantly reduced the export possibilities of milk products that are our pro-export commodities. The European Commission should react more strictly to the violations of the binding regulations of the European Union, because the non-observance of the presented regulations eventuates in the long-term economic losses of other member countries.

The year 2009 was affected by the world economic crisis. The crisis resulted in the growth of employment, the decrease of real incomes and the purchasing power of households and consequently to the demand decrease. It led to a decrease of the agricultural and food commodities prices and also to the substitution of more expensive types of foods by their cheaper equivalents. In 2009 as compared to the previous year, there were imported to Slovakia more agri-food products from the Czech Republic (by 8.6%) and Poland (by 3.9%), namely in consequence of the economic crisis. In the autumn of 2008, the outbreak of the crisis temporarily negated all advantages concerning the strong Euro adoption. The stability of Euro caused the price rise of our export and therefore the temporary loss of our competitiveness mainly with the surrounding countries that are our dominant trade partners. In 2009 in comparison with the previous year, the export of Slovak agri-food commodities to the Czech Republic decreased by 16.6%, to Poland by 17.0% and to Hungary by 18.9%.

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