Development of Agricultural Trade of Visegrad Group Countries in Relation to EU and Third Countries

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Anotace

Navzdory kontinuálně rostoucí hodnotě agrárního obchodu České republiky, Maďarska, Slovenska a Polska, agrární obchod v případě všech zemí Visegradské skupiny představuje pouze marginální část celkového zbožového obchodu. Agrární obchod jednotlivých analyzovaných zemí je jak z hlediska komoditní, tak i teritoriální struktury velmi výrazně koncentrovaný. Převážná většina agrárního obchodu – jak exportu, tak i importu – je realizována ve vztahu k zemím EU. Tyto země participují na agrárním obchodě jednotlivých zemí skupiny V4 z více než 80 %. Pakliže se zaměříme na vlastní cíl příspěvku kterým bylo identifikovat komparativní výhody agrárního obchodu zemí V4 v oblasti komoditní a teritoriální struktury a to jak ve vztahu ke globálnímu trhu, tak i ve vztahu k zemím EU27, lze uvést následující. Agrární obchod ČR, SR a Maďarska jako celek nedisponuje komparativními výhodami jak na trhu globálním, tak ani na vnitřním trhu zemí EU. Polsko jakožto jediný zástupce zemí V4 však komparativními výhodami v oblasti agrárního obchodu disponuje a to jak ve vztahu k vnitřnímu trhu zemí EU, tak i ve vztahu k trhu globálnímu (k trhu třetích zemí). Zaměříme-li se na teritorium zemí EU27, které představuje hlavního obchodního partnera všech analyzovaných zemí, a to jak z hlediska exportů, tak i z hlediska importů, lze konstatovat, že ačkoliv ČR, SR a Maďarsko nedisponují komparativními výhodami v oblasti agrární obchodu k EU jako celku, na úrovni bilaterálních vztahů s jednotlivými členskými zeměmi EU jsou schopny komparativních výhod dosáhnout.

Klíčová slova

Agrární obchod, celkový obchod, podíl, Visegradská skupina, export, import, trh, svět, Evropská unie, konkurenceschopnost, postavení, struktura, komodity, teritoria, trend, vývoj.

Abstract

Despite the continually growing value of agricultural trade of the Czech Republic, Hungary, Slovakia and Poland, agricultural trade in the case of all of the countries of the Visegrad group represents only a marginal part of the total merchandise trade. The agricultural trade of the individual analyzed countries is, both in terms of the commodity structure as well as the territorial structure, very distinctly concentrated. The overwhelming majority of agricultural trade – export as well as import – je conducted in relation to EU countries. These countries participate in agricultural trade of individual countries of the V4 group with a share of over 80%. If we focus on the actual objective of the article, which was to identify the comparative advantages of agricultural trade of the V4 countries in the area of commodity structure and territorial structure, both in relation to the global market, as well as in relation to EU27, the following may be stated. The agricultural trade of the Czech Republic, Slovakia and Hungary as a whole does not have comparative advantages either on the global market or on the internal market of the EU countries. However, Poland as the only representative of the V4 countries has comparative advantages in the field of agricultural trade, in relation to both the internal market of the EU countries, as well as in relation to the global market (to the market of third countries). If we focus on the territory of the EU27 countries, which represents the main trading partner of all of the analyzed countries, both in terms of exports as well as in terms of imports, it may be stated that despite the fact that the Czech Republic, Slovakia and Hungary do not have comparative advantages in the area of agricultural trade in regard to the EU as a whole, they are able to achieve comparative advantages at the level of bilateral relationships with individual member countries of the EU.

Key words

Agricultural trade, total trade, share, Visegrad group, export, import, market, world, European Union, competitiveness, position, structure, commodities, territories, trend, development.

Introduction

In the current world, the agricultural sector represents one of the fundamental pillars of the global economy (Coleman, Grant, 2004). Agricultural trade itself together with agricultural production represent the key factors stabilizing the development of society anywhere in the world (Aksoy, Beghin, 2004). For such reason, agricultural production and trade in agricultural and food production thus become a part of the strategic planning of all economies in the world. The European Union and its policy distinctly support agriculture in the individual member states. The agricultural sector is the subject of a whole range of subsidies coming from supranational as well as national and regional sources. The objective of such subsidies is to carry out the objectives associated with the existence of the Common Agricultural Policy of the EU countries. Such policy is further also supported by a whole range of other EU activities. A significant factor affecting development on the EU agricultural market is the existence of the EU Common Commercial Policy, which, in the context of the single market of the EU countries, represents a sort of shield protecting the EU internal market from uncontrolled imports of goods from abroad (Svatoš, 2008). Under the EU interpretation, the agricultural market represents a specific mechanism that affects all of the individual member countries of the EU. The core of such market is represented by the old member countries of the European Union (EU15), which together represent the predominant volume of agricultural production of the EU countries (Aksoy, Ng, 2010). The dominance of such countries over the new member countries of the EU (EU12) can be demonstrated, for example, through the share of the EU15 countries in the total agricultural trade of the EU27 countries (the share in the total value of exports regardless of whether it is internal or external trade), which ranges around a 90% level. Nevertheless, although new member countries participate in the agricultural production and trade much less significantly as compared to the old member countries, it may be stated that entry into the EU was, at least in terms of the development of the value of agricultural trade, significantly beneficial for them (Pokrivčák, Drabík, 2008) – while in the years 2004 – 2010 agricultural trade of the EU15 countries increased its value by approximately 60%, the value of agricultural trade

of EU12 countries increased by more than 160%. The year-on-year growth of the value of effected exports is, in the case of the EU12 countries, more than double as compared to the EU15 countries, and, at the same time, changes in the structure of export are also occurring, where it can be clearly seen that in the case of the majority of the new members of the EU, aggregations with a higher rate of added value are starting to come to the foreground within export, which positively affects not only the resulting balance of agro-trade, but also the structure of the agro-complex of individual countries. However, it is necessary to emphasize that the majority of agricultural trade in the case of EU12 as well as EU15 countries is carried out within the internal market of the EU27 (Bussière et al., 2008). The share of the value of exports conducted within the internal market in the years 2004 - 2010 rose in the case of EU12 countries from approximately 70% to more than 80%, and in the case of EU15 countries the share of exports carried out within the EU27 market remains stable at a level of approximately 80%. In this regard, it is important to also mention that the value of executed contracts is growing both in regard to the internal market of the EU countries, as well as in relation to the external market – whereby both in the case of the new as well as in the case of the old member countries, the generator of growth in the value of agricultural trade is the internal market of the EU. A specific characteristic that sets the old and new EU member countries apart from each other is the process of the restructuring of the agricultural market. While the old member countries have already gone through the restructuring process long ago, such process is not even close to being finished in the case of the new member countries (Smutka, Belova, 2011). The above thus shows that the agricultural sector, and in general the trade of the new member countries, were very significantly affected by entry into the EU (Bojnec, Ferto, 2009).

The article in question focuses on the issues of the development of agricultural trade the selected segment in countries that have recently joined the EU and how their agricultural sector, and, in general, agricultural trade, were affected by the process itself associated with accession to the EU, and further, how their agricultural sector, or trade in agricultural production, was affected by membership in the EU itself. In this regard, the article focuses on the development of agricultural

trade of four central European countries that are joined by a common history and strong economic and political ties. The individual countries of today's Visegrad group (Czech Republic, Slovakia, Poland and Hungary) – hereinafter referred to as the V4 countries – have, within the past years, undergone stormy development, which has very significantly affected the structure of their economies including the agricultural sector and trade in agricultural products (Lukas, Mladek, 2006). Immediately after the break-up of the so-called eastern bloc, the Council for Mutual Economic Assistance, and the Soviet Union, a very significant economic decline occurred in the case of all of the analyzed countries, which was related to the collapse of the former socialist system and primarily its market.

The agricultural sector suffered very significant losses in the period of the transition from a centrally planned economy to a market economy (Bartosova et al., 2008). Reforms pertaining to the restructuring of the national economy very significantly affected the scope and position of the agricultural sector within the economies of the individual countries (primarily, there was a reduction in the volume of animal production and a decline in the number of workers in the agricultural sector). Such developments resulted in a decline in the level of self-sufficiency of the individual countries in regard to supplying their own markets. That was reflected primarily in the case of the Czech Republic and Slovakia (Basek, Kraus, 2009; Hambálková, 2008). Agricultural trade was also affected by a number of changes that occurred within such period. The changes pertained to both exports as well as imports. Immediately after the collapse of the market of the countries of the Council for Mutual Economic Assistance, fundamental changes occurred, entirely logically, not only within the territorial structure of the agricultural trade, but, in time, the commodity structure of agricultural trade also started to transform. The individual countries of today's Visegrad group opened their markets up more to imports of a whole range of products primarily from countries outside of the former eastern bloc. Further, there was also a significant restructuring of the territorial structure of agricultural export, whereby such countries gradually reoriented their trade flows from the former eastern bloc countries to European Union member countries and, in time, also to countries that were candidates for EU membership (Bojnec, Ferto, 2009).

In May of 2004, the countries of the V4 group became full-fledged members of the EU. Entry into the EU meant very significant changes in the area of agro-trade for the individual countries. The Czech Republic, Slovakia, Hungary and Poland became a part of the single market of the EU countries and all barriers limiting the movement of goods among such countries and EU15 countries up until that time came down. Additionally, the barriers affecting agricultural trade among such countries themselves and further new EU member countries, which simultaneously expanded the EU, also came down (Svatoš, 2010). Thus, although barriers between individual EU members (in this case including the V4 countries) were eliminated in May of 2004, agricultural trade between EU countries and non-EU-member countries remained limited by existing barriers to trade caused by the existence of Common Commercial Policy and Common Agricultural Policy of the EU countries (Drabík, Bártová, 2008). Such fact affected the trade of the V4 countries with regions lying outside of the market of the EU countries.

The text in question focuses on the issues of the development of agricultural foreign trade of the Visegrad group countries (Czech Republic, Hungary, Poland and Slovakia – hereinafter also referred to as the V4) with the goal of identifying its comparative advantages in the field of commodity structure and territorial structure, both in relation to the global market (the market of third countries lying outside of the EU), as well as in relation to EU27 countries – in this regard.

Materials and methods

In terms of the methodological issues, the analysis focuses on development of agricultural trade in relation to the EU27 countries and non-EU countries ("Third countries"). Further, it is also important to mention that in analytical terms, the entire text is (if the data allowed for it) compiled from the viewpoint of the development of agricultural trade and other variables relating thereto within the scope of time including the period of the years 2000 - 2010.

In terms of the uniformity of the data source, the UN COMTRADE database was selected as the central source of data. The selected database enables the monitoring of the development of merchandise trade (including its agricultural and food sections) according to the Standard International Trade Classification (SITC). The selected nomenclature enables the classification of merchandise trade into ten basic commodity classes (individual classes subsequently contain thousands of individual items representing the final structure of merchandise trade). For the purposes of the conducted analysis, the processed data are on the agricultural trade level (sum of SITC aggregations 0,1 and 4), trade in fuels

and mineral resources (sum of SITC aggregations 2 and 3), and, further, trade in processed industrial products (sum of SITC aggregations 5, 6, 7 and 8). In view of the fact that the main objective of the article in question is primarily the analysis of the competitiveness of agricultural trade of the individual V4 countries, it is divided up into 15 aggregations for the purposes of a more detailed analysis of agricultural trade. The following Tables 1 and 2 provides a brief overview of SITC nomenclature used for the analysis.

The actual data obtained from the above-mentioned database are processed in terms of the development of the actual value of the effected exchange (in current prices in American dollars USD). The analysis itself focuses on the issues of agricultural trade of the V4 countries in relation to agricultural trade in the world and in EU countries. It is conducted by way of the utilization of basic statistical characteristics, such as the basic index, chain index and geometric mean. A great portion of the analysis is also conducted by way of indices,

the objective of which is the characterization of the comparative advantages of V4 agricultural export (the work utilizes modified Ballas indices RCA, and the Lafaye index is also used). The Ballasa index provides a simple overview of the comparative advantage distribution (e.g., Proudman and Redding, 2000; Hinloopen and Marrewijk, 2001).

Revealed comparative advantage index (RCA1 – global/regional level)

$$RCA1 = (X_{ij}/X_{nj})/(X_{it}/X_{nt})$$

where:

X   represents exports

i   represents the analyzed country

j   represents the analyzed sector of the economy (sector of industry or commodity)

n   represents the group of countries or world

t   represents the sum of all sectors of the economy or the sum of all commodities or the sum of all branches

SITC (code)	Agregation
0	Food and live animals
1	Beverages and tobacco
2	Crude materials, inedible, except fuels
3	Mineral fuels, lubricants and related materials
4	Animal and vegetable oils, fats and waxes
5	Chemicals and related products, n.e.s.
6	Manufactured goods classified chiefly by material
7	Machinery and transport equipment
8	Miscellaneous manufactured articles
9	Commodities and transactions not classified elsewhere in the SITC

Source: UN COMTRADE, 2012

Table 1 SITC – Basic classification of merchandise trade.

S3-00	LIVE ANIMALS	S3-08	ANIMAL FEED STUFF
S3-01	MEAT, MEAT PREPARATIONS	S3-09	MISC.EDIBLE PRODUCTS ETC
S3-02	DAIRY PRODUCTS,BIRD EGGS	S3-11	BEVERAGES
S3-03	FISH,CRUSTACEANS,MOLLUSC	S3-12	TOBACCO,TOBACCO MANUFACT
S3-04	CEREALS,CEREAL PREPRTNS.	S3-41	ANIMAL OILS AND FATS
S3-05	VEGETABLES AND FRUIT	S3-42	FIXED VEG. FATS AND OILS
S3-06	SUGAR,SUGR.PREPTNS,HONEY	S3-43	ANIMAL,VEG.FATS,OILS,NES
S3-07	COFFEE,TEA,COCOA,SPICES		

Source: UN COMTRADE, 2012

Table 2 List of aggregations representing commodity structure of agricultural trade.

The RCA1 index analyzes the exporting of commodity "j" in the case of country "i" in proportion to the total exports of the given country and the corresponding total exports of the analyzed group of countries or of the whole world (Hinloopen, Marrewijk, 2001). A comparative advantage is then proven if the RCA1 index value is greater than 1. If, however, the result of the calculated index is less than 1, it may be asserted that the given country has a competitive disadvantage in the case of the given commodity or group of commodities (Qineti, Rajcaniova, Matejkova, 2009). The bilateral comparative advantage of total agrarian trade also individual items of the Czech, Hungarian, Polish and Slovakian agrarian export with respect to selected countries is analysed by means of the Lafay index. Apart from export flows, the Lafay index (hereinafter only the LFI index) also takes into account import flows. As opposed to the standard RCA index, its advantage is its ability to take into account the intersectoral trade and also re-export. In this respect, its information value is stronger as compared to the traditional index of the obvious comparative advantage (Balassa, 1965). It is suitable to utilize this index in the cases when a relationship between two business partners is analysed. The advantage of the LFI index as compared to the RCA index is also its ability to include any distortions caused by macroeconomic fluctuations (Fidrmuc et al., 1999). The LFI index enables to analyse the position of every specific product within the foreign trade structure of every specific analysed country or a group of countries (Zaghini, 2003). The LFI index for the given "i" country and for every "j" analysed product or group of products is defined in the following formula:

$$LFI^i_j = 100 * [((x^i_j - m^i_j) / (x^i_j + m^i_j)) - (\sum\nolimits^N_{j=1}(x^i_j - m^i_j)) / (\sum\nolimits^N_{j=1}(x^i_j + m^i_j))] * ((x^i_j + m^i_j) / (\sum\nolimits^N_{j=1}(x^i_j + m^i_j))$$

x^i_j and m^i_j represent exports and imports of "j" product realized by "i" country or a group of countries with respect to the rest of the world or with respect to a selected business partner (partner country). "N" is the number of analysed items (Lafay, 1992). The positive value of the LFI index indicates existence of a comparative advantage within the analysed traded aggregation or a group of aggregations in question. The higher is the resulting value of the index, the higher is the level of specialization of the country in question as regards trade with the given item or a group of items representing agrarian and food trade in this case. And vice versa, the negative value of the LFI index signals that specialization and hence comparative advantages are lacking (Zaghini, 2005).

Results and discussion

General characteristics of global merchandise and agricultural trade with a focus on EU countries

World merchandise trade in the years 2000 – 2010 increased very significantly in value and volume. A contributing factor in the growth in the value of world trade was also a relatively high growth of GDP primarily within the second half of the 1990's, which continued on a global scale until 2008, when the growth of the world economy was stopped by the global crisis, which had the greatest impact primarily on highly developed regions of the world, including Europe and the European Union. The process of liberalization of world trade has also contributed to the growth of world trade primarily within the last two decades (Potter, Tilzey, 2007). Liberalization within the Uruguay round of GATT opened up a very significant space for the development of global merchandise trade – including agricultural trade. Thus, since the 1990's (other than certain fluctuations, e.g. in 2001 and 2009), global trade has constantly been increasing in value. This has been occurring within all of the monitored segments of merchandise trade. Just in the years 2000 – 2010, the value of merchandise trade in the world increased from approximately USD 6 billion to more than USD 10 billion (however, it must be noted that the growth in the value was significantly accelerated by a decline in the rate of the USD within the monitored decade). Nevertheless, if we consider the growth in the volume of trade, it may be stated that in the course of the monitored period the actual volume of global trade increased by approximately 50% - which represents a very significant increase in terms of a relatively short time period. Merchandise trade of EU countries within the monitored period also increased very significantly. Just in the years 2000 – 2010, it increased from USD 1.5 billion to more than USD 3 billion, whereby it reached its peak in 2008, when its value ranged at about the level of USD 3.8 billion (details pertaining to the development of merchandise trade of the EU countries and total world trade can be found in Table 3). The said table further also shows development in the area of the commodity structure of world and Union merchandise trade.

In terms of value, agricultural trade represents the least significant component of world and Union merchandise trade. In world trade (without Union intra-trade), agricultural trade has a share of approximately 7%. The share in Union trade is approximately 10%. If we focus on the dynamics

In bil. USD													
World	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2000-2004**	**2005-2008**
Agricultural prod.	401.6	416.7	442.9	512.2	585.9	638.2	709	850.4	1023.2	913.9	1007.6	2359.2	3220.9
Fuels and Raw mat.	814.2	746.9	754.5	917.3	1197.9	1559.7	1985.9	2151.7	3043.9	1969.5	2493.6	4430.8	8741.2
Processed prod.	4926.6	4776.9	5046.5	5842.3	7053.1	7772.5	8956.2	10259.4	11268.4	9050.3	10758	27645.4	38256.5
EU27	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2000-2004**	**2005-2008**
Agricultural prod.	131.3	137.6	151.3	185	212.8	228.9	249.5	299.5	350.2	312.6	322.3	818	1128.1
Fuels and Raw mat.	103.4	96.4	100.8	124.3	160.3	194.7	237	262.5	333.7	209.3	274.3	585.1	1027.8
Processed prod.	1326.4	1342.9	1442	1732.1	2081.8	2196.7	2498.8	2908.2	3108.3	2393.5	2607.1	7925.2	10712
Inter annual growth rate (chain index)													
World	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2000-2004**	**2005-2008**
Agricultural prod.		1.038	1.063	1.156	1.144	1.089	1.111	1.199	1.203	0.893	1.103	1.099	1.15
Fuels and Raw mat.		0.917	1.01	1.216	1.306	1.302	1.273	1.083	1.415	0.647	1.266	1.101	1.263
Processed prod.		0.97	1.056	1.158	1.207	1.102	1.152	1.146	1.098	0.803	1.189	1.094	1.124
EU27	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2000-2004**	**2005-2008**
Agricultural prod.		1.048	1.1	1.223	1.15	1.076	1.09	1.2	1.169	0.893	1.031	1.128	1.133
Fuels and Raw mat.		0.932	1.046	1.232	1.29	1.215	1.217	1.107	1.271	0.627	1.31	1.116	1.201
Processed prod.		1.012	1.074	1.201	1.202	1.055	1.138	1.164	1.069	0.77	1.089	1.119	1.105

Source: Comtrade, own processing, 2012

Table 3 Development of global trade in the years 2000 – 2010.

in the area of the development of global and Union agricultural trade, it may be stated that agricultural trade of EU countries shows lesser dynamic of growth as compared to the development of global agricultural trade. In view of the fact that agricultural trade of EU countries is based primarily on processed food products, the global economic crisis in recent years has had a more significant impact on it than on the global foodstuffs market – that pertains primarily to the year 2010, when the value of the global foodstuffs market grew by approximately 10%, while the value of Union trade in agricultural production only grew by 3%. In this regard, it is appropriate to further state that the crisis in the area of merchandise trade as well as agricultural trade had a much more significant impact on EU15 countries as compared to the new member countries – even though such countries also experienced a whole range of problems associated with the global economic crisis.

Development and structure of merchandise trade of the Visegrad group countries with a focus on agricultural trade

The countries of the Visegrad group are representatives of the new member countries of the EU. A general characteristic of such countries is their very significant orientation toward foreign trade, which is primarily significant in the case of the Czech Republic and Slovakia, as well as in the case of Hungary. Poland also likewise significantly engages in foreign trade activities, but nevertheless, the share of foreign trade in the Polish GDP is significantly lower in comparison with the share of foreign trade in the GDP of the Czech Republic, Slovakia and Hungary. If we analyze the commodity structure of merchandise trade of the V4 countries, we find that it is dominated (both in the case of export – Table 4, as well as in the case of import – Table 5) by trade in processed industrial products. Further, it is also important to state that

Export		bil. USD	2000	2002	2004	2005	2006	2007	2008	2009	2010	Inter annual growth rate – average value
CR	EU27	Agriculture	0.86	1.19	1.89	2.58	2.88	3.98	5.08	4.45	4.51	1.18
CR	EU27	Fuels and Raw mat.	1.79	2.95	3.42	3.91	4.68	5.95	7.75	6.53	8.12	1.163
CR	EU27	Processed products	22.31	33.62	51.84	60.43	72.4	92.88	108.3	82.51	95.11	1.156
SR	EU27	Agriculture	0.32	0.43	0.89	1.29	1.56	2.05	2.24	2.3	2.39	1.223
SR	EU27	Fuels and Raw mat.	1.17	1.26	2.52	2.74	3.15	3.76	4.97	3.71	4.69	1.149
SR	EU27	Processed products	9.17	11.25	20.75	23.73	31.47	44.48	52.59	41.6	46.82	1.177
Hungary	EU27	Agriculture	1.32	1.6	2.52	2.65	2.97	4.67	5.68	4.89	5.25	1.148
Hungary	EU27	Fuels and Raw mat.	0.9	0.95	1.68	2.09	2.1	2.9	3.68	2.53	3.51	1.146
Hungary	EU27	Processed products	20.94	26.15	41.87	43.59	53.57	61.12	68.11	53.41	59.38	1.11
Poland	EU27	Agriculture	1.6	2.03	4.52	6.33	7.94	10.44	13.07	12.04	13.27	1.236
Poland	EU27	Fuels and Raw mat.	2.2	2.68	5.29	5.74	6.44	7.4	9.31	5.63	8.61	1.146
Poland	EU27	Processed products	21.53	28.12	49.47	56.37	70.77	89.89	108.7	88.91	102.12	1.168
CR	World	Agriculture	1.11	1.4	2.18	2.99	3.25	4.37	5.53	4.84	4.94	1.161
CR	World	Fuels and Raw mat.	1.91	3.14	3.63	4.19	4.96	6.28	8.13	6.94	8.69	1.164
CR	World	Processed products	26.03	39.72	59.96	71.02	86.93	110.25	132.43	101.1	118.51	1.164
SR	World	Agriculture	0.37	0.49	0.98	1.41	1.69	2.15	2.37	2.39	2.49	1.21
SR	World	Fuels and Raw mat.	1.22	1.31	2.59	2.82	3.3	3.89	5.19	3.85	4.84	1.148
SR	World	Processed products	10.3	12.67	24.29	27.63	36.69	52.01	62.64	49.31	56.67	1.186
Hungary	World	Agriculture	1.96	2.35	3.41	3.63	4.02	5.72	7.12	5.89	6.5	1.127
Hungary	World	Fuels and Raw mat.	1.02	1.12	2.08	2.7	2.87	4.14	5.33	3.46	4.5	1.16
Hungary	World	Processed products	25.12	30.86	49.98	55.94	67.17	84.73	95.76	73.22	83.7	1.128
Hungary	World	Total trade	28.09	34.34	55.47	62.27	74.06	94.59	108.21	82.57	94.69	1.129
Poland	World	Agriculture	2.43	3.03	6.11	8.36	10.12	12.95	16.13	14.96	16.79	1.213
Poland	World	Fuels and Raw mat.	2.48	3.02	5.94	6.5	7.34	8.34	11.01	6.66	10.07	1.15
Poland	World	Processed products	26.05	34.21	61.73	74.52	92.13	117.49	144.72	115.03	130.21	1.175

Source: Comtrade, own processing, 2012

Table 4 Development of value and structure of foreign trade (export) of Visegrad group countries in the years 2000 – 2010.

the actual territorial structure of merchandise trade of the V4 countries is distinctly oriented toward EU27 countries. Another interesting finding that pertains to the development of merchandise trade of the Visegrad group countries is also the fact that the average year-on-year rate of growth of merchandise trade of the V4 countries significantly exceeds both the average year-on-year rate of growth of the world merchandise trade, as well as the average year-on-year rate of growth of merchandise trade of EU countries. Thus, that also shows a significant increase in the value of effected trading operations in the years 2000 – 2010, when, in the case of exports, there was an increase in value from USD 100 billion to almost 500 billion USD (in the year 2008). In the case of goods imports, the value increased from USD 125 billion to approximately 530 billion (in the year 2008). It is also appropriate to mention that in terms of merchandise trade – the V4 group leaders are undoubtedly Poland and the Czech Republic.

In relation to the position of agricultural trade of the Visegrad group countries within the overall merchandise trade, it may be stated that likewise as in the case of the global and European market, agricultural trade represents only a supplement to merchandise trade. In the case of goods exports and imports, agricultural products have approximately a 7% or 6.2 % share in the total value (data for the year 2010). In this regard, it is important to state that the value of both agricultural exports as well as imports of the V4 countries is dynamically increasing. Just in the years 2000-2010, the value of agricultural export of the V4 countries increased from USD 6 billion to more than USD 30 billion, and in the case of agricultural import, there was an increase in the traded value from USD 6 billion to 28 billion. In terms of their own development of agricultural trade, the V4 countries achieve, other than certain exceptions, a positive balance of agricultural trade. Nevertheless, it is appropriate to state that currently, such positive balance is fully to the debit of the agricultural trade of Poland and Hungary, while the agricultural trade of the Czech

Import		bil. USD	2000	2002	2004	2005	2006	2007	2008	2009	2010	Inter annual growth rate – average value
CR	EU27	Agriculture	1.12	1.55	2.59	3.27	3.93	5.04	5.98	5.65	5.64	1.175
CR	EU27	Fuels and Raw mat.	1.45	3.17	2.8	3.18	3.71	4.81	6.1	4.55	5.18	1.136
CR	EU27	Processed products	21.31	29.33	42.87	48.26	57.66	72.76	81.67	58.23	65.45	1.119
SR	EU27	Agriculture	0.59	0.73	1.07	1.56	1.7	2.26	3.03	2.63	2.82	1.169
SR	EU27	Fuels and Raw mat.	0.51	0.73	1.43	1.51	1.79	2.06	2.92	2.27	3.22	1.202
SR	EU27	Processed products	7.81	10.75	17.75	18.45	23.07	29.87	37.1	25.07	28.11	1.137
Hungary	EU27	Agriculture	0.55	0.78	2.02	2.44	2.73	3.45	4.29	3.72	3.82	1.214
Hungary	EU27	Fuels and Raw mat.	0.84	1.03	1.72	2.17	2.66	2.82	3.86	2.97	3.36	1.149
Hungary	EU27	Processed products	19.72	22.46	40.35	38.87	48.91	53.68	59.17	40.02	44.57	1.085
Poland	EU27	Agriculture	1.81	2.04	3.2	3.92	4.59	6.72	9.57	8.03	8.86	1.172
Poland	EU27	Fuels and Raw mat.	1.66	1.58	2.83	3.61	4.46	6.62	8.88	5.72	6.18	1.14
Poland	EU27	Processed products	29.82	34.29	54.62	57.87	69.69	90.1	109.08	76.58	87.6	1.114
CR	World	Agriculture	1.56	2.02	3.27	3.99	4.65	5.99	7.1	6.55	6.65	1.156
CR	World	Fuels and Raw mat.	4.13	7.96	6.47	7.17	10.9	12.03	18.45	11.88	15.19	1.139
CR	World	Processed products	26.55	38.25	56.97	65.37	77.87	98.8	116.28	86.41	103.85	1.146
SR	World	Agriculture	0.71	0.89	1.47	2.05	2.24	3.13	3.97	3.76	3.97	1.188
SR	World	Fuels and Raw mat.	2.73	2.83	4.78	5.69	7.37	8.05	11.36	7.86	10.55	1.145
SR	World	Processed products	9.33	12.91	23.21	26.49	35.15	48.03	57.28	43.53	49.86	1.182
Hungary	World	Agriculture	0.92	1.17	2.29	2.67	2.97	3.79	4.7	4	4.12	1.162
Hungary	World	Fuels and Raw mat.	2.13	3.41	5.34	7.6	6.79	10.15	10.69	6.78	10.74	1.176
Hungary	World	Processed products	29.03	33.03	52.62	55.65	67.22	80.72	93.39	66.49	72.5	1.096
Poland	World	Agriculture	2.86	3.21	4.95	6.13	7.27	10.07	13.6	11.58	13.08	1.164
Poland	World	Fuels and Raw mat.	6.91	6.64	11.11	14.55	16.78	21.16	30.18	18.02	24.18	1.133
Poland	World	Processed products	38.36	44.41	72.1	80.87	101.59	132.94	166.7	119.96	136.87	1.136

Source: Comtrade, own processing, 2012

Table 5 Development of value and structure of foreign trade (import) of Visegrad group countries in the years 2000 – 2010.

Republic and Slovakia regularly finishes in negative values. A further significant characteristic of agricultural trade of the V4 countries is its distinct orientation toward the market of EU countries – whereby a significant portion of the effected exports as well as imports goes through EU12 countries. An important role in this regard is also played by the actual trade effected between the individual V4 member countries amongst themselves (see the text below).

A specific characteristic of merchandise trade of the V4 countries is the competitiveness of effected goods transactions, both in relation to the market of the EU27 countries, as well as in relation to the market of third countries. In this regard, it is appropriate to emphasize that currently, in terms of the development of the value of effected trade flows, the important thing is primarily the ability to retain comparative advantages in relation to the EU27 market , which represents the main outlet for exports originating from V4 countries. The following Table 6 provides information on the development of values of the RCA1 index in the case of individual goods categories traded by

the individual V4 countries. The data shows that comparative advantages are being maintained on a long-term basis by all of the monitored countries primarily in the case of trade in processed industrial products, both in relation to the EU market, as well as in relation to the market of third countries. Trade in fuels and mineral resources is, as a whole, uncompetitive on a long-term basis, both in relation to EU countries, as well as in relation to third countries. As regards agricultural trade, there we can state that agricultural trade of the V4 countries is currently uncompetitive, both in relation to the EU market, as well as in relation to the market of third countries. Nevertheless, in the case of Poland, the situation is the opposite. Polish agricultural trade, unlike agricultural trade of the Czech Republic, Slovakia and Hungary, is capable of achieving comparative advantages, and, importantly – it is also capable of amplifying them.

In relation to the development of values of the RCA1 index, it is appropriate to also mention the development of the competitiveness of Hungarian agro-trade, which, unlike that of Poland, has had a tendency to stagnate within recent years.

Export		RCA1	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
CR	EU27	Agriculture	0.41	0.37	0.35	0.35	0.38	0.44	0.43	0.45	0.45	0.44	0.42
CR	EU27	Fuels and Raw mat.	1.08	1.07	1.31	1.01	0.92	0.79	0.74	0.77	0.73	0.97	0.88
CR	EU27	Processed products	1.05	1.06	1.05	1.07	1.07	1.08	1.08	1.08	1.09	1.07	1.08
SR	EU27	Agriculture	0.36	0.37	0.37	0.33	0.42	0.53	0.52	0.47	0.41	0.45	0.44
SR	EU27	Fuels and Raw mat.	1.66	1.72	1.64	1.40	1.60	1.33	1.10	0.99	0.94	1.09	1.02
SR	EU27	Processed products	1.01	1.01	1.02	1.04	1.01	1.02	1.04	1.06	1.07	1.06	1.07
Hungary	EU27	Agriculture	0.68	0.72	0.62	0.63	0.63	0.63	0.61	0.79	0.79	0.75	0.77
Hungary	EU27	Fuels and Raw mat.	0.59	0.58	0.56	0.54	0.56	0.58	0.45	0.56	0.54	0.58	0.60
HUngary	EU27	Processed products	1.06	1.06	1.07	1.07	1.07	1.08	1.09	1.06	1.07	1.07	1.07
Poland	EU27	Agriculture	0.75	0.72	0.69	0.72	0.88	1.06	1.12	1.12	1.08	1.05	1.06
Poland	EU27	Fuels and Raw mat.	1.31	1.47	1.37	1.24	1.37	1.13	0.95	0.91	0.81	0.74	0.81
Poland	EU27	Processed products	1.00	0.99	1.01	1.01	0.98	0.98	0.99	1.00	1.01	1.02	1.01
CR	Third	Agriculture	1.04	0.79	0.50	0.70	0.57	0.65	0.46	0.38	0.31	0.30	0.28
CR	Third	Fuels and Raw mat.	0.19	0.19	0.20	0.17	0.15	0.13	0.09	0.09	0.06	0.11	0.12
CR	Third	Processed products	1.16	1.17	1.18	1.18	1.21	1.24	1.28	1.28	1.37	1.30	1.30
SR	Third	Agriculture	0.69	0.65	0.61	0.46	0.42	0.53	0.44	0.23	0.21	0.17	0.16
SR	Third	Fuels and Raw mat.	0.26	0.28	0.23	0.17	0.12	0.11	0.13	0.09	0.09	0.09	0.07
SR	Third	Processed products	1.18	1.16	1.16	1.21	1.23	1.26	1.27	1.29	1.37	1.32	1.32
Hungary	Third	Agriculture	2.20	2.08	2.08	1.83	1.62	1.26	1.28	0.72	0.80	0.69	0.76
Hungary	Third	Fuels and Raw mat.	0.16	0.15	0.21	0.22	0.26	0.24	0.25	0.25	0.23	0.22	0.19
HUngary	Third	Processed products	1.08	1.08	1.06	1.09	1.11	1.17	1.18	1.21	1.27	1.24	1.24
Poland	Third	Agriculture	2.49	2.24	2.10	2.26	1.87	1.74	1.68	1.44	1.29	1.46	1.72
Poland	Third	Fuels and Raw mat.	0.32	0.34	0.32	0.26	0.28	0.20	0.18	0.16	0.18	0.18	0.22
Poland	Third	Processed products	1.02	1.02	1.04	1.04	1.08	1.14	1.17	1.18	1.25	1.18	1.15

Source: Comtrade, own processing, 2012

Table 6 Competitiveness of commodity structure of merchandise trade of V4 countries in relation to the EU market and to the global market.

Hungary – at one time the number one agricultural exporter within the monitored region – has been significantly declining within recent years. That pertains primarily to the dynamics of growth of Hungarian agricultural export, which continues to decline. However, the decline in the dynamics of growth of agricultural export is not the main problem of Hungary – the main problem is the continually growing rate of growth of agricultural imports – which gradually leads to a decline in the significance of agricultural trade as a source of a positive trade balance.

Agricultural trade of the V4 countries in relation to partners from EU countries – status as of 2010

Tables 7 and 8, as mentioned further in the text, provide a detailed overview of the development of the territorial structure of agricultural trade of the individual V4 countries in relation to the individual member countries of the European Union. The table shows that although the individual V4 countries effect trade operations in agricultural and food goods in relation to all other member countries – their territorial structure of agricultural trade is significantly limited and greatly concentrated. The great concentration of agricultural trade in relation to individual EU countries is evidenced by the following findings shown by the table. In the case of the Czech Republic, the most significant partners are: Germany, Slovakia, Austria, Hungary, Italy, Poland and Romania (these countries participate in the total agricultural export and import with a share of 74.2% or 56.1% respectively). In the case of Slovakia, the most significant partners are: Czech Republic, Austria, Germany, Hungary, Italy and Poland (these countries participate in the agricultural export and import with a share of 85.6% or 59% respectively). In the case of Hungary and Poland, the territorial concentration on a limited number of EU countries is not as prominent as is the case for the Czech Republic and Slovakia, but, nevertheless, a narrow orientation toward several key members of the EU territory is more than clear. In the case of Hungary, the most significant partners are: Germany, Italy, Romania, Slovakia, Austria, Poland and the Czech Republic (these countries participate in the agricultural export and import with a share of 60% or 66% respectively). In the

mil. USD		CR	Hungary	Poland	Slovakia	V4	mil. USD	CR	Hungary	Poland	SR	V4
Import	Austria	298,2	361.5	175.5	91.1	926.3	Export	299.9	476.7	262.8	165	1204.5
Import	Belgium	216,8	96.1	335	41	688.9	Export	81.4	117.4	383	25.3	607.1
Import	Bulgaria	19,6	15.1	59.9	9.4	104	Export	30	102.2	137.7	54.5	324.4
Import	Cyprus	2	11.7	8.7	1.1	23.5	Export	1.8	15	12.3	7.6	36.7
Import	Czech	0	212.1	440.9	928.2	1581.1	Export	0	258.3	1070.4	684.4	2013.2
Import	Denmark	86,5	45.6	632.4	16	780.5	Export	34.7	32.9	358	2.3	427.9
Import	Estonia	4	0.7	7.5	1	13.1	Export	5.6	18	90	1.5	115.1
Import	Finland	10,4	1.7	55.5	3.3	70.9	Export	18.4	16.9	133.9	10.2	179.5
Import	France	250,5	150.2	501.6	72.8	975	Export	126.4	222.3	1040.4	21.6	1410.7
Import	Germany	1535	915.1	2814.2	411.3	5675.5	Export	880.9	709.6	3600.1	97.9	5288.6
Import	Greece	67,6	29.8	126.1	21	244.5	Export	12.7	92.9	127	3.2	235.8
Import	Hungary	265,2	0	250	330.4	845.6	Export	216.1	0	610.7	672.4	1499.2
Import	Ireland	49,8	35.8	99.9	17	202.5	Export	21.7	6.7	123.4	1.4	153.1
Import	Italy	390,4	195.7	614.1	112.1	1312.3	Export	356.6	662.9	988.1	111.5	2119.2
Import	Latvia	4,4	0.7	35.8	5.7	46.6	Export	9.6	14.5	176.2	1.6	201.9
Import	Lithuania	9,9	10.6	130.1	1.3	151.9	Export	27.2	37.2	379.1	6.5	450
Import	Luxembourg	1,2	4.7	1.8	1.4	9.2	Export	1.8	1.9	4.9	0	8.6
Import	Malta	0	0.2	0	0	0.3	Export	0.8	2.1	6.7	0	9.6
Import	Netherlands	386,2	421.3	971.8	112.4	1891.7	Export	82	212.9	958.4	40.6	1293.9
Import	Poland	1007,5	568.1	0	444.2	2019.8	Export	480.6	265.5	0	272.5	1018.6
Import	Portugal	38,4	13.5	31	2.1	84.9	Export	5.8	10.7	55.7	2.3	74.5
Import	Romania	28,2	147.5	46.4	21.8	243.9	Export	87.1	902	305.2	127	1421.5
Import	Slovakia	499,9	325.6	245.1	35.8	1106.4	Export	1431.5	624.3	515.9	0	2571.8
Import	Slovenia	6,4	97.5	4.5	5.3	113.6	Export	45.1	142.6	91.6	13.4	292.7
Import	Spain	343,8	80.6	754	104.2	1282.7	Export	41.9	64.3	331.8	28.2	466.3
Import	Sweden	32	9	123.1	10.4	174.5	Export	54.6	49.3	289.8	8.1	401.7
Import	UK	83,9	74	393.2	17.2	568.3	Export	157.7	188.5	1214.2	32.1	1592.5
Import	EU15	3790,8	2434.6	7629.2	1033.2	14887.8	Export	2176.5	2865.9	9871.5	549.8	15463.7
Import	EU12	1847,2	1389.9	1228.9	1784	6249.9	Export	2335.4	2381.6	3395.9	1841.5	9954.5
Import	Visegrad 4	1772,6	1105.8	936	1738.5	5552.9	Export	2128.2	1148.1	2197	1629.3	7102.7

Source: Comtrade, own processing, 2012

Table 7 Territorial structure of agricultural trade of the V4 countries in relation to EU countries.

case of Hungary, the most significant partners are: Germany, Italy, Romania, Slovakia, Austria, Poland and the Czech Republic (these countries participate in the agricultural export and import with a share of 60% or 66% respectively). And, finally, the most significant Polish trading partners from the territory of the EU countries are: Germany, Czech Republic, France, Italy, Hungary, Great Britain, Netherlands and Slovakia (these countries participate in the agricultural export and import with a share of 60% or 48% respectively). The data further shows that the individual V4 countries are mutual significant business partners to each other. In the case of the Czech Republic, the countries of the V4 are currently participating with a share of approximately 43.1% in the total agricultural exports and 26.6% of imports. In the case of Slovakia, the share of V4 countries represents approximately 65.5% for export and approximately 42.9% for agricultural

import. Further, the V4 countries also participate in agricultural exports and imports of Hungary with a share of approximately 17.7%, or 26.9% respectively. Only in the case of Poland is the share of V4 countries in the actual agricultural export (13.1%) and import (7.2%) marginal, for reasons of its significantly higher production as compared to the other countries. The production of Poland significantly exceeds the absorbing capacities of the market of the V4 countries. The reason for the low share of V4 countries in Polish imports is the fact that, in relation to Poland, the V4 countries do not have such significant comparative advantages as it is the other way around.

The following Table 9 provides an overview of the distribution of the comparative advantages in the case of the agricultural trade of the individual monitored countries. As was stated above – with

mil. USD		CR	Hungary	Poland	Slovakia	V4	mil. USD	CR	Hungary	Poland	SR	V4
				Share in import						Share in export		
Import	Austria	4.50%	8.80%	1.30%	2.30%	3.30%	Export	6.10%	7.30%	1.60%	6.60%	3.90%
Import	Belgium	3.30%	2.30%	2.60%	1.00%	2.50%	Export	1.60%	1.80%	2.30%	1.00%	2.00%
Import	Bulgaria	0.30%	0.40%	0.50%	0.20%	0.40%	Export	0.60%	1.60%	0.80%	2.20%	1.10%
Import	Cyprus	0.00%	0.30%	0.10%	0.00%	0.10%	Export	0.00%	0.20%	0.10%	0.30%	0.10%
Import	Czech	0.00%	5.20%	3.40%	23.40%	5.70%	Export	0.00%	4.00%	6.40%	27.50%	6.60%
Import	Denmark	1.30%	1.10%	4.80%	0.40%	2.80%	Export	0.70%	0.50%	2.10%	0.10%	1.40%
Import	Estonia	0.10%	0.00%	0.10%	0.00%	0.00%	Export	0.10%	0.30%	0.50%	0.10%	0.40%
Import	Finland	0.20%	0.00%	0.40%	0.10%	0.30%	Export	0.40%	0.30%	0.80%	0.40%	0.60%
Import	France	3.80%	3.60%	3.80%	1.80%	3.50%	Export	2.60%	3.40%	6.20%	0.90%	4.60%
Import	Germany	23.10%	22.20%	21.50%	10.40%	20.40%	Export	17.80%	10.90%	21.40%	3.90%	17.20%
Import	Greece	1.00%	0.70%	1.00%	0.50%	0.90%	Export	0.30%	1.40%	0.80%	0.10%	0.80%
Import	Hungary	4.00%	0.00%	1.90%	8.30%	3.00%	Export	4.40%	0.00%	3.60%	27.00%	4.90%
Import	Ireland	0.70%	0.90%	0.80%	0.40%	0.70%	Export	0.40%	0.10%	0.70%	0.10%	0.50%
Import	Italy	5.90%	4.80%	4.70%	2.80%	4.70%	Export	7.20%	10.20%	5.90%	4.50%	6.90%
Import	Latvia	0.10%	0.00%	0.30%	0.10%	0.20%	Export	0.20%	0.20%	1.00%	0.10%	0.70%
Import	Lithuania	0.10%	0.30%	1.00%	0.00%	0.50%	Export	0.60%	0.60%	2.30%	0.30%	1.50%
Import	Luxembourg	0.00%	0.10%	0.00%	0.00%	0.00%	Export	0.00%	0.00%	0.00%	0.00%	0.00%
Import	Malta	0.00%	0.00%	0.00%	0.00%	0.00%	Export	0.00%	0.00%	0.00%	0.00%	0.00%
Import	Netherlands	5.80%	10.20%	7.40%	2.80%	6.80%	Export	1.70%	3.30%	5.70%	1.60%	4.20%
Import	Poland	15.10%	13.80%	0.00%	11.20%	7.30%	Export	9.70%	4.10%	0.00%	11.00%	3.30%
Import	Portugal	0.60%	0.30%	0.20%	0.10%	0.30%	Export	0.10%	0.20%	0.30%	0.10%	0.20%
Import	Romania	0.40%	3.60%	0.40%	0.50%	0.90%	Export	1.80%	13.90%	1.80%	5.10%	4.60%
Import	Slovakia	7.50%	7.90%	1.90%	0.90%	4.00%	Export	29.00%	9.60%	3.10%	0.00%	8.40%
Import	Slovenia	0.10%	2.40%	0.00%	0.10%	0.40%	Export	0.90%	2.20%	0.50%	0.50%	1.00%
Import	Spain	5.20%	2.00%	5.80%	2.60%	4.60%	Export	0.80%	1.00%	2.00%	1.10%	1.50%
Import	Sweden	0.50%	0.20%	0.90%	0.30%	0.60%	Export	1.10%	0.80%	1.70%	0.30%	1.30%
Import	UK	1.30%	1.80%	3.00%	0.40%	2.00%	Export	3.20%	2.90%	7.20%	1.30%	5.20%
Import	EU15	57.00%	59.10%	58.30%	26.00%	53.50%	Export	44.10%	44.10%	58.80%	22.10%	50.30%
Import	EU12	27.80%	33.80%	9.40%	45.00%	22.50%	Export	47.30%	36.60%	20.20%	74.00%	32.40%
Import	Visegrad 4	26.60%	26.90%	7.20%	43.80%	20.00%	Export	43.10%	17.70%	13.10%	65.50%	23.10%

Source: Comtrade, own processing, 2012

Table 8 Territorial structure of agricultural trade of the V4 countries in relation to EU countries.

the exception of Poland – agricultural trade as a whole does not currently have comparative advantages in relation to the market of the EU27 countries in the case of any other country of the V4 group. Nevertheless, this contradicts the fact that agricultural trade, including exports effected by V4 countries in relation to the market of EU countries, is continually increasing in its own value. Such development is evidence of the fact that the individual countries, although they do not achieve comparative advantages in relation to the EU27 as a whole – do achieve at least partial comparative advantages both on the territorial structure level, as well as on the commodity structure level – as will be further demonstrated in the text.

In relation to the member countries of the EU, the Czech Republic achieves comparative advantages in the case of trade with Slovakia, Slovenia, Romania, Malta and Luxembourg. In the case of Slovakia, the situation is similarly poor. Slovakia achieves comparative advantages in agricultural trade only in relation to Bulgaria, Finland, Romania and Slovenia. Generally, it may be stated that the Czech Republic and Slovakia are, in relation to the distribution of comparative advantages of agricultural trade as a whole among the EU member countries, in the worst position of all of the monitored V4 countries. Hungary and Poland are in the opposite position. Hungary achieves comparative advantages in relation to Austria, Belgium, Bulgaria, Cyprus, Estonia, Finland, Italy, Lithuania, Latvia, Malta, Romania, Slovakia, Slovenia and Great Britain. Poland retains

LFI 2010	CR	Hungary	Poland	Slovakia	V4
Austria	-1.2	1.7	1.4	-0.7	-0.1
Belgium	-3.5	1.3	1.1	-1.7	-0.7
Bulgaria	-2.2	1.8	3.9	1.9	0.8
Cyprus	-1.4	11.2	-5.1	-0.5	-1.9
Czech	N/A	0	2.2	-3	-0.3
Denmark	-4.1	-2.1	-8.5	-2.5	-6.4
Estonia	-1.4	4.7	2.5	-0.6	2.1
Finland	0	2.5	4.2	1.4	2.4
France	-2.1	-0.1	1.5	-1.2	-0.3
Germany	-1.4	-0.7	0.7	-1.6	-0.6
Greece	-16.3	-2.8	-9.8	-7.1	-9
Hungary	-1.3	N/A	2.7	-1.3	1.4
Ireland	1	-3.1	5.5	-2.7	2.4
Italy	-1.2	3.6	2.1	-0.9	1.1
Latvia	-2	1	1.7	-6.5	0
Lithuania	-0.2	0.4	4.2	-0.2	2.7
Luxembourg	0.3	-1.1	1.1	-1.2	0.2
Malta	1.7	5.2	11	N/A	5.9
Netherlands	-4.1	-2.6	-0.6	-5.7	-2.7
Poland	-3.5	-4.7	N/A	-5.1	-4.2
Portugal	-4.3	-2.8	1	-0.3	-1.6
Romania	0.8	4.5	4.9	2.8	4
Slovakia	2.4	1.3	2.9	N/A	2.3
Slovenia	2.6	1.3	7.9	0.3	2.9
Spain	-7	-2.5	-6.8	-5.8	-6.5
Sweden	-0.1	2.1	1.2	-0.8	0.6
United Kingdom	-0.4	-0.4	1.6	-0.1	0.4
EU15	-1.9	-0.2	0.5	-1.6	-0.7
EU12	-0.4	0.7	3.2	-2	0.5
Visegrad 4	-0.4	-1	2.5	-2.3	-0.2

Source: Comtrade, own processing, 2012

Table 9 Comparative advantages of agricultural trade of the V4 countries in relation to EU.

comparative advantages in relation to Austria, Belgium, Bulgaria, Czech Republic, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Lithuania, Latvia, Luxembourg, Malta, Portugal, Romania, Slovenia, Slovakia, Sweden and Great Britain. The general finding is then that in relation to the market of the V4 countries, has comparative advantages are had primarily by Poland – which significantly dominates the entire market.

Conclusions

On the basis of the above findings, it is shown that agricultural trade in the case of all of the countries of the Visegrad group represents only a marginal part of the total merchandise trade. Further, in regard to the agricultural trade of the individual analyzed countries, it may be stated that the commodity structure as well as the territorial structure is very significantly concentrated. The predominant majority of agricultural trade – export as well as import – is carried out in regard to EU countries. Such countries participate in the agricultural trade of the individual countries of the V4 group at a rate of over 80%. Third countries represent only a marginal market in regard to the sale of agricultural products from the V4 countries, and their position is slightly more significant in relation to agricultural imports primarily of tropical and subtropical products going onto the markets of the V4 countries. In regard to the territorial structure of the agricultural trade of the V4 countries, it may generally be stated that it is relatively stable in time. Nevertheless, entry into the EU in 2004 had a significant impact on its current form. Within agricultural trade, orientation toward the market of EU countries has asserted itself more, whereby there was an increase in trade primarily in relation to new EU member countries, which, in the

area of agricultural trade, only liberalized mutual agricultural and food trade to a limited extent prior to entry into the EU. However, after entry into the EU, they had to eliminate all barriers to mutual trade at one time – while in relation to the EU15 countries, the process of eliminating mutual barriers to trade was gradual and had already been commenced in the period of the signing of association treaties in the 1990's. In relation to third countries, the entry of the V4 countries into the EU meant a significant change. Trade with such countries after entry into the EU stopped being affected by bilateral treaties entered into between the individual V4 countries and their partners; after the entry of the V4 countries into the EU, agricultural trade between the V4 countries and third countries began to be governed by the rules based on the Common Commercial Policy and Common Agricultural Policy of the EU countries. This then subsequently led to a decline in the significance of third countries in terms of the forming of the territorial structure of agricultural trade. In relation to the development of agricultural trade with third countries, entry into the EU affected primarily the Czech Republic and Slovakia - and also Hungary to a limited extent, and Poland the least. In relation to the development of the commodity structure of agricultural trade, it may be stated that the volume and value of trade effected within the majority of goods aggregations is growing on a long-term basis in the case of all of the V4 group countries. Nevertheless, it is appropriate to state that the most dynamic growth in terms of the development of the value of effected trade in terms of the development of the value of effected trade in recent years was seen in the case of Poland. Czech and Slovak agricultural trade also showed considerable growth in terms of effected trade; however – only in the case of Poland was the growth in the dynamicity of exports so substantial that the resulting balance of Polish agricultural trade moved from negative values to positive values. A specific country in terms of the development of the commodity structure and the value of agricultural trade is Hungary. At the beginning of the monitored period, it was the only country of the V4 group with a positive balance in agricultural trade. Nevertheless, structural problems of the Hungarian economy also led to significant problems in the area of the development of the agricultural sector and agricultural trade – when a significant decline in the

dynamicity of growth in the value of agricultural exports occurred – primarily in the field of highly processed products with a higher level of added value and, further, there was also a significant increase in imports primarily of cheap agricultural and food products characterized by a low quality level. The result of such development is the gradual reduction in the field of the development of a positive balance of the Hungarian agro-trade and a decline in the importance of the agricultural sector – or agricultural trade – as a significant source of the positive trade balance of Hungarian merchandise trade.

If we focus on the actual objective of the article, which was to identify the comparative advantages of agricultural trade of the V4 countries in the area of commodity structure and territorial structure, both in relation to the global market, as well as in relation to the EU27 countries, the following may be stated. Agricultural trade of the Czech Republic, Slovakia and Hungary as a whole does not have comparative advantages either on the global market or on the internal market of the EU countries. However, Poland as the only representative of the V4 countries does have comparative advantages in the field of agricultural trade, both in relation to the internal market of the EU countries, as well as in relation to the global market (to the market of third countries). If we focus on the territory of the EU27 countries, which represents the main trade partner of all of the analyzed countries, both in terms of exports, as well as in terms of imports, it may be stated that although the Czech Republic, Slovakia and Hungary do not have comparative advantages in the area of agricultural trade in regard to the EU as a whole, they are capable of achieving comparative advantages at the level of bilateral relations with individual EU member countries. In terms of bilateral business competition, Poland and Hungary are of course in the best position. On the other hand, the Czech Republic and Slovakia are in the worst positions.

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