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Postavenie maďarských potravín na trhu Európskej únie

The position of Hungarian foods on the market of European Union

Abstract *The positive balance of foreign trade of the food industry still has an important role in the stabilisation of the balance of the foreign trade of the Hungarian economy. The aim of the paper is to present the position of Hungarian foods on the market of European Union since the accession and to evaluate the competiveness of product groups by different comparative advantage indices. The market position of Hungarian food groups is studied in the relation of change of export price and of change of market share on the market of European Union.*

Key words *food – foreign trade – competitiveness – market – European Union*

Abstrakt Kladná bilancia zahraničného obchodu potravinárskeho priemyslu stále zohráva významnú úlohu v stabilizácii zahranično-obchodnej bilancie maďarskej ekonomiky. Cieľom príspevku je prezentovať postavenie maďarských potravín od vstupu na trh EÚ a vyhodnotiť konkurencieschopnosť tovarových skupín podľa rozdielnych ukazovateľov porovnateľných výhod. Trhové postavenie maďarských skupín potravín sa skúmalo vo vzťahu ku zmene exportnej ceny a zmene trhového podielu na trhu EÚ.

Kľúčové slová potraviny - zahraničný obchod – konkurencieschopnosť - trh - EÚ

Due to its favourable natural endowments Hungary is capable of producing food products with excellent quality valuable for the market and competitive in foreign markets. Food industry is also a significant economic sector of Hungary with great traditions. (Magda, R., 2008). The sector also has a key role in employment. The food industry has a share of about 2 % in the GDP. Other activities (artificial fertilizer and pesticide production, agricultural machinery and component production and distribution, as well as agricultural trade, transportation, education, research, etc.) represent another 10 % in the GDP thus agribusiness has a share of about 12 % in the GDP (Kerek, Z. –Marselek, S., 2009 and Kapronczai, I., 2011). (Table 1)

Postavenie poľnohospodárskeho a potravinárskeho odvetvia v maďarskej ekonomike
The state of the agri-food sector in the Hungarian economy

Table 1

Year	The ratio of agriculture			The ratio of the food industry			Food, beverage, tobacco products			Consumer price index Previous year = 100,0	
	In employment [b] %	In the production of GDP	In investment	In employment [b] %	In the production of GDP	In investment	ratio		The balance of its foreign trade turnover, billion HUF		
							In consumptio	In export		food	total
		Current price, %			Current price, %						
2004	5,3	4,1	4,3	3,6	2,4	3,7	26,1	6,0	223,1	106,5	106,8
2005	5,0	3,6	4,5	3,6	2,2	3,6	25,1	5,8	181,1	102,5	103,6
2006	4,9	3,5	4,1	3,6	2,1	3,1	25,8	5,5	214,8	107,7	103,9
2007	4,7	3,6	3,7	3,4	1,9	3,2	24,2	6,3	360,5	111.5	108,0
2008	4,5	3,7	4,6	3,3	2,0	2,5	27,1	6,7	373,4	110,2	106,1
2009	4,6	2,5	5,6	3,5	2,1	2,5	28,0	7,2	347,6	104,4	104,2
2010	4,5	2,9	4,8	3,5	1,9	3,0	27,5	6,9	458,9	103,2	104,9
2011	4,9	4,6	5,6	3,3	2,0	3,3	28,5	7,2	585,7	106,6	103,9

Source: Hungarian Statistical Office 2012

Methodology

The data come from the European Commission database (in COMEXT system). Trade flows are aggregated according to the product (main groups of SITC classification) and according to the partner (geo-economic areas). The Standard international trade classification, abbreviated as SITC, is a product classification of the United Nations used for external trade statistics (export and import values and volumes of goods), allowing for international comparisons of commodities and manufactured goods. In my survey „the food" refers to food and the live animals; beverages and tobacco (SITC 0 and 1).

Theory of the Revealed Comparative Advantages

The concept of comparative advantage is central in traditional international trade theory. The original relative export advantage (RXA) indices were formulated by Balassa (1965) as:

$RXA = (x_{ij}/x_{it})/(x_{nj}/x_{nt}),$

where:

x represents the export,
i is a country,
j is a commodity,
t is a set of commodities,
n is a set of countries. If RXA>1, then a comparative advantage is revealed.

Vollrath (1991) offered three alternative specifications of revealead comparative advantage. The first of these measures is the relative trade advantage (RTA), which accounts for imports as well as exports. It is calculated as the difference between relative export advantage (RXA), and its counterpart, relative import advantage (RMA):

RTA = RXA-RMA, where RMA = $(m_{ij}/m_{it})/(m_{nj}/m_{nt})$,

where m represents imports. Thus,

$RTA = [(x_{ij}/x_{it})/(x_{nj}/x_{nt})] - [(m_{ij}/m_{it})/(m_{nj}/m_{nt})]$.

Vollrath's second measure is simply the logarithm of the relative export advantage (ln RXA). His third measure is revealed competitiveness (RC), defined as:

$RC = \ln RXA - \ln RMA$

The advantage of expressing these latter two indices in logarithmic form is that they become symmetric through the origin. Positive value of RTA, ln RXA and RC reveal comparative advantage. (Fertő, I., 2004)

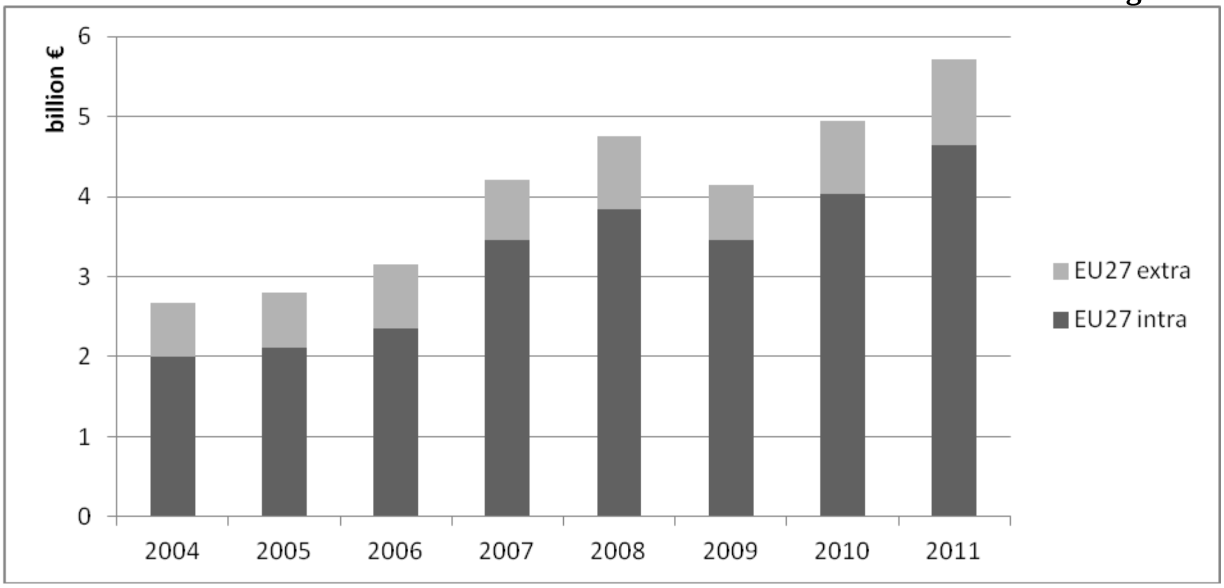
The market position of Hungarian food groups can be studied in the relation of change of export price and of change of market share on the market of European Union. In connection with the judgement of competitiveness and of market position it is worth linking the change of market share with the change of export price. (Oblath, G. – Pénzes, P., 2004). In combination of these variables I evaluate the position of food groups on the market of European Union.

Scientific work

Analysing the foreign market distribution of the Hungarian food export we can establish an important fact beside the tendency of growth. Since the EU accession the export did not only grow – disregarding the setback in 2009 – but also it has increased its presence in European Union markets (EU intra) compared to non-EU markets (EU extra). On the other hand the value of the EU-27-extra did not decrease, rather it grew somewhat. (Figure 1)

Vývoj maďarského exportu potravín (2004-2011)
The development of the Hungarian food export (2004-2011)

Figure 1



Source: own calculation based on COMEXT data base

Hungary is one of the few countries that have been able to produce a positive food trade balance during the whole period. Similarly to Slovakia food export followed a similar trend like food import (Rajcániová, M., 2012). For two years after the accession the Hungarian foreign trade of food declined somewhat but since 2007 – disregarding 2009 – the situation has been improving continuously.

Thus the positive balance of foreign trade of the food industry still has an important role in the stabilisation of the balance of the foreign trade of the national economy. The food industry in Hungary is traditionally a net foreign exchange exporter because the value of the export of food industry products is higher than the value of the raw materials and manufactured goods that are necessary for production. The food industry has been ensuring for the national economy the contribution of foreign exchange obtained from export towards buying means of production and consumer goods for decades. It is a remarkable fact, however, that the share of the food industry of the national export is now a "mere" 7-8% compared to 20 % (in the 1980 s).

The structure of the Hungarian food trade on the market of the European Union since the accession

The value of the Hungarian food export doubled from the examined first period (2004-2006) to the second one (2009-2011) on the market of the European Union. It increased from 2,1 billion euro to 4,1 billion euro. The export share of meat and meat preparations declined from 23 % (2004-2006) down to 17,5 % (2009-2011) in the Hungarian food export. The value of meat and meat preparations increased from 502 million euro to 720 million euro. However, the share of cereals and cereal preparations grew from 18 % up to 26 %. The importance of fruits and vegetables remained considerable, but it slightly diminished (from 17.5 % to 14 %). Besides, the notable product groups are feeding stuff for animals (9 %), sugar, sugar preparations, honey (7 %), other edible products and preparations (7 %), and coffee, tea, cocoa, species (5 %). (Table 2)

Štruktúra maďarského exportu potravín podľa výrobkov
Structure of the Hungarian food export trade by products (2004-2011)

Table 2

Product groups	Food export (thousand euro) 2004-2006) mean	Share of Hungarian export from total import of EU	Share from Hungarian export	Food export (thousand euro) 2009-2011) mean	Share of Hungarian export from total import of EU	Share from Hungarian export
Live animals	98 945	0,0186	4,59 %	144 668	0,0226	3,54 %
Meat, and meat preparation	502 247	0,0173	23,31 %	720 755	0,0190	17,64 %
Dairy products eggs	65 238	0,0030	3,03 %	219 392	0,0078	5,37 %
Fish, crustaceans molluscs reparation	7 343	0,0003	0,34 %	5 354	0,0002	0,13 %
Cereals and cereal preparation	389 849	0,0193	18,09 %	1 063 312	0,0363	26,03 %
Vegetables and fruits	376 519	0,0070	17,47 %	568 500	0,0087	13,92 %
Sugar, sugar preparation and honey	142 952	0,0175	6,63 %	280 201	0,0278	6,86 %
Coffee, tea, cocoa, spices	114 355	0,0063	5,31 %	176 485	0,0059	4,32 %
Feeding stuff for animals	213 030	0,0155	9,89 %	341 134	0,0172	8,35 %
Miscellaneou s edible products and preparation	139 397	0,0084	6,47 %	351 820	0,0145	8,61 %
Beverages	83 239	0,0038	3,86 %	144 649	0,0055	3,54 %
Tobacco and tobacco manufactures	17 551	0,0016	0,81 %	26 534	0,0021	0,65 %
Adjustments	4 093	0,0078	0,19 %	42 010	0,0410	1,03 %
Total	2 154 758	0,0087	100 %	4 084 814	0,0126	100 %

Source: own calculation based on COMEXT data base

Revealed comparative advantages of the Hungarian food products on the market of the European Union

The indices show comparative advantage for the groups of live animals, meat, and meat preparation, cereals and cereal preparation; vegetables and fruits; sugar, sugar preparation and honey. The indices show comparative disadvantage for the groups of dairy products, eggs; the fishes; coffee, tea, cocoa, spices; miscellaneous edible products and preparations; beverages;

tobacco and tobacco manufactures. However, in case of feeding stuff for animals the competiveness is ambiguous. The summary indices for three indices are displayed in Table 3.

Odkryté komparatívne výhody maďarských potravín s ohľadom na EÚ (2004-2011)
Revealed comparative advantages of Hungarian foods with respect to European Union (2004-2011)

Table 3

	Mean (2004-2011)			Coefficient of variation (2004-2011)		
Index	RCA	RTA	RC	RCA	RTA	RC
Revealed comparative advantage, if	>1	>0	>0			
Live animals	1,45	0,01	0,03	0,22	0,39	0,29
Meat, and meat preparation	1,40	0,58	0,52	0,27	0,29	0,22
Dairy products. eggs	0,38	-0,45	-0,82	0,11	0,08	0,25
Fish, crustaceans molluscs reparation	0,03	-0,19	-2,41	0,03	0,03	0,86
Cereals and cereal preparation	2,46	1,62	1,06	0,54	0,62	0,33
Vegetables and fruits	0,80	0,09	0,12	0,09	0,06	0,08
Sugar, sugar preparation and honey	2,00	1,04	0,72	0,48	0,39	0,19
Coffee, tea, cocoa, spices	0,74	-0,86	-0,78	0,15	0,13	0,10
Feeding stuff for animals	1,87	-0,69	-0,32	0,36	0,42	0,20
Miscellaneous edible products and preparations	0,97	-1,04	-0,75	0,24	0,07	0,14
Beverages	0,38	-0,27	-0,52	0,03	0,10	0,17
Tobacco and tobacco manufactures	0,24	-0,58	-1,01	0,10	0,36	1,02

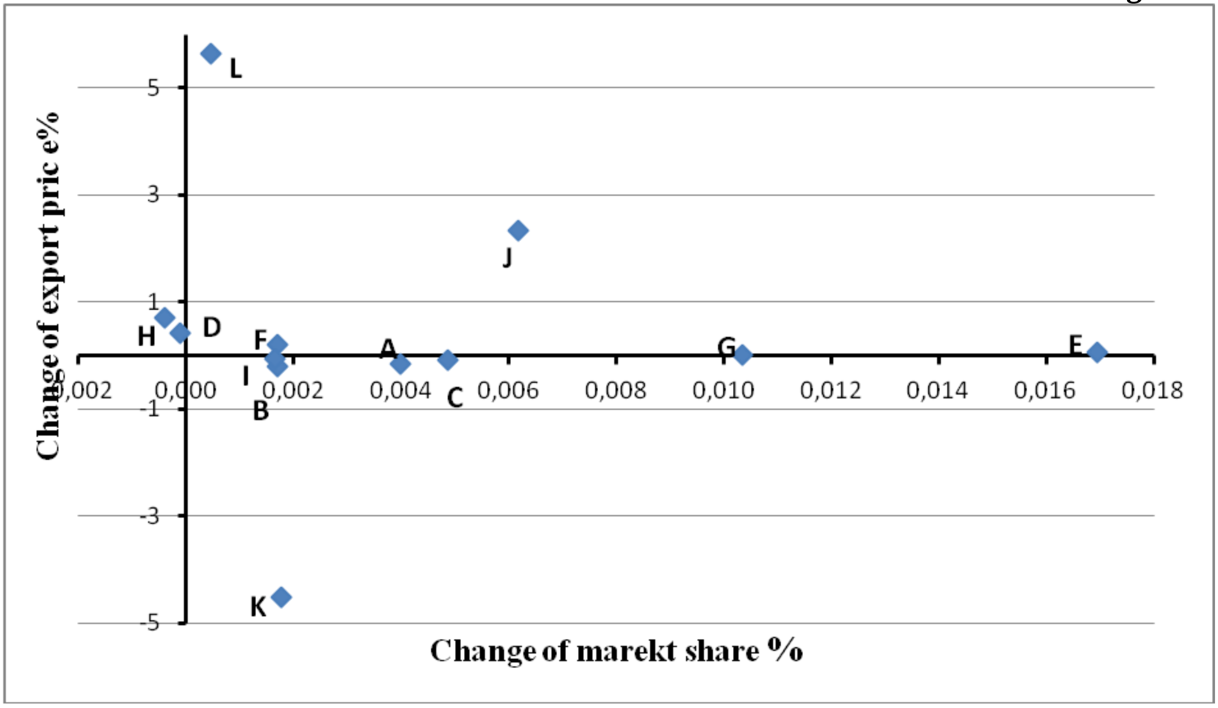
Source: own calculation based on COMEXT data base

Market positions of Hungarian food product groups on the market of EU

On the market of European Union the share of groups of fish, crustaceans, mollusc preparation and that of the coffee, tea, cocoa and spices decreased slightly from the base period to 2009-2011. Meanwhile the average export price increased. In case of all other product groups the Hungarian market share grew on the European Union. The share of a part of these product groups rose, meanwhile the average export price dropped. These product groups are: live animals; meat, and meat preparation; dairy products, eggs; feeding stuff for animals and the beverages. However, in case of some product groups the market share grew despite the increasing export price. These are the groups of cereals and cereal preparation; vegetables and fruits; sugar, sugar preparation and honey; miscellaneous edible products and preparations; the tobacco and tobacco manufactures. (Figure 2)

Trhové postavenie skupín maďarských potravinových výrobkov na trhu EÚ
Market positions of Hungarian food product groups on the market of EU

Figure 2



Source: own calculation and construction based on COMEXT data base
A Live animals, B Meat, and meat preparation, C Dairy products, eggs, D Fish, crustaceans, molluscs preparation, E Cereals and cereal preparation, F Vegetables and fruits, G Sugar, sugar preparation and honey, H Coffee, tea, cocoa, spices, I Feeding stuff for animals, J Miscellaneous edible products and preparations, K Beverages, L Tobacco and tobacco manufactures

Conclusions

The positive balance of the foreign trade of the food industry still has an important role in the stabilisation of the balance of the foreign trade of the Hungarian economy. The value of the Hungarian food export doubled from the examined first period (2004-2006) to the second one (2009-2011) on the market of the European Union. It increased from 2,1 billion euro to 4,1 billion euro.

The great part of the food product groups improved the share on the market of European Union. Some of them were under increasing and some of them under decreasing export price change. Concerning the competitiveness the comparative advantage indices show more unfavourable situation. Only five product groups show comparative advantage from the twelve product groups examined: live animals; meat and meat preparations; cereals and cereal preparations; fruits and vegetables; sugar, sugar preparations. Despite the increasing food export there is a lot to do to improve the competitiveness of Hungarian foods.

- The trade balance may be improved by producing own-brand food products.
- Common marketing must be further developed, whereas exporting to various countries not yet preferred could improve Hungarian trade balance. That would require targeted programs to further establishment of trade relations with these countries.
- Hungary should continue to facilitate the investments of foreign companies and still has to improve its performance in respect of infrastructure developments.

- The governmental policies should promote also the small and medium-sized Hungarian businesses.
- Governmental interventions (e.g. in improving the labour market situation of the sector) have a key role in the enhancement of competitiveness.
- Besides, cooperation among professional organisations must also be created as this is the only way to adequately react to political challenges (CAP-reform, trade liberalisation, agricultural budget, etc.).
- As the National Rural Strategy claims Hungary's agricultural production is profit and export oriented. Besides, it must be able to supply the local markets with healthy products, and be sustainable and efficient in a way that it could meet sustainability requirements. (Marselek, S – Takácsné, K., 2011).

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