Evaluation of the competitive position of the Hungarian agri-food product groups on the market of the European Union

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Abstract

The agri-food trade of Hungary with the EU has increased since the accession. The goal of this paper is to examine the competitiveness of the Hungarian agri-food product groups on the EU market. The data came from the COMEXT database of the European Commission, concerning the period between 2004 and 2016. To evaluate the competitiveness of agri-food product groups the price–quality method was chosen. Two of the Hungarian agri-food product groups were part of the successful quality competition segment, that is meat and meat preparations as well as sugar and sugar preparations. Successful price competition segment encompassed the group of cereals and cereal preparations. The trade with the EU highlights the problem that the proportion of raw materials and low added-value products in the Hungarian agri-food export are high. We create jobs abroad, not at home. Export should be improved by producing own-brand food products with high added value. Governmental interventions also have a key role in the enhancement of competitiveness.

added-value, agri-food trade, competitiveness, EU market

Introduction

The agri-food industry is an important economic sector of Hungary with great historical traditions. Due to favourable natural endowments, the country is capable of producing food products with excellent quality, valuable for the market and competitive in foreign markets (Magda 2008). In general, the accession had a positive impact on the Hungarian agri-food sector. It resulted in a consolidation of production, higher current prices, higher export and import quantities, and especially higher farmers' incomes (Csáki and Jámbor 2009; Potori et al 2014). Hungary's membership of the European Union has brought a lot of advantages. In the case of foreign agricultural trade the possibility of expansion has increased after the integration, and so the possibility arose to build and stabilise new trading relations (Vásáry and Vasa 2015). The 2004 accession reduced the barriers to bilateral trade with the EU Member States. The EU membership itself allowed the free movement of goods within the new Member States where the framework conditions for trade are determined by the Common Commercial Policy of the EU (Vásáry et al. 2012; Fojtíková 2014; Constantinovits and Sipos 2016).

Hungarian agri-food export has increased since the accession to the EU with the exception of the year 2009. This paper focused on the development of agri-food trade between Hungary and the EU since 2004. In this article the European Union (EU) means all the members including the new ones. The agri-food trade with the EU has increased dynamically, however, the analysis points out the problems of the Hungarian agri-food trade. The goal of paper was to evaluate the competitiveness of the Hungarian agri-food product groups on the market of the European Union.

Material and Methods

The analysis data come from the database of the European Commission (in COMEXT system) regarding the period between 2004 and 2016. Trade flows are aggregated according to the product groups (main groups of SITC classification) and according to the partners (Hungary, European Union). In our survey "agri-food product group" refers to food and live animals; beverages and tobacco (SITC 0 and 1).

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The term competitiveness is commonly used in the field of economic research and also in public debate. Competitiveness can be defined as the ability to face competition and to be successful. Competitiveness would then be the ability to sell products that meet demand requirements (price, quality, quantity) and, ensure profits over time that enable the firm to thrive. Competitiveness is a relative measure. It is, however, a broad concept and there is no agreement on how to define it, nor how to measure it precisely (Latruffe 2010). The competitiveness of estimation results show that the connection between quality and agri-food export performance clearly depends on the product category and country (but not on the period) and differs, but not in all cases, according to the export destination (Fischer 2007).

To evaluate the competitive positions of Hungarian agri-food product groups on EU market we chose the price–quality method. This concept, was developed by Aiginger (1997, 1998) to evaluate whether the external performance of a given country depends on price competitiveness or non-price competitiveness. Bojnec and Fertő (2008) combined export-to-import unit values and trade balance by product for assessing price competition and product quality in trade. Application of the two variables allows us to categorize the product groups into four segments:

Category 1 - Unsuccessful quality competition. Trade deficit is achieved at higher export price than import price.
Category 2 - Successful quality competition. Trade surplus is achieved at higher export price than import price.
Category 3 - Unsuccessful price competition. Trade deficit is achieved at lower export price than import price.
Category 4 - Successful price competition. Trade surplus is achieved at lower export price than import price.

The essence of the method is shown in Table 1.

Table 1. Competitiveness matrix

Relation between export unit value and import unit value	Trade balance	
	$Xj < M_j$ (trade deficit)	$X_j > M_i$ (trade surplus)
$UV^x > UV^m$	unsuccessful quality competition (1)	successful quality competition (2)
$UV^x < UV^m$	unsuccessful price competition (3)	successful price competition (4)

Source: own elaboration based on Poór (2010)

, where X_j means export of a given group, M_j means import a given group; the UV^x is the export unit value and the UV^m is the import unit value. It s hould be noticed that the term "quality" does not mean quality in technological terms, but in economic terms as higher price is assumed to reflect higher quality.

Results and Discussion

The European Union is a very important world exporter and importer of agri-food products, its share in global trade in food amounts to 41%, and about 72% of the value of trade of the EU agri-food sector takes place as part of intra-EU trade (Figiel et al. 2014). The development of the degree of openness of Hungary (as well as the Visegrad 4 countries) has been increasing since the change of regime. (Majerová and Nevima 2014). Hungarian agri-food export has increased year-on-year since the accession to the EU with the exception of 2009. While the value of Hungarian agri-food export was 2.7 billion euro in 2004, Figure 1 shows an increase to 6.6 billion euro by 2016. However, the dynamism of the growth rate weakened in 2012 and it has been stagnating ever since. A similar trend can be seen on the import side. The import of agri-food products has also been increasing, in a similar rate to the export. In the year of the EU accession the value of Hungarian agri-food imports was 1.8 billion euro then it increased almost two and a half times and in 2016 it amounted to 4.6 billion euro. On this basis the entire agri-food trade balance rose from 880 million euro (2004) to 2.05 billion euro (2016). Another important fact is that 84% of the agri-food trade is now completed in the European Union. After accession the Hungarian agricultural trade increasingly shifted towards the European Union but the EU membership had no impact on the product structure (Jámbor and Vásáry 2014). Fig. 1 shows the development of Hungary's food trade with the European Union.

Hungary was one of the countries that could maintain a positive balance of foreign trade throughout the whole period (Rajcániová 2012). However, agricultural trade with the EU grew much more dynamically than Hungary's total trade with the EU or the total agricultural trade of Hungary (Hegedűs and Kiss 2014). The increase of the food trade since 2004 on the market of EU is not only a Hungarian phenomenon, several other post-communist European countries (eg. Poland) have also increased their food trade (Firlej et al. 2017).

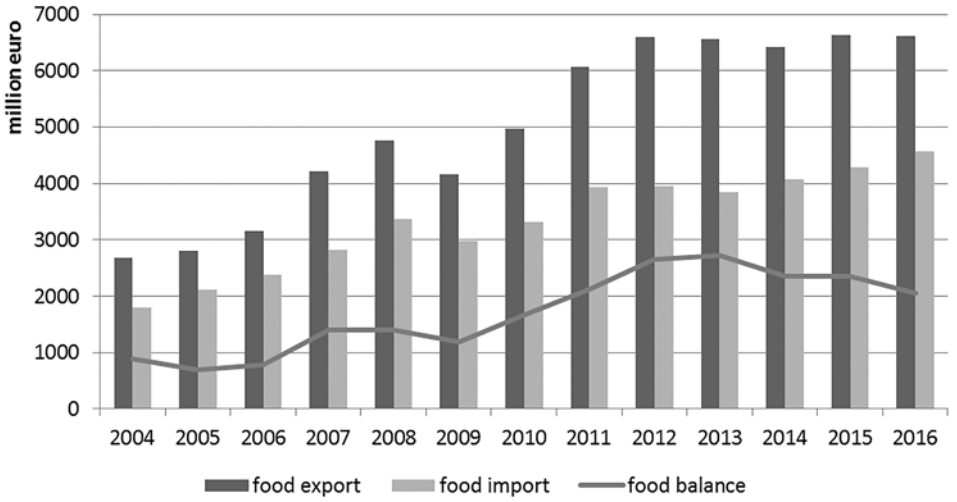

Fig. 1. The development of Hungary's food trade with the EU (2004-2016)
Source: own edition on the basis of Eurostat data, 2017

The export of agri-food goods is dominated by a small number of products, the import is concentrated to a lesser extent. The five greatest commodity groups – cereals and cereal preparations; meat and meat preparations; vegetables and fruit; feeding stuff for animal as well as miscellaneous edible products and preparation – contributed 77% to total agri-food export.

The five agri-food product groups with the greatest import values - miscellaneous edible products and preparation; meat and meat preparations; vegetables and fruit; cereals and cereal preparations as well as coffee, tea, cocoa and spices – represented 63% of the total agri-food import in 2016. The balance trade of cereals and cereal preparations (+770 million euro); the group of meat and meat preparations (+356 million euro); the feeding stuff for animal products (+297 million euro) as well as vegetables and fruit (208 million euro) with the European Union is positive. The balance is negative in the case of miscellaneous edible products and preparation (-198 million euro); coffee, tea, cocoa (-149 million euro); tobacco and tobacco manufactures (96 million euro) and dairy products (-77 million euro) (Fig. 2).

The main source of the increase in Hungarian food industry exports toward the analyzed markets is the general increase of the imports (Juhász and Wagner 2013). We can state that only a few Hungarian agri-food product groups were competitive on the market of the European Union. Two Hungarian products groups belonged to the successful quality competition segment (2). These are meat and meat preparations; sugar, sugar preparation and honey. It means that export quantities of products exceeded the import quantities despite higher unit values in exports than in imports. Between 2004 and 2014 the group of live animals was also part of this segment, but then it proved to be unsuccessfully quality competitive. Successful price competition segment (4) encompassed two product groups, that is cereals and cereal preparation as well as vegetable and fruit in the period 2007 and 2016 (except the year 2009 and 2012). It means that the Hungarian positive trade balance is achieved with lower export price than import price. Two Hungarian product groups belonged to the unsuccessful quality competition segment (1). These are coffee, tea, cocoa, spices and the miscellaneous edible products and preparation in the second period (2010-2016). These groups showed negative trade deficit with higher unit values in exports than in imports. The unsuccessful price competition segment (3) contained the dairy

products eggs (since 2008) and the fish, crustaceans molluscs preparation (since 2010). In this case the Hungarian negative agri-food trade balance is achieved with lower export price than import price (Table 2).

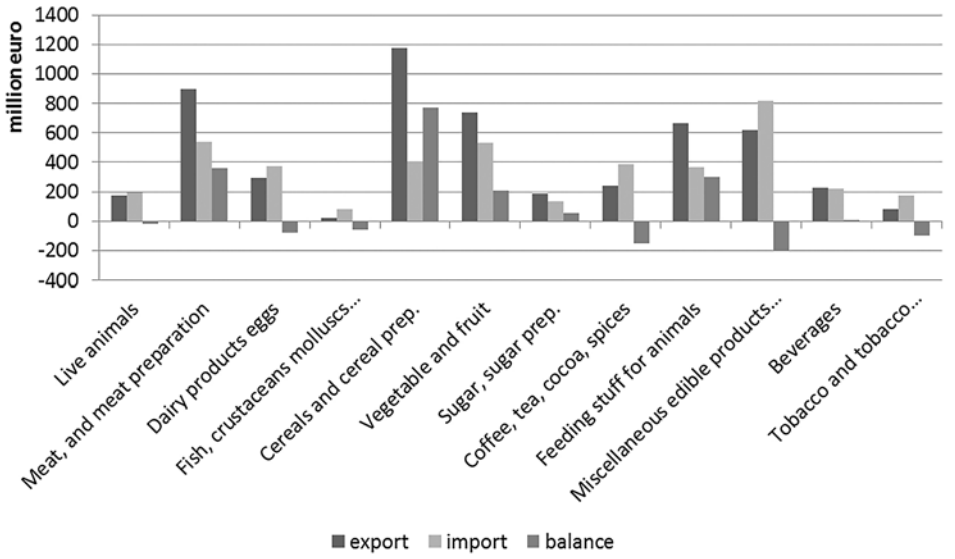

Fig. 2. The state of agri-food trade between Hungary and the European Union by product groups (2016)
Source: own edition on the basis of Eurostat data, 2017

Table 2. Competitiveness matrix of the Hungarian agri-food product groups on the market of European Union 2004-2016

HS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
00	2	2	2	2	2	2	2	2	2	2	2	1	1
01	2	2	2	2	2	2	2	2	2	2	2	2	2
02	1	4	4	4	3	3	3	3	3	3	3	3	3
03	1	1	1	3	1	1	3	3	3	3	3	3	3
04	2	4	4	4	4	4	4	4	4	4	4	4	4
05	2	4	2	4	4	2	4	4	2	4	4	4	4
06	2	2	2	2	2	2	2	2	2	2	2	2	2
07	1	1	1	1	2	2	1	1	1	1	1	1	1
08	2	2	1	1	1	2	1	2	2	2	4	4	4
09	1	2	4	2	2	2	1	1	1	1	1	1	1
11	1	3	3	1	3	3	4	2	4	2	2	2	4
12	1	2	3	3	3	2	1	1	1	2	1	1	1

00 Live animals, 01 Meat and meat preparation, 02 Dairy products eggs, 03 Fish, crustaceans molluscs preparation, 04 Cereals and cereal preparation, 05 Vegetable and fruit, 06 Sugar, sugar preparation and honey, 07 Coffee, tea, cocoa, spices, 08 Feeding stuff for animals, 09 Miscellaneous edible products and preparation, 11 Beverages, 12 Tobacco and tobacco manufactures

Source: Own calculation based on European Commission COMEXT database

In the cases of three product groups the exact competitiveness cannot be detected. These are feeding stuff for animals; tobacco and tobacco manufactures as well as beverages.

Conclusions

One of the consequences of the growth in Hungarian agri-food exports is that Hungary has become highly dependent on the EU as an export market. The leading role of cereals is evident as Hungary is traditionally a country where maize, wheat, barley, sunflower and oilseed rape production exceeds domestic demand. Hungarian animal stock decreased and the oilseed area increased as a result of the expansion of the EU biofuel industry. The major role of meat in Hungarian exports has been taken over by cereals. On the basis of price–quality method two Hungarian agri-food product groups were part of the successful quality competition segment, that is meat and meat preparations as well as sugar and sugar preparations. Successful price competition segment encompassed the group of cereals and cereal preparations. Analysing the agri-food trade between Hungary and EU since accession we can conclude that there is a lot to do to improve the competitiveness of Hungarian agri-foods. The trade with the European Union highlights problems that concerns different product groups. The proportion of raw materials in our food export is high, while we import agri-food products of high added-value. We create jobs abroad, not at home. Export should be improved by producing own-brand food products with high added value. Governmental interventions (e.g. in improving the labour market situation of the sector) have a key role in the enhancement of competitiveness. Governmental policies should be implemented to promote small and medium-sized Hungarian businesses to produce more quality competitive products.

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