

STRUCTURAL CHANGES IN THE FOREIGN TRADE OF HUNGARY AND THE EUROPEAN UNION

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ABSTRACT

The spatial and industrial structure of foreign trade of the European Union and Hungary is the result of long development, which goes back several decades. The spatial structure of some industries were influenced by numerous factors (natural, social, economic and political) in recent decades, resulting in specific regional and sectoral structures in industrial trade in the meantime. In EU countries, including Hungary, the spatial and sectoral structure of industrial foreign trade had characteristic changes over the past 20 years. There are winners and losers of these spatial and sectoral transformations. Sometimes the import of some industrial sectors decreased; occasionally the export fell back, while in other industrial sectors the opposite happened. In order to observe and follow the changes of industrial foreign trade (spatial and structural) in the past few years, it is important to examine the transformation of spatial and sectoral industrial foreign trade structure of the European Union and Hungary during time.

Keywords: Hungary, European Union, foreign trade, industry, structure

INTRODUCTION

During the past few decades significant structural changes took place in Hungarian economy and in Hungarian industry. The main reason for these changes is that Hungarian economic relations from one day to the next one became west-oriented instead of being one-sidedly dependant on the East. Also, the majority of the industrial companies lost their previous markets, which caused difficulties in sale. This market-loss was followed by the deterioration of the often outdated and inefficient production capacity, factories closing down, privatization and highly increasing unemployment. To make matters worse the companies became insolvent, indebted, which resulted in severe liquidity problems (ABONYINÉ AND KOMAREK, 2005; BARTA, 2002; KISS, 2005; KOMAREK, 2011, 2012a).

The fact that the Comecon (CMEA) ceased to exist (September, 1991) and that Hungary became the associate member of the EU (December, 1991, had a major part in the structural changes of our industry. It meant a serious challenge to Hungary's economy and through that to the industry, because it had to become flexible and adapt to new market conditions in a very short time. The expectations of the new (primarily Western European) markets were much more demanding than in the former socialist countries. That is why companies had to meet the demands of more and more technological and technical standards, beside improving and upgrading their technology. As a result, the foreign relations of Hungary were favourable and, concerning industrial sales, were increasingly turning to the developed countries. As a result, in the 1990s, a significant proportion of export and import was conducted with developed countries and within that with the European Union member states, the role of which was growing in the foreign trade of our country (KISS, 2010; KOMAREK, 2012b, 2012c).

MATERIAL AND METHOD

Over the past two decades, the industrial foreign trade of our country and the European Union had major structural and spatial changes. These changes required studies to investigate whether there are any changes in the spatial organization of industrial foreign trade and whether there are characteristically increasing or decreasing industrial sectors in foreign trade. I processed the available data of the Hungarian Central Statistical Office (KSH) and EUROSTAT. The comparative analysis was carried out and the conclusions were made by the mathematical and statistical methods used in regional researches.

RESULTS

After the regime change our most significant foreign trade partner was the united Germany with 27.7% of our export, while 23.5% of our import- in 1992. I changed during the years and by 2001 it was 35.6% of our export and 24.9% of our import that was done with Germany. The high proportion at the beginning of the 90' was partly due to the fact that the former German Democratic Republic used to be the second largest trade partner of Hungary, following the Soviet Union, before the regime change. From 1990 on, however, the economic and foreign trade relations with the former East German provinces gradually ceased, and as a result today the German partners of Hungarian industry are in South-Germany (Bavaria and Baden-Württemberg).

Table 1. Hungarian industrial exports by country-groups (%)

Year	Developed countries	Within the Developed Countries		Developing countries
		EU	Central- and Eastern-European Countries	
1992	71.2	49.8	23.0	5.8
1996	69.8	62.7	23.5	6.7
2001	82.4	74.3	14.0	3.6

Source: Author's calculations based on KSH data

Table 2. Hungarian industrial import by country-groups (%)

Year	Developed countries	Within the Developed Countries		Developing countries
		EU	Central- and Eastern-European Countries	
1992	69.7	42.7	24.8	5.5
1996	68.9	59.8	23.9	7.2
2001	69.4	57.8	16.6	14.0

Source: Author's calculations based on KSH data

Out of the countries of the previous "socialist block" it was the Commonwealth of Independent States (CIS) formed after the Soviet Union ceased to exist, that played a major part in Hungarian foreign trade in the years following the regime change.¹ 13.1% of our industrial export was carried out with CIS countries and at the same time 16.9% of our

¹ This international organisation and association comprising 11 member states of the former Soviet Union was founded in December 1991 with the goal of economic, military and foreign policy cooperation. There are 9 permanent and two associate members.

import came from there in 1992. By 2001 our foreign trade with CIS countries fell back considerably. Out of these countries our major partner is Russia, from where 7.0% of our industrial import is received, while only 1.5% of our export goes to Russian market. The considerable Russian market can be considered as a reserve not utilized yet, therefore it would be wise to strengthen our foreign trade relations.

As far as the European countries are concerned, important economic (foreign trade) relations started with the neighbour countries of Hungary. Out of these countries it is Austria that can be primarily highlighted, since it was the third most important foreign trade partner in the field of industry at the beginning of the 1990s. Austria had a 10.7% share of our total export in 1992. At the same time 14.4 % of Hungarian import came from Austria. By 2001, however, both export (7.9%) and import (7.4%) decreased compared to that of the previous years. This was mainly due to the fact that the sectoral structure of the industries of the two countries became similar during the time.

Out of the founder countries of the European Union it was Italy that played an important part in the foreign trade of Hungary. In 1992 the share of Italy from our total export was 9.5%, while from our total import it was 6.3%. By 2001 a decrease can be observed in the field of export (6.3%) and an increase in import (7.8%). Out of the other EU countries France, The United Kingdom, Belgium and the Netherlands can be mentioned. In case of each of these countries the industrial export and import has a share of 2.0 to 4.0%.

Considering the Central-Eastern European countries our former intensive foreign trade relations fell back. In the early 1990s it was the Czech Republic, Slovakia, Romania and Poland that we had significant trade with. By 2001, however, each of the Central-Eastern European countries had a share of 1 to 3.0% in our industrial export and import.

Table 3. Hungarian industrial import by country-groups (%)

Year	European Union		Countries outside the European Union		Out of the non EU countries			
					Asian		American	
	Import	Export	Import	Export	Import	Export	Import	Export
2004 ¹	71.7	79.5	28.3	20.5	14.5	4.4	2.2	3.6
2006	67.9	74.3	32.1	25.7	15.8	5.3	2.1	3.4
2008 ²	68.3	78.3	31.7	21.7	16.0	5.1	2.4	3.0
2010	67.8	77.4	32.2	22.6	18.4	6.5	2.5	3.0

¹From 2004: EU-25

²From 2008: EU-27

Source: Author's calculations based on KSH data

The role of export in the foreign trade with Asian and developing countries also fell back during the 90s. At the same time the significance of import had a threefold increase by 2001, compared to 1992. The increase was particularly due to Japan (4.6%), China (4.0%), Singapore (1.5%), Taiwan (1.4%), Malaysia (1.4%) and South Korea (1.2%). These Asian countries gave 14.1% of our total import in 2001.

Out of the overseas countries it is the United States of America that must be mentioned, since our economic relations gradually deepened with them. In 2001 the USA had 4.9% share of our total export, while 4.2% of Hungarian import arrived from there.

After the Hungarian EU accession the orientation of the foreign trade of our country did not change considerably compared to that of the previous years. It means that the European Union member countries still have a major part in our foreign trade. Out of the former EU-15 the most significant countries are Germany, Austria, Italy, the Netherlands and France.

As far as the industrial export is concerned, in 2004 Germany had 31.6%, Austria 7.3%, France 5.6%, Italy 5.5% and the Netherlands 3.7% share of the total. At the same time the export shares were as follows: Germany 29.3%, Austria 8.1%, Italy 5.6%, the Netherlands 4.9% and France 4.6%.

By 2010 smaller changes took place in the field of industrial foreign trade. Some countries lost their importance, while others increased their advantage. The export shares of Hungary were given by Germany 25.1%, Italy 5.5%, the United Kingdom 5.4%, France 5.0% and Austria 4.9%. In case of import it is Germany (24.0%), Austria (6.2%), the Netherlands (4.5%), Italy (4.3%) and France (3.7%) that can be highlighted.

Hungary has remarkable foreign trade relations with several of the former Comecon (CMEA) countries, namely the Czech Republic, Slovakia, Poland, and Romania. In 2004 Romania had 3.2%, Poland 2.9%, the Czech Republic 2.4% and Slovakia 1.9% of the total Hungarian export. Concerning our import, 3.2% was from Poland, 2.8% from the Czech Republic, 2.0% from Slovakia and 1.5% from Romania. By 2010 it is apparent that the shares of the given countries in our total export increased as compared to those of 2004. As a result, the shares were as follows: Romania 5.4%, Slovakia 5.3%, Poland 3.7% and the Czech Republic 3.5%. An increase in import can be observed as well. 5.3 % of our import was from Poland, 4.2% from Slovakia, 3.2% the Czech Republic and 2.6% from Romania. Expanding and deepening the foreign trade relationships with neighbouring countries should be encouraged.

Out of the Asian countries it is Japan, China and South Korea that can be mentioned. Our foreign trade balance with these countries is negative. 4.8% of our import was from China, 3.0% from Japan and 1.5% South Korea in 2004. By 2010 there was an increase in case of China (7.1%) and South Korea (3.3%), while the share of Japan decreased (2.2%). Our export to these countries in the examined period often did not reach even 1.0%. We must endeavour to shift our foreign trade balance to a positive direction.

Out of the former Soviet states it is Russia that can be mentioned. In 2004 the Russian share of our import was 5.7%, and that of our export was 1.6%. By 2010 both the import and the export increased somewhat, up to 7.8% and 3.6%, respectively.

Considering the overseas countries we have remarkable foreign trade relations with the United States. In 2004 the share of the USA from our industrial export was 3.0%, and from our import 1.7%, while in 2010 it was 2.0% and 1.8%, respectively.

The above mentioned facts show that by the turn of the century the foreign trade of Hungary in the field of industry became significantly EU-centred. In the past decade our EU-centred foreign trade deepened. It is supported by the fact that the EU market has an approximately 80.0% share of our industrial export and 70.0% of our import is also from the countries of the European Union. All this results in a significant dependence, which, in case of recession, might have a negative effect on Hungarian economy and within that the spatial and sectoral structure of our industry. However, the strong market dependence also has positive results, which reflects the fact that our products meet the needs of the European Union's stringent quality, technical and technological requirements. However, it is unfortunate that the economy of a country and within that the orientation of their foreign trade is so one-sided in the ever-changing world. It would be useful to regain some of the former Eastern markets and expand, strengthen our relationships with countries, mainly Asian, North and Latin American countries, which can be suitable market for our products. It could lessen our dependence on the European Union and some specific countries within that, and it could contribute to forming multi-pole foreign trade relations.

The changes in the orientation of Hungarian foreign relations resulted in the spatial and sectoral structure of our industry.

Previously our industry (in the CMEA period) was very significantly specialized in mechanical engineering, in the manufacture of road vehicles (buses), which meant that the *Ikarus* bus produced in Hungary reached all parts of the former "socialist world". After the regime change in the early 90s, in terms of the sectoral structure of our exports it was found that the raw materials and semi-finished products as well as food and food ingredients sold in 1990 accounted for 61.0% of our exports, while in 1994 it was 57.1% of the total. By 2000, the machinery and equipment export alone accounted for 60.0% of our total exports, although it played a minor role previously. In contrast, the raw materials and semi-finished products as well as food and food ingredients significantly lost their previous better situation. The reason for that is that companies do not export their products in form of raw material or ingredients; they sell them as finished products. In the first half of the 90s raw materials and semi-finished products accounted for 46.3% of our imports, while machinery and equipment had a share of 17.7%. By 2000 the ratio of raw materials and semi-finished products significantly fell back (26.4%), in contrast the role and importance of machinery and equipment increased significantly (51.5%).

Table 4. Hungarian foreign trade by product-groups 1990-2000 (%)

Name	1990		1994		2000	
	Import	Export	Import	Export	Import	Export
Fuels	13.8	2.4	11.0	3.3	8.3	1.8
Raw materials and semi-finished products	46.3	37.9	36.8	36.5	26.4	19.2
Machine, equipment	17.7	20.1	23.4	13.0	51.5	60.0
Industrial consumer goods	14.6	16.5	22.0	26.6	11.1	12.1
Food and raw materials for food industry	7.6	23.1	6.8	20.6	2.7	6.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Author's calculations based on KSH data

The import and export typical in Hungarian foreign trade trends require a separate analysis for the years 2001 and 2010 because of the changes in the composition of foreign trade within the industrial groups. In 2001, a significant proportion of export, 57.6% of the total, was of machinery and transport equipment, while processed products had a share of 31.0%. By 2010 the proportion of machinery and transport equipment further increased (60.2%), while that of the processed products decreased (27.6%). The main sectors contributing to exports were machinery and transport equipment (51.6%), and processed products (35.3%), similarly to imports. The previous two product-group lost some of their importance, at the same time the food, beverages, tobacco product group had a slight increase in the examined period compared to the base year.

Table 5. Hungarian foreign trade by product-groups 2001-2010 (%)

Name	2001		2005		2010	
	Import	Export	Import	Export	Import	Export
Food, beverages, tobacco	2.9	7.5	4.1	5.8	5.0	6.9
Raw materials	2.0	2.0	1.8	2.0	2.1	2.4
Fuels	8.2	1.9	10.2	2.7	10.7	2.8
Processed goods	35.3	31.0	32.8	27.6	31.9	27.6
Machines and vehicles	51.6	57.6	51.1	61.9	50.3	60.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Author's calculations based on KSH data

The foreign trade structure of Hungarian industry that developed during the years is in conformity with the industrial structure of the European Union.

Table 6. The sectoral structure of the foreign trade of processing industry in the European Union (EU-15) (%)

Industry	Export		Import	
	1991	2001	1991	2001
Food, beverages, tobacco production	7.6	5.3	7.2	5.0
Textile, textile clothes production	5.7	4.7	10.7	8.8
Leather, leather goods, footwear production	1.7	1.6	2.3	2.2
Wood and wooden product manufacturing	0.6	0.8	1.9	1.4
Cellulose, paper goods, printing	3.2	2.8	2.6	2.1
Coke and crude oil production	2.0	1.9	4.4	2.8
Chemicals production	13.1	14.7	9.5	9.8
Rubber and plastic production	2.3	2.5	1.9	2.2
Other non-metallic mineral products	2.3	1.9	1.0	1.2
Metal raw material and metal commodity production	9.2	7.0	9.5	8.8
Machine and equipment production	18.1	14.9	8.2	8.3
Electronic and optical products	14.3	20.4	23.5	28.6
Vehicle production	16.0	18.4	12.8	14.4
Other processing industries	4.0	3.3	4.3	4.4
Total	100.0	100.0	100.0	100.0

Source: Author's calculations based on EUROSTAT data

On examining the sector structure of the foreign trade of the European Union (EU-15) we can see that machine and equipment production, vehicle production as well as electronic and optical products had importance in the field of export sales in 1991. The majority of the products was sold to the United States of America, Switzerland, while a somewhat smaller part to Japan, the former Soviet Union and Norway. Considering the import it was the vehicle production, the electronic and optical products, and textile, textile clothes production that had priority. The products of the given sectors were brought in from the United States of America, Japan, Switzerland, China and Taiwan.

During a decade there were no significant changes in the export structure of the EU 15 member states. In 2001 also it was the electronic and optical products, vehicle production and machine and equipment production that had a 53.7% share of the export. These

products were primarily sold to the markets of the USA, Switzerland, Japan, Poland and China. By 2001 as compared to 1991, the electronic and optical products as well as the vehicle production had a larger share from the import, at the same time the textile and textile clothes production lost from its importance. Concerning the import it was the chemicals production that got forward in the ranking. 53.1% of the total imported products are from the United States of America, Japan, China, Switzerland, the Czech Republic and Hungary.

The European Union had new member states in 2004 however no significant changes took place in the export structure. This means that the export structure of the accession countries is considerably similar to the former EU-15 sectoral structure. As for the exports in 2004 the electronic and optical products, chemical production and the vehicle industry were in leading position. Considering imports it is also the electronic and optical products, vehicle production and chemical products that are dominant. The U.S., Switzerland, China, Japan and Russia have a major role both in exports and imports.

The expansion of the EU to 27 members did not result in significant changes in the structure of external trade. As far as exports are concerned, chemicals production, vehicle production as well as electronic and optical products were dominant in 2006 and 2007. In case of import the decisive sectors were electricity, gas, steam and water supply, electronic and optical products manufacturing and chemical industries in 2006, while in 2007 it was mining and quarrying, electronic and optical products as well as chemical products. The share of the United States of America, Switzerland, China, Russia, Japan, and Turkey is significant both in exports and imports. Today, when examining the structure of the sectors it was found that in the foreign trade of the 27 member states of the European Union it was machinery and transport equipment that played a leading role. Main foreign trade partners are the United States, China, Russia, Japan, Norway, Switzerland and Turkey.

Table 7. The sectoral structure of the foreign trade of processing industry in the European Union (EU-27) (%)

Industry	Export		Import	
	2008	2011	2008	2011
Food, beverages, tobacco	6.4	6.9	5.6	6.0
Raw materials	2.2	2.6	4.7	5.1
Fuels	5.1	5.5	24.6	24.3
Chemicals and similar products	1.1	16.7	9.3	10.2
Machines and vehicles	43.2	41.0	29.9	28.6
Other processed goods	25.1	24.4	24.2	24.1
Other product and transaction not specified elsewhere	2.9	2.9	1.7	1.7
Total	100.0	100.0	100.0	100.0

Source: Author's calculations based on EUROSTAT data

CONCLUSIONS

In recent years, due to changes in the market conditions in our country and in some countries of the European Union major changes took place in the structure of industry. The changes resulted in new spatial and sector structure in foreign trade as well. One main feature of the industrial structure changes both in Hungary and in EU is the fact that the traditional industries that are continuously losing their importance and the new ones taking up the challenges of the economy and the market are present in the sector structure.

The importance of the traditional sectors within the industrial foreign trade decreased, while that of the dynamically developing industrial sectors keeps growing. There are several reasons for the decrease, among them the fall-back in demand as well as raw material resources, the increasing costs of production, the growing international competition on global market, and also the continuous improvement of science and technology. Concerning the added value, the declining sectors are (in the European Union as well) mining, certain sub-sectors of metallurgy (e.g. manufacturing electrical appliances, shipbuilding), the textile, leather products and footwear production, while the dynamically developing sectors include information technology, electronic and optical products, vehicle production and some sub-sectors of chemical industry (pharmaceutical production, chemicals and chemical products).

Overall, we can say that the most important industrial sectors in the countries of the European Union involve declining, moderately growing and dynamically developing industries as well. In 25 former member states of the European Union 25 member states of the role of the five former industries can be highlighted: the basic metals and fabricated metal products, vehicle manufacturing, the production of electronic and optical products, chemicals and food, beverages and tobacco production. These industries have a significant proportion of industrial output and employment. With the European Union expanding, the position in these industrial sectors continued to grow because these sectors also play an important role in the industry of the accession countries (Bulgaria and Romania).

The existing differences between the industrial structures of the old and the new member states can be characterized that in case of the old ones knowledge-based sectors (such as engineering or chemical production) are dominating, while in the new ones it is usually the working industries (e.g. textile industry). The industrial structure of manufacturing in each member state is somewhat different from that of the European Union as a whole. Considering added value, the largest industries in the former 15 member states of the EU are the machinery and equipment manufacturing, food, beverage and tobacco manufacturing and chemical industries. However, some regional differences can be seen. Among the founding members of the European Union stands out the chemical industry in the Benelux countries (Belgium), food, beverages and tobacco production (Netherlands), and last but not least, basic metals production (Luxembourg). For France, the food, beverages and tobacco, while Germany and Italy the machinery and equipment manufacturing.

As for the countries connecting later, in Denmark, Greece, Spain, Portugal and in the United Kingdom, the food, beverages and tobacco industry is dominant, in Ireland it is chemicals, in Austria the machine and equipment manufacturing, in Finland, telecommunication products manufacturing, while in Sweden, the vehicle production is the largest and most significant industry, which is also reflected in the field of foreign trade.

In the expanding European Union there were small changes concerning added value. In the former 15-member economic integration the three major industries were machine and equipment manufacturing, food, beverage and tobacco production and chemical industries. Among the new member countries (2004), in the Czech Republic, the Baltic States, Hungary, Poland and Slovakia, the electricity, gas and water supply sector is the most important. In Cyprus food, beverages and tobacco production, in Malta, the telecommunication products, in Slovenia, fabricated metal products can be highlighted. However, considering the EU-25, the three main industrial sectors are still the food, beverages and tobacco, chemicals, and machinery and equipment manufacturing sectors.

The accession of other countries to the European Union might create a new situation in the development of both the industry and the foreign trade of the economic integration. Consequently, the spatial and structural changes affecting industry and through that foreign

trade have not ended yet, as both the spatial and structural changes are the results of long development.

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