

SLOVAK UNIVERSITY OF AGRICULTURE IN NITRA  
FACULTY OF ECONOMICS AND MANAGEMENT

**THE DEVELOPMENT OF AGRO-FOOD TRADE OF VISEGRAD  
FOUR COUNTRIES WITH NON-MEMBER STATES IN THE  
POST ACCESSION PERIOD**

BACHELOR THESIS

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Department:	Department of Economics
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**Nitra 2010**

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## DECLARATION OF ORIGINALITY

I, the undersigned, solemnly declare that this bachelor thesis is a result of my own independent research and was written solely by me using the literature and resources listed in bibliography.

Nitra, 12<sup>th</sup> May 2010

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Signature of the author of the BT

I would like to thank to Doc. Ing. Artan Qineti, PhD. for the help, supervising, valuable advice and comments on my bachelor thesis.

Nitra, 12<sup>th</sup> May 2010

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## **Abstract**

The European integration has a great impact on the agricultural sector. Previous farming structure has been reorganised, markets liberalised, new type of public support introduced, and the institutional framework is modernised according to the European standards. Agricultural trade patterns in CEEC's countries are influenced by liberalization of agro-food market that occurred prior to European enlargement in 2004. EU membership implied the necessity of implementation of Common Agricultural Policy that means agriculture is no more regulated on the national level.

The main target of my work is to analyse development of the agricultural and agro-food trade and policy in Europe and to see the dynamics of trade for Visegrad Four countries especially in the post-accession period.

## **Key words**

Foreign agro-food trade, export, import, balance of trade, territorial structure, commodity structure, development, V 4, the EU, third countries

## **Abstrakt**

Európska integrácia má veľký dopad na poľnohospodárstvo. Predchádzajúca štruktúra poľnohospodárstva bola reorganizovaná, trhy liberalizované, nový typ verejnej podpory zavedený a inštitucionálny rámec je modernizovaný v súlade s európskymi štandardmi. Poľnohospodárske obchodné zvyky v krajinách strednej a východnej Európy sú ovplyvnené liberalizáciou poľnohospodársko- potravinových trhov, ktoré nastali s rozšírením EÚ v roku 2004. Členstvo v EÚ prináša nutnosť realizácie spoločnej poľnohospodárskej politiky, čo znamená, že poľnohospodárstvo už nie je viac regulované na vnútroštátnej úrovni, ale na úrovni EÚ.

Hlavným cieľom mojej práce je analyzovať vývoj v oblasti poľnohospodárstva a poľnohospodársko-potravinárskeho obchodu a politiky v Európe a vidieť dynamiku obchodu krajín Višehradskej štvorky, najmä v post-období po pristúpení.

## **Kľúčové slová**

Zahraničný obchod s agropotravinárskymi výrobkami, vývoz, dovoz, obchodná bilancia, teritoriálna štruktúra, komoditná štruktúra, vývoj, V 4, EÚ, tretie krajiny

## Table of Contents

<b>Introduction</b> .....	9
<b>1 Literature Review</b> .....	11
1.1 Globalization.....	11
1.1.1 The process of globalization .....	11
1.2 International Trade.....	11
1.2.1 Free Trade versus Fair Trade .....	12
1.2.2 Absolute advantage.....	12
1.2.3 Comparative advantage.....	13
1.2.4 Heckscher-Ohlin trade theory .....	13
1.2.5 Opportunity cost .....	14
1.3 Preferential Trade Arrangement .....	14
1.3.1 Free trade area.....	15
1.3.2 Customs union .....	15
1.3.3 Common markets.....	16
1.3.4 Complete economic union .....	16
1.3.5 Monetary union.....	16
1.4 Visegrad group.....	17
1.4.1 Overview of Visegrad group.....	17
1.5 Agriculture .....	17
1.5.1 Food Safety .....	18
1.5.2 Environmental policy.....	19
1.6 The Common Agricultural Policy.....	19
1.6.1 Objectives of the CAP .....	20
1.6.2 Funding of the CAP .....	20
<b>2 The objective of the thesis</b> .....	21
<b>3 The methodology of the thesis and materials</b> .....	22
<b>4 Discussions</b> .....	24
4.1 Development of agro-food trade of V 4 countries .....	24
4.1.1 The Slovak Republic's agricultural foreign trade.....	24
4.1.1.1 The Slovak Republic's territorial structure of agricultural foreign trade .....	26
4.1.1.1.1 Territorial structure of export .....	27
4.1.1.1.2 Territorial structure import .....	27
4.1.1.2 The Slovak Republic's commodity structure of agricultural foreign trade .....	28
4.1.1.2.1 Commodity structure of export.....	28
4.1.1.2.2 Commodity structure of import .....	28
4.1.2 The Czech Republic's agricultural foreign trade.....	29
4.1.2.1 The Czech Republic's territorial structure of agricultural foreign trade .....	31
4.1.2.1.1 Territorial structure of export .....	31
4.1.2.1.2 Territorial structure of import .....	32
4.1.2.2 The Czech Republic's commodity structure of agricultural foreign trade .....	32
4.1.2.2.1 Commodity structure of export.....	33
4.1.2.2.2 Commodity structure of import .....	33
4.1.3 Hungarian agricultural foreign trade.....	34
4.1.3.1 Hungarian territorial structure of agricultural foreign trade .....	36
4.1.3.1.1 Territorial structure of export .....	36
4.1.3.1.2 Territorial structure of import .....	36
4.1.3.2 Hungarian commodity structure of agricultural foreign trade .....	37

4.1.3.2.1 Commodity structure of export.....	37
4.1.3.2.2 Commodity structure of import .....	37
4.1.4 Polish agricultural foreign trade .....	38
4.1.4.1 Polish territorial structure of agricultural foreign trade .....	40
4.1.4.1.1 Territorial structure of export .....	40
4.1.4.1.2 Territorial structure of import .....	41
4.1.4.2 Polish commodity structure of agricultural foreign trade.....	41
4.1.4.2.1 Commodity structure of export.....	42
4.1.4.2.2 Commodity structure of import .....	42
4.2 Instruments of foreign trade policy of V 4 countries (as a part of the EU) to the third countries.....	43
4.2.1 Central and East European countries accession to the EU .....	43
4.2.2 External Trade Policy of V4 as a part of the EU towards third countries .....	44
4.3 Agro–food balance of trade of regional grouping V 4 countries with third countries in the post accession period .....	46
<b>Conclusion</b> .....	48
<b>Resumé</b> .....	52
<b>Bibliography</b> .....	56
<b>Appendices</b> .....	60

## List of Abbreviations and Symbols

ACP	African, Caribbean and Pacific
CAP	Common Agricultural Policy
CEEC	Central and East European countries
CEFTA	Central European Free Trade Agreement
CN	Combined Nomenclature
CU	Customs Union
et. al	and others
etc.	et cetera, and so on
EU	The European Union
EURO	currency
EUROSTAT	European Statistics
FTA	Free Trade Area
GATT	General Agreement on Tariffs and Trade
GCC	Gulf Cooperation Council
GDP	Gross Domestic product
MFN	Most favoured nation
NAFTA	North American Free Trade Agreement
mill.	million
SK	Slovakia
PTA	Preferential Trade Arrangement
U.S.	United States
V4	Visegrad Four
WTO	World Trade Organization



## **Introduction**

Economic and political conditions as well as governance structures have undergone radical changes in Europe. It was created new geographical space for economic activities and business relations within integrated market environment - the European Union. One important tool of EU which opens market spheres is Economic integration. It describes the various schemes that have been adopted worldwide. For a variety of reasons it often makes sense for nations to coordinate their economic policies. Benefits are for those countries which liberalize labour and capital movement across borders, which coordinate fiscal policies and agriculture. The EU funds agriculture by more than 40-45% of its financial sources.

The common agricultural policy is a basic and competitiveness EU farming and agrifood sector as a whole. It was established in 1957 by the European Commission. European Council and European Commission have the power to implement new policies and laws. We have to point out that WTO has a great impact on the CAP. Its reforms directly respond to changes in conditions in international trade.

Visegrad region represents a group of countries geographically situated in the Central Europe. This cooperation and association of countries was established in 1991 mainly on their foreign trade relations, history and culture. One of the most important milestones in the history of each country was the 1<sup>st</sup> May 2004 when Slovakia, the Czech Republic, Hungary, Poland with Cyprus, Estonia, Latvia, Lithuania, Malta and Slovenia became members of the EU. All the Visegrad countries are linked through very strong flows of mutual trade. It has been constantly increasing. This part of Europe is famous for its soil and natural conditions for agrarian production. The main trade partner for them is the EU. Territorial agro-food structure of V4 countries analyses is crucial agricultural and food products which have a decisive impact on export and import. Territorial and commodity structure detects agro-food products of individual V4 country which can compete with EU markets as well as with third countries.

The EU trading policy is oriented to be the most competitive economy with the liberalization of world trade. Its trade relations with third countries are governed by WTO

rules. These are import and export rules, antidumping measures, quantitative restriction, etc. The EU is developing special agreements with the important partners from third countries especially on bilateral basis

In this thesis I focused on analysing the development of foreign trade development with of all Visegrad group countries.

# **1 Literature Review**

## **1.1 Globalization**

The Biggest, Best Investing glossary defines globalization as name for the process of increasing the connectivity and interdependence of the world's markets and businesses. Two major recent driving forces are advances in telecommunications infrastructure and the rise of the internet. In general, as economies become more connected to other economies, they have increased opportunity but also increased competition.

The LEVIN Institute says that globalization is a process of interaction and integration among the people, companies, and governments of different nations, a process driven by international trade and investment and aided by information technology. This process has effects on the environment, on culture, on political systems, on economic development and prosperity, and on human physical well-being in societies around the world.

### **1.1.1 The process of globalization**

According to Bielik, Klepacki and Kvasha (2008) the process of globalization influences the development of countries as well as of the regions. Regions grow in importance as competing entities in the turbulent international environment. Companies operating at international markets are continuously changing their strategies and altering their organizational structure. Globalization continues to restructure industry, economics and agriculture.

Southgate, Graham and Tweeten (2007) identify globalization has been coined to describe the resulting expansion of trade, investment and related interchange.

## **1.2 International Trade**

Bandlerova, Marišová, Horská and Nagyová (2003) state that international trade are understood relations arising in the process of the replacement of goods between entities

coming from different states. The term is connected with the export or import of goods to a particular state. In addition to the relations of exchange, the deepening economic integration has also brought to the fore relations in the areas of production, finances, technology, licenses, etc., all of them involving simultaneous participation of several countries.

Haekal from Investopedia pointed out that this type of trade gives rise to a world economy, in which prices, or supply and demand, affect and are affected by global events.

### 1.2.1 Free Trade versus Fair Trade

Southgate, Graham and Tweeten (2007) defined *Free trade* as international commerce that is unencumbered by barriers, other than those allowed by the WTO. *Fair trade* is supposed to be consistent with the protection of workers, women, minorities, children, and the environment.

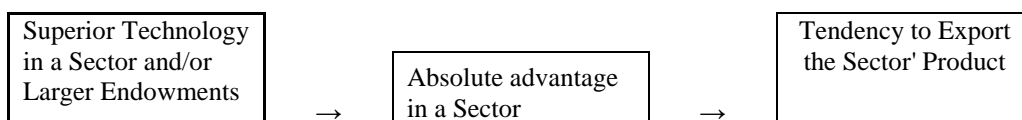
In general, free trade leaves social and environmental issues to be resolved by the country or countries affected. In contrast, fair trade would impose internationally established social and environmental rules on any nation, rich or poor.

### 1.2.2 Absolute advantage

Daniels and VanHoose (2004) explain a country has an absolute advantage in producing a good or service if those residing in that country can produce more of the item than residents of another nation. This can give the nation's residents an incentive to specialize in producing goods and services for which their nation has an absolute advantage.

Moreover, Reinert (2005) defines the possibility that, due to differences in supply conditions, one country can produce a product at a lower price than another country.

According to Gerber (2002) absolute advantage is defined as having higher labor productivity than other nations.





### 1.2.3 Comparative advantage

Daniels and VanHoose (2004) present that comparative advantage is the ability of a nation's residents to produce an additional unit of a good or service at a lower opportunity cost relative to other nations.

Torrens and Ricardo (2001) first pointed out that countries should specialize where they have their greatest absolute advantage (if they have absolute advantage in both goods) or in their least absolute disadvantage (if they have an absolute advantage in neither good). This rule is known as the law of comparative advantage.

Gerber (2002) has different opinion. The concept of comparative advantage is based on the idea that nations maximize their material well-being when they use their resources where they have their bigger value.

### 1.2.4 Heckscher-Ohlim trade theory

Gerber (2002) asserts that a country's comparative advantage lies in the production of goods that use relatively abundant factors. Comparative advantage is determined by a nation's factor endowment, and once this is determined, it should be possible to predict exported goods.

Furthermore, Daniels and VanHoose (2004) provide a theorem stating that a relatively labor-abundant nation will export a relatively labor-intensive good, while a relative capital-abundant nation will export a relatively capital-intensive good.

Reinert (2005) illustrates a model of international trade based on differences in factor endowment among the countries of the world. A country exports the good whose production is intensive in its abundant factor. It imports the good whose production is intensive in its scarce factor.

### **1.2.5 Opportunity cost**

Opportunity cost according to Daniels and VanHoose (2004) is a fundamental economic concept which is the highest-valued, next-best alternative that must be given up to obtain an item.

Melvin and Husted (2001) define it as opportunity cost. It is the amount of production of one type of good that must be sacrificed to produce one more unit of the other.

### **1.3 Preferential Trade Arrangement**

Daniels and VanHoose (2004) claim preferential trade arrangement (PTA) is the establishment of equal trade preferences among two or more trading partners.

On the other hand Reinert (2005) states PTA is an agreement on the part of a set of countries to reduce but not eliminate trade restrictions among themselves.

Moreover, El-Agraa (2004) mentions for economic grouping countries cannot be guarantee to member state a satisfactory economic development, or even better development than in the past. It is not a necessary condition for economic success that a country should be a member of an economic community. Everything would depend on the nature of the scheme and the type of competitive behavior prior to integration.

### **1.3.1 Free trade area**

El-Agraa (2004) emphasizes FTA's occurs when the member nations remove all trade impediments among themselves but retain their freedom with regard to the determination of their own policies vis-a vis the outside world. Nowadays, the trend enhanced these treatments also to investments. Examples of FTAs are, the European Free Trade Association, the North American Free Trade Agreement (NAFTA).

Theory of free trade areas and customs unions is with the impact of integration on trade. It is distinguished between two effects by Melvin and Husted (2001) as:

- *Trade creation* is a displacement of high cost domestic production of a product in one member state by lower cost imports from another member state. This improves the allocation of global resources and represents a step in the direction of free trade. Tends to improve welfare.
- *Trade diversion* is a displacement of lower cost imports of a product from a non-member state by higher cost imports from a member state. This results from the discriminatory nature of the tariff. It tends to worsen welfare.

### **1.3.2 Customs union**

A customs union occurs when a group of countries agree to eliminate tariffs between themselves and set a common external tariff on imports from the rest of the world. Suranovic (n.d). The European Union constitutes such an agreement. A customs union avoids the problem of developing complicated rules of origin, but introduces the problem of policy coordination.

According to Daniels and VanHoose (2004) CU besides agreeing to treat themselves preferentially in trade, nations that are members off a customs union also commit themselves to adopt identical trade policy with respect to national outsider the custom union.

### **1.3.3 Common markets**

Suranovic (n.d) explains that common market establishes free trade in goods and services, sets common external tariffs among members and also allows for the free mobility of capital and labor across countries. The European Union was established as a common market by the Treaty of Rome in 1957, although it took a long time for the transition to take place. Today, EU citizens have a common passport, can work in any EU member country and can invest throughout the union without restriction. Allow also for free factor mobility across national member frontier, i. e. capital, labour, technology among the participating countries.

Although Reinert (2005) declares common market is a CU in which labor and capital markets are integrated into a regional market.

### **1.3.4 Complete economic union**

According to Gerber (2002) who simply defines “economic unions, which are common markets that ask for complete unification of monetary and fiscal policies, participants must introduce a central authority to exercise control effectively become regions of the same nation” - the EU is close to become one.

Daniels and VanHoose (2004) object the next step beyond freeing up cross-border flows of goods, services, and factors of production are to coordinate uniform national economic policies. Countries that take next step have established an economic union.

### **1.3.5 Monetary union**

Monetary union by Suranovic (n.d) establishes a common currency among a group of countries. This involves the formation of a central monetary authority which will determine monetary policy for the entire group. The Maastricht treaty signed by EU members in 1991 proposed the implementation of a single European currency (the Euro) in 1999.



## **1.4 Visegrad group**

### **1.4.1 Overview of Visegrad group**

It is written by Svatos (2008) that Visegrad group, also known as the Visegrad Four, is represented by four Central European countries (the Czech Republic, Hungary, Poland and the Slovak Republic). All these countries are members of the European Union. The members of the Visegrad group (V4) are very important trade partners for each other. Their main trade partners are the EU countries and some other European countries which are outside the EU.

In fact, since 1<sup>st</sup> May 2004, trade among the V4 countries has been a part of EU internal trade. The current mutual trade relations are influenced by the rules of EU common trade policy.

From the Visegrad Group history, the formation of the Visegrad Group was motivated by four factors of decisive relevance:

1. the desire to eliminate the remnants of the communist bloc in Central Europe;
2. the desire to overcome historic animosities between Central European countries;
3. the belief that through joint efforts it will be easier to achieve the set goals, i.e., to successfully accomplish social transformation and join in the European integration process;
4. the proximity of ideas of the ruling political elites.

## **1.5 Agriculture**

According to Squidoo (n.d.) agriculture is the production of food and goods through farming and forestry. Agriculture was the key development that led to the rise of human civilization, with the husbandry of domesticated animals and plants (i.e. crops) creating food surpluses that enabled the development of more densely populated and stratified societies.

Agriculture encompasses a wide variety of specialties and techniques, including ways to expand the lands suitable for plant raising, by digging water-channels and other forms of

irrigation. In the developed world the range usually extends between sustainable agriculture (e.g. permaculture or organic agriculture) and intensive farming (e.g. industrial agriculture).

Southgate, Graham and Tweeten (2007) refer that farming is a vaguely old-fashioned activity, something engaged in long ago by grandparents or great-grandparents. Yet agriculture represents something quite new in human experience, a development that is no more than 10000 - 12000 years old. For innumerable millennia before people raised crops and cared for livestock, our distant ancestor fed themselves exclusively by hunting and gathering. Before the agricultural revolution, people undoubtedly figured out that removing weeds would promote the growth of food-bearing plants.

Due to variation in temperature, rainfall, and soil fertility, agriculture is extremely heterogeneous.

Other opinion according to Blaas (2005) about agriculture is necessity to maintain despite the fact that it is economically advantageous to import food arising from the environmental, landscape making, social and other societal functions. This opens up the general social need for a reassessment of agricultural systems and the role of agriculture in society and space.

### **1.5.1 Food Safety**

According to Bandlerova, Marišová, Horská and Nagyová (2003) food safety is a complex and transparent regulation which would secure safety and healthy character of victuals (foods and drinks) and the exact labelling of their content.

Furthermore, El-Agraa (2004) indicates food safety has become a more important component in agricultural policy for many countries. This improvement may be seen as a surprise for an outside observer. It is questionable whether food has really become less safe over time. Animals are healthier nowadays than fifty years ago and new technologies in food preservation and preparation have lowered food risk. Nevertheless, there are new developments which have to lead to food safety concerns. New technologies which are based on biotechnology have created new production processes and new products which

are not always safe. Moreover, new products, such as genetically modified organisms in food and feed products as well as chemical and biological fertilizers and pesticides, have to be tested before they are allowed to enter the market.

### **1.5.2 Environmental policy**

In general, El-Agraa (2004) refers to the awareness for the environment has increased in most countries over time. The impact of agricultural production on the environment has become of higher interest. Agriculture produces not only typical agricultural products like food, feed, but also by-products.

Knutson, Penn and Flinchbaugh (2007) pointed out that environmental regulations are key aspects of a farm sector concentration, especially in animal production in large-scale, confined facilities. Environmental policy related to agriculture traces to an origin in conserving and maintaining the nutritive capacity of the soil.

## **1.6 The Common Agricultural Policy**

Gerber (2002) explains the Common Agricultural Policy as the world's most extensive set of farm price supports and farm income maintenance programs. The CAP sets farm prices and guarantees a market for farm produce. It also provides direct-income payment to EU farmers. Among its many effects are that it keeps the farm sector in the EU larger than market forces would make it, and it has created large stockpiles of excess products.

It was formally, as the first common policy at EU level, designed for all Member States, formulated in 1957 as one of the key elements of the Treaty of Rome. The volume of expenditure flowing into this area is 45% of the total EU budget expenditure of the total EU budget.

The basic principles of the CAP are the single market for agricultural products, the European Community preference and financial solidarity.

### **1.6.1 Objectives of the CAP**

According to Blaas (2003) the objectives of the CAP are based on the Rome Treaty (EC Treaty) and are enshrined in Article No.39:

- To increase agricultural productivity by promoting technical progress and ensuring the rational development of agricultural production and optimum utilization of production factors, especially labor,
- Ensure an adequate standard of living of farmers, particularly the remaining individual earnings of persons engaged in agriculture,
- To stabilise markets,
- Ensure proper supply,
- Ensure that supplies reach consumers at reasonable prices.

In 1962, the founding states agreed on three principles that nowadays, as well:

1. Unified market: The organization of agricultural markets is for everyone. Each product may move freely inside community,
2. Financial solidarity: the costs because of organization of agricultural arise, are funded joint budget, or more precisely the European Agricultural Guidance and Guarantee Fund,
3. Community priorities: protection of European agriculture tariffs on imports of agricultural products

How Blaas (2003) further states, under those principles the common agricultural market was created. It abolished customs duties and quantitative restrictions on trade between member countries and system of joint defense is introduced against imports from third countries.

### **1.6.2 Funding of the CAP**

- *European Agricultural Guidance and Guarantee Fund*- from 1.1. 2007 has been used to finance direct payments and the costs of organizing the market,
- *European Fund for Rural Development* - from 1.1. 2007 has been served to support activities in rural development

## **2 The objective of the thesis**

The aims of my thesis is the analysis of the agricultural development of foreign trade of regional grouping V4 countries before and after accession to the EU, and also clarify their impact of integration into EU structures for foreign agrarian trade. The biggest consideration is paid to foreign agro-food trade, balance of trade, territorial and commodity structure and the V4 with third countries.

To achieve the main aim of this thesis are developed partial thesis in discussion:

- 1) this sections is focused on to summarize and characterize the agrarian trade of the V4:
  - analysis of foreign agrarian trade of the Slovak Republic, including agricultural balance, territorial and commodity structure of export and import
  - analysis of foreign agrarian trade of the Czech Republic, including agricultural balance, territorial and commodity structure of export and import
  - analysis of foreign agrarian trade of Hungary, including agricultural balance, territorial and commodity structure of export and import
  - analysis of foreign agrarian trade of Poland, including agricultural balance, territorial and commodity structure of export and import
- 2) this section is focused on foreign trade policy to third countries:
  - CEEC's accession to the EU
  - The EU external trade policy towards third countries
- 3) the last section is focused on agro-food balance of the V4 with Russian Federation and Ukraine in the post accession period

### **3 The methodology of the thesis and materials**

Methodological process of development of this bachelor thesis *The Development of agro-food trade of Visegrad Four Countries with non-member state in the post-accession period* is mainly based on the objective of the analysis of agro-food foreign trade V4 countries before and after EU accession.

Methodology is divided into sections:

- 1) theoretical part - during the implementation of bachelor's thesis was necessary to select primary theoretical information.
- 2) practical part - processing of the basis materials of the thesis
- 3) conclusions and results - summary of facts and knowledge from previous methodology sections

In theoretical part of my thesis were processed information from mainly foreign publications and annual green reports as: Agriculture and Food Economy in Poland - year books from 2009 to 2004, The Hungarian agriculture and food industry in figures- year books from 2009 to 2004 and Slovak Republic's Green reports.

Practical part is generated with the statistical and quantitative data used in the thesis mainly from national statistical offices of the each V4 country, the European Union Statistical Office (Eurostat), International trade statistics, some publications from the Statistical Office, the Research Institute of Agricultural and Food Economics. Data covers the time period from 2003 to 2008. According to different sources of data, it is important that the data in certain cases may be different. Different foreign currencies as Czech crown, Hungarian forint, US dollar, Poland zloty have to be converted into Euro using annual average exchange rate of the ECB. 1 € was 31.840 CZK in 2003, 31.899 CZK in 2004, 29.778 CZK in 2005, 28.339 CZK in 2006, 27.763 CZK in 2007 and 24.955 CZK in 2008. 1 € was 253.62 HUF in 2003, 251.66 HUF in 2004, 24805 HUF in 2005, 264.26 HUF in 2006, 251.35 HUF in 2007 and 251.51 HUF in 2008. 1 € was 4.399 zloty and US Dollar was 1.132 € in 2003.

I calculated agro-food export/ import agricultural balance, agro-food export/import percentage shares on total export/import, agro export performance on GDP, how intensive is agro import on GDP of each country analysed.

Commodity classification was carried out under the combined nomenclature (CN) description and coding. Imported and exported goods have to be declared stating under which subheading of the nomenclature they fall. This determines which rate of customs duty applies and how the goods are treated for statistical purposes. The CN is a method for designating goods and merchandise which was established to meet, at one and the same time, the requirements both of the Common Customs Tariff and of the external trade statistics of the Community. The CN is comprised of the Harmonized System (HS) nomenclature with further Community subdivisions. The Harmonized system is run by the World Customs Organisation (WCO). This systematic list of commodities forms the basis for international trade negotiations, and is applied by most trading nations (ec.europa.eu, 2010)

Since 2004 in the EU occurred radical changes which have a direct impact on the development of foreign trade of each V4 country analysed. In two stages other 12 nations became full members of the EU. EU-27 is identified as 27 member nations of the EU and other non-EU countries as third countries.

In my bachelor thesis were used many techniques and methods to solve partial objectives:

- analysis
- synthesis
- deduction
- comparison
- statistical methods

## **4 Discussions**

### **4.1 Development of agro-food trade of V 4 countries**

Visegrad Group reflects the efforts of countries of Central Europe to cooperate on several stretches of common interest in pan-European integration. This part of Europe is characterized by excellent soil and natural conditions for agricultural production, which is also subject to long-term tradition in plant and animal production. International integration significantly influences agricultural policy and foreign trade of individual countries. This integration cancelled all existing trade barriers and increased competition within the group.

However, Svatoš (2008) refers to the analysis of international trade in general, and agricultural trade documents that all countries already developed mutual trade in the past on the basis of their membership of CEFTA. Nowadays, they are developing mutual trade within the framework of all the Visegrad group countries within the membership of the EU.

By joining the European Union V4 countries have begun benefits associated with the liberalization of trade and the establishment of support systems that the CAP provides. V4 countries are seeking a stable position on the EU agro-food markets, where is increased competitive pressure, which should lead to diversification of agro-food products.

#### **4.1.1 The Slovak Republic's agricultural foreign trade**

It can be seen progress of the Slovak Republic's foreign trade. It was continuously increasing during the analysed time period. Value of total export reached 26 662.62 million Euro (Table 1) in a base year 2003. Total export increased by 85.74 % within the period and in 2008 reached 49 522.27 million Euro. Total import of Slovak republic was similar to total export reaching 27 440.51 million Euro. The biggest progress of imported goods became in 2005, one year after accessing to the EU. Increase in total imports between years 2003 and 2008 was by 83.23% of the value reaching 50 280.06 million Euro in year 2008. The Slovak Republic accession to the EU had accelerated effects on the international



trade in agro-food products on export and import leading to a further deepening of the negative trade balance. Total balance of the Slovak Republic's trade ranged between -777.89 million Euro in 2003 and -757.79 in 2008. The highest negative rates of total balance were in 2005 of -2 456.9 million Euro and in 2006 of -2 562.04 millions Euro (Graph 1).

**Table 1 Indicators of development of SK foreign trade**

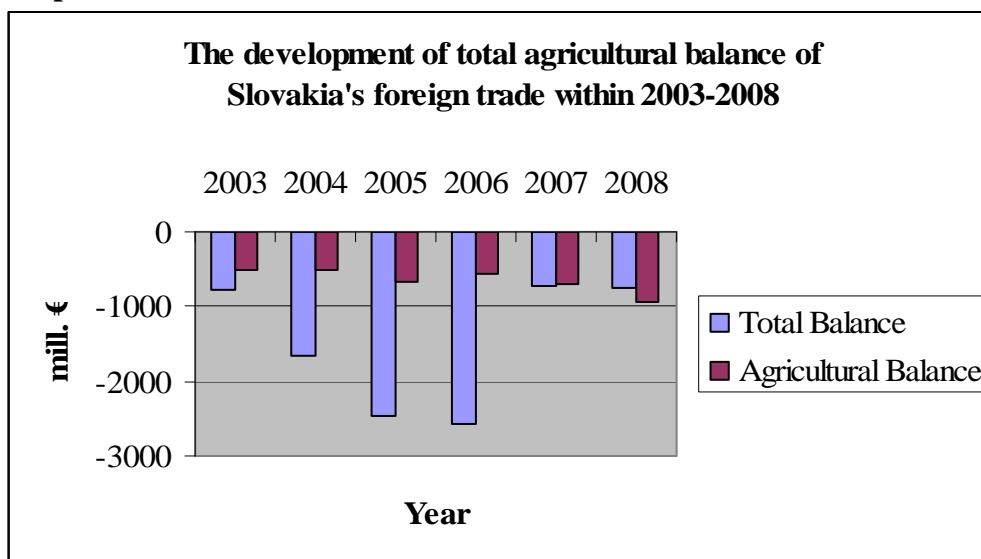
Flow	Values in mill. €					
	2003	2004	2005	2006	2007	2008
<b>Total Export</b>	26 662,62	29 811,33	32 863,97	40 891,52	47 350,96	49 522,27
<b>Total Import</b>	27 440,51	31 484,86	35 320,06	43 453,56	48 075,95	50 280,06
<b>Total Balance</b>	-777,89	-1 673,53	-2 456,09	-2 562,04	-724,99	-757,79
<b>Agricultural total export</b>	843,69	1 142,47	1 556,26	1 734,95	1 999,83	1 954,36
<b>Agricultural total import</b>	1 341,57	1 663,65	2 222,00	2 295,76	2 694,22	2 897,33
<b>Agricultural balance</b>	-497,88	-521,18	-665,74	-560,81	-694,39	-942,97
<b>GDP</b>	40 579,00	45 211,51	49 315,24	55 081,92	61 501,06	67 221,00
	%					
<b>Agro Export's share on total export</b>	3,16	3,83	4,74	4,24	4,22	3,95
<b>Agro Import's share on total import</b>	4,89	5,28	6,29	5,28	5,60	5,76
<b>Agro Export Performance on GDP</b>	2,08	2,53	3,15	3,15	3,25	2,91
<b>Agro Import intensive on GDP</b>	3,31	3,68	4,51	4,17	4,38	4,31

Source: Statistical Office of the Slovak republic 2010, own calculations

In the case of foreign agricultural trade during the analysed time period there had been constant growth in export and import as well. The export value increased from 843.69 million Euro in 2003 up to 1 954.36 million Euro in 2008. It is an increase of 131.64% (Appendix 1), but the best performing year was 2007 with an increase of 137.03%. In 2008 export of rapeseeds increased by 102%, unconcentrated milk and cream by 51% and malt by 46%, which had an influence on agro export of the Slovak Republic. The share of agricultural exports on total exports reflects the value from 3.16% in 2003 up to 4.74% in 2005 (because SK increased export of wheat (321%), beet sugar (57%) and cheese, ricotta (46%)) and decrease from 4.24% to 3.95% in 2008. Agro export performance on GDP

reached 2.08% in 2003 and was growing up to 3.25% in 2007 and declined to 2.91% in 2008. The case of import was similar to export again with an increase of almost 116% during the period. In 2003, the value of agro-food import was 1 341.57 millions Euro. It constantly grew to 2 897.33 millions Euro in 2008. It was influenced by increase of import of rapeseeds oil (622%), pork (33%) and coffe (29%). Agrarian import share reflects on total import the value of 4.89% in 2003, 5.28% in 2004, in 2005 jumped to 6.29% (because SK increased import of cigarettes (63%), pork (103%), poultry meat (55%)) and after decreased to 5.28% in 2006, 5.60% in 2007 and 5.76% in 2008. Agro import intensive on GDP was increasing from 3.31% in 2003 to 4.51% in 2005, 4.17% in 2006, 4.38% in 2007 and in 2008 decreased to 4.31%. Agricultural balance fluctuated between -497.88 million Euro in 2003 and the highest negative during analysed period was -942.97 million Euro in 2008. Subsequent years balance was growing in 2004 to -521.18 million Euro and in 2005 to -665.74 million Euro. In 2006 the value of imported goods declined to -560.81 million Euro.

**Graph 1**



Source: Statistical Office of the Slovak republic 2010, own calculations

#### **4.1.1.1 The Slovak Republic's territorial structure of agricultural foreign trade**

Territorial structure is foreign trade indicator of the country. Slovakia is a member of the EU and its share in Slovakia's foreign trade activities was 93.39% (Appendix 2) in the case of exports and 87.11% (Appendix 3) in the case of import. Only minor share of 6.61% was

export to and 12.89% are good imported from third countries. From EU-27 countries the most important trading partner for Slovakia were the V4 countries. We can see that the foreign agrarian trade of the Slovak republic was influenced by its neighbour countries.

#### **4.1.1.1.1 Territorial structure of export**

During the analysed time period Slovakia's the most important trading partner in terms of export with 32.80% share of foreign trade flows was the Czech Republic. This is a significant figure and it is based mainly on historical, cultural, social and linguistic links. Average year value reached 504.66 million Euro. Second important Slovakia's trading partner was Hungary. Its share on Slovakia's export reached 18.35% and average year value during period was 282.41 million Euro. Poland, last representative of regional grouping V4 was third important trading partner for Slovakia in the case of export from 2003 to 2008. Slovakia exported 9.56% of commodities to its northern neighbor- Poland. Average year value of products imported was 147.11 million of Euro. From non V4 member country Slovakia's important trading partner was its western neighbor Austria with 7.15% share on export. Among top 5 Slovakia's countries in term of agro-food export belongs also Germany. During the period Slovakia exported to Germany agro-food products with value reaching 101.77 million Euro. This was part of 6.65% of exported goods.

#### **4.1.1.1.2 Territorial structure import**

Case of import was similar as case of export in terms of Slovakia's foreign trade activities. The Czech Republic import to Slovakia represented 28.49% of total agro-food and average year value achieved 622.69 million of Euro. Second important trading partner was again country from V 4 regional grouping- Poland. During the period Poland exported to Slovakia agro good of 1 289.36 million Euro. Average year value was 214.89 million Euro. We can see that Germany had also important role on Slovakia's import activities. Germany exported to Slovakia commodities in the average annual value of 191.63 million Euro, making bears 10.38% of the total agro-food import in the period. Hungary is fourth important trading partner. From 2003 to 2008 Hungarian share on Slovakia's import

activities was 6.24% and average year value climbed to 136.43 million Euro. Last country from top importers to Slovakia during the analysed period was Netherlands with 5.10% share on its activities. Average year value of imported commodities from Netherlands to Slovakia was 111.45 million euro.

#### **4.1.1.2 The Slovak Republic's commodity structure of agricultural foreign trade**

The entire period 2003-2008, although the shares of total commodity export/import varied from year to year, so I selected only the most important ones. I compared years 2003 and 2008 to see a difference in amount of goods exported/imported before and after Slovakia's accession to the EU.

##### **4.1.1.2.1 Commodity structure of export**

In long-term period the most important exports commodities were goods from CN 04. They were milk and dairy products. Its share in total exports of agro-food products in 2008 was accounted for 16.3% reaching 318.66 million Euro (Appendix 4). In 2003 it was 123.68 million Euro but 14.66% of total exports of agro-food products. From CN 17-sugar and sugar confectionery the largest share had cane and beet sugar. It represented 7.47% of the total agro exports in 2008. In 2003 it was 4.46% share. Sugar and sugar confectionery, cereals, cocoa and cocoa preparations, and products of milling industry had the equal share of 7.47% in total export of agro-food products in 2008. From CN 18 the main good was chocolate.

##### **4.1.1.2.2 Commodity structure of import**

The most imported agro-food products were goods from CN 22-beverages, spirits and vinegar. Their share on agro import was 9.39% reaching 272.19 million Euro in 2008 (Appendix 5). In 2003 it was 7.47% share and 100.27 million Euro. Meat and edible meat offal (CN 02) was the second most important import quantities amounted to 9.28% share. In 2003 it was only 5.32% of agro import of Slovakia. Third important import commodities

were citrus fruits, banana, nuts amounted to 235.67 million Euro in 2008 and 119.70 million Euro in 2003. Dairy produce, birds' eggs, honey (CN 04) had 7.91% share on Slovakia's import activities in 2008 and 53.44 million Euro in 2003. Last analysed was group CN 21-Miscellaneous edible preparations with 6.87% share in 2008. It was second important import commodity amounted to 118.47 million Euro achieving 8.83% share on agro-food import commodities in 2003.

#### 4.1.2 The Czech Republic's agricultural foreign trade

The development of total exports of the Czech Republic can be characterized as a dynamic and constantly growing during the analysed time period. In 2003 total export value was 43 056.51 million Euro (Table 2) and 98 899.16 millions Euro in 2008. Similar situation was with total imports which reached 45 248.48 million Euro in 2003 and more than two times higher increase in 2008. However, the dynamics of import growth was lower than the dynamics of the export growth, resulting in positive effects overall balance from the year 2005 to 2008. The Czech Republic total balance was negative only in year 2003 reaching – 2 191,97 million Euro and –348.56 million Euro 2004 (Graph 2). As we can see years from 2005 – 2008 had total balance in surplus. It was caused because export had been increasing.

**Table 2 Indicators of development of CZ foreign trade**

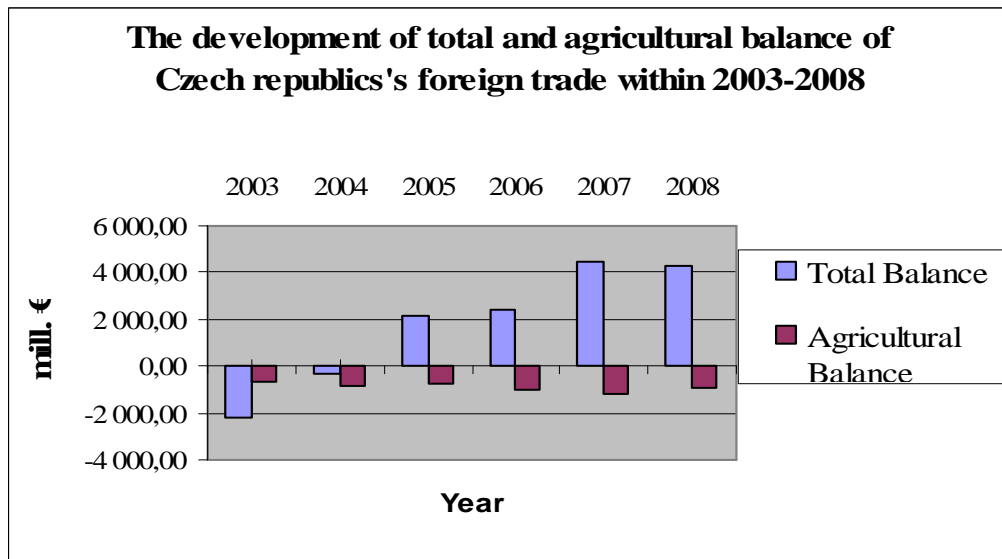
Flow	Values in mill. €					
	2003	2004	2005	2006	2007	2008
<b>Total Export</b>	43 056,51	54 002,21	62 748,97	75 673,67	89 297,52	98 899,16
<b>Total Import</b>	45 248,48	54 350,77	60 601,23	73 249,76	84 824,82	94 610,49
<b>Total Balance</b>	-2 191,97	-348,56	2 147,74	2 423,91	4 472,70	4 288,67
<b>Agricultural total export</b>	1 401,00	1 771,00	2 410,00	2 566,00	3 109,49	3 779,77
<b>Agricultural total import</b>	2 028,00	2 603,00	3 139,00	3 600,00	4 273,81	4 724,53
<b>Agricultural balance</b>	-627,00	-832,00	-729,00	-1 034,00	-1 164,32	-944,76
<b>GDP</b>	80 938,43	88 238,94	100 202,33	113 706,01	127 342,31	147 823,13
	%					
<b>Agro Export's share on total export</b>	3,25	3,28	3,84	3,39	3,48	3,82

<b>Agro Import's share on total import</b>	4,48	4,79	5,18	4,91	5,04	4,99
<b>Agro Export Performance on GDP</b>	1,73	2,01	2,41	2,26	2,44	2,56
<b>Agro Import intensive on GDP</b>	2,51	2,95	3,13	3,17	3,36	3,20

Source: Czech Statistical Office 2010, own calculations

Agricultural foreign trade activities were dynamic as well. The agro export of the Czech Republic was 1 401.00 million Euro (Table 2) in 2003 and was still increasing during the analysed time period. In 2008 it was 169.79% more than in 2003 evaluated by 3 779.77 million Euro (Appendix 1). Agro Export's share on total export was 3.25% in 2003, 3.28% in 2004, the highest share 3.84% was in 2005, in 2006 it decreased to 3.29% and increased again to 3.48% in 2007 and jumped to 3.82% in 2008. Agro export performance on GDP was 1.73% in 2003, 2.01% in 2004, 2.41% in 2005, 2.26% in 2006, 2.44% in 2007 and 2.57% in 2008. In the case of import there was 132.96% grew from 2003 to 2008. In 2003 the Czech Republic import goods reached 2 028.00 million Euro and 4 724.53 million Euro in 2008. Year 2008 was the best performing for the Czech agro-food import activities. According to year 2003 import of the country jumped to 28.35% share in 2004 and since that was increasing every year. The agro import's share on total export was increasing from 4.48% in 2003 to 5.18% in 2005 and regress to 4.91 % in 2006, 5,04% in 2007 and 4.99% in 2008. Agro Import intensive on GDP was growing constantly during the analysed period except 2008 when declined to 3.20%. The Czech Republic accession to the EU had accelerated effects on international trade in agro-food products on export and import. Agricultural balance fluctuated from -627.00 million Euro in 2003 to -944.76 million Euro in 2008. In 2004 increased to -832.00 million Euro and fell down to -729.00 million Euro in 2005. The highest value was reached in 2006 and 2007 during the analysed period.

**Graph 2**



Source: Czech Statistical Office 2010, own calculations

#### **4.1.2.1 The Czech Republic's territorial structure of agricultural foreign trade**

Territorial structure is foreign trade indicator of the country. The Czech Republic is member of the EU and its share in Czech's foreign trade activities was 88.91% (Appendix 2) in the case of exports and 89.37% (Appendix 3) in the case of import during the six years. Share of 11.09% represented export to non-EU countries and 10.63% was import share from third countries. From EU-27 countries the most important trading partner for the Czech Republic were the V4 countries. We can see that the Czech Republic foreign agrarian trade is influenced by its neighbour countries.

##### **4.1.2.1.1 Territorial structure of export**

During the analysed time period Czech's most important trading partner in terms of export with 27.27% share of foreign trade flows was Slovakia. This is a significant figure and it is based mainly on historical, cultural, social and linguistic links. Average export year value reached 685.89 million Euro. One of the very important foreign trading partner outside the V4 for the Czech Republic was Germany with 20.20% share on Czech's export flows. From 2003 to 2008 the Czech Republic imported agro-food commodities for 3 047.32 million Euro from Germany. Eastern neighboring country Poland imported to the Czech Republic 10.57% agro-food products during the period. Average year value reached 416.84

million Euro. Last member from the V4 countries, Hungary had 5.19% share with average year value 130.51 million Euro on total agro-food export activities. Fifth top exporting country for Czech Republic's foreign trade was Austria. The share on total export was 4.85% and average year value during the period reached 121.97 million Euro.

#### **4.1.2.1.2 Territorial structure of import**

The Czech Republic was strongly influenced by its neighbours Slovakia and Germany also in import trade activities from historical and the territorial structure. The analysed time period showed that Germany's share on agro-food import reached 24.49%. It exported products for 832.22 million Euro yearly. Poland, was the second country and also Czech's neighbour. In the case of import, Poland exported commodities amounted of 13.03% share the Czech Republic import activities. Poland achieved average year value of 444.93 million Euro. Slovakia is traditional exporter of agro-food commodities to the Czech Republic. During the analysed time period occupied third place with 10.51% share on the Czech's import. In 2008 Slovakia exported to Czech Republic goods amounted to 492.10 million Euro and had 10.41% share on the Czech's foreign import trade. From non neighbour countries Netherlands and Italy were influencing the Czech Republic's foreign trade activities. During the years 2003-2008 the Czech Republic imported from Netherlands agro-food products for 1 525.99 millions Euro with 7.45% share on the Czech import activities. Italy's share was 5.77%.

#### **4.1.2.2 The Czech Republic's commodity structure of agricultural foreign trade**

The entire period 2003 - 2008, although the shares of total commodity export/import varied from year to year, so I selected only the most important ones. I compared years 2003 and 2008 to see a difference in amount of goods exported/imported before and after the Czech Republic's accession to the EU.



#### **4.1.2.2.1 Commodity structure of export**

Among the best Czech Republic's export commodities belong products from CN 04- Dairy produce, bird's eggs and honey. Their share on total agro-food export was 15.57% in 2008 (Appendix 4). This commodity group was the best exported with 13.99% share in 2003.

The Czech Republic is famous for their beer production. That's way beverages, spirits and vinegar had important part on export activities reaching 410.82 millions Euro of 10.86% in 2008. In 2003 it was 175.17 million Euro but 12.50% share on export activities. Miscellaneous edible preparations (CN 21) had important role on Czech's agro-food export. Its share was 9.52% in 2008 and 12.17% in 2003. Export of Oil seeds and oleaginous fruits in 2008 was 332.42 million Euro. Its share on export was 5.90% in 2003. Last analysed group of commodities belong to CN 10- Cereals. Share of export in 2003 and 2008 was almost the same. It was 7.71% share on Czech Republic's export activities in 2003 and 7.91% in 2008.

#### **4.1.2.2.2 Commodity structure of import**

From the import point of view, meat and edible meat offal (CN 02) was the most imported commodity in 2008 with 11.68% share (Appendix 5) on the Czech Republic's agro-food import (Appendix 5). Fruits and nuts (CN 08) belong to Czech the most important import products. Fruits were mainly tropical and its share on import was 9.85% in 2008. This commodity group was the most imported with 12.68% share on import in 2003. Miscellaneous edible preparations form third important import products for the Czech Republic. In 2008 was imported 421.78 million Euro of this commodity structure (CN 21) and 236.17 million Euro in 2003. Dairy produce, bird's eggs, honey (CN 04) were again fundamental part of the Czech Republic's foreign trade activities. The Czech Republic imported 402.83 million Euro of this commodity in 2008. It reached 6.18% share on import. Last group of agro-food products were beverages, spirits and vinegar with 8.26% share on import in 2008. In comparison it was 7.35% share of imported goods in 2003.

### 4.1.3 Hungarian agricultural foreign trade

Hungary is a post communistic country as well as Slovakia, the Czech Republic and Poland. Foreign agro trade plays a very important role in the Hungarian national economy. Development of the Hungarian foreign trade was continuously increasing. Value of total export reached 38 096.00 million Euro in a base year 2003 (Table 3). Total export increased by 92.62% within 2003 and 2008. Its total import was similar to the total export. It reached 42 263.30 million Euro in 2003. The biggest progress of imported goods became in 2005, one year after accessing to the EU. The great increase of 74.38% in total imports happened between years 2003 and 2008. Import reached 73 699.70 million Euro in 2008. Total balance of the Hungarian trade fluctuated between values of -4 173.3 million Euro in 2003 and -319.40 million Euro in 2008 (Graph 3). The highest negative rate of total balance was in 2003 and this rate was increasing during the 6 year analysed period.

**Table 3 Indicators of development of Hungarian foreign trade**

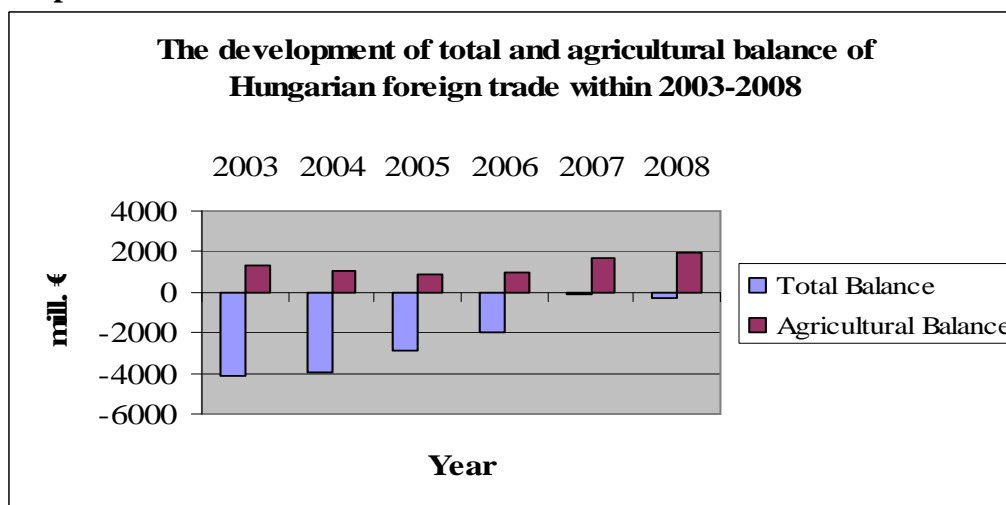
Flow	Values in mill. €					
	2003	2004	2005	2006	2007	2008
<b>Total Export</b>	38 096,00	44 618,40	49 720,70	58 374,40	69 004,20	73 380,30
<b>Total Import</b>	42 263,30	48 533,10	52 559,90	60 338,70	69 123,90	73 699,70
<b>Total Balance</b>	-4 167,3	-3 914,7	-2 839,3	-1 964,2	-119,7	-319,4
<b>Agricultural total export</b>	2 855,00	3 098,00	3 324,00	3 675,00	4 863,00	5 735,00
<b>Agricultural total import</b>	1 494,00	2 000,00	2 408,00	2 680,00	3 188,00	3 820,00
<b>Agricultural balance</b>	1 361,00	1 098,00	916,00	995,00	1 675,00	1 915,00
<b>GDP</b>	74 185,79	82 666,30	88 645,84	89 894,42	101 086,53	105 535,76
	%					
<b>Agro Export's share on total export</b>	7,49	6,94	6,69	6,30	7,05	7,82
<b>Agro Import's share on total import</b>	3,53	4,12	4,58	4,44	4,61	5,18
<b>Agro Export Performance on GDP</b>	3,85	3,75	3,75	4,09	4,81	5,43
<b>Agro Import intensive on GDP</b>	2,01	2,42	2,72	2,98	3,15	3,62

Source: Hungarian Central Statistical Office 2010, own calculations

In the case of foreign agricultural trade during analysed period there had been constant growth in export and import. Hungary is mostly agricultural producer what can be seen in tables during the analysed time period. Its agricultural values proportions belong to the

highest from the V 4 countries. The export value increased from 2 855.00 million Euro in 2003 up to 5 735.00 million Euro in 2008. It is an increase of 100.88% (Appendix 1), but the best performing year was 2007 with an increase of 70.33%. Exports were characterized by the dominant proportion of cereals, meat, oilseeds and fruit and vegetable products. These four goods categories accounted for 51% of export value in 2008. The share of agricultural exports in total exports reflects the values of 7.49% in 2003, 6.94% in 2004, 6.69% in 2005, 6.30% in 2006, 7.05% in 2007 (The 2007 export figures were substantially determined by an increase of 26% in exports of cereals) and 7.82% in 2008. Agro export performance on GDP was 3.85% in 2003, in 2004 and 2005 was 3.75%, and from 2005 it was increasing to 5.43% in 2008. The case of import was better and more balanced than export with an increase of almost 155.69% during the period. In 2003, the value of agro import was at 1 494.00 millions Euro. It constantly grew to 3 820.00 millions Euro in 2008. The four major goods categories –animal feed, edible products, dairy products and meat products – accounted for 35% of total agricultural imports in 2008. The biggest drop in import was seen in the case of livestock, while the greatest growth took place in the group of dairy products, eggs and honey in 2007. Agrarian import share reflects on total import fluctuation share from 3.53% in 2003, increase in 2005 to 4.58% and decreased to 4.44% in 2006 and constant grew to 5.18% in 2008. Agro import intensive on GDP was increasing from 2.01% in 2003 to 3.68% in 2008. Agricultural balance was declining from 1 341.00 million Euro in 2003 to 916.00 million Euro in 2005 and increasing from 2005 to 1 915 million Euro in 2008.

**Graph 3**



Source: Hungarian Central Statistical Office 2010, own calculations

#### **4.1.3.1 Hungarian territorial structure of agricultural foreign trade**

Territorial structure is a foreign trade indicator of the country. Hungary is a member of the EU and its share in Hungarian foreign trade activities was 77.42% (Appendix 2) in the case of exports and 87.80% in the case of import. Share of 22.58% represented export to non-EU countries and 12.20% (Appendix 3) was import share from third countries. According to my tables we can see that foreign agrarian trade of Hungary was more influenced by non neighbour countries.

##### **4.1.3.1.1 Territorial structure of export**

During the analysed time period Hungarian the most important trading partner in terms of export with 9.73% share of foreign trade flows was Romania. This is significant figure and it is based mainly on historical, cultural, social and linguistic links. Average year value reached 325.83 million Euro. Second important Hungarian trading partner was Austria. Its share on Hungarian export was 7.08% and average year value during the period was 237.08 million Euro. Poland one of the representative of regional grouping V 4 was third important trading partner for Hungarian agro-food export from 2003 to 2008. Poland share on Hungarian export was 4.66%. Average year value products exported was 156.06 million of Euro. Other V 4 member country was Slovakia, its northern neighbor with 4.09% share of export. Among top 5 Hungarian countries belongs France in term of agro-food export. During the period Hungary exported to France agro-food products reaching 118.32 million Euro. This was part of 3.53% of exported goods.

##### **4.1.3.1.2 Territorial structure of import**

The analysed time period showed that Germany's share of agro-food import reached 21.25%. They exported products for 487.29 million Euro yearly. In the case of import Poland had about 12.28% share on Hungarian foreign import activities. Poland achieved average year value of 281.71 million Euro. Netherlands belonged to traditional exporter of agro-food commodities to V 4 countries. During the analysed time period occupied third place with 9.52% share on Hungarian import. From neighbour countries, Slovakia and

Austria were influencing Hungary's foreign trade activities. Hungary imported agro-food products reaching 932.00 millions Euro and 6.77% share from Austria. Slovakia's share was 5.86% during the years 2003 - 2008.

#### **4.1.3.2 Hungarian commodity structure of agricultural foreign trade**

The entire period 2003 - 2008, although the shares of total commodity export/import varied from year to year, so I selected only the most important ones. I compared years 2003 and 2008 to see a difference in amount of goods exported/imported before and after the Hungarian accession to the EU.

##### **4.1.3.2.1 Commodity structure of export**

Products from CN 10- Cereals were Hungary's the best exported commodities. Their share on total agro-food export was 22.09% in 2008 (Appendix 4). Share of this commodity exported in 2003 was 12.36%. Hungary is famous for their meat production, sausages. In 2008 export share of meat and edible meat offal was 12.46% reaching 711.00 millions Euro. In 2003 it was the most exported commodity group reaching 540.18 million Euro with 18.92% share on export activities. Oil seeds and oleaginous fruits (CN 12) had important role on Hungary's agro-food export. Its share was 8.43% in 2008 and 6.56% in 2003. Export of preparations of vegetables, fruits, nuts was 445.00 million Euro reaching 7.93% share in 2008. Its share on export in 2003 was 11.28%. The last analysed commodity group came from CN 23- residues and waste from food production. Share of export was 7.29% in 2003 and 8.18% in 2008 on Hungary's export activities.

##### **4.1.3.2.2 Commodity structure of import**

The most imported agro-food products were goods from CN 2-residues and waste from food production. Their share on agro-food import was 11.10% reaching 424 million Euro in 2008 (Appendix 5). In 2003 it was 266.15 million Euro with 17.81% share. Miscellaneous edible preparation (CN 21) was the second most essential import products

amounted to 8.40% share. In 2003 it was almost the same share of 8.42% of agro-import of Hungary. Difference in value was in 2008 of 321 million Euro and in 2003 of 125.78 million Euro. Third important import commodities were goods from CN 04- dairy produce, bird's eggs and honey which reached 291.00 million Euro in 2008 and only 73.73 million Euro in 2003. Meat and edible meat offal (CN 02) had 7.59% share on Hungary's import activities in 2008 and reached 60.72 million Euro in 2003. The last analysed was group CN 22-beverages, spirits and vinegar with 7.46% share in 2008. In 2003 reached 71.37 million Euro and 4.78% on agro-food import activities.

#### 4.1.4 Polish agricultural foreign trade

Poland ranks 7<sup>th</sup> place within 27 Member States in terms of population. In terms of agricultural population, it occupies the 1<sup>st</sup> position. As regards the number of agricultural holdings, Poland was in the 2<sup>nd</sup> place (after Romania). Number of persons employed in agriculture, hunting, forestry and fisheries was 2.5 times higher than the percentage share of persons employed in those sectors in EU-27 (14.7% and 5.8%, respectively) in 2008 (Agriculture and food Economy in Poland, 2009).

The development of Poland's total exports can be characterized as a dynamic and constantly growing during the analysed time period. Total export value reached 47 491.66 million Euro (Table 4) in 2003. It was huge increase to 116 243.80 millions Euro in 2008. Similar situation was with total imports reaching 60 263.09 million Euro in 2003 and more than two times higher value of 142 447.90 million Euro in 2008. However, the dynamics of import growth was higher than the dynamics of export growth, what was resulted in negative effects overall balance from 2003 to 2008. Polish total balance was -12 771.43 million Euro in 2003. Balance of tradr was decreasing to -9 746.20 million Euro till 2005 and from 2006 became decreasing again. Total balance reached the highest negative value of -26 204.10 million Euro in 2008 (Graph 4).

**Table 4 Indicators of development of Polish foreign trade**

Flow	Values in mill. €					
	2003	2004	2005	2006	2007	2008
<b>Total Export</b>	47 491,66	59 698,00	71 423,50	87 925,90	104 348,87	116 243,80
<b>Total Import</b>	60 263,09	65 367,00	81 169,70	100 784,10	123 437,59	142 447,90
<b>Total Balance</b>	-12 771,43	-10 629,90	-9 746,20	-18 858,00	-19 088,72	-26 204,10

<b>Agricultural total export</b>	4 003,00	5 223,00	7 152,50	8 577,40	9 942,00	11 307,00
<b>Agricultural total import</b>	3 557,00	4 370,00	5 485,30	6 486,20	7 972,00	9 822,00
<b>Agricultural balance</b>	447,00	853,00	1 667,20	2 091,20	1 970,00	1 485,00
<b>GDP</b>	191 643,80	204 236,50	244 420,10	272 088,90	311 001,70	362 415,10
	%					
<b>Agro Export's share on total export</b>	8,43	8,75	10,01	9,76	9,52	9,73
<b>Agro Import's share on total import</b>	5,90	6,69	6,76	6,44	6,46	6,90
<b>Agro Export Performance on GDP</b>	2,09	2,56	2,93	3,15	3,20	3,12
<b>Agro Import intensive on GDP</b>	1,86	2,14	2,24	2,38	2,56	2,71

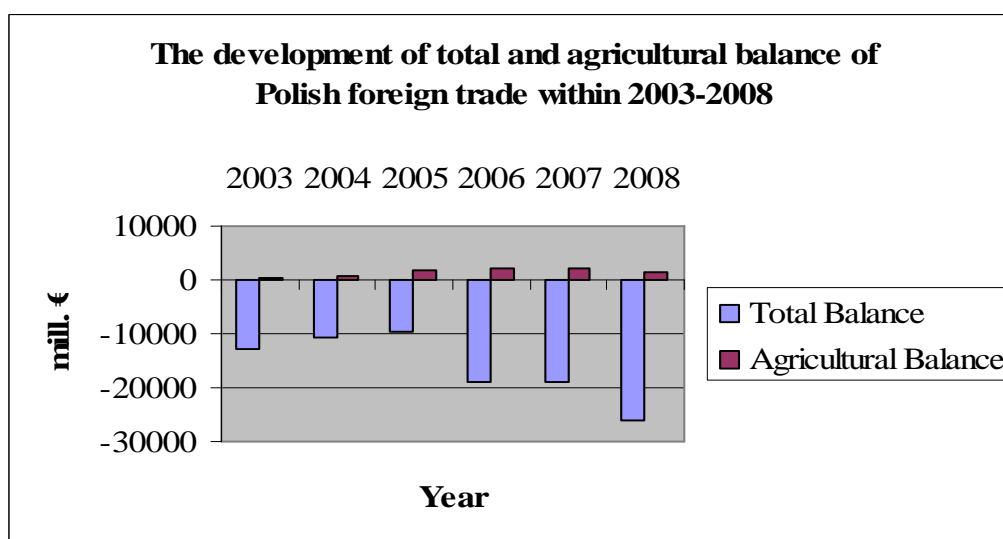
Source: Agriculture and Food Economy in Poland - year books, Central Statistical Office of Poland 2010, Eurostat 2010, own calculations

Agricultural foreign trade activities were dynamic as well. Weakening of Polish zloty in relation to EUR and US dollar was one of the factors leading to the increase in the export value by 5% in 2008. At the same time import increased by 10%. In agri-food products turnover – by value – the dominating products come from the food industry and their share in the income from entire Polish food export amounts to 85%. The share of processed products in the agri-food products export is also high and amounts to approximately 65% in 2008. Poland agro-food export was 4 003.00 million Euro in 2003 and it was increasing during the analysed time period. During the analysed time period export share increased by 182.46% (Appendix 1). Agro Export's share on total export was 8.43% in 2003, 8.75% in 2004, the highest share of 10,01% was in 2005, during 2006 and 2007 decreased to 9.52% and in 2008 it finally increased to 9.73%. A growth was in the value of sales of animal products, e.g. milk products (mainly powdered milk) and red and poultry meat in 2005. During the year 2007 the greatest increase in export was observed for poultry meat, cigars, bread and cakes. The value of export of sugar, live cattle, pork, maize and wheat decreased in 2007. Agro export performance on GDP was 2.09% in 2003, in 2004 2.56%, 2.93% in 2005, 3.15% in 2006, the highest share reached 3.20% in 2007 and 3.12% in 2008.

In the case of import there was 179.48% share grew from 2003 to 2008. Poland imported goods for 3 557.00 million Euro in 2003 and 9 822.00 million Euro in 2008. Year 2008 was the best performing for Poland's agro-food import. Agro import's share on total export

was increasing from 5.90% in 2003 to 6.76% in 2005 and regress to 6.44% in 2006, 6.46% in 2007 and 6.90% in 2008. Animal products, i.e. live animals and meat (mainly pork) and fish had the largest share in the growth in imports value in 2005. Agro Import intensive on GDP was growing constantly during the analysed period from 1.86% in 2003 to 2.71% in 2008. Agricultural balance fluctuated from 447.00 million Euro in 2003 to 1 485 million Euro in 2008. Agro balance was increasing till 2006 when reached the highest value of 2 091.20 million Euro.

**Graph 4**



Source: Central Statistical Office of Poland 2010, Eurostat 2010, own calculations

#### **4.1.4.1 Polish territorial structure of agricultural foreign trade**

Territorial structure is foreign trade indicator of the country. Poland is a member of the EU and its share in Poland's foreign trade activities was 77.85% (Appendix2) in the case of exports and 76.87% in the case of import (Appendix3). Share of 22.15% represented export to non-EU countries and 23.13% was import share from third countries.

##### **4.1.4.1.1 Territorial structure of export**

During the analysed time period Polish the most important trading partner was Germany in terms of export with 23.57% share of foreign trade flows. Average year value of export reached 1 724.29 million Euro. Western neighbouring V4 country, the Czech Republic had



6.28% share on Polish export flows. From 2003 to 2008 Poland exported to the Czech Republic agro-food commodities for 2 756.12 million Euro. One of very important foreign trading partner with Poland was Russia. Poland exported to Russia value of 10.57% of agro-food products during the period. This is significant figure and it was based mainly on historical, cultural, social and linguistic links. Average year value reached 419.84 million Euro. Other member from V4 countries, Hungary had 4.05% share with average year value 296.20 million Euro on total agro-food export activities. France was the fifth top exporting country for Polish foreign trade. It had 3.68% share on total export and average year value during the period reached 443.27 million Euro.

#### **4.1.4.1.2 Territorial structure of import**

From historic and territorial structure Poland was strongly influenced by Germany and the Czech Republic also in import trade activities. The analysed time period showed that Germany's share of agro-food import reached 20.39%. They exported products for 1 119.94 million Euro yearly. Second country in the terms of import was the Czech Republic. In the case of import, the Czech Republic exported about 4.64% share of Poland's foreign import activities. The Czech Republic achieved average year value of 254.95 million Euro. France is traditional exporter of agro-food commodities to Poland. During the analysed time period occupied third place with 4.60% share on Poland's import. France exported to Poland goods amounted to 405.57 million Euro with 4.62% share on Czech's foreign import trade in 2008. From non neighbour countries Hungary and Sweden were influencing Poland foreign trade activities. During years 2003 - 2008 Poland imported from Hungary agro-food products for 983.06 millions Euro with 2.98% share on Polish import activities. Sweden's share was 2.85%.

#### **4.1.4.2 Polish commodity structure of agricultural foreign trade**

The entire period 2003 - 2008, although the shares of total commodity export/import varied from year to year, so I selected only the most important ones. I compared years 2003 and 2008 to see a difference in amount of goods exported/imported before and after Polish accession to the EU.

#### **4.1.4.2.1 Commodity structure of export**

In long-term period the most important exports commodities were goods from CN 02- meat and edible meat offal. Its share in total exports of agro-food products was accounted for 18.30% which was 2 069.18 million Euro (Appendix 4) in 2008. It reached 635.96 million Euro, but it was the share of 15.89% of total exports of agro-food products in 2003. CN 08- edible fruits and nuts represented 11.30% of total agro exports in 2008. Share of 22.12% in 2003 was the Polish the most exported group of commodities. Dairy produce, birds' eggs and honey had important role on Poland's agro-food export. Its share was 10.90% in 2008 and 10.15% in 2003. Export of sugar and sugar confectionery was 938.48 million Euro with 8.30% share in 2008. Its share on export was 10.43% in 2003. Last analysed group of commodities belong to CN 10- cereals. Share of export in reached 1.99% in 2003 and 4.80% in 2008 on Poland's export activities.

#### **4.1.4.2.2 Commodity structure of import**

From the import point of view oil seed and oleaginous fruits (CN 12) and edible fruits and nuts (CN 08) were the most imported commodities reaching 12.80% share on Poland's agro-food import in 2008 (Appendix 5). Meat and edible meat offal forms third important import product for Poland. It was imported commodities for 1 050.95 million Euro to Poland in 2008 and 119.99 million Euro in 2003. Cereals (CN 10) were also important part on Poland's foreign trade activities. Poland imported 893.80 million Euro of this commodity in 2008. Share on import reached 3.83% share in 2003. Last group of agro-food products were fish and crustaceans, molluscs, etc (CN 03) with 8.30% share on import in 2008. In comparison it was 11.75% share of imported goods in 2003.

## **4.2 Instruments of foreign trade policy of V 4 countries (as a part of the EU) to the third countries**

### **4.2.1 Central and East European countries accession to the EU**

Firstly, Drabik, Pokrivcak and Ciaian (2008) state that since the collapse of communism the EU has strongly determined the trade patterns and policies of Central and East European countries (CEEC). Mutual trade and agricultural market between the EU and the CEEC has been increasing and liberalized since the beginning of the 1990s. It is due to liberalization and through series of tariff reduction.

Very important role for CEEC was their membership in the World Trade Organization before accession to the EU. CEECs became members of WTO in the Uruguay Round (UR). They were able to negotiate commitments on import tariffs, market access and export subsidies. In May 2004, eight of the CEEC together with Malta and Cyprus joined the EU's common market followed by Bulgaria and Romania in January 2007.

Agricultural trade between EU and the rest of the world, however, remained hindered by trade barriers. New member states adopted the common external tariffs of the European Union. Trade creation is taking place, which improves the allocation of resources in the economy.

The trade policy of new Member States support system for its exports and inflow of investments in accordance with EU rules, and the development of competitiveness in the EU internal market and to third countries focus on building the information society and fulfilling the Lisbon Strategy.

Agro-food trade between CEECs and the EU-15 was completely liberalised prior to 2004 via "Double zero" and "Double profit" agreements (Drabik and Bartova, 2008)

These agreements eliminated tariffs on agro-food commodities and created duty-free quotas for others. Double zero agreement valid from 2001 bears duty-free quotas for pork and poultry trade and duty free trade on a number of other goods except grains, sugar,

diary, beef. However, the Double profit agreements opened duty-free quotas for wheat, corn, beef, and dairy products and allowed nearly free trade in fruit and vegetables.

#### **4.2.2 External Trade Policy of V4 as a part of the EU towards third countries**

The European Union is the world's biggest trading partner with 20 % share of global export and import. Its trading policy is oriented to be the most competitive economy in the world achieving full employment rate. Removing barriers to trade within the EU has greatly contributed to its prosperity and to strengthen its commitment to promote global liberalization. The Union is therefore favor for the liberalization of world trade so that it may benefit equally to rich and to poor countries. It supports the economic and democratic development in other countries through different programs. Over the years, the Union has developed better cooperation with a wide range of international organisations, e. g. the United Nations, the WTO, the World Bank, GATT, the North Atlantic Treaty Organisation and others (The European Union and the World, 2001).

The EU is one of the key players in the WTO. Status of the EU according to WTO is very specific, because the EU is not a member of the WTO as a whole, but with its countries. However, the Treaty of Rome transferred exclusive competence in matters of external trade relations of member states into the EU competence.

The EU is a signatory of a large number of international treaties under the control of the GATT. Basis for implementations and actions of the EU trade policy in the field of customs district, approaches to anti-dumping or protecting measures are under the laws of the GATT. In its policy the EU countries governing laws of non-discrimination, the principle of most favored nation, prohibition of import quotas and export subsidies and the participation in international negotiations on tariff reductions (Töröková, 2007).

EU trade policy can be divided into autonomous and contractual. Autonomous commercial policy covers all EU measures affecting the import and export of the Union and which are enshrined in treaties with third countries. It is a common import and export rules, anti-dumping measures, measures against subsidized imports and prohibited trading practices,

quantitative trade restrictions and prohibitions attaching to foreign policy (trade embargoes and sanctions) as a special type of action.

Contractual policy concludes agreement between the EU and third countries or groupings of countries concerning exports and imports. Contracts may cover all aspects of business relationships.

The Union trade relations with third countries are governed by WTO rules and in particular with MFN. The EU wants to maintain a special relationship with some group of countries and provide specific benefits for them. Multilateral trading system can complicate market, which is undermined with the principle of non-discrimination policy. This trade system may exclude weak developed countries. The Union provides preferential duty-free access or preferential access to reduced rates of duty on its market, if the majority of imports come from developing countries. The key economic criteria for new partners should be market potential (economic size and growth) and the level of protection which is incompatible with EU export interests (tariffs and non tariff barriers).

Important role is played by the European Neighborhood Policy with reinforcing economic and regulatory connection to the EU. The EU has developed, together with their 78 counterparts countries from the African, Caribbean and Pacific (ACP) area new business development and strategy to integrate these countries into the world economy. It also has a trade agreement with South Africa leading to free trade, and is negotiating a free trade agreement with six members of the Gulf Cooperation Council (GCC) - Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates. The EU has agreements with Mexico and Chile, and trying to negotiate an agreement to liberalize trade with Mercosur - Argentina, Brazil, Paraguay and Uruguay (ec.europa.eu, 2010).

With its main trading partners among developed countries, such as The United States and Japan, the EU has special trade agreements. Trade with them is implemented through the WTO mechanisms, although the EU has with both countries, many agreements in individual sectors. WTO framework also applies to the EU trade with China, which was acceded to the WTO in 2001. China is now the second largest trading partner for the EU after the U.S.

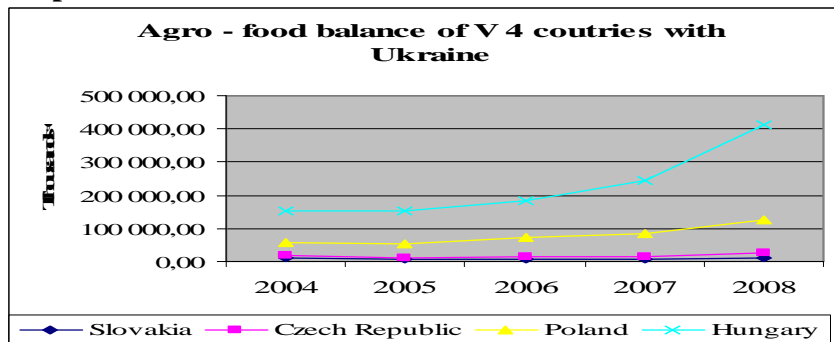
### 4.3 Agro–food balance of trade of regional grouping V 4 countries with third countries in the post accession period

I have decided to analyse agro-food balance of post Soviet Union countries. Disintegration of the Soviet Union was in 1991. All of the countries were part of it. In 2004 V 4 countries became members of the EU. That's why I have chosen Ukraine and Russian Federation. The EU has trade barriers to non EU countries- tariffs, quotas.

After the collapse of the Soviet Union Ukraine had problem with hyperinflation, depreciation of the currency, high budget deficits and even lowering the standard of living. The EU was a strong proponent for Ukrainian WTO membership, effective since 16 May 2008. Building on that membership the EU and Ukraine immediately launched negotiations for an agreement on a deep and comprehensive free trade area (DCFTA). As part of the future Association Agreement, the DCFTA is designed to deepen Ukraine's access to the European market and to encourage further European investment in Ukraine (ec.Europa.eu, 2010). Ukraine's primary exports to the EU are agricultural products.

During the analysed time period from 2004 to 2008 we can see that Hungary was achieving the highest agro-food balance according to Ukraine (Graph 5). In 2004 it reached more than 95.52 million Euro and more than 286.82 million Euro in 2008 (Appendix 6). It was an increase by 200.27%. Poland is also important trade partner with Ukraine. This is significant figure and it is based mainly on historical, cultural, social and linguistic links. Agro-food balance in 2004 was 38.48 million Euro and was dynamic growing to 99.37 million Euro in 2008. Slovakia's and the Czech Republic's agro-food balance had almost identical fluctuation of it.

**Graph 5**

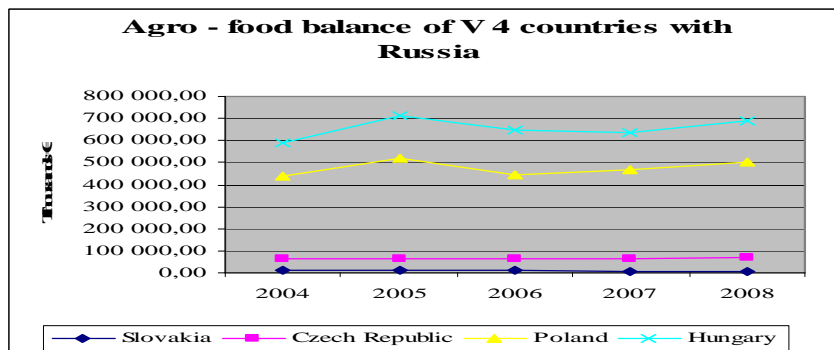


Source: Eurostat 2010, own calculations

Russian Federation is one of the EU's key trading partners. Imports from Russia are mainly energy and mineral fuels products (68.2%), some manufactured goods chemicals and raw materials. EU exports to Russia are diversified, covering nearly all categories of machinery and transport equipment, manufactured goods, food and live animals (ec.Europa.eu, 2010).

According to our graph we have to point out that Hungary and Poland were mostly influencing agricultural foreign trade activities with Russia (Graph 6). Hungarian agro – food balance with Russia was 155.40 million Euro and in 2006 increased to which was the highest value of 202.71 million Euro during the analysed time period (Appendix 6). Poland reached the highest value 457.57 million Euro in 2006 and year after declined to 384.47 million Euro. During years 2007 and 2008 it was constantly growing to value 429.34 million Euro. Slovakia was during 2004 – 2006 almost at the same level. In 2004 agro – food balance was 10.23 million Euro and 10.36 million Euro in 2006. It decreased to 7.57 million Euro in 2008. The Czech Republic's agro – food balance with Russia fluctuated from 53.14 million Euro in 2004 to 63.14 million Euro.

**Graph 6**



Source: Eurostat 2010, own calculations

## Conclusion

In 2004 the biggest enlargement of the EU was carried out and 10 European nations including V4 countries became fully-fledged members of the EU. Since 2007, when Bulgaria and Romania entered EU trade, the European Union has 27 member nations. In conclusion I have to point out possible gains from economic grouping countries- Economic integration. It provides importance and welfare benefits resulting especially from membership in union. Borders and trade impediments among states have been removed. There is free movement of commodities, factors of production and citizens established. Countries use common currency and central monetary authority supervises over the Eurozone. Trade flows among member countries become EU's internal trade and only trade with third countries is considered to be a foreign trade – according to me better is external trade, because foreign trade can be also between Slovakia and Poland for example, but external trade (external agricultural trade) can be let's say between Slovakia and Canada.

The first analysed country was Slovakia. Based on the results it appears that foreign trade had been continually growing. It should be noted that the Slovak agro-food sector is well geared to improve as it is illustrated by the growth of exports and imports. Since 2003, exports recorded a growth of over 131% and imports by 116% till 2008. Agro-food balance has evolved more or less equally even when it was negative during the analysed time period. The highest negative balance of -942.97 million Euro was in 2008. The highest share of agro export/import on total export and import was recorded in 2005, just one year after joining the EU. Since that, growth was slower than before the year 2004. Impact of agro-food trade to GDP is high whereas agricultural trade represents a significant part of the Slovak economy. From the territorial point of view, the most important Slovak republic's trading partners were nations from EU-27 which accounts for over 93% of total agriculture exports and more than 87% share in the case of import. The biggest share on Slovak foreign trade relation had the Czech Republic. According to the commodity structure dairy produce, birds' eggs and honey are the number one exported commodities. Beverages and meat were the most imported commodities for Slovakia.

The Czech Republic was the second analysed country from the V4 countries. It has the best performance and represents main trade partner of the group. When we compare agro-food



of entire group, the Czech Republic had the lowest shares, but agriculture was still important part of the Czech economy. The development of agriculture can be characterized as a dynamic and constantly growing during the analysed time period. They recorded growth of export by 169.79% and import increased by 148.01%. Agricultural balance was negative all the time. But on the other hand, the Czech Republic's total balance had positive values from 2005, one year after joining to the EU. Agro-food export is roughly 3.25-3.82% part in total export of the country. Agro-food import values reached higher values than export as it is illustrated by the 5.18% share of total import in 2005. From the territorial point of view, the most important the Czech Republic's trading partners were nations from EU-27 which accounts for over 88% of total agriculture exports and more than 89% share in the case of import. The biggest share on the Czech Republic's foreign trade activities had Germany and Slovakia. According to commodity structure diary produce, birds' eggs and honey were the best exporting commodities as well as for Slovakia. The most imported commodity was meat.

Hungary was the least but not the last analysed country. Agricultural and food industry products had risen steadily over the years since Hungary's accession to the EU. In comparison with Slovakia and the Czech Republic better conditions in terms of agro-food trade has Hungary. Agro shares in Hungarian economy are important. Hungary is mostly agricultural producer what can be seen in my calculations and summaries. Since 2003, exports recorded a growth of over 100% and imports by 155% till 2008. Agro-food export exceeded import, it means that agro balance was during the analysed time period in surplus and highest was in 2008 reaching more than 1 915 million Euro. The best year in all trade indicators was 2008 for Hungary. Agro export reached 7.82 % on total export and more than 5.40% on GDP. Also agro import share on GDP was more than 3.60%. According to these values we can see progress of agricultural economy. Indicators of trade are increasing from year to year. Fact that more that 77% of agro-food commodities were exported to EU-27 came from its membership in the Union. Import share from EU-27 was bigger reaching more than 87%. The biggest share on Hungary's foreign trade flows had Germany and Romania. According to commodity structure cereals were the best exporting commodities. The most imported commodity was waste from food production.

Poland, last analysed country is based on agriculture. In the EU is the top tier in terms of number of population working in agriculture, number of farms, etc. During the analysed

time period export and import was rapidly growing. Agro-food export increased by more than 182% and import by 176%. Agricultural balance in 2006 reached the highest value of 2091.20 million Euro what was the most and the highest from all the V4 countries. This balance was increasing before and decreasing after year 2006. Almost 1/10<sup>th</sup> of Poland's export was agro-food share. All of my trade indicators analysed were growing during the period, only in some cases declined a little bit. Poland as well as Hungary exported 77% of their agro-food commodities to EU-27. Import achieved about 76%. Germany is one of the most important trading partner for entire group. It had the biggest share on Hungarian, Czech Republic's and Poland's foreign flows.

I analysed development of V4 countries. The Market among these countries is still developing and increasing from year to year. In my paper I focused on the analysis of the foreign agro-food trade of regional grouping V4. Prior to joining the EU, the V4 countries traded more among themselves than it was before. Even if the volume of foreign trade is increasing annually, the export agro-products is directed primarily to the larger partner countries such as Germany, France. This concerns all members of the V4 but mostly Hungary, the Czech Republic and Poland. Slovakia has continued to have the best business relations with the Czechs as illustrated by the territorial structure.

It is also noted that the agro-food export/import has a significant impact on GDP. In conclusion, from the results of my thesis shows that agricultural sector occupies an important place in national economy of each V4 country. It should be noted that their accession to the EU had significant impact on agrarian sector, but the effects can not even be definitively quantified now.

Second important part of my thesis are instruments of foreign trade policy of the V4. Agro-food trade between CEECs and the EU-15 was liberalized via Double zero and Double profit agreements. These agreements eliminated tariffs on agro-food commodities and created duty-free quotas for others.

The EU promotes global liberalization and benefits equally for rich and poor countries. Over the years, the Union has developed better cooperation with the United Nations, the WTO, the World Bank, the NATO, etc. It is signatory of international treaties under the GATT based on customs district, approaches to anti-dumping or protecting measures and

governing laws of non-discrimination, the principle of most favored nation, prohibition of import quotas and export subsidies and negotiation on tariff reductions.

The EU trade policy can be divided into contractual and autonomous. Autonomous commercial policy covers import/export of the Union with third countries. These are mainly trade embargoes and sanctions. Contractual policy deals with agreements between the EU and third countries or grouping countries concerning export and import about their business relationship. The EU relations are governed by WTO rules. The European Neighborhood Policy strengthens economic and regulatory connections to the EU. The EU most important trading partners are The United States, Japan, Russia and China.

Last part of my thesis was agro-food balance among V4 and third countries- Russia and Ukraine. Firstly, it must be emphasised that mutual trade between the V4 countries and Ukraine and Russia is limited by the EU common trade policy and EU trade barriers. While the EU members do not have to face any trade barriers with the EU, trade with Ukraine and Russia is influenced by tariff and non-tariff barriers, which are used by EU countries against non-EU members. Poland and Hungary had the biggest impact on Ukrainian and Russian market from the V4 countries. This fact comes from analysis. Hungarian and Polish foreign trade flows to third countries were about 20% in the case of agro-food export. Slovakian and Czech impact was only minor.

## Resumé

V roku 2004 bolo najväčšie rozšírenie v dejinách EÚ, kedy 10 európskych národov, vrátane krajín V4, sa stali členmi EÚ. Od roku 2007, kedy Bulharsko s Rumunskom vstúpili na trh EÚ, má Európska únia 27 členských krajín. Ekonomické zoskupenia krajín prinášajú rôzne výhody z členstva v Únii. Hranice a obmedzenia obchodu medzi štátmi sú odstránené. V únii nastáva voľný pohyb tovaru, občanov, národy majú spoločné meny a centrálnu menovú autoritu. Obchodné toky medzi členskými krajinami EÚ sa označujú ako vnútorný obchod a iba obchod s tretími krajinami je obchodom externým.

Analýza bola zameraná hlavne na zahraničný poľnohospodársko-potravinársky obchod regionálneho zoskupenia V4. Trh medzi týmito krajinami sa neustále vyvíja a rastie. Počítal som porovnanie podielu agro-potravinárskeho vývozu/dovozu na celkovom vývoze alebo dovoze jednotlivej krajiny. Treba taktiež poznamenať, že poľnohospodársko-potravinársky export / import má významný vplyv na HDP. Ďalšie podkapitoly sú analýzy teritoriálnej a tovarovej štruktúry.

Prvé z analyzovaných krajín, bolo Slovensko. Na základe výsledkov je zrejmé, že zahraničný obchod SR neustále rastie. Je potrebné poznamenať, že slovenský poľnohospodársko-potravinársky sektor je správne nasmerovaný smerom k zlepšeniu, ako je to viditeľné na raste vývozu a dovozu. Od roku 2003 do 2008, vývoz zaznamenal nárast o viac ako 131% a dovoz o 116%. Agro-potravinárske saldo sa vyvíjalo skoro rovnako, aj keď bolo negatívne počas celého skúmaného obdobia. Najvyššie záporné saldo -942,97 miliónov Euro bolo v roku 2008. Najvyšší podiel agro exportu/importu na celkovom vývoze a dovoze nastal v roku 2005, práve jeden rok po vstupe do EÚ, kedy sa import Slovenska rapídne zvýšil. Vplyv agro-potravinárskeho obchodu na HDP je vysoký, lebo poľnohospodárstvo tvorí dôležitú súčasť slovenskej ekonomiky. Z teritoriálneho hľadiska sú krajiny EÚ-27 najvýznamnejšími obchodnými partnermi Slovenskej republiky pričom ich podiel tvorí viac 93% na celkovom agro vývoze a viac ako 87% podiel majú v prípade dovozu Slovenska. Najväčší vplyv na slovenský zahraničný obchod mala Česká republika. Z hľadiska komoditnej štruktúry každodenné produkty, vajcia a med sú najvyváženejšie komodity (CN 04). Nápoje a mäso sú naopak najviac dovážané komodity na Slovensko.

Česká republika bola druhou analyzovanou krajinou z krajín V4. Ekonomika ma najlepší výkon a predstavuje hlavného obchodného partnera skupiny. Pri porovnaní agro-potravinárstva, Česká republika má práveže najnižší podiel v rámci celej skupiny. Poľnohospodárstvo má ale stále dôležitú úlohu v jeho hospodárstve. Rozvoj poľnohospodárstva možno charakterizovať ako dynamický a neustále rastúci v priebehu analyzovaného obdobia. Bol zaznamenaný rast vývozu o 169,79% a dovozu o 148,01% od roku 2003 do 2008. Agro bilancia bola negatívna celý čas. Agro-potravinársky vývoz tvoril zhruba od 3.25 až 3.82% podiel na celkovom vývoze krajiny. Hodnoty importu dosiahli vyššie hodnoty ako exportu, čo poukazuje 5,18% podiel na celkovom dovoze v roku 2005. Podiel agro-potravinárskeho obchodu na rast HDP bol pomalý rastúcej tendencie. Z teritoriálneho hľadiska, najdôležitejší obchodní partneri Českej republiky boli krajiny z EÚ-27, ktoré tvoria viac ako 88% celkového agro vývozu a viac než 89% podiel v prípade dovozu. Najväčší vplyv na zahraničný obchod Českej republiky malo Nemecko a Slovensko. Rovnako ako aj v prípade Slovenska tak denné výrobky, vajcia a med boli najvyvážanejšie komodity (CN 04). Väčšina dovážaného tovaru tvorilo mäso.

Maďarsko bola ďalšia analyzovaná krajina v rámci Višegradskej štvorky. Poľnohospodárske a potravinárske výrobky sa postupne zdokonalovali v priebehu niekoľkých rokov od vstupu Maďarska do EÚ, čo malo vplyv na nárast celkovej hodnoty poľnohospodárstva krajiny. Z hľadiska agro-potravinárskeho obchodu v porovnaní so Slovenskom a Českom, Maďarsko má lepšie poľnohospodárske podmienky, aj klimatické a aj počet hektárov ornej pôdy. Poľnohospodárstvo ma významne postavenie v Maďarkej ekonomike. Je prevažne poľnohospodárskym producentom, čo možno vidieť v mojich výpočtov a prehľadov. Od roku 2003 do 2008, vývoz komodit zaznamenal nárast o viac ako 100% a dovoz o 155%. Agro-potravinársky export presiahol import, čo znamená to, že agro bilancia bola v počas analyzovaného obdobia v prebytku, kde najvyššia hodnota 1 915 miliard Euro bola dosiahnutá v roku 2008. Rok 2008 bol najlepší vo všetkých obchodných ukazovateľoch. Agro export dosiahol 7,82% na celkovom exporte a mal viac 5,40% podiel na HDP. Ukazovatele obchodu sa zvyšujú z roka na rok. Skutočnosť, že viac ako 77% agro-potravinárskych komodít je vyvázaných do EÚ-27 pochádza z jeho členstva. Podiel dovozu z EÚ-27 je väčší a dosahuje viac ako 87%. Najväčší vplyv na zahraničný obchod Maďarska mali Nemecko a Rumunsko. Export obilnín bol na prvom mieste. Väčšina dovážaného tovaru tvoril odpad z výroby potravín.

Poľsko, posledná analyzovaná krajina je založená hlavne na poľnohospodárstve. V EÚ je Poľsko na popredných miestach z hľadiska počtu zamestnaných v poľnohospodárstve, počtu podnikov, atď. Počas analyzovaného obdobia export a import narastal rýchlo. Agro-potravinársky export sa zvýšil o viac ako 182% a dovoz o 176%. Bilancia poľnohospodárstva v roku 2006 dosiahla najvyššiu hodnotu 2091,20 miliónov Euro, čo je najviac spomedzi všetkých krajín V4. Bilancia obchodu do roku 2006 stúpala a od tohto roku následne začala aj opäť klesať. Takmer 1/10 vývozu Poľska tvorí export agro-potravín. Poľsko, rovnako ako Maďarsko vyviezlo 77% agro-potravinárskych komodít do EÚ-27. Import dosiahol približne 76%. Nemecko je jedným z najdôležitejších obchodných partnerov celej skupiny. Najväčší vplyv na zahraničný obchod má na trh Maďarska, Česka a Poľska.

Na záver z výsledkov mojej práce vyplýva, že poľnohospodársky sektor má významné postavenie v národnom hospodárstve jednotlivých krajín V4. Je potrebné zvýrazniť, že ich vstup do EÚ mal významný vplyv na celý agrárny sektor, ale účinky a dopad sa ešte nedajú presne vyčíslieť. Vzajomný zahraničný trh krajín V4 sa zdokonaluje každým rokom. Pred vstupom do EU, krajiny V4 medzi sebou viac obchodovali ako to bolo po vstupe. I keď ich objem zahraničného obchodu sa zvyšuje každoročne, export agro-produktov smeruje hlavne do väčších partnerských krajín ako Nemecko, Francúzsko. Týka sa to všetkých členov V4 ale najviac Maďarska, Česka a Poľska. Slovensko má aj naďalej najlepšie obchodné vzťahy s Českom čo dokumentuje teritorialna štruktúra.

Druhou dôležitou kapitolou mojej práce sú nástroje zahraničnej obchodnej politiky V4. Agro-potravinársky obchodu medzi CEEC a EÚ-15 bol liberalizovaný cez dohody Double Zero a Double Profit. Tieto dohody pomohli odstrániť clá na poľnohospodárskych komoditách a vytvorili zónu bez kvót pre ostatných.

EÚ podporuje globálnu liberalizáciu a výhody rovnako voči bohatým ako aj chudobným krajinám. V priebehu niekoľkých rokov si Únia vylepšila spoluprácu s Organizáciou Spojených národov, WTO, Svetovou bankou, NATO, atď. Európska únia je signatárom medzinárodných zmlúv v rámci GATT na základe colnej oblasti, prístupy k anti-dumpingovým opatreniam alebo k jej ochrane a riadi sa zákonmi nediskriminácie, zásade najvyšších výhod, zákazu dovozných kvót a exportných dotácií a zúčastňuje sa rokovaní o znížení colných sadzieb.

Obchodnú politiku EÚ možno rozdeliť na zmluvnú a autonómnu. Autonómna obchodná politika zahŕňa import/export Európskej únie s tretími krajinami. Jedná sa predovšetkým o obchodné embargá a sankcie. Zmluvná politika sa zaoberá dohodami krajín EÚ voči tretím krajinám alebo zoskupeniam krajín, týkajúce sa obchodných vzťahov vývozu a dovozu. Vzťahy EÚ s tretími krajinami podliehajú pravidlám WTO. Európska susedská politika posilňuje ekonomické a regulačné pripojenie k EÚ. Pre sú EÚ najvýznamnejší obchodní partneri Spojené štáty, Japonsko, Rusko a Čína.

Posledná časť mojej práce bola agro-potravinárskeho bilancia medzi V4 a tretími krajinami-Ruska a Ukrajiny. Po prvé, treba zdôrazniť, že vzájomný obchod medzi krajinami V4 a Ukrajiny a Ruska je obmedzený spoločnou obchodnou politikou EÚ a tak isto aj prekážkami v obchode. Zatiaľ čo medzi členmi EÚ boli prekážky zrušené, obchod s Ukrajinou a Ruskom je ovplyvnený colnými a necolnými bariérami, ktoré sú používané v krajinách EÚ proti nečlenským krajinám. Najväčší vplyv na ukrajinský a ruský trh z V4 malo Poľsko a Maďarsko. Táto skutočnosť vychádza z analýzy. Maďarské a Poľskej zahraničnej obchodné toky do tretích krajín tvorili približne 20% podiel v prípade agro-potravinárskeho vývozu. Slovenský a Český vplyv bol len iba minoritný.

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## Appendices

Appendix 1: Development of agro-food trade of individual V4 country analysed

V 4 Country	Year	Export		Import		Turnover	
		mill. €	index %	mill. €	index %	mill. €	index %
Slovakia <sup>1)</sup>	2003	843,69	100,00%	1 341,57	100,00%	2 185,26	100,00%
	2004	1 142,47	135,41	1 663,65	124,01	2 806,12	128,41
	2005	1 556,26	184,46	2 222,00	165,63	3 778,26	134,64
	2006	1 734,95	205,64	2 295,76	171,12	4 030,71	106,68
	2007	1 999,83	237,03	2 694,22	200,83	4 694,05	116,46
	2008	1 954,36	231,64	2 897,33	215,97	4 851,69	103,36
Czech Republic <sup>2)</sup>	2003	1 401,00	100,00%	2 028,00	100,00%	3 429,00	100,00%
	2004	1 771,00	126,41	2 603,00	128,35	4 374,00	127,56
	2005	2 410,00	172,02	3 139,00	154,78	5 549,00	161,83
	2006	2 566,00	183,15	3 600,00	177,51	6 166,00	179,82
	2007	3 109,49	221,95	4 273,81	210,74	7 383,30	215,32
	2008	3 779,77	269,79	4 724,53	232,96	8 504,30	248,01
Hungary <sup>3)</sup>	2003	2 855,00	100,00%	1 494,00	100,00%	4 349,00	100,00%
	2004	3 098,00	108,51	2 000,00	133,87	5 098,00	117,22
	2005	3 324,00	116,43	2 408,00	161,18	5 732,00	131,80
	2006	3 675,00	128,72	2 680,00	179,38	6 355,00	146,13
	2007	4 863,00	170,33	3 188,00	213,39	8 051,00	185,12
	2008	5 735,00	200,88	3 820,00	255,69	9 555,00	219,71
Poland <sup>4)</sup>	2003	4 003,00	100,00%	3 557,00	100,00%	7 560,00	100,00%
	2004	5 223,00	130,48	4 370,00	122,86	9 593,00	126,89
	2005	7 152,50	178,68	5 485,30	154,21	12 637,80	167,17
	2006	8 577,40	214,27	6 486,20	182,35	15 063,60	199,25
	2007	9 942,00	248,36	7 972,00	224,12	17 914,00	236,96
	2008	11 307,00	282,46	9 822,00	276,13	21 129,00	279,48

<sup>1)</sup> Source: Statistical Office of the Slovak Republic 2010, own calculations

<sup>2)</sup> Source: Czech Statistical office 2010, own calculations

<sup>3)</sup> Source: Hungarian Central Statistical Office 2010, own calculations

<sup>4)</sup> Agriculture and Food Economy in Poland - year books, Central Statistical Office of Poland, eurostat, own calculations

Appendix 2: Agro-food territorial structure of export of individual V4 country analysed

V 4	Country	Export				
		2003 - 2008			2008	
		mill. €	% share <sup>1)</sup>	Average year value <sup>2)</sup>	mill. €	% share <sup>1)</sup>
Slovakia	EU-27	8 620,99	93,39	1 436,83	1 862,51	95,30
	CZ	3 027,98	32,80	504,66	602,97	30,85
	Hungary	1 694,44	18,35	282,41	400,09	20,47
	Poland	882,69	9,56	147,11	199,73	10,22
	Austria	660,13	7,15	110,02	145,16	7,43
	Germany	613,78	6,65	102,30	119,43	6,11
	Third countries	610,64	6,61	101,77	91,85	4,70
	<b>Total*</b>	9 231,63	100,00	1 538,60	1 954,36	100,00
Czech republic	EU-27	13 415,89	88,91	2 235,98	3 486,54	92,11
	Slovakia	4 115,33	27,27	685,89	1 057,85	27,95
	Germany	3 047,32	20,20	507,89	725,78	19,17
	Poland	1 595,67	10,57	265,94	416,84	11,01
	Hungary	783,05	5,19	130,51	199,23	5,26
	Austria	731,82	4,85	121,97	189,47	5,01
	Third countries	1 673,58	11,09	278,93	298,73	7,89
	<b>Total*</b>	15 089,47	100,00	2 514,91	3 785,28	100,00
Hungary	EU-27	15 555,30	77,42	2 592,55	3 849,73	80,82
	Romania	1 954,97	9,73	325,83	719,73	15,11
	Austra	1 422,47	7,08	237,08	328,00	6,89
	Poland	936,35	4,66	156,06	255,37	5,36
	Slovakia	821,09	4,09	136,85	287,09	6,03
	France	709,94	3,53	118,32	150,30	3,16
	Third countries	4 536,49	22,58	756,08	913,37	19,18
	<b>Total*</b>	20 091,79	100,00	3 348,63	4 763,10	100,00
Poland	EU-27	34 176,00	77,85	5 696,00	8 846,64	81,17
	Germany	10 345,74	23,57	1 724,29	2 532,77	23,24
	CZ	2 756,12	6,28	459,35	712,69	6,54
	Hungary	1 777,19	4,05	296,20	462,16	4,24
	France	1 616,75	3,68	269,46	443,27	4,07
	Third countries	9 724,02	22,15	1 620,67	2 052,05	18,83
	Russia	2 519,06	5,74	419,84	463,04	4,25
	<b>Total*</b>	43 900,02	100,00	7 316,67	10 898,70	100,00

<sup>1)</sup> Percentual share on total agricultural export of the country

<sup>2)</sup> Average year value during the analysed time period from 2003 – 2008 in mill. €

\* Calculated as: Total= EU-27 + Third countries

Appendix 3: Agro-food territorial structure of import of individual V4 country analysed

V 4	Country	Import				
		2003 - 2008			2008	
		mill. €	% share <sup>1)</sup>	Average year value <sup>2)</sup>	mill. €	% share <sup>1)</sup>
Slovakia	EU-27	11 423,89	87,11	1903,98	2593,08	89,50
	CZ	3 736,14	28,49	622,69	749,68	25,87
	Poland	1 289,36	9,83	214,89	318,89	11,01
	Germany	1 222,40	9,32	203,74	294,43	10,16
	Hungary	818,56	6,24	136,43	233,35	8,05
	Netherland	668,69	5,10	111,45	139,02	4,80
	Third countries	1 690,67	12,89	281,78	304,25	10,50
	Total*	13 114,56	100,00	2185,76	2897,33	100,00
Czech republic	EU-27	18 311,05	89,37	3051,84	4 393,27	92,92
	Germany	5 017,35	24,49	836,22	1 233,61	26,09
	Poland	2 669,56	13,03	444,93	653,61	13,82
	Slovakia	2 153,50	10,51	358,92	492,10	10,41
	Netherland	1 525,99	7,45	254,33	423,10	8,95
	Italy	1 182,13	5,77	197,02	270,53	5,72
	Third countries	2 178,01	10,63	363,00	334,77	7,08
	Total*	20 489,06	100,00	3414,84	4 728,04	100,00
Hungary	EU-27	12 079,95	87,80	2 013,32	3 080,70	91,70
	Germany	2 923,76	21,25	487,29	748,50	22,28
	Poland	1 690,28	12,28	281,71	445,03	13,25
	Netherland	1 310,45	9,52	218,41	430,53	12,81
	Austria	932,00	6,77	155,33	270,88	8,06
	Slovakia	806,77	5,86	134,46	178,12	5,30
	Third countries	1 679,26	12,20	279,88	278,92	8,30
	Total*	13 759,20	100,00	2 293,20	3 359,62	100,00
Poland	EU-27	25 331,07	76,87	4 221,84	7 222,38	82,30
	Germany	6 719,66	20,39	1 119,94	2 155,24	24,56
	CZ	1 529,70	4,64	254,95	401,48	4,57
	France	1 515,53	4,60	252,59	405,57	4,62
	Hungary	983,06	2,98	163,84	246,06	2,80
	Sweden	938,89	2,85	156,48	300,49	3,42
	Third countries	7 620,29	23,13	1 270,05	1 553,21	17,70
	Total*	32 951,36	100,00	5 491,89	8 775,60	100,00

<sup>1)</sup> Percentual share on total agricultural import of the country

<sup>2)</sup> Average year value during the analysed time period from 2003 – 2008 in mill. €

\* Calculated as: Total= EU-27 + Third countries

Appendix 4: Agro-food commodity structure of export of individual V4 country analysed

Country	Export of agricultural commodities					
	CN code of product	Commodity name	2003		2008	
			mill. €	% share*	mill. €	% share*
Slovakia <sup>1)</sup>	04	Dairy produce, birds' eggs, honey	123,68	14,66	318,66	16,31
	17	Sugar and sugar confectionery	37,81	4,48	146,05	7,47
	10	Cereals	47,93	5,68	146,05	7,47
	18	Cocoa and cocoa preparation	75,71	8,97	146,05	7,47
	11	Products of the milling industry	86,44	10,25	146,05	7,47
Czech republic <sup>2)</sup>	04	Dairy produce, birds' eggs, honey	196,02	13,99	588,38	15,57
	22	Beverages, spirits and vinegar	175,17	12,50	410,52	10,86
	21	Miscellaneous edible preparations	170,57	12,17	360,00	9,52
	12	Oil seeds and oleaginous fruits	82,61	5,90	332,42	8,79
	10	Cereals	108,00	7,71	299,10	7,91
Poland <sup>3)</sup>	02	Meat and edible meat offal	635,96	15,89	2 069,18	18,30
	08	Edible fruit and nuts	885,45	22,12	1 277,69	11,30
	04	Dairy produce, birds' eggs, honey	406,16	10,15	1 232,46	10,90
	17	Sugar and sugar confectionery	417,48	10,43	938,48	8,30
	10	Cereals	79,58	1,99	542,74	4,80
Hungary <sup>4)</sup>	10	Cereals	352,89	12,36	1 267,00	22,09
	02	Meat and edible meat offal	540,18	18,92	711,00	12,40
	12	Oil seeds and oleaginous fruits	187,29	6,56	495,00	8,63
	20	Preparations of vegetables, fruits, nuts	322,14	11,28	455,00	7,93
	23	Residues and waste from food prod.	233,42	8,18	418,00	7,29

\* Percentual share on total agricultural export of the country

<sup>1)</sup> Source: Statistical Office of the Slovak republic, values for year 2003 were calculated with conversional rate SKK/ Euro, own calculations

<sup>2)</sup> Source: International Trade Statistics 2010

<sup>3)</sup> Source: Central Statistical Office of Poland, values for year 2003 were calculated with average annual exchange rate USD/EURO, own calculations

<sup>4)</sup> Source: Hungarian Central Statistical Office, values for year 2003 were calculated with average annual exchange rate HUF/EURO, own calculations

Appendix 5: Agro-food commodity structure of import of individual V4 country analysed

Country	Import of agricultural commodities					
	CN code of product	Commodity name	2003		2008	
			mill. €	% share**	mill. €	% share**
Slovakia <sup>1)</sup>	22	Beverages, spirits and vinegar	100,27	7,47	272,19	9,39
	02	Meat and edible meat offal	71,40	5,32	268,87	9,28
	08	Edible fruit and nuts	119,70	8,92	235,67	8,13
	04	Dairy produce, birds' eggs, honey	53,44	3,98	229,04	7,91
	21	Miscellaneous edible preparations	118,47	8,83	199,16	6,87
Czech republic <sup>2)</sup>	02	Meat and edible meat offal	106,36	5,24	551,79	11,68
	08	Edible fruit and nuts	257,11	12,68	465,57	9,85
	21	Miscellaneous edible preparations	236,17	11,65	421,78	8,93
	04	Dairy produce, birds' eggs, honey	125,30	6,18	402,83	8,53
	22	Beverages, spirits and vinegar	149,02	7,35	390,1	8,26
Poland <sup>3)</sup>	12	Oil seeds and oleaginous fruits	403,90	11,36	1 257,22	12,80
	08	Edible fruit and nuts	791,49	22,25	1 257,22	12,80
	02	Meat and edible meat offal	119,99	3,37	1 050,95	10,70
	10	Cereals	136,29	3,83	893,80	9,10
	03	Fish and crustaceans, molluscs, etc	417,82	11,75	815,23	8,30
Hungary <sup>4)</sup>	23	Residues and waste from food prod.	266,15	17,81	424,00	11,10
	21	Miscellaneous edible preparations	125,78	8,42	321,00	8,40
	04	Dairy produce, birds' eggs, honey	73,73	4,94	291,00	7,62
	02	Meat and edible meat offal	60,72	4,06	290,00	7,59
	22	Beverages, spirits and vinegar	71,37	4,78	285,00	7,46

\*\* Percentual share on total agricultural import of the country

<sup>1)</sup> Source: Statistical Office of the Slovak republic, values for year 2003 were calculated with conversional rate SKK/ Euro, own calculations

<sup>2)</sup> Source: International Trade Statistics 2010

<sup>3)</sup> Source: Central Statistical Office of Poland, values for year 2003 were calculated with average annual exchange rate USD/EURO, own calculations

<sup>4)</sup> Source: Hungarian Central Statistical Office, values for year 2003 were calculated with average annual exchange rate HUF/EURO, own calculations



Appendix 6: Agro-food balance of every individual V4 country with third countries

<b>Country</b>	<b>Partner</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
<b>Slovakia</b>	<i>Ukraine</i>	9 859,35	6 846,98	5 756,59	8 311,92	12 261,69
	<i>Russia</i>	10 230,65	11 616,04	10 365,27	8 271,23	7 576,83
<b>Czech Republic</b>	<i>Ukraine</i>	9 050,90	3 046,52	7 756,58	8 781,74	14 477,10
	<i>Russia</i>	53 142,98	52 268,96	51 412,11	55 070,14	63 147,65
<b>Poland</b>	<i>Ukraine</i>	38 483,07	43 412,54	58 963,85	65 054,81	99 378,30
	<i>Russia</i>	372 288,03	457 658,06	384 473,23	403 916,09	429 345,72
<b>Hungary</b>	<i>Ukraine</i>	95 527,82	98 255,95	111 547,95	163 904,86	286 820,88
	<i>Russia</i>	155 406,55	193 212,34	202 710,63	167 195,01	186 470,88

Values are in Thousands €

Source: Eurostat 2010, own calculations