THE ROLE OF A CURRENCY IN THE FOREIGN TRADE OF V4 COUNTRIES DURING THE CRISIS: PERIOD 2007–2016

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Abstract

The aim of the paper is to monitor, evaluate and compare the development of the foreign trade of Visegrad Group countries during the period of crisis (2007–2016) and to answer the key question of this paper whether it is better to have a national or a common currency in time of economic crisis. On the one hand, these economies have a lot in common, on the other hand, there is a significant difference in the form of the national or common currency. The development of foreign trade is monitored via the analysis of the selected variables, which have form of a time series. The empirical results do not exactly prove whether it is more beneficial to have the national or common currency, but on the other hand they rebut numerous assumptions about the disadvantage of the common currency for foreign trade support purposes in time of the economic crisis.

Keywords

Foreign Trade, Visegrad Group, Economic Crisis, Exchange Rate, Exchange Rate Volatility

I. Introduction

Nowadays, is the foreign trade an inherent part of the economies of countries all over the world. Due to the globalization and the growing specialization of countries, the share of foreign trade on the gross domestic product of the countries is increasing. Foreign trade has become an important factor of economic growth in many countries. However, current globalization in the shape of the high economic dependence of the countries also entails the risk of transferring of a negative economic shock of the one country to the other countries. We were witnesses of this negative effect in 2008 (respectively 2009) when the crisis which epicentre was in the United States, hit the entire world including the Visegrad Group countries.

The Visegrad Group (V4) is formed by four Central European countries: Czech Republic, Slovakia, Hungary and Poland. These countries have been cooperating for two decades on common political, social and economic goals. They are similar to each other thanks to territorial proximity, common historical development and similar structure of their economies. And still there is a difference which has a significant impact on the foreign trade – it's a currency. In 2009, Slovakia exchanged its own national currency for common currency – euro. By this integration step, Slovakia gave up some part of its sovereignty and powerful economic instrument at the very moment, when the economic crisis hit the V4 countries. The remaining three countries have their national currencies up to now.

Currency plays a significant role in connection with the foreign trade. On the one hand export can be supported through currency depreciation, on the other hand export can be also supported through increased currency credibility. Main objective of the paper is to monitor, evaluate and compare the foreign trade of V4 countries during the crisis (period 2007–2016) and answer the question whether it is better to have a national or a common currency in time of the economic crisis (considering the case of V4 countries).

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II. Methodology and Data

Data for the empirical part of the paper are in the form of time series and are drawn from the databases of international institutions. These are the databases of Eurostat, World Bank, European Central Bank and UN Comtrade. From the methodological point of view, for this paper is used analysis of the selected variables, where the selected variables include import and export, their commodity and territorial structure, trade balance of goods and nominal exchange rate. Due to the high positive correlation between import and export developments and GDP development, real GDP development is also monitored. The development of import and export is monitored through a base index and the rate of annual growth (or decrease). The commodity structure is monitored through the Standard International Trade Classification (SITC[2]), Rev. 4. The paper monitors only trade with goods, so all mentioned variables will not include statistics of trade with services.

III. Literature survey

The impact of the currency on the foreign trade in time of the crisis

The issue of currency in the context of foreign trade raises questions to a number of economists – is it better to have a national or a common currency in the time of crisis? Is it more beneficial for foreign trade support purposes to have its own monetary policy and with this associated possibility to devaluation of the currency or is it more beneficial to have the more credible currency of which advantage relates to lower exchange rate volatility?

It is clear from the theory of foreign exchange rates that in the time of economic crisis the advantage should be the ability to devaluate the currency. However, Lacina and Toman (2009) draw attention to the risks of currency devaluation associated with asymmetric information, the rise of inflation and the lack of motivation to implement important measures due to the expectation of further depreciation. The question also remains the fulfilment of the Marshall-Lerner condition in the situation of a global recession, where even currency depreciation may not lead to a significant increase in exports due to declining consumption in the countries of the main trading partners. Dědek (2014) warns against competiive devaluations, which do not bring any competitive advantage to anyone in the end, and at the same time they just distort foreign trade. Slovakia is in a different position as a member of the euro area, which cannot gain a competitive advantage in the form of a currency devaluation, but can draw of its credibility and avoid the negative impact of the high exchange rate volatility. According to Sobiják (2013), the other advantage of Slovakia connected with credibility of the euro consisted in a prevention of excessive capital outflow during the crisis.

Lacina and Toman (2009) consider the fundamental problem of the Czech economy at the beginning of the crisis especially too rapid appreciation of the Czech crown against the euro and subsequent depreciation in the last third of 2008. Hungarian forint and Polish zloty went through the same development of appreciation and subsequent depreciation as Czech crown in the same year. Due to the depreciation of these currencies against the euro, export prices have become more competitive. Frolík (2009) in the case of the Czech Republic points out, that the weaker crown would significantly help to the exporters with one to two years delay. Exporters usually hedge up to 75% of the expected revenue for the first year, and 40% of the revenue for the second year. These hedged exchange rates thus had a negative impact on exporters. A similar negative impact of the hedged exchange rates has also been demonstrated for Polish exporters. Mitrega-Niestroj (2011) notes, that if the Polish zloty was not depreciated, the volume of Polish export would be 2.5

[2] SITC 0 – food and live animals; SITC 1 – beverages and tobacco; SITC 2 – crude materials, inedible, except fuels; SITC 3 – mineral fuels, lubricants and related materials; SITC 4 – animal and vegetable oils, fats and waxes; SITC 5 – chemicals and related products; SITC 6 – manufactured goods classified chiefly by material; SITC 7 – machinery and transport equipment; SITC 8 – miscellaneous manufactured articles; SITC 9 – commodities and transactions not classified elsewhere in the SITC.

percentage points lower in the 2009 and import would be 2.5 percentage points higher at the same year.

According to Čársky et al. (2012), countries with a floating exchange rate recorded a more moderate fall in export. Compared to the three euro area countries (Austria, Slovakia and Slovenia), the export recovery in the countries with a free-float exchange rate was in principle faster, as those countries at the end of the 2nd quarter of 2011 reached 108-110% of the pre-crisis level of export from the 2nd quarter of 2008. However, he also argues that Slovakia from the three euro area countries reached the export pre-crisis level fastest, reaching 105% of the pre-crisis level in the 2nd quarter of 2011[3]. Jevčák (2011) argues that the adoption of the euro was a good step for Slovakia and had a positive impact on foreign trade. Sobiják (2013) sees in the common currency a great advantage in terms of monetary stability only in a longer period. The sharp decline in Slovak exports he attributes to the impossibility of devaluating the currency. According to Taušer and Čajka (2014) the sharp decline in foreign trade of Slovakia was also caused by introducing euro.

The exchange rate volatility

The substantial disadvantage of the national currency in relation to foreign trade may be increased exchange rate volatility, which causes its diminished credibility. Partially, against the negative effects of exchange rate volatility can be used the hedging, although paradoxically it is not always beneficial as it was briefly described in the previous section. The relationship between exchange rate volatility and foreign trade in Central and Eastern European countries is investigated by Cociu (2007), who used the regression of the panel data and applied it on aggregate data from the period 1995–2006. Using a real exchange rate, he identified the negative impact of exchange rate volatility on foreign trade. Šimáková (2016), Rajan (2004) and Rose (2000) came also to the conclusion about the negative impact of exchange rate volatility on foreign trade. Hudson and Straathof (2010) are slightly different in the results. Using the gravitational model, they concluded that exchange rate volatility had a negative effect on foreign trade only until 1985, and since then it has begun to lose its importance. Nicita (2013) in his study does not identify any impact of the exchange rate volatility on foreign trade.[4]

Some of studies are more specifically focused on V4 countries. For example, the study made by Cociu (2007) empirically proves, that negative impact of exchange rate volatility is higher in countries with a higher degree of openness like the Czech Republic, Slovakia or Hungary. For the case of Poland was demonstrated a lower negative impact. Šimáková (2016) focused on the impact of exchange rate volatility on different traded product classes determined by SITC classification. For this purpose, panel regression applied to the gravity model of foreign trade was used. Results of her study can be seen in Table 1.

Table 1 Impact of exchange rate volatility on different traded product groups by SITC

COUNTRY	NEGATIVE EFFECT OF ECHANGE RATE VOLATILITY WAS REFLECTED IN…
CZECH REPUBLIC	Foreign trade with food and live animals, animal and vegetable fats, machinery, transport equipment and miscellaneous manufactured articles (SITC 0, 5, 7 and 8)
SLOVAKIA	Foreign trade with all product categories except raw materials and chemicals (all SITC except SITC 2, 5 and 9)
HUNGARY	Foreign trade with all product categories (SITC 0–9)
POLAND	Foreign trade with all products categories except mineral fuels, lubricants, animal fats, oils and waxes (all SITC except SITC 3 and 4)

Source: Šimáková (2016); own processing

[3] at the same time Austria reached 96%, Slovenia 94%.

[4] Many studies focusing on impact of exchange rate volatility on the foreign trade summarized Ozturk (2006) in his work.

Another study focused on V4 countries made by Égert and Morales-Zumaquero (2008) shows, that the negative effect of exchange rate volatility manifest the most on the trade with chemicals (SITC 5) and different types of manufacturing (SITC 6–8). These sectors together account for 80 % of total exports. Tomanová (2013), who focused on trade of V4 countries with euro area countries, says the impact of exchange rate volatility is ambiguous given that many factors affecting foreign trade depend on non-domestic factors and development of euro area. As an advantage of euro adoption she considers reduction of uncertainty about exchange rates development in international trade.

The literary research presents, that both the national currency and the common currency have their undeniable advantages. Whether and how had these advantages impact on the development of foreign trade of V4 countries during the crisis years 2007–2016, is presented in the following section of the paper.

IV. Empirical results

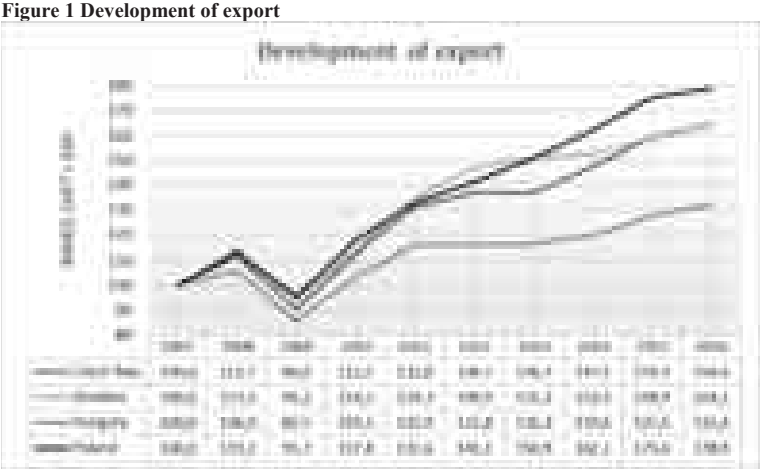
The paper continues with its own empirical research aimed at monitoring, comparing and evaluating the development of time series of selected foreign trade indicators of individual countries in the context of other V4 countries. Monitored are the indicators of import, export, balance of trade, territorial and commodity structure, real GDP and nominal exchange rate developments. The empirical part should to provide the basis for the answer, whether it is better to have the national or the common currency in a time of economic crisis (considering the case of V4 countries).

Development of export

The crisis has visibly affected export of all countries the most in 2009. During this year, the lowest export value based on a base index was recorded in Hungary when its value was 85.5% of the value of the pre-crisis year 2007. Decline of exports in Hungary was highest among V4 countries also in year-on-year terms, when exports dropped by 19.3% compared to 2008. Because of slow further growth of Hungary's export, the fact remains, that export value of 132.4% in 2016 compared to 2007 is considerably the lowest one compared to exports of other V4 countries.

In 2016, exports of the Czech Republic and Slovakia reached almost identical values compared to 2007 (Czech Republic 164.6%, Slovakia 164.1%). The export trends of these two economies were different mainly between 2012 and 2014. In 2012, the export growth of the Czech Republic decelerated and the export in 2013 was practically unchanged compared to the previous year. Export stopped in 2012 at 136.7% compared to pre-crisis 2007. In the case of Slovakia, the export growth slowed down especially in 2013 and 2014, a one-year delay compared to the Czech Republic. Despite the different currencies, the export of these two countries had the similar trend.

Figure 1 Development of export



Source: Eurostat (2017a), own processing

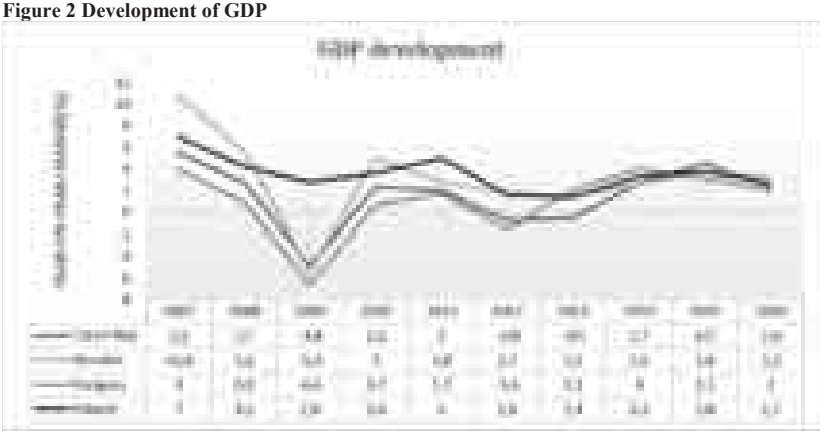
Among the V4 countries, Poland reached the fastest export growth. In 2009, it was Poland whose export declined the least (decrease by 15.6 %). Its export increased steadily between the years 2011–2015, when the growth rate didn't go below its lower limit of 6.4%. The fact remains that polish export had increased the most of all V4 countries, when in 2016 was its value was at 178.9% compared to 2007. The reason for such a development is likely the very nature of the Polish economy, which is not so dependent on foreign trade, what was an undeniable advantage at the time of the crisis.

In summary, it can be stated that the export of Poland increased the most and the export of Hungary the least. The exports of Slovakia and the Czech Republic, despite the difference in their currencies, increased almost identically. Looking at export development it is not possible to determine whether it is better to have a national or a common currency. However, it is necessary to remark that currency is not the only important factor in the development of foreign trade, the important role in the development of export plays for example openness of the economy, when Polish economy is less open than the economies of other three countries.

Development of GDP

Škubna et al. (2011) and Gajdušková and Krčál (2011) identified positive correlation between GDP development and the development of foreign trade (i.e. import and export). The economies experienced a decline in exports not only in the critic year 2009, but also in 2012 and 2013 (in the case of Slovakia in 2013 and 2014). During these years, real GDP growth decelerated, and consequently in relation to already mentioned strong positive correlation export performance has been also reduced. Export growth was low in these years, in the case of the Czech Republic and Hungary its growth reached negative numbers. The exception is Poland, whose export growth was still high despite the decline of GDP. It is worth mentioning the also fact that Poland (as the only country of the EU) achieved a positive GDP growth of 2.8% in 2009 even despite the decline in export and import. The explanation may be lower dependence of Poland on foreign trade and the greater importance of its domestic market.

Figure 2 Development of GDP



Source: Eurostat (2017b), own processing

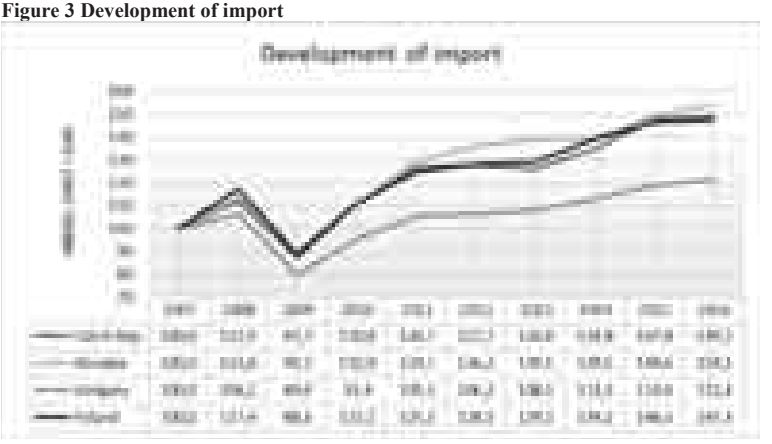
Most of the economies of the European Union suffered a "W" crisis, which symbolises a double bottom when the economy is experiencing a economic recovery, but again there is a decline in economic activity (Dědek, 2014; Roubini and Mihm, 2011). Such development has taken place to a greater or lesser extent also in the case of V4 economies. For small open economies, the situation of economies abroad and especially in Germany as their main trade partner is very important. The year-on-year GDP growth of Germany in 2012 and 2013 was only 0.5%. This undoubtedly had an impact on Germany's reduced demand for imports and by this affected by the reduced export of V4 countries.

Development of import

The largest decline of import was recorded in the case of Hungary, when its import value in the 2009 was only 80% of the value from 2007. In 2009, Hungary's import dropped year-on-year by 24.7%. While the other V4 countries overcame the pre-crisis value of import already in 2010 by more than 10%, Hungary exceeded that value only in 2011, when its import was higher by 5.5%. Growth of import was not significant, the rate of annual growth in the period 2012–2016 did not exceed the upper limit of 5.0%. The grow of the import of Hungary was the lowest from all countries – in 2016, its import value was 121.4% compared to the pre-crisis year 2007.

The Czech and Slovak import trends developed in a similar way to their exports. Compared to 2008, the Czech Republic recorded a sharper decline in import (22.0%) than Slovakia (20.6%), on the other hand a year later import of the Czech Republic increased more (by 26.9%) than of Slovakia (by 22.9%). The economic slow-down in 2012–2013 (for Slovakia 2013–2014) had a negative impact also on the import. Based on the base index, in 2016 the highest value of imports from the V4 countries reached Slovakia of 154.1% compared to 2007. In the same year, the Czech Republic reached import value of 149.3% of the pre-crisis 2007, what represents the second highest value among the V4 countries.

Figure 3 Development of import



Source: Eurostat (2017a), own processing

Despite the smaller openness of Poland, the crisis hit its import significantly when its year-on-year decline was 24.5% in 2009. Next year, thanks to the year-on-year increase of 25.3% reached Poland's import the value of 111.1% of the pre-crisis 2007, what was the highest value among V4. Growth of import was particularly low in 2012, 2013 and 2016. In 2016, the import value reached 147.4% compared to 2007.

According to the results, import increased in largest extent in Slovakia, which is followed by the Czech Republic, Poland and Hungary. It is possible that in case of import also the currency played a role – when national currencies depreciated (what occurred in all three countries), the competitiveness of the prices of the importers decreased, what could lead to an increase of the consumption of domestic production and thus to reduction of demand for foreign goods.

Commodity structure

The commodity structure of the trade is monitored at four-year intervals – i. e. for the years 2007, 2011 and 2015. The figures for all years are in the Appendix (Tables A to H). The purpose of this subchapter is to determine the export and import specialization of the countries according to the SITC classification and the impact of the crisis on the development of the shares of the individual classes on total exports and imports.

Table 2 Commodity structure of the Czech Republic by SITC – shares on export and import

	EXPORT SHARE			IMPORT SHARE		
	2007	2011	2015	2007	2011	2015
SITC 0+1	3.5	3.8	4.5	5.0	5.2	5.7
SITC 2+4	2.7	3.0	2.5	2.6	3.3	2.5
SITC 3	2.6	3.8	3.0	7.9	10.1	6.6
SITC 5	5.7	6.2	6.0	10.3	10.9	11.3
SITC 6	20.3	17.7	15.9	20.8	18.3	17.3
SITC 7	54.6	54.7	55.7	43.4	42.2	45.4
SITC 8	10.5	10.7	12.1	10.0	9.7	11.0
SITC 9	0.1	0.2	0.3	0.1	0.3	0.2

Source: UN Comtrade (2016), own processing

The commodity structure of the Czech export did not change significantly during the monitored period. The biggest change was in the class SITC 6 – the share of this class in total exports in 2015

was by 4.4 percentage points lower than in 2007. However, it is unlikely, that this was caused by the crisis, as this downward trend was established before the crisis.

The commodity structure of the Czech Republic's import fluctuates mainly in the classes SITC 3 and SITC 7. Like in the case of export, also the share of the class SITC 6 on total imports has been declining over the years (not because of the crisis).

Table 3 Commodity structure of Slovakia by SITC – shares on export and import

	EXPORT SHARE			IMPORT SHARE		
	2007	2011	2015	2007	2011	2015
SITC 0+1	3.5	4.0	3.4	5.1	5.8	5.3
SITC 2+4	2.2	2.9	2.0	3.0	4.0	2.5
SITC 3	4.6	6.4	3.7	11.0	14.7	8.1
SITC 5	4.7	4.9	0.6	8.7	8.8	8.8
SITC 6	21.0	18.6	16.7	17.4	15.5	15.0
SITC 7	53.8	53.2	59.6	43.8	39.9	47.3
SITC 8	9.0	9.8	9.6	10.4	11.0	12.6
SITC 9	1.2	0.2	0.30	0.4	0.3	0.4

Source: UN Comtrade (2016), own processing

The commodity structure of export of Slovakia has – as in the case of the Czech Republic – a declining trend for the class SITC 6, when the share of this class on total exports dropped by 4.3 pp by 2015 compared to 2007. A significant increase (by 6.4 pp) in 2015 compared to 2011 was recorded in the case of the class SITC 7, what speaks of a high specialization in the automotive and engineering industries.

As in the case of the Czech Republic, also in the commodity structure of Slovakia's import, significant changes occurred especially the classes SITC 3 and SITC 7 – but these changes caused by the crisis were more severe.

Table 4 Commodity structure of Hungary by SITC – shares on export and import

	EXPORT SHARE			IMPORT SHARE		
	2007	2011	2015	2007	2011	2015
SITC 0+1	5.9	6.8	7.0	3.9	4.5	4.8
SITC 2+4	1.8	2.8	2.2	1.4	2.3	2.0
SITC 3	2.8	3.5	2.3	9.4	12.2	8.2
SITC 5	7.2	9.2	10.8	8.6	10.6	11.9
SITC 6	9.2	9.8	10.3	14.0	12.9	13.6
SITC 7	58.2	54.4	56.3	48.8	42.3	47.1
SITC 8	7.7	8.2	8.8	6.6	5.9	7.6
SITC 9	7.3	5.4	2.4	7.2	9.4	4.7

Source: UN Comtrade (2016), own processing

In the case of Hungary had the class SITC 6 an increasing tendency. The fluctuations were recorded in SITC 7 – the share on total exports in this class first decreased by 3.8 pp by 2011 compared to 2007, but in the next four years it recorded an increase of 1.9 pp. A significant increasing trend is in the class SITC 5 (chemicals), which represents the third most significant share on total exports.

The commodity structure of Hungary's import is very similar to that of Slovakia, especially in the development of SITC 3 and SITC 7 classes. Unlike Slovakia, where the share of SITC 5 on total imports is almost unchanged, Hungary recorded a gradual increase in import share of this commodity. It may be caused by increasing of needed inputs for producing export (given the high export performance in connection with chemicals).

Table 5 Commodity structure of Poland by SITC – shares on export and import

	EXPORT SHARE			IMPORT SHARE		
	2007	2011	2015	2007	2011	2015
SITC 0+1	9.1	10.4	12.4	5.8	7.1	8.0
SITC 2+4	2.4	2.5	2.4	3.3	3.9	3.5
SITC 3	3.8	5.0	3.3	9.9	13.1	7.5
SITC 5	7.2	9.0	8.8	12.8	14.1	13.9
SITC 6	22.8	21.3	18.8	20.8	18.0	17.2
SITC 7	40.8	39.3	39.1	35.3	31.6	36.6
SITC 8	12.6	12.4	15.0	8.4	9.6	11.8
SITC 9	1.2	0.2	0.2	3.8	2.5	1.5

Source: UN Comtrade (2016), own processing

Among all V4 countries, Poland is the most agricultural-oriented country. In 2007, the classes SITC 0+1 (including beverages and tobacco) accounted a 9.1% share of exports, in 2015 it was already 12.4%. As in the cases of the Czech Republic and Slovakia, the share of the class SITC 6 has a declining character also in Poland. The share of class SITC 7 is not as high as in other countries – in 2015, it represented a share of 39.1% on total exports.

The development of the commodity structure of Poland's import is similar to that of the previous countries mainly in the development of SITC 3, SITC 6 and SITC 7 classes. Significant decrease occurred the share of class SITC 3 on total imports, when between 2011 and 2015 decreased by 5.2 percentage points. The share of SITC 7 on imports grew by 5.0 pp between 2011 and 2015.

The crisis had no significant impact on the countries' commodity structure (except for short-term fluctuations). After all, for a larger change of the commodity structure they are required extensive reforms whose effects do not show immediately but in a long period – the monitored period of this paper is too short for identifying changes caused by reforms or other radical government measures.

The commodity structure points out the countries' specialisation mainly in manufacturing. The share of class SITC 7 on total exports (and imports) of the Czech Republic, Slovakia and Hungary demonstrates the importance of the automotive and engineering industries. In the time of crisis, there is a decreasing demand for luxury and durable goods, what for example the cars are. Poland has a bigger competitive advantage in the agricultural sector, reflecting the relatively high share of food and live animals (SITC 0) on total Poland's export. The view on the commodity structure is also important in view of the negative impact of exchange rate volatility on selected classes according to the SITC. As it was mentioned in literary research, Égert and Morales-Zumaquero (2008) write about negative impact of exchange rate volatility mainly on the chemicals and the manufacturing industry (SITC 5-8), what make up more than 80% of the exports. Šimáková (2016) focused on each SITC class separately. For example, in the case of Hungary, exchange rate volatility negatively affects all SITC classes, which could also have an impact on the fact that its export increased the least. In the case of other countries, not all SITC classes were negatively affected by exchange rate volatility.

Territorial structure

The territorial structure of the trade is also monitored at four-year intervals – for the years 2007, 2011 and 2015. The figures for all years are in the Appendix (Tables I to P).

Table 6 Territorial structure of the Czech Republic by countries – shares on export and import

	EXPORT SHARE				IMPORT SHARE		
	2007	2011	2015		2007	2011	2015
GERMANY	30.8	32.2	32.2	**Germany**	28.1	25.8	26.0
SLOVAKIA	8.7	9.0	9.0	**China**	7.9	12.5	13.5
POLAND	5.9	6.3	5.9	**Poland**	5.7	6.6	7.9
FRANCE	5.4	5.5	5.1	**Slovakia**	5.3	5.7	5.1
UK	5.0	4.5	5.3	**Russia**	4.8	5.4	3.0
ITALY	4.9	4.1	3.7	**Italy**	4.7	3.9	4.1
AUSTRIA	4.6	4.6	4.1	**France**	4.6	3.3	3.1
OTHERS	34.7	33.8	34.7	**Others**	38.9	36.8	37.3

Source: World Bank (2017), own processing

Almost a third of the export (32.2% in 2015) is exported from the Czech Republic to Germany. The crisis did not have a negative impact on the share of export to Germany, on the contrary – the share increased even further (by 1.4 pp until 2011 compared to 2007). The other most important partners are the two countries of V4 – Slovakia and Poland. Exports to Italy, France and Austria are declining.

In the case of import, there is a significant increase of the share on import from China – between 2007 and 2011 its share increased by 4.6 pp (in relative terms by 58,2%). This increasing trend of import from China has been established already before the crisis, but it can be assumed that thanks to the crisis the share on import from China has soared so steeply. The shares on the imports of Slovakia, Italy, France and Russia have slowly decreased.

Table 7 Territorial structure of Slovakia by countries – shares on export and import

	EXPORT SHARE				IMPORT SHARE		
	2007	2011	2015		2007	2011	2015
GERMANY	21.1	20.4	22.4	**Germany**	18.7	16.7	15.9
CZECH REP.	13.0	14.2	12.4	**Czech Rep.**	10.9	10.3	11.3
FRANCE	6.5	6.4	5.6	**Russia**	9.2	9.6	5.3
ITALY	6.3	5.0	4.5	**China**	5.1	6.2	8.8
HUNGARY	6.3	7.1	5.6	**Hungary**	5.1	.3	5.0
POLAND	6.2	7.3	8.3	**Rep. of Korea**	5.1	8.0	6.6
AUSTRIA	5.8	7.0	6.0	**Poland**	4.0	4.1	5.1
OTHERS	34.8	32.6	35.2	**Others**	41.9	41.4	42.0

Source: World Bank (2017), own processing

The share of Slovakia's export to Germany is not such high as in the case of the Czech Republic. Probably due to the crisis has increased the share of export to the Czech Republic, Hungary and Austria, which are all neighbouring countries of Slovakia. However, the increase was short-term, these shares on export declined by 2015. The shares on exports to France and Italy are declining.

Germany is a major importer also for Slovakia, but not as dominant as in the case of the Czech Republic. Because of economic sanctions, the share on import from Russia decreased also in the case of Slovakia – between 2011 and 2015 decreased by 4.3 pp. In 2011, Russia was the second largest importer for Slovakia. The share on import from Asia – mainly from China and the Republic of Korea – has increased.

Table 8 Territorial structure of Hungary by countries – shares on export and import

	EXPORT SHARE				IMPORT SHARE		
	2007	2011	2015		2007	2011	2015
GERMANY	28.4	24.8	27.3	**Germany**	26.8	23.9	26.2
ITALY	5.6	5.0	4.7	**Russia**	6.7	8.8	4.0
FRANCE	4.7	4.7	4.6	**Austria**	6.1	6.6	6.6
AUSTRIA	4.5	5.7	4.8	**China**	5.4	6.0	5.3
UK	4.5	4.6	3.9	**Italy**	4.5	4.5	4.6
ROMANIA	4.5	6.1	5.3	**Poland**	4.0	4.6	5.5
SLOVAKIA	4.2	5.9	5.0	**Slovakia**	3.1	5.4	5.3
OTHERS	43.6	43.2	44.4	**Others**	43.4	40.2	42.5

Source: World Bank (2017), own processing

The impact of the crisis on trade with Germany reflected most in the case of Hungary's export, when in 2011 its share on exports to Germany was lower by 3.6 pp in comparison with 2007. Compared to the two previous countries is Hungary's export more territorial diversified, what indicates a higher share of other countries on exports of Hungary – 44.4% in 2015.

Because of the crisis, there was a short-term decline of the share of import from Germany, which by 2015 despite the increase still did not exceed the value of share from 2007. Russia's share on import was lower by 4.8 pp in 2015 compared to 2011. The shares of Poland and Slovakia on imports between 2007 and 2015 increased by 1.5 and 2.2 pp. Shares of other countries on imports remained almost unchanged over the monitored years.

Table 9 Territorial structure of Poland by countries – shares on export and import

	EXPORT SHARE				IMPORT SHARE		
	2007	2011	2015		2007	2011	2015
GERMANY	25.9	26.0	26.9	**Germany**	24.0	22.2	22.6
ITALY	6.6	5.4	4.8	**Russia**	8.7	12.2	7.6
FRANCE	6.1	6.1	5.6	**China**	7.2	8.7	11.8
UK	5.9	6.5	6.8	**Italy**	6.8	5.3	5.2
CZECH REP.	5.5	6.2	6.5	**France**	5.1	4.2	3.7
RUSSIA	4.6	4.5	2.9	**Czech Rep.**	3.5	3.7	3.4
NETHERLANDS	3.8	4.4	4.4	**Netherlands**	3.4	3.7	3.8
OTHERS	41.6	40.9	42.1	**Others**	41.3	40.0	41.9

Source: World Bank (2017), own processing

The share on export of Poland to Germany was not negatively affected by the crisis – it has increased steadily. As in the other V4 countries, the share on export to Italy has declined also for the case of Poland. On the contrary, the shares on exports to the United Kingdom (UK) and Czech Republic have increased.

Neither Poland is not an exception among V4 countries and has the same main importer (Germany) and a similar development in form of increasing shares on import From Russia and China. The shares of Italy and France on import declined, the shares of Czech Republic and Netherlands on import almost did not change.

Territorial structure has not significantly changed except the short-term fluctuations. In all countries, we can see a decreasing share on import from Russia and a growing share of imports from Asian countries (mainly from China and the Republic of Korea). The weakening of trade relations with Russia is not caused by crisis but a political measures and economic sanctions (for more see the Council of the EU, 2017). Significant increase of imports from China and Republic of Korea is

caused by the formation of new business relationships as well as the economic boom of their economies.

The main trading partner for all countries is Germany. Countries in large volumes trade with their neighbouring countries and other EU countries. Among the seven largest trading partners of Slovakia are four countries using the common currency euro. The remaining three trading partners are the V4 countries. From the point of view of elimination of negative impact of exchange rate volatility on foreign trade, Slovakia has an advantage when trades with euro zone countries. Among other things, there are studies (Baldwin, 2006; Rose and Stanley, 2005; de Nardis and Vicarello, 2003; Rose, 2000) confirming the increased trade between countries with the common currency. However, the overwhelming majority of trade relations arose before Slovakia's entry into the euro area, so it is difficult to quantify how the common currency was an advantage in the formation of new relations. The disadvantage of the national currency is already mentioned the higher exchange rate volatility – but the hedging is commonly used against it, by which the risk of financial losses from unpredictable fluctuations of the exchange rate is eliminated.

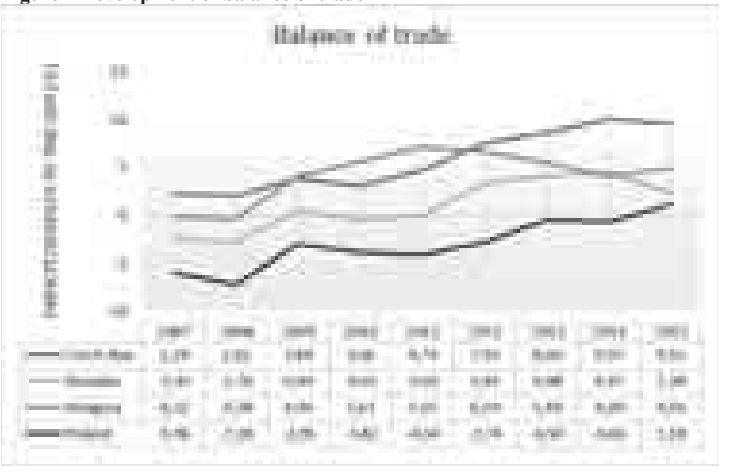
Development of balance of trade

Balance of trade provides the basic information about the quality of the country's involvement in external economic relations (Gajdušková and Krčál, 2011) and says more about the competitiveness of the country (Lazarevič, 2016).

A significant improvement of the balance of trade came in 2009, when the effects of the crisis showed the most. The reason for the such a rapid improvement of the balance in 2009 was a sharper decline in import compared to the export. Countries like Slovakia, Hungary and Poland had a trade deficit in the pre-crisis years 2007 and 2008. Although Hungary had already oscillated before the crisis around the value of zero, it managed to overcome this limit only in 2009 (thanks to an increase of 4.31 percentage points compared to 2008). In 2009 reached trade surplus also Slovakia (thanks to increase of 3.25 pp compared to 2008). Although the balance of trade of Poland was significantly improved (by 4.24 pp compared to 2008), it didn’t reach a trade surplus due to high negative trade deficit in the pre-crisis period (in 2008 it was 7.18%). The Czech Republic has recorded a trade surplus since 2005.

The last year of the monitored nine-year time series is 2015. This year ended all countries with trade surplus, its values in proportion to the GDP were in the case of the Czech Republic 9.5%, Slovakia 2.38%, Hungary 4.91%, and Poland 1.18%. For the determination of the improving or worsening of balance of trade during crisis serves a comparison between the first and the last year of monitored time series. In this nine-year period, the Czech Republic's balance of trade improved by 7.26 percentage points, followed by balance of trade of Poland with the improvement of 7.14 pp, Hungary’s improvement of 5.03 pp and Slovakia's improvement of 4.81 pp. It can be stated that the Czech Republic had the best results of development of balance of trade, both in terms of the total value of trade surplus in 2015 and in terms of the most significant improvement of the balance of trade during the monitored period.

Figure 4 Development of balance of trade



Source: World Bank (2016), own processing

The exchange rate has a significant effect on the balance of trade. Depreciation of the currency makes the prices of exporters more competitive and on the contrary, the prices of the importers are less competitive. In other words, export increases and import decreases. On the other hand, neither more competitive prices do not have to guarantee an increased financial volume of trade, especially in time of crisis, when there is a general decline of demand for goods. But, according to Mitrega-Niestroj (2011), the depreciation of the Poland's currency contributed to improving its trade balance. And perhaps hanks to the depreciation of the national currencies, all countries' balance of trade had improved more than a trade balance of the country with a common currency, which recorded the slightest improvement of the trade balance over the monitored period.

Development of the exchange rate

The significance of the currency and its impact on foreign trade is mentioned in the literary research. As it was mentioned further, Lacina and Toman (2009) consider the fundamental problem of the Czech economy at the beginning of the crisis especially too rapid appreciation of the Czech crown against the euro and subsequent depreciation in the last third of 2008. Hungarian forint and Polish zloty went through the same development of appreciation and subsequent depreciation. Likewise, Dědek (2014) consider as a main problem of Slovakia the “hyperactivity” of its exchange rate strengthening. But the Slovak crown, unlike other currencies, did not go through the subsequent depreciation phase. The relative changes as well as dates and values of the highest and lowest values of the nominal exchange rates against euro are shown in Table 10.

Table 10 The biggest changes of nominal exchange rates of V4 countries

COUNTRY	DATE	EXCHANGE RATE	CHANGE
CZECH REPUBLIC	21st July 2008	22.968 CZK/EUR	28.4 %
	17th February 2009	29.49 CZK/EUR	
HUNGARY	18th July 2008	228.16 HUF/EUR	38.72 %
	6th March 2009	316.5 HUF/EUR	
POLAND	28th July 2008	3.0253 PLN/EUR	61.3 %
	17th February 2009	4.8795 PLN/EUR	
SLOVAKIA*	30th January 2007	35.278 SKK/EUR	14.61 %
	31st December 2008	30.126 SKK/EUR	

Source: European Central Bank (2017); own processing
**note: in the case of Slovakia, it is the appreciation of its nominal exchange rate*

Among the currencies of the Czech Republic, Hungary and Poland, the biggest relative change of the nominal exchange rate was recorded in the case of Polish zloty, which underwent a 61.3% depreciation against the value of nominal exchange rate from 28th July 2008. The Hungarian forint and the Czech crown were weakened by 38.72, respectively 28.4%. The sharp depreciation of Polish zloty is explained by Mitrega-Niestroj (2011) also as a result of a speculative attack on the Polish currency. However, for the most part, the currencies were weakened due to their diminished credibility, panic in the financial market, and consequently high foreign capital outflow, which triggered an increased supply of national currencies on the foreign exchange markets, which resulted in the depreciation of these national currencies.

The nominal value of the Slovak crown against the euro in the pre-crisis period strengthened considerably, when in less than 2 years it appreciated by 14.61%. Prior to joining the euro zone, also the central parity of the Slovak crown in ERM II[5] appreciated, when it was revaluated twice. The first revaluation of 8.5% took place in March 2007 (from 38.46 to 35.44 SKK/EUR). At the end of May 2008 took place the second revaluation about 17.6% (from 35.44 to SKK 30.126 / EUR). On the 8th July 2008, the exchange rate of 30.126 SKK/EUR has been irrevocable fixed and Slovakia thus joined the European Economic and Monetary Union in 2009. The date of the definitive fixation of the Slovak crown against the euro occurred approximately 2-3 weeks before the Czech crown, Hungarian forint and Polish zloty reached the lowest values of nominal exchange rates against the euro, after which these currencies depreciated significantly. The Slovak crown could not afford a significant depreciation. At the time of Slovak currency fixation, it was not considered that the effects of the crisis could have such a profound incidence – for many, the choice of a strong exchange rate of the Slovak crown against the euro that could not be taken back could seem like a not too happy decision (Dědek, 2014; NBS, 2008).

After a sharp depreciation, the Czech crown's exchange rate appreciated again, between 2011 and 2013 (until November) its nominal exchange rate against the euro ranged from 24,018 to 26,121 CZK/EUR. In November 2013, the Czech National Bank launched foreign exchange interventions by which devaluated the Czech crown to a value not exceeding the lower limit of 27 CZK/EUR. The main purpose of interventions was not to make prices more competitive and thus to support exports, but to damp disinflationary trends and keep the inflation rate at around 2%. The increased competitiveness of domestic exporters' prices was only a side effect of foreign exchange interventions (CNB, 2017). The exchange rate of the Czech crown oscillated around 27.5 CZK/EUR by mid-2015, except for a short-term depreciation of 28,405 CZK/EUR, which came in January 2015 (the exact date is 13th January 2015). Starting in the middle of 2015 and then

[5] Exchange Rate Mechanism.

throughout the year 2016, the nominal exchange rate was close to 27 CZK / EUR. In 2016, the crown's exchange rate was 6.92% weaker compared with the average value[6] for 2010.

After 2009, the Hungarian forint exchange rate did not show any significant appreciation like that one before the crisis. Over time, the exchange rate has been depreciated to a greater or lesser extent, its weakest nominal value of 322.78 HUF/EUR comes at 15th January 2015. In 2016, its nominal value ranged from 303.86 to 318,35 HUF/EUR. When comparing the average values[7] of exchange rate for 2010 and 2016, the Hungarian forint depreciated by 135 %.

Like in the case of forint, nor the Polish zloty's exchange rate did not change significantly after 2009 – the only significant drop in the value of exchange rate was in the last quarter of 2011, when the weakest exchange rate of 4,5607 PLN/EUR was measured at 14th December 2011. Exchange rate oscillated around 4.2 PLN/EUR between 2012 and 2015, slightly weakening in the last monitored year 2016. Compared to the average values[8] of the exchange rate in 2010 and 2016, the Polish forint was weaker by 9.22% in 2016 compared to 2010. The graphical developments of nominal exchange rates of individual currencies are shown in the Appendix (Figures C, D, E and F).

IV. Conclusion

Foreign trade is an important part of the economic growth mainly of small open economies. The crisis which hit the world also caused the fall of the foreign trade of the Visegrad Group countries three of these countries still have their national currency, just Slovakia has exchanged its national currency for the euro at the beginning of 2009. The currency is the one of the most important factors influencing the development of foreign trade. There was the question whether it is more beneficial to have national or common currency during the crisis. The V4 countries have common economic features and thus they provided a good basis for answering that question.

Via the analysis of selected variables, it was monitored, evaluated and monitored the development of foreign trade through these selected variables. From an export perspective, it cannot be determined whether it is better to have the common or the national currency. The development of export of Slovakia was almost identical development like the Czech Republic's export, whose currency has been twice significantly depreciated. The other two countries with their national currency, Poland and Hungary, recorded better and worse results than Slovakia, what only confirms the ambiguity of advantage of the common or national currency. Import increased the fastest in case of Slovakia, what was also reflected in the fact that during the monitored period balance of trade of Slovakia recorded the lowest improvement. The currency undoubtedly played a significant role in this thing. It can be stated that from the point of view of the balance of trade, the countries with their national currency performed better than Slovakia. Looking at the commodity and territorial structure, we can see the similarities of the V4 countries. From the point of view of the territorial structure, the main trading partners of the V4 countries are mainly European countries, of which many are also members of the euro area. In this case, Slovakia had the advantage, both in the form of a reduction of the risk of loss due to exchange rate volatility, as well as in increased volume of foreign trade between countries with the same currency, what was confirmed by many studies.

Based on the empirical results, it is not possible – since in the development of foreign trade was not identified a strong predominance of benefits on the side of the national or the common currency – provide a clear conclusion, whether it is better to have the national or the common currency during the crisis. In any case, according to the empirical results it is possible to rebut the numerous claims that the common currency is a disadvantage for foreign trade support purposes during the economic crisis.

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[6] The average value of exchange rate in 2010 was 25.284 CZK/EUR, in 2016 27.034 CZK/EUR.
[7] The average value of exchange rate in 2010 was 275.45 HUF/EUR, in 2016 311.44 HUF/EUR.
[8] The average value of exchange rate in 2010 was 3.9947 PLN/EUR, in 2016 4.3632 PLN/EUR.

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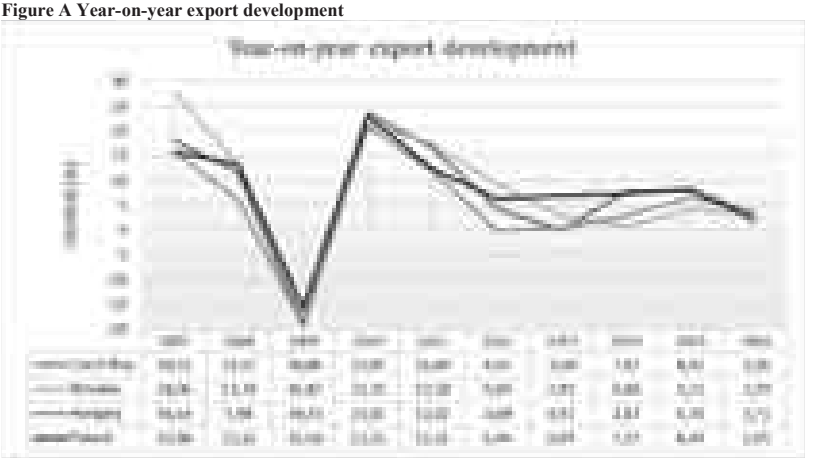
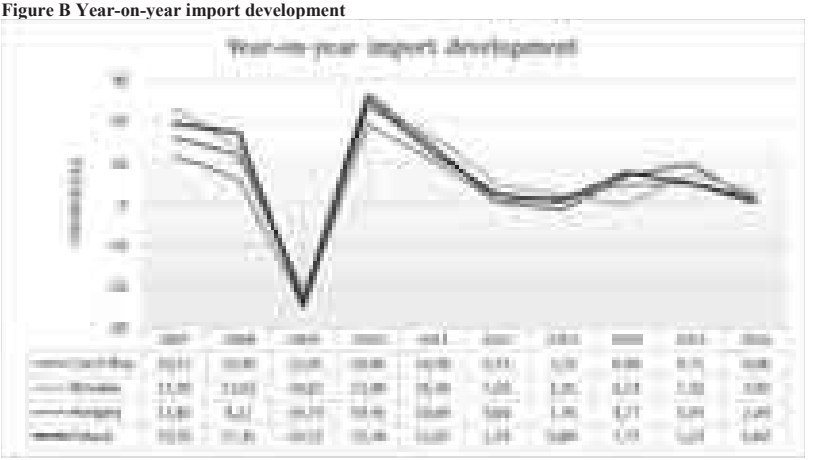
Appendix

Figure A Year-on-year export development



Source: Eurostat (2017a), own processing

Figure B Year-on-year import development



Source: Eurostat (2017a), own processing

Table A Commodity structure of export of the Czech Republic by SITC – shares on export

CZECH REPUBLIC									
	2007	2008	2009	2010	2011	2012	2013	2014	2015
SITC 0+1	3,5	3,7	4,2	3,6	3,8	4,2	4,4	4,4	4,5
SITC 2+4	2,7	2,7	2,7	3,1	3,0	3,1	3,0	2,8	2,5
SITC 3	2,6	3,0	3,6	3,7	3,8	3,8	3,1	2,7	3,0
SITC 5	5,7	5,7	6,1	6,2	6,2	6,0	6,2	6,4	6,0
SITC 6	20,3	19,2	17,3	16,8	17,7	17,3	17,4	16,6	15,9
SITC 7	54,6	52,9	53,0	53,4	54,7	54,5	54,1	55,2	55,7
SITC 8	10,5	10,4	11,4	10,7	10,7	11,0	11,6	11,7	12,1
SITC 9	0,1	2,5	2,1	2,5	0,2	0,2	0,3	0,2	0,3

Source: UN Comtrade (2016), own processing

Table B Commodity structure of export of Slovakia by SITC – shares on export

SLOVAKIA									
	2007	2008	2009	2010	2011	2012	2013	2014	2015
SITC 0+1	3,5	3,3	4,1	3,8	4,0	4,5	3,9	3,6	3,4
SITC 2+4	2,2	2,4	2,6	3,0	2,9	3,4	2,8	2,2	2,0
SITC 3	4,6	5,0	4,6	4,9	6,4	5,9	5,7	4,7	3,7
SITC 5	4,7	4,4	4,5	4,7	4,9	4,3	4,5	4,8	0,6
SITC 6	21,0	19,7	18,7	19,0	18,6	18,0	17,1	16,9	16,7
SITC 7	53,8	54,0	55,0	54,6	53,2	54,8	57,2	57,9	59,6
SITC 8	9,0	8,9	10,4	9,8	9,8	9,0	8,6	9,7	9,6
SITC 9	1,2	2,2	0,3	0,3	0,2	0,2	0,2	0,2	0,3

Source: UN Comtrade (2016), own processing

Table C Commodity structure of export of Hungary by SITC – shares on export

HUNGARY									
	2007	2008	2009	2010	2011	2012	2013	2014	2015
SITC 0+1	5,9	6,3	6,8	6,6	6,8	7,5	7,5	7,2	7,0
SITC 2+4	1,8	2,1	2,0	2,3	2,8	3,1	2,9	2,5	2,2
SITC 3	2,8	3,1	2,5	2,8	3,5	3,9	3,6	3,4	2,3
SITC 5	7,2	7,6	8,4	8,8	9,2	9,9	10,5	10,4	10,8
SITC 6	9,2	9,4	9,0	9,1	9,8	10,4	10,6	10,5	10,3
SITC 7	58,2	56,9	57,5	57,0	54,4	51,6	52,0	54,1	56,3
SITC 8	7,7	7,3	8,0	7,7	8,2	8,7	9,1	9,6	8,8
SITC 9	7,3	7,3	5,8	5,7	5,4	4,8	3,8	2,3	2,4

Source: UN Comtrade (2016), own processing

Table D Commodity structure of export of Poland by SITC – shares on export

POLAND									
	2007	2008	2009	2010	2011	2012	2013	2014	2015
SITC 0+1	9,1	9,2	10,7	10,5	10,4	11,7	12,1	12,3	12,4
SITC 2+4	2,4	2,4	2,0	2,5	2,5	2,5	2,7	2,7	2,4
SITC 3	3,8	4,2	3,1	4,2	5,0	5,0	4,8	4,1	3,3
SITC 5	7,2	7,7	7,7	8,6	9,0	9,1	9,3	9,1	8,8
SITC 6	22,8	21,4	19,1	20,0	21,3	21,0	20,2	19,8	18,8
SITC 7	40,8	41,2	43,0	41,6	39,3	37,8	37,9	38,3	39,1
SITC 8	12,6	12,2	12,7	12,6	12,4	12,4	12,8	13,6	15,0
SITC 9	1,2	1,7	1,7	0,0	0,2	0,5	0,3	0,1	0,2

Source: UN Comtrade (2016), own processing

Table E Commodity structure of import of the Czech Republic by SITC – shares on import

CZECH REPUBLIC									
	2007	2008	2009	2010	2011	2012	2013	2014	2015
SITC 0+1	5,0	4,8	6,0	5,1	5,2	5,7	5,9	5,6	5,7
SITC 2+4	2,6	2,8	2,5	2,7	3,3	3,1	3,0	2,7	2,5
SITC 3	7,9	10,4	9,1	9,5	10,1	10,2	9,8	8,1	6,6
SITC 5	10,3	10,1	10,9	10,1	10,9	11,1	11,4	11,6	11,3
SITC 6	20,8	19,5	17,2	17,1	18,3	18,0	18,1	17,7	17,3
SITC 7	43,4	41,0	40,8	42,4	42,2	42,0	41,3	43,6	45,4
SITC 8	10,0	10,2	11,6	9,8	9,8	9,7	10,1	10,4	11,0
SITC 9	0,1	1,2	2,0	3,3	0,2	0,3	0,3	0,3	0,2

Source: UN Comtrade (2016), own processing

Table F Commodity structure of import of Slovakia by SITC – shares on import

SLOVAKIA									
	2007	2008	2009	2010	2011	2012	2013	2014	2015
SITC 0+1	5,1	5,2	6,5	5,9	5,8	5,9	5,6	5,8	5,3
SITC 2+4	3,0	3,1	2,9	4,1	4,0	4,2	3,6	3,2	2,5
SITC 3	11,0	12,8	11,7	12,5	14,7	13,1	13,1	6,1	8,1
SITC 5	8,7	8,7	9,5	8,4	8,8	8,4	8,4	9,3	8,8
SITC 6	17,4	17,0	15,1	15,6	15,5	15,1	15,1	16,2	15,0
SITC 7	43,8	43,0	42,6	42,7	39,9	41,1	42,4	46,3	47,3
SITC 8	10,4	9,8	11,4	10,4	11,0	11,9	11,6	12,8	12,6
SITC 9	0,4	0,4	0,4	0,4	0,3	0,3	0,2	0,4	0,4

Source: UN Comtrade (2016), own processing

Table G Commodity structure of import of Hungary by SITC – shares on import

HUNGARY									
	2007	2008	2009	2010	2011	2012	2013	2014	2015
SITC 0+1	3,9	4,1	5,0	4,4	4,5	4,6	4,5	4,7	4,8
SITC 2+4	1,4	1,5	1,5	2,0	2,3	2,2	2,2	2,1	2,0
SITC 3	9,4	8,5	7,5	10,6	12,2	12,7	12,6	12,1	8,2
SITC 5	8,6	9,2	10,0	9,9	10,6	10,9	11,0	11,3	11,9
SITC 6	14,0	13,2	12,1	12,2	12,9	12,8	13,5	13,6	13,6
SITC 7	48,8	45,7	44,9	45,9	42,3	41,6	42,9	44,5	47,1
SITC 8	6,6	6,3	6,7	5,9	5,9	5,9	6,4	7,1	7,6
SITC 9	7,2	11,4	12,3	9,1	9,4	9,5	6,9	4,6	4,7

Source: UN Comtrade (2016), own processing

Table H Commodity structure of import of Poland by SITC – shares on import

POLAND									
	2007	2008	2009	2010	2011	2012	2013	2014	2015
SITC 0+1	5,8	6,1	7,4	7,1	7,1	7,6	8,0	7,8	8,0
SITC 2+4	3,3	3,4	3,0	3,4	3,9	3,9	3,8	3,6	3,5
SITC 3	9,9	11,3	9,4	10,9	13,1	13,7	11,8	10,8	7,5
SITC 5	12,8	12,8	13,7	14,2	14,1	13,8	14,3	14,4	13,9
SITC 6	20,8	18,3	17,0	17,6	18,0	17,2	17,2	17,4	17,2
SITC 7	35,3	34,9	35,1	34,5	31,6	32,0	33,5	33,8	36,6
SITC 8	8,4	8,8	10,4	10,0	9,6	8,9	8,9	10,3	11,8
SITC 9	3,8	4,3	4,0	2,2	2,5	3,0	2,5	1,9	1,5

Source: UN Comtrade (2016), own processing

Table I Territorial structure of export of the Czech Republic by countries – shares on export

CZECH REPUBLIC									
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
GERMANY	30,8	30,7	32,3	32,0	32,2	31,4	31,3	32,0	32,2
SLOVAKIA	8,7	9,2	9,0	8,8	9,0	9,1	8,9	8,4	9,0
POLAND	5,9	6,5	5,8	6,2	6,3	6,1	6,0	6,0	5,9
FRANCE	5,4	5,4	5,6	5,4	5,5	5,1	4,9	5,1	5,1
UK	5,0	4,8	4,9	4,8	4,5	4,8	4,9	5,1	5,3
ITALY	4,9	4,7	4,4	4,5	4,1	3,5	3,6	3,6	3,7
AUSTRIA	4,6	4,7	4,7	4,7	4,6	4,6	4,6	4,3	4,1
OTHERS	34,7	34,0	33,3	33,6	33,8	35,4	35,8	35,5	34,7

Source: World Bank (2017), own processing

Table J Territorial structure of export of Slovakia by countries – shares on export

SLOVAKIA									
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
GERMANY	21,1	20,2	19,8	19,3	20,4	21,4	20,9	22,0	22,4
CZECH REP.	13,0	13,1	13,3	13,7	14,2	14,0	13,5	12,7	12,4
FRANCE	6,5	6,8	7,8	6,8	6,4	5,4	5,0	4,9	5,6
ITALY	6,3	5,9	6,0	5,5	5,0	4,6	4,6	4,6	4,5
HUNGARY	6,3	6,2	6,9	6,7	7,1	7,0	6,4	6,1	5,6
POLAND	6,2	6,6	7,0	7,3	7,3	8,1	8,3	8,2	8,3
AUSTRIA	5,8	5,7	5,9	6,8	7,0	6,6	6,2	6,1	6,0
OTHERS	34,8	35,5	33,3	33,9	32,6	32,9	35,1	35,4	35,2

Source: World Bank (2017), own processing

Table K Territorial structure of export of Hungary by countries – shares on export

HUNGARY									
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
GERMANY	28,4	26,7	25,6	25,1	24,8	25,5	25,8	27,5	27,3
ITALY	5,6	5,3	5,7	5,5	5,0	4,6	4,7	4,6	4,7
FRANCE	4,7	4,7	5,5	5,0	4,7	4,6	4,4	4,5	4,6
AUSTRIA	4,5	4,9	4,6	4,9	5,7	5,8	5,6	5,5	4,8
UK	4,5	4,7	5,3	5,5	4,6	4,2	3,9	3,6	3,9
ROMANIA	4,5	5,3	5,3	5,4	6,1	6,0	5,7	5,5	5,3
SLOVAKIA	4,2	4,7	5,0	5,4	5,9	5,9	5,4	4,9	5,0
OTHERS	43,6	43,7	43,0	43,2	43,2	43,4	44,5	43,9	44,4

Source: World Bank (2017), own processing

Table L Territorial structure of export of Poland by countries – shares on export

POLAND									
	25,9	**25,1**	**26,1**	**26,0**	**26,0**	**24,9**	**25,0**	**25,9**	**26,9**
GERMANY	6,6	6,0	6,8	6,0	5,4	4,9	4,3	4,5	4,8
ITALY	6,1	6,2	7,0	6,8	6,1	5,8	5,6	5,6	5,6
FRANCE	5,9	5,8	6,4	6,3	6,5	6,8	6,5	6,4	6,8
UK	5,5	5,7	5,9	5,9	6,2	6,2	6,1	6,3	6,5
CZECH REP.	4,6	5,2	3,7	4,2	4,5	5,5	5,3	4,4	2,9
RUSSIA	3,8	4,0	4,2	4,4	4,4	4,4	4,0	4,1	4,4
NETHERLANDS	41,6	42,0	39,9	40,4	40,9	41,5	43,2	42,8	42,1
OTHERS	25,9	25,1	26,1	26,0	26,0	24,9	25,0	25,9	26,9

Source: World Bank (2017), own processing

Table M Territorial structure of import of the Czech Republic by countries – shares on import

CZECH REPUBLIC									
	2007	2008	2009	2010	2011	2012	2013	2014	2015
GERMANY	28,1	26,8	26,7	25,5	25,8	25,5	25,9	26,2	26,0
CHINA	7,9	8,8	10,1	12,2	12,5	11,2	10,9	11,4	13,5
POLAND	5,7	5,9	6,4	6,4	6,6	7,1	7,6	7,7	7,9
SLOVAKIA	5,3	5,6	5,4	5,2	5,7	6,1	5,7	5,3	5,1
RUSSIA	4,8	6,4	5,2	5,4	5,4	5,7	5,4	4,1	3,0
ITALY	4,7	4,5	4,4	3,9	3,9	3,9	4,0	4,1	4,1
FRANCE	4,6	4,1	3,9	3,3	3,3	3,2	3,2	3,2	3,1
OTHERS	38,9	37,9	37,9	38,1	36,8	37,3	37,3	38,0	37,3

Source: World Bank (2017), own processing

Table N Territorial structure of import of Slovakia by countries – shares on import

SLOVAKIA									
	2007	2008	2009	2010	2011	2012	2013	2014	2015
GERMANY	18,7	19,8	15,4	16,1	16,7	17,1	16,0	15,7	15,9
CZECH REP.	10,9	11,4	11,3	10,3	10,7	9,9	11,0	10,9	11,3
RUSSIA	9,2	10,7	8,8	9,6	11,2	9,9	10,0	8,0	5,3
CHINA	5,1	5,8	5,7	6,2	6,1	6,3	7,5	8,2	8,8
HUNGARY	5,1	5,0	4,7	4,3	4,1	3,7	4,4	4,8	5,0
REP. OF KOREA	5,1	5,8	6,8	8,0	6,4	9,5	8,6	7,3	6,6
POLAND	4,0	3,9	3,7	4,1	4,1	3,7	4,9	5,0	5,1
OTHERS	41,9	37,6	43,6	41,4	40,7	39,9	37,6	40,1	42,0

Source: World Bank (2017), own processing

Table O Territorial structure of import of Hungary by countries – shares on import

HUNGARY									
	2007	2008	2009	2010	2011	2012	2013	2014	2015
GERMANY	26,8	25,5	24,9	24,0	23,9	24,7	25,0	25,4	26,2
RUSSIA	6,7	9,3	7,4	7,8	8,8	8,8	8,7	7,1	4,0
AUSTRIA	6,1	6,2	6,5	6,2	6,6	6,9	6,7	7,3	6,6
CHINA	5,4	5,6	6,4	7,1	6,0	5,7	5,4	5,0	5,3
ITALY	4,5	4,2	4,1	4,3	4,5	4,5	4,4	4,5	4,6
POLAND	4,0	4,0	4,1	5,3	4,6	4,7	4,9	5,2	5,5
SLOVAKIA	3,1	3,5	4,2	4,1	5,4	5,5	5,8	5,5	5,3
OTHERS	43,4	41,7	42,4	41,2	40,2	39,2	39,1	40,0	42,5

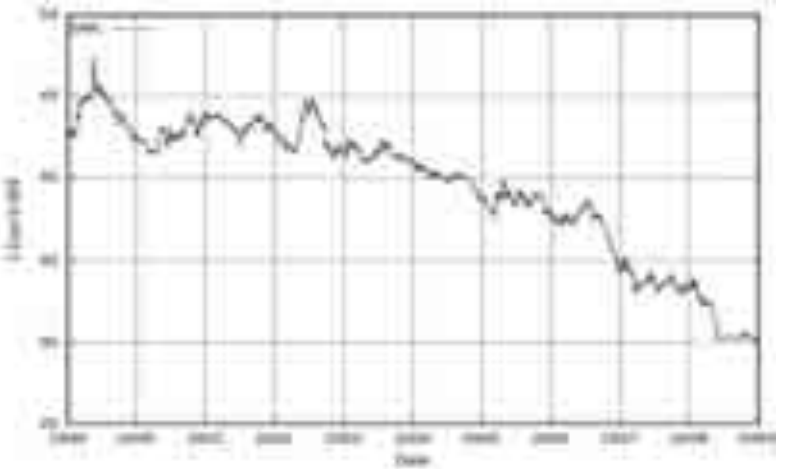
Source: World Bank (2017), own processing

Table P Territorial structure of import of Poland by countries – shares on import

POLAND									
	2007	2008	2009	2010	2011	2012	2013	2014	2015
GERMANY	24,0	23,1	22,3	21,7	22,2	20,9	21,5	51,7	22,6
RUSSIA	8,7	9,8	8,6	10,5	12,2	14,6	12,3	10,8	7,6
CHINA	7,2	8,0	9,3	9,5	8,7	9,0	9,4	10,6	11,8
ITALY	6,8	6,5	6,8	5,6	5,3	5,0	5,2	5,3	5,2
FRANCE	5,1	4,7	4,6	4,3	4,2	3,9	3,8	3,7	3,7
CZECH REP.	3,5	3,6	3,6	3,7	3,7	3,6	3,6	3,5	3,4
NETHERLANDS	3,4	3,4	3,6	3,7	3,7	3,8	3,9	3,7	3,8
OTHERS	41,3	40,9	41,2	41,0	40,0	39,2	40,3	10,7	41,9

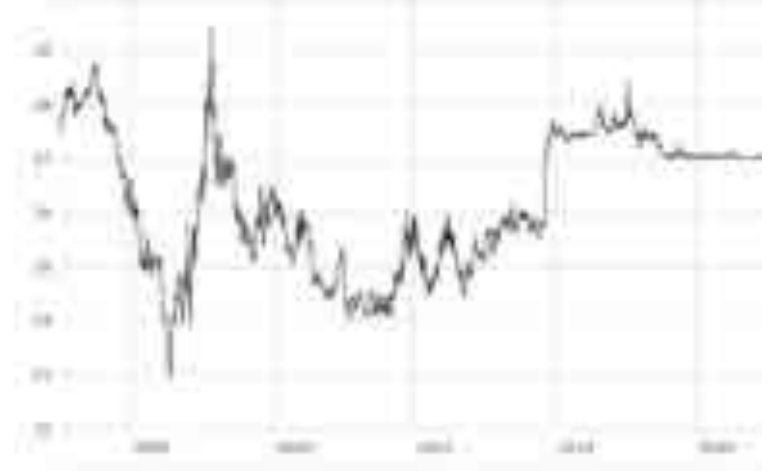
Source: World Bank (2017), own processing

Figure C Development of exchange rate of Slovak crown (SKK) in relation to 1 EUR (1999-2009)



Source: wikimedia.org (2009)

Figure D Development of exchange rate of Czech crown (CZK) in relation to 1 EUR (2007-2016)



Source: European Central Bank (2017)

Figure E Development of exchange rate of Hungarian forint (HUF) in relation to 1 EUR (2007-2016)

Source: European Central Bank (2017)

Figure F Development of exchange rate of Polish zloty (PLN) in relation to 1 EUR (2007-2016)

Source: European Central Bank (2017)