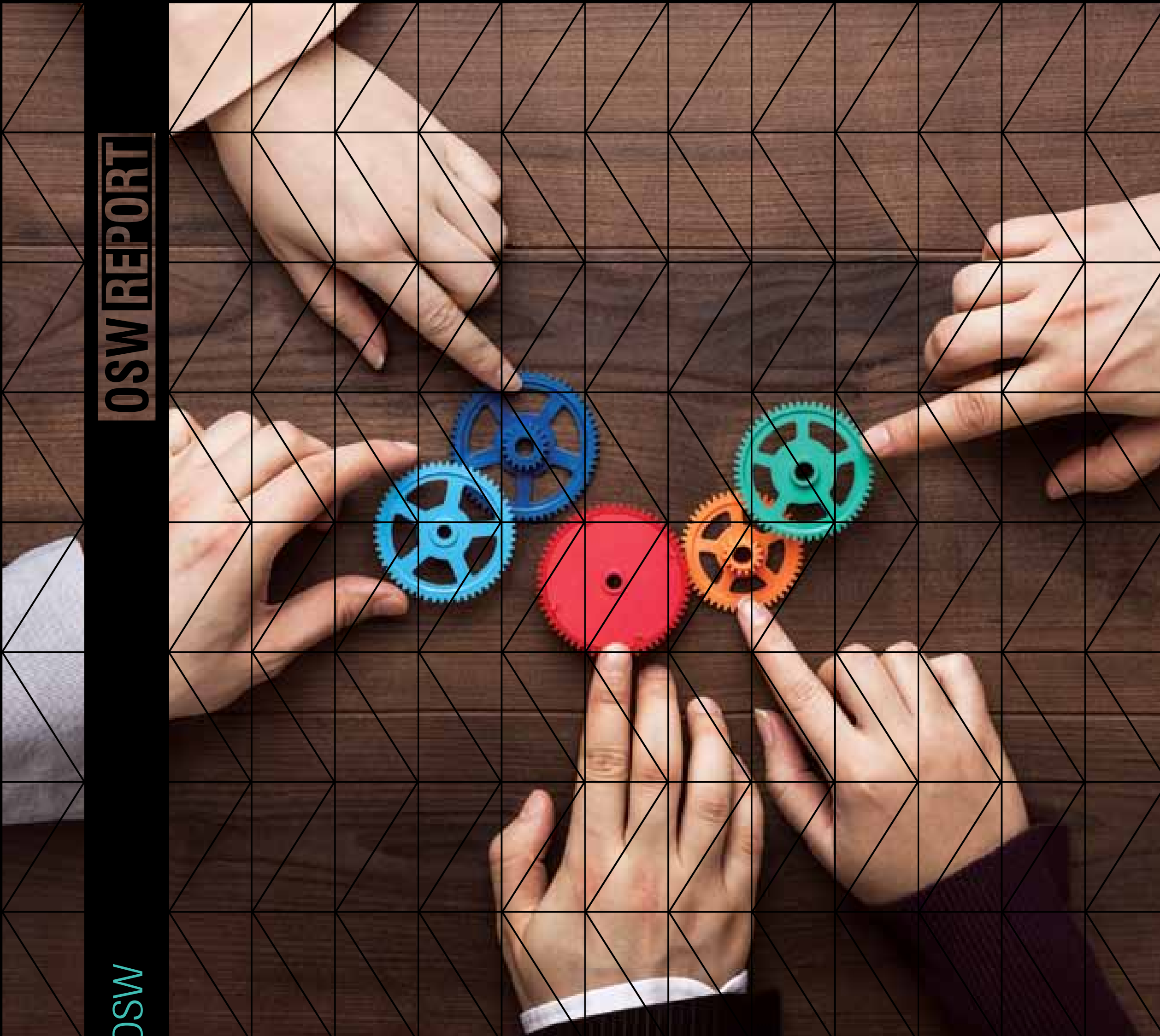

THE ROLE OF CENTRAL EUROPE IN THE GERMAN ECONOMY

THE POLITICAL CONSEQUENCES

Konrad Popławski

OSW REPORT

WARSAW
SEPTEMBER 2016

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OSW | CENTRE FOR EASTERN STUDIES
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ISBN 978-83-62936-84-7

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THESES

- The economic cooperation between Germany and Central Europe has brought mutual benefits in recent years. Since 1989, Germany has become the most important trading and investment partner for the V4 states, which has had significant impact on the evolution of the economic model of Central Europe, and helped in the process of modernising the region. German companies from the automotive, financial and energy sectors, among others, have gained significant market shares in those countries. The development of economic links between Germany and the V4 states has also been beneficial for Germany itself. Taken together, the Visegrad Group states have become Germany's most important global partner both in exports and imports. They have managed – as some of the few states without any significant resources of raw materials – to maintain relatively balanced trade relations, showing surpluses or minor deficits in their trade with Germany.

- Over the last decade, Central Europe has become an important source for improving the international competitiveness of the German economy. Firstly, moving factories from Germany to V4 became an element of lowering production costs for many German companies. The pressure business exerted on German workers to reduce labour costs was also an important element. Secondly, in the face of major problems caused by a lack of engineers, German businesses moved part of their R&D activities to Central Europe, or attracted qualified workers from the region to Germany.

- The economic cooperation between Germany and Central Europe has been boosted by investments financed from European Union funds. Germany has been by far the largest beneficiary of investments in the V4 states from the EU's cohesion policy. Thanks to this, Germany has been able to rely on additional exports to these countries, to the tune of €30 billion in the period 2004-15[1]. Germany has benefited not only directly, from the contracts it acquired, but also indirectly; a significant proportion of these funds has been spent on infrastructure, which has made it easier to transport goods between Germany and Central & Eastern Europe.

1 Assessment of the benefits obtained by the EU-15 member states as a result of the implementation of the cohesion policy in the countries of the Visegrad Group. Final report. The Structural Research Institute. London, December 2011; http://ibs.org.pl/app/uploads/2015/12/Ocena-korzy%C5%9Bci-uzyskiwanych-przez-pa%C5%84stwa-UE-15-w-wyniku-realizacji-polityki-sp%C3%B3jno%C5%9Bci-w-krajach-Grupy-Wyszehradzkiej.pdf

- Over recent years the V4 countries have proved able to produce parts and goods for German companies in an efficient manner. In recent years, the automotive, electro-mechanical, electricity and retail trade sectors have significantly increased their expansion in Central Europe. It is expected that German companies will move these R&D activities to Central Europe, which would be impossible to conduct in Germany, for example due to a lack of engineers. However, this process will probably not be very large in scale.

- One condition for the V4 states to achieve levels of trade cooperation with Germany on the level of countries such as Austria, Belgium, the Netherlands or Switzerland is that they should be able to sell German companies their own products, with high added value. There is still great potential to deepen economic cooperation between Germany and the V4 countries. In addition to the traditional advantages of Central Europe, such as geographical proximity, traditions of industrial production, low labour costs, and reliability & security of supply, German companies appreciate the new elements of competitiveness in the region, such as the stability of economic development and political-institutional conditions, ever better infrastructure, and the high levels of the local workers' qualifications and productivity.

- Central Europe's great dependence on German trade and investment poses a number of risks for the region's economic development. First, Germany specialises in exporting capital goods based on traditional industrial companies. German companies have still not shown any significant successes in the IT sector, which may determine the strength of the economy in the future. Secondly, the role of Central Europe as an assembly plant for German companies is linked in the medium term with the risk of losing that position to countries with lower production costs. In addition, the sale of products from Central Europe under the brand names of German companies does not help in making their own, globally recognisable brands; it is thus difficult to make significant margins and escape from the so-called middle income trap.

- The current period of global political and economic instability has increased the importance of Central Europe for Germany. Firstly, the region's geographical proximity ensures that this economic cooperation will not be disturbed by geopolitical problems, and there is no risk that the continuity of supply will be interrupted. Secondly, due to the euro crisis, the dispute over the future shape of the EU's economic policy has intensified. Germany needs allies who will promote a free-market model of the Union, based on the principles of fiscal discipline, in the clash with the more statist vision of the EU represented by France, but probably also by leftist-ruled Greece and Portugal, and also perhaps Spain.

- In the coming years, Germany may become interested in bringing Central Europe over to its side in a variety of disputes, such as the reform of the euro-zone, the revision of the EU's climate and energy policy, and also the problems in the EU's eastern and southern neighbourhoods. So far, despite the dynamically developing economic cooperation in recent years, Germany does not appear to show any particular interest in deepening its political cooperation with Central Europe. Enhanced cooperation within the framework of the V4 may help Germany to become more sensitive to the region's interests, especially as it seems possible that Berlin can reach a common position with the V4 on many EU issues.

- An important prerequisite for improving cooperation between Germany and Central Europe is to inform German public opinion, through intensive promotional activities, about the significant scale of their mutual economic ties. Germany's dynamically deepening cooperation has passed the German media by, in contrast to their considerable number of reports and analysis on the development of economic relations with the BRIC countries. This also stems from German economists' lack of interest in Central Europe. After the accession of the countries of the region to the EU, the interest areas of many scientific centres shifted further eastwards. German political institutions are conducting only small amounts of analytical work in the area of Central Europe. This leads to misunderstandings of the situation in the region, and to an incorrect narrative stating that funding from the cohesion policy is only a way of financing the poorer member states which does not guarantee Germany any economic benefits.

- The effects of the possible breakup of the Schengen area are difficult to quantify. An increased bureaucratic burden on the movement of goods between Germany and V4 would certainly impede trade and generate additional costs. It would likely be a big problem for the German automotive and logistics sectors, in which time of delivery plays an important role in competitiveness. For this reason, it can also be expected that German companies involved in Central Europe will oppose stricter border controls.

INTRODUCTION

Many experts interpreted the accession of the Czech Republic, Hungary, Slovakia and Poland to the European Union as the 'end of history' in their economic relations with the Germany. Since 2004 there have been few comparative studies on the development of economic relations between Germany and Central Europe. The following report is intended to fill this gap, and its purpose is to answer the question of how economic relations between Germany and the countries of the Visegrad Group (V4) have changed in the light of the significant political and economic changes within the European Union over recent years.

The Czech Republic, Poland, Slovakia and Hungary have been selected as examples of the general changes in the links between Germany and Central Europe, which have also affected Germany's relationships with other countries in the region, such as Bulgaria, Romania and the Baltic states. From the perspective of Germany's business elites, the countries of the region are linked by many similarities, such as the following:

- geographical proximity and cultural similarity;
- uniform market rules which apply throughout the EU;
- long-standing industrial traditions, and the substantial participation of industrial production in their GDPs;
- the significant share of foreign capital in their manufacturing and financial sectors;
- an economic model based on exports, with the significant participation of foreign companies;
- small or insignificant raw material resources, and great dependence on their import;
- energy systems based on power plants which use coal and nuclear energy, fuels which are increasingly being displaced from the EU;
- significant resources of skilled workers with lower wage expectations than their counterparts in Western Europe;
- relatively good economic performances against the backdrop of the EU as a whole during the global financial crisis and the crisis within the eurozone.

Germany is Central Europe's most important economic partner, and in recent years this link has brought forth mutual economic benefits. However, it is worth considering the stability of the economic model that has evolved, and also asking how the close economic cooperation between the V4 states and

Germany may be used to increase the level of innovation. The problem of the capacity to design and manufacture modern goods and services is becoming more important in the debate within Central Europe on the so-called 'middle income trap'. This is defined as a risk of exhausting existing engines of growth, and the inability to transition from a production model based on low labour costs to one based on quality and innovation, resulting in higher wages.

Three sources of information were used in preparing this report. The main methodology applied in the study was the analysis of economic indicators in trade and investment between Germany and the V4 countries. In addition, the study was based on conversations with about 30 experts, mostly from Germany but also the V4 states: representatives of German ministries at the federal and regional (*Länder*) levels, as well as embassies, business associations, research institutes, chambers of commerce and foreign investment agencies in the Czech Republic, Poland, Hungary and Slovakia. This information has been supplemented by case studies from the most important German industries, with an analysis of their situation in the V4 states.

I. THE ADVANTAGES OF CENTRAL EUROPE FROM THE PERSPECTIVE OF GERMANY

In recent years, the region of Central Europe has continued its quite rapid growth, and it has dealt relatively well with the global economic downturn post-2009, especially when considering the situation in the euro-zone as a reference point. Its stronger economic position, along with the change in political conditions in Europe, makes it an even more attractive partner for Germany than before.

From the German point of view, the region of Central Europe has since the 1990s displayed a number of common features. The basic characteristics of the V4 countries' economies – such as their industrial traditions, low labour costs, cultural and geographic proximity, and a skilled workforce – made them an ideal area for the expansion of trade and investment. From the outset, Germany involved itself in the economic transition process in the countries of Central Europe, perceiving an opportunity to gain political, economic and security benefits. Germany's goal was to establish strong relationships with Central Europe, to link it politically with Western structures, and build up an economic hinterland for itself in the region.

Central Europe's economic importance for Germany has risen in recent years, as the high efficiency of the businesses located in the region has helped the most important branches of the German economy to keep their output competitive during the global economic downturn. Thanks to its relatively low wages and high productivity, Central Europe has become a factory for German products on the EU market whose production could not have been moved to Asia. After entering the euro-zone, Germany's economic situation was evaluated very critically both at home and abroad. The economy remained stagnant for several years after German reunification. Unemployment in Germany between 1991 and 2001, especially in the new *Länder*, remained at a high level of around 20%; public debt rose, and the country's exchange payments deficit with other countries remained high. Germany, along with France, was the first to break the rules on the budget deficit in the euro-zone. In response to the diagnosis of economists who blamed Germany's problems on its overly high labour costs, the government in Berlin introduced a reform package in 2003-5 called Agenda 2010, limiting social benefits, improving business conditions and making the labour market more flexible. Under pressure from these reforms, as well as the threat by German companies that they would transfer jobs to the countries of Central and Eastern Europe, the

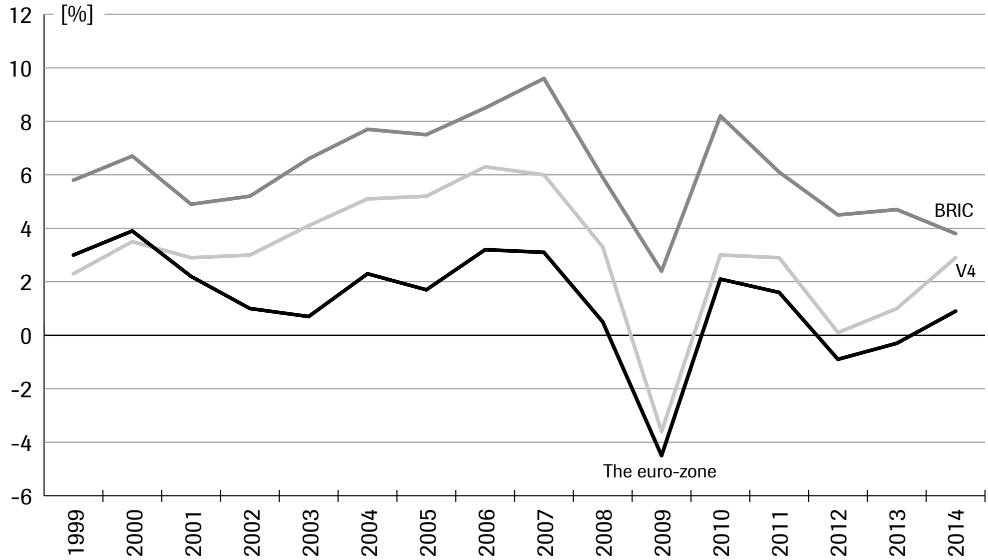
German trade unions lowered their wage demands, focusing on keeping their plants in Germany running. More savings were generated by moving part of the production from Germany to countries with lower labour costs – that is, countries in Asia and Central Europe.

The central European states have become an important production centre on the EU market. They have become an attractive place to invest capital, especially for German small- and medium-sized businesses, because after they entered the EU their legislation was already close to German tax laws, and their standards of legal protection were higher than those of other emerging economies. For these reasons, investment in Central Europe was also easier for the small- and medium-sized enterprises sector, which is strong in Germany. Moreover, some bulky goods destined for the European market, such as cars or machinery, were not worth producing in Asia due to transport costs. It is noteworthy that since 2009, German automotive companies have built up their production capacity in Central Europe in order to generate savings. The source of these savings was no longer labour costs alone, which had risen considerably in previous years, but also increased efficiency thanks to the factories' high productivity and the improving qualifications of local workers.

In recent years, the favourable economic situation of the central European countries continued, which increased their attractiveness as a marketing partner for Germany against the background of an increasingly difficult global economic situation. The Visegrad Group's member states have been able to maintain a high rate of economic development. In the period 1999-2014, the average GDP per person in these countries rose from 60% to 75% of the EU average[2].

[2] GDP *per capita*, consumption *per capita* and price level indices, December 2015; http://ec.europa.eu/eurostat/statistics-explained/index.php/GDP_per_capita,_consumption_per_capita_and_price_level_indices

Figure 1. The growth rate of GDP of selected groups of countries (%)*



Source: World Bank

***** The euro-zone average includes its 11 founding member states apart from Germany. The results are based on the arithmetic mean, in order to show the data from the three groups of countries in cross-sectional terms. If we were calculating the weighted average, the BRIC result would be greatly boosted by China, and that of the V4 by Poland. This approach is often used in analyses by the German Chamber of Commerce and Industry.

The chart data clearly shows that the V4 states have developed faster than the euro-zone countries since 2001; a growth spurt was especially visible in the period 2001-7. GDP rose more slowly in the V4 states in 1999-2014 than in the BRIC countries, but it cannot be ruled out that the pace of economic development in Central Europe will outstrip the GDP growth rate of the biggest emerging economies in the next few years[3]. The comparison of V4 with the BRIC countries is particularly interesting, as in recent years companies from Germany have focused on expansion in these two groups of countries, so in a way it is possible to treat them as groups competing for German capital.

After 2007, economic relations between Germany and Central Europe were boosted by the process of modernisation, which was also financed by the EU's cohesion policy. The V4 countries were some of the biggest beneficiaries of these funds; at the same time, they have managed to maintain discipline in public finances in recent years (only Hungary has had a problem with this). And so in the period of global economic downturn after 2009, these countries

[3] This estimate is based on the assumption of continued economic turmoil in Brazil and Russia and the structural problems accumulating in China.

maintained high levels of public investment. This was the reverse of the situation in many other countries, especially in the south of the euro-zone, which significantly reduced their budgetary expenditure under the threat of insolvency. Germany was by far the greatest beneficiary of the investment in the V4 countries financed by the EU's cohesion policy. Thanks to this, Germany was able at least to rely on additional exports to these countries, to the tune of €30 billion in the period 2004-15[4]. Thanks to the investments from the cohesion fund in Central Europe, Germany gained not only directly, from the contracts it acquired, but also indirectly; a significant proportion of these funds was spent on infrastructure, which made it easier to transport goods between Germany and Central & Eastern Europe. This was of great importance for German automotive companies, for whom good transport networks were a condition for building modern production facilities in the V4 states.

On the question of reforming the EU, the countries of Central Europe and Germany often found themselves on opposite sides politically. The dominant line of disputes was the division into old and new EU countries. The V4 states were wary of the extension of the powers of EU institutions at the expense of those of their own countries, and they long resisted the introduction of the Lisbon Treaty. The distrust towards the central European EU states which joined in 2004 was boosted by their support for the US intervention in Iraq, for which they faced strong criticism from France and Germany. The lower level of economic development in Central Europe encouraged these countries to resist the introduction of certain integration solutions, such as the unification of CIT tax rates. The countries in the region often opposed stricter climate policies, which Brussels saw as one of the elements of the EU's common identity. In 2010, when the euro-zone crisis began, a new dividing line appeared in the EU between the countries of North and South. It appeared, however, that the southern countries of the euro-zone, such as Greece, Spain, France and Portugal, have not used their membership of the euro-zone to improve their trading competitiveness, and after 2010 they began to struggle with economic problems. Germany, which decided to freeze pay rises, make its labour market more flexible, and cut back on social benefits, found itself in a much better position. This was uncomfortable for Berlin, because the monetary union now included a significant

4 Report: assessment of the benefits obtained by the EU-15 member states as a result of the implementation of the cohesion policy in the countries of the Visegrad Group, December 2011; http://ibs.org.pl/app/uploads/2015/12/Ocena-korzy%C5%9Bci-uzyskiwanych-przez-pa%C5%84stwa-UE-15-w-wyniku-realizacji-polityki-sp%C3%B3jno%C5%9Bci-w-krajach-Grupy-Wyszehradzkiej.pdf, p. 52.

number of member states with problems, and thus there was a risk that they would throw the burden of their problems onto Germany. One symptom of this was the isolation of Germany's representatives on the forum of the European Central Bank, whose decisions often went against Berlin's demands. In this situation, the countries of Central Europe which had joined the euro-zone, such as Estonia, Lithuania, Latvia and Slovakia, proved to be valuable allies for Germany. Bratislava was one of the most vocal opponents to granting loans to Athens, which at that time was threatened by insolvency.

The V4 states will be an important voice in any debate on further reforms to the European Union in the next few years. When that time comes, Germany will be on the opposite side to the southern euro-zone countries because of its different economic conditions. Currently a deepening gap can be observed between Germany, which has registered a favourable economic performance and is reducing its debt, and the monetary union's southern countries, whose debts are still rising. In any future debate, Berlin will probably stand for a more free-market EU, and it is not clear whether it will be able to count on support in this matter from London, which is considering leaving the Union. Central Europe, which is tied to Germany by strong economic interests, may prove to be a key partner in the question of reforming the EU.

II. THE DEVELOPMENT OF TRADE BETWEEN GERMANY AND THE V4

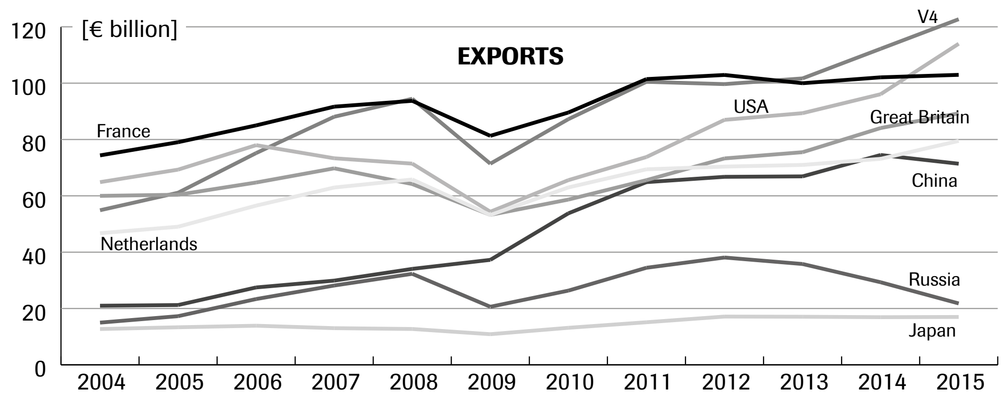
In recent years, the V4 group has become one of Germany's key trade partners, in a relationship that has come closer to reaching equality. Not only is Germany the V4 group's most important trading partner, but also vice versa; the V4 states as one region are a key partner for Germany. It is also worth emphasising that although the German economy is able to generate a trade surplus with most countries of the world, it maintains a relative balance with the V4 states' economies. Their cooperation with Germany offers a wide range of benefits, and has a good opportunity to develop, especially during the global economic downturn. Despite this, strong economic relations with Germany alone will not help the V4 countries to escape the so-called middle income trap. It is hard to expect that German companies will be ready to move their R&D activity to the region on a larger scale, as this is an area which generates the most profit for the German economy. The hitherto profitable collaboration with Germany may discourage many companies from Central Europe from limiting their dependence on German companies and working on producing their own increasingly technically advanced products.

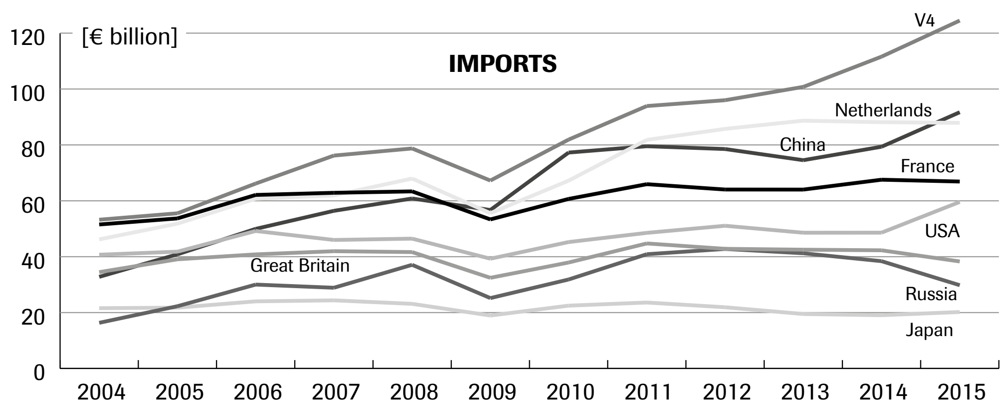
1. The role of Central Europe as a key trading partner for Germany

In the last decade, the role of foreign trade in the German economy has grown extremely rapidly. Since 2007, the V4 countries taken together have become Germany's important trading partner, providing the most components for German exporters (after the USA), and thus contributing to the improvement in the trading competitiveness of Germany's economy.

In the last ten years, the development of trade has become one of Germany's most important sources of economic growth, especially since internal consumption has not proven to be an important driver of economic development. In the years 2004-8, Germany's turnover rose very dynamically, thanks to good times in the euro-zone and on the emerging markets. The biggest recession in post-war German history in 2009, when GDP fell by 5%, did not lead to a prolonged weakening of growth in Germany. Despite the initial collapse of German trading, the losses were quickly recovered, and in the next few years sales of German products abroad rose steadily. Trading competitiveness proved to be one of the main factors maintaining stable economic growth in Germany, and which also strengthened the country's image as a strong economy which had managed to resist the economic crisis. The most visible symbol of this power was the trade surplus, which had been rising for a decade. Since 2012, Germany has recorded the largest current-account surplus in the world[5]. In 2014 it amounted to US$285 billion, which was almost double the value of that of second-ranked China (US$150 billion) and almost three times higher than third-ranked Saudi Arabia (US$100 billion)[6]. The scale of the success of German exports is greater than when compared with the situation of many other countries in the euro-zone, such as Greece, Spain or Portugal, which in recent years have been grappling with the consequences of significant current account deficits which threaten to bankrupt them.

Figure 2. German foreign trade with selected countries around the world, and with the V4 group (€ billion)





Source: Federal Statistical Office

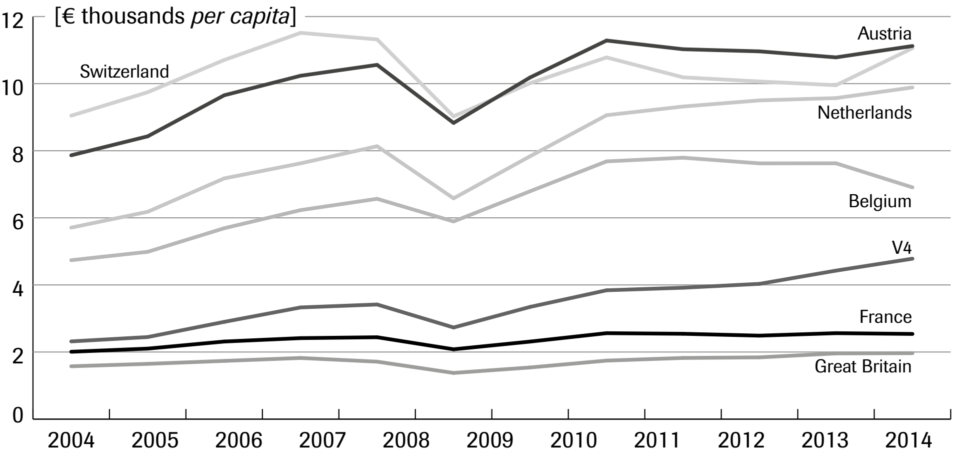
5 Goods trade is one of the key factors shaping the current account value, which represents the state of cash flows between the country and abroad.

6 Deutschland hat weltweit größten Exportüberschuss, *Die Welt*, 2 February 2015; http://www.welt.de/wirtschaft/article137024573/Deutschland-hat-weltweit-groessten-Exportueberschuss.html

There is a direct relationship between the improvement of the German economy over recent years and its closer commercial relations with Central Europe. The V4 countries are playing an ever greater role, from the point of view of German economic interests, because they have been receiving the largest share of exports. Back in 2008 the V4 group taken together became the most important buyers of German goods; however, during the economic crisis in 2009, they reduced their demand for German goods to a greater extent than, for example, France. In subsequent years their position gradually revived. As a result, in 2015 German companies sold goods worth €123 billion in the V4 countries – 19% more than in France, a country which is richer and more populous than all the V4 states together. The V4 countries also overtook China in this respect, by 71%, and Russia by a factor of four, even though Russia is recognised in Germany as an extremely lucrative market. It should be noted that the strong position of the V4 countries would not have been possible without their strong integration into the supply chain of Germany, whose companies own many factories in these countries. This also boosts German exports. On one hand, German plants located in V4 countries acquire some of their parts from their mother-factories in Germany. On the other, the high level of exports from Germany to the V4 countries also results from the latter's greater purchasing power, because they are buying a growing proportion of the added value from the production of flagship German products, such as cars or machinery.

The trend in imports has developed somewhat differently. Since 2004, the V4 states taken together have been the most important exporters onto the German market, and their position did not falter even during the crisis in 2009, the greatest recession in post-war German history. It is worth noting that German imports from the V4 countries have continued at a relatively stable level, compared with the stagnation of imports from China, Russia and France over the last five years. This testifies to the great importance of the factories located in V4 countries in maintaining the price competitiveness of German industry. On one hand, companies from Germany prefer not to increase their supplies from other countries, while still bringing in ever more goods from the V4 countries. On the other hand, German companies have been looking for new suppliers in Central Europe, who admittedly would not offer such low production costs as countries in Asia, but whose productivity and production quality could match those of countries in Western Europe.

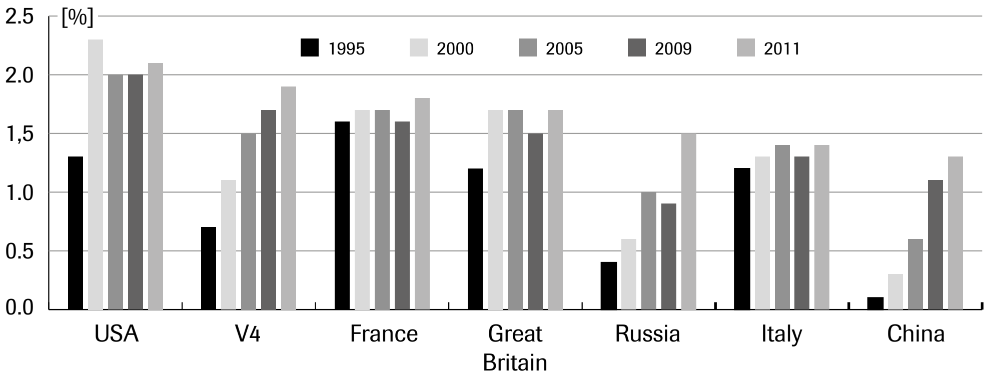
Figure 3. Value of Germany's foreign trade with individual countries *per capita* (€ thousands) between 2004-2015



Source: Federal Statistical Office

An interesting perspective on trade between Germany and V4 is revealed by a summary of trade *per capita*, which shows the intensity of the trading. From the chart we see that the V4 states are characterised by higher trade with Germany *per capita* than countries such as France or the United Kingdom, with a significant increase after 2009. Among the V4 countries there are large variations. In 2014, the Czech Republic, with more than €7000 per person, had only slightly lower trade *per capita* with Germany than Belgium. Hungary and Slovakia's trade with Germany ran at nearly €5000, and Poland slightly less, with €2500 *per capita* – nevertheless, running ahead of Britain and France. From this it can also be concluded that the V4 states still have great potential to expand their trade with Germany. The example of countries more strongly integrated with the German economy, such as Austria, Belgium, the Netherlands or Switzerland, shows that the value of trade *per capita* could reach €10,000 per annum. However, it should be pointed out that the high level of German trade with these countries also stems from their ability to sell their own technologies to German businesses. This is therefore not a relationship based largely on manufacturing products to the order of German companies, as it is in the case of V4.

Figure 4. Proportion of deliveries from selected countries in German exports[7] (%)



Source: The OECD-WTO Trade in Value Added (TiVA) database, May 2013; http://stats.oecd.org/

The figures from the OECD and the WTO databases allow us to examine what proportion of German exports was based on components made by individual states. The role of the V4 countries as suppliers for German exporters, alongside China and Russia, has increased significantly in recent years. In 1995, the production of V4 comprised added value in German overseas sales of 0.7%; over the next 16 years this indicator tripled to 2.1%. In this way, the V4 countries took second place (after the US) as the most important suppliers for German exporters, ahead of France, Britain, Russia, Italy and China. This means that the V4 countries have become one of the most important regions in Germany's supply chain, as well as an important source of the competitiveness of German companies, especially for the automotive (3.3% of value added in foreign sales) and construction industries (2.7%). Combining this data with the figures for foreign trade between Germany and V4, we can come to the conclusion that 21% of all German imports from V4 are used in onward exports (in 1995, this figure amounted to 13%).

The development of Germany's commercial relations with the V4 countries still has considerable potential for development, together with the increasingly sophisticated ties between these countries. It seems that the prospects for moderate economic growth, or even stagnation, in Europe will boost German companies' interest in reducing production costs by moving part of their activity to Central Europe, which will be associated with an increase in imports

[7] This data is available thanks to the methodology developed jointly by the World Trade Organisation and the OECD. Details of the methodology available at: https://www.wto.org/english/res_e/statis_e/miwi_e/tradedataday13_e/oecdbrochurejanv13_e.pdf

from these countries. The growth in prosperity of the V4 countries will thus result in increased German exports to them.

The V4 countries' success in their relations with Germany is based on stable conditions for development, as well as their geographical proximity, which has enabled the significant involvement of German small and medium-sized enterprises. For this reason, German trade with the V4 countries has a much higher value than with other, much larger states such as Japan, Russia or Turkey. This therefore demonstrates the very high degree of mutual complementarity between Germany and the V4 countries.

2. The position of individual V4 states in their trade with Germany

The development of trade between Germany and the V4 states has led to more balanced economic ties between them. Whereas in the period 2003-15 the participation of V4 in Germany's foreign trade rose from 8% to 20%, in the same period, Germany's share of trade with the V4 states taken together fell from 30% to 25%.

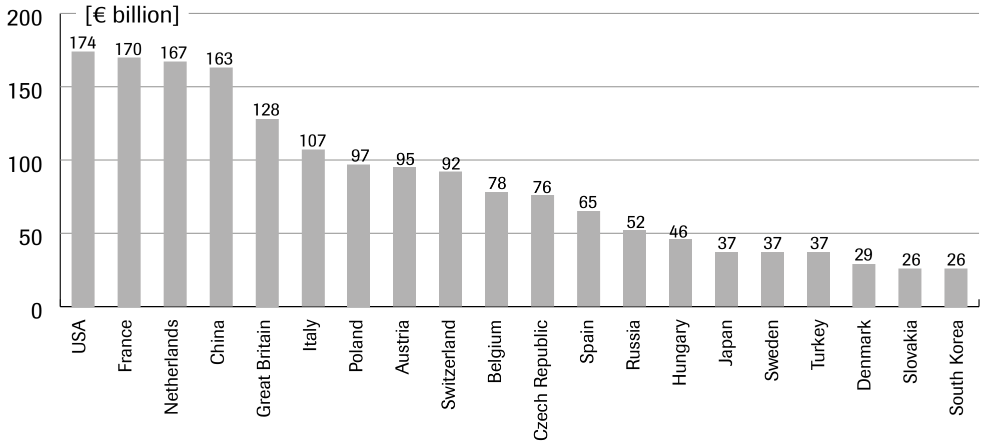
Table 1. The position of the V4 countries among Germany's most important trading partners

Country	Trade in 2003 (€ billion)	Trade in 2015 (€ billion)	Position, 2003	Position, 2015	Rise in trading	Change in position
Poland	32.2	96.8	12	7	201%	+5
Czech Republic	34.2	75.8	11	11	122%	0
Hungary	24.1	45.6	15	14	89%	+1
Slovakia	12.5	26.0	21	19	108%	+2
Germany's trade	1194	2034			70%	

Source: Federal Statistical Office

From the list of Germany's most important trading partners, we can see that the rise in Germany's foreign trade turnover with V4 significantly exceeded the overall average. This allowed these countries to increase or at least maintain their places among Germany's most important trading partners. The Polish position has risen the most, from the 12th to the 7th most important commercial partner for Germany; German trade turnover with Poland rose much faster than that of the other V4 states. Slovakia moved up two places and Hungary ranked one place higher. The Czech Republic maintained its place as Germany's 11th biggest trade partner.

Figure 5. Germany's most important trading partners in 2015 (€ billion)



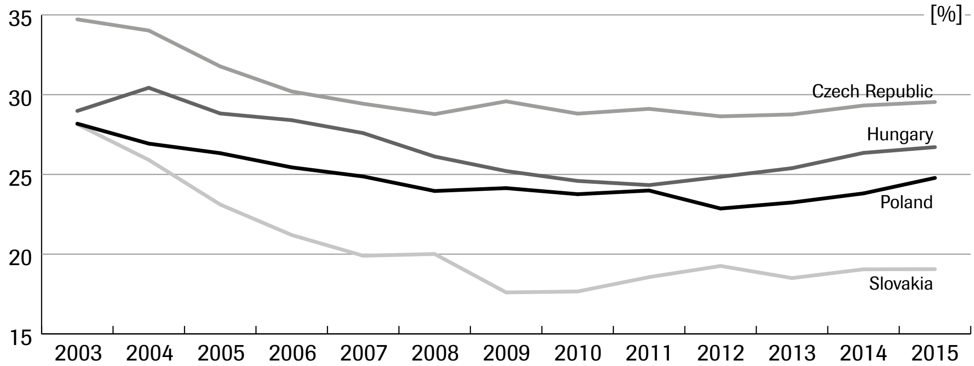
Source: Federal Statistical Office

The above data shows that the V4 countries have overtaken countries which are much larger or richer in resources as Germany's trading partners. In this classification, Poland placed higher than Austria, Switzerland and Belgium, the Czech Republic higher than Russia and Spain, Hungary higher than Japan and Sweden, and Slovakia above South Korea. In the case of data relating to the Netherlands, it should be remembered that their figures are inflated by the so-called Rotterdam effect; some of the goods exported from or imported to Germany via Rotterdam counts as foreign trade by the Netherlands. This makes their result twice as high as Belgium, which is only slightly smaller.

The rise of the V4 countries' commercial importance for Germany is continuing, despite ongoing intensive trading relations between Germany and the far more populous countries of Asia and South America[8].

[8] Konrad Popławski, Chasing globalisation. Germany's economic relations with the BRIC countries, *OSW Report*, 25 November 2013: http://www.osw.waw.pl/en/publikacje/osw-report/2013-11-25/chasing-globalisation-germanys-economic-relations-bric-countries

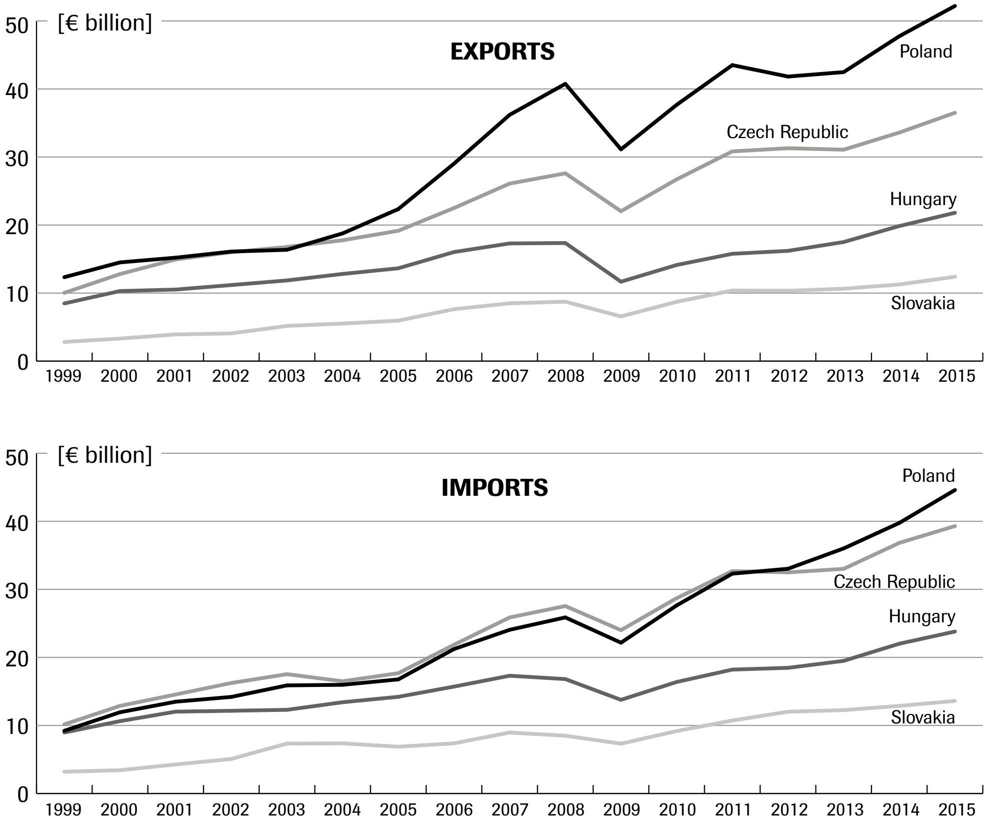
Figure 6. Germany's share in the V4 countries' foreign trade



Source: United Nations Conference on Trade and Development; http://unctadstat.unctad.org

In the period 2003-15 the German share in the V4 states' foreign trade began to fall, thanks to which Germany's dominant position was reduced from 30% to 25% for the V4 group as a whole. During the same period, the total participation of the V4 states in Germany's foreign trade rose from 8,6% to 12%. Deeper analysis allows us to conclude that the individual V4 countries have maintained their dependences on trade with Germany to varying degrees. In the period 2003-15, in the case of the Czech Republic this indicator fell by 5 percentage points (pp) to 30%; for Hungary, it fell 2 pp to 27%; for Poland, 3 pp to 5%; and for Slovakia, 9 pp to 19%. This change should be considered as desirable, because it increases the geographical diversification of the V4 countries' foreign trade.

Figure 7. Germany's foreign trade with Visegrád Group countries (€ billion)

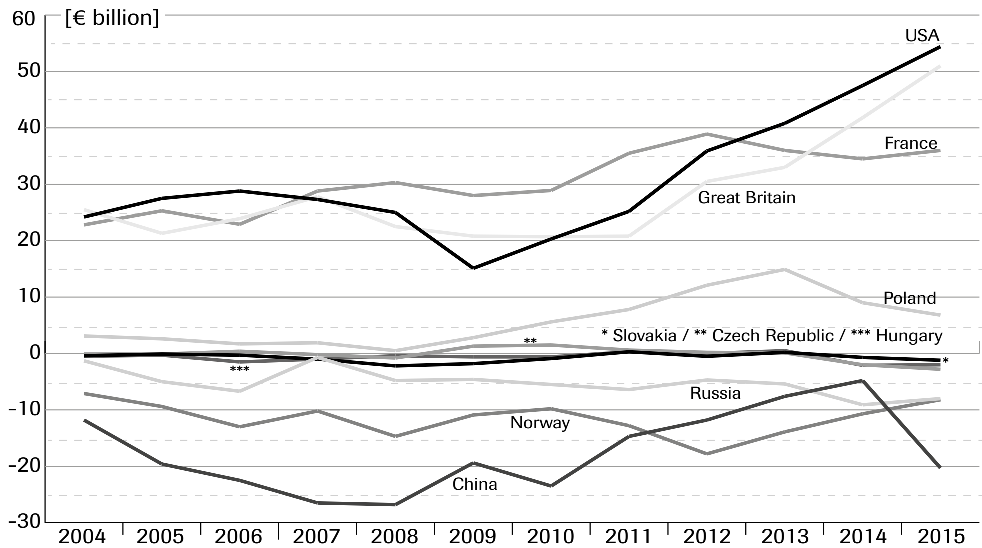


Source: Federal Statistical Office

German exports to individual V4 countries have been proportional to the size of their economies, which results from the similarity of their demand for German goods. After accession to the EU, sales of goods from Germany to Poland developed most rapidly (16% annually on average) a little more slowly to Slovakia (11%) and the Czech Republic (10%), and most slowly in Hungary (6%). The economic crisis in 2009 affected exports from Germany to the V4, which dropped by 20-30%. German companies took the longest time to recover from the losses of 2009 in exports to Hungary, achieving this only after five years, whereas in the case of the other V4 states three years was enough.

In analysing German imports from the V4 countries, the very strong position of the Czech Republic is noteworthy. The German market receives only slightly fewer goods from the Czech Republic than it does from the much larger Poland. Czech manufacturers provide Germany with far more goods *per capita* than Slovakia or Hungary. However, if we look at the dynamics of the growth of imports to Germany from the V4 countries after their accession to the EU, Poland is the leader (with an average growth rate of 16%), followed by the Czech Republic (13%), Slovakia (8%) and Hungary (7%).

Figure 8. Germany's trade balance with selected countries (€ billion)



Source: Federal Statistical Office

In recent years, Germany experienced a negative balance of trade with raw-material suppliers such as Norway and Russia, as well as its major subcontractors, such as China. Germany remained a positive trade balance with highly developed states, such as the USA, Great Britain and France. Against this background, its trade balance with the Czech Republic, Slovakia and Hungary was close to even. Initially Poland saw a growing trade deficit with Germany, although this has fallen in recent years, to the level of €7 billion. The other V4 countries, after several years of relative stability, have begun experiencing a surplus in trade with Germany. However, these results require some clarification. Data from the Polish Main Statistical Office shows that Poland actually recorded a trade surplus with Germany for several years[9]. The ability to

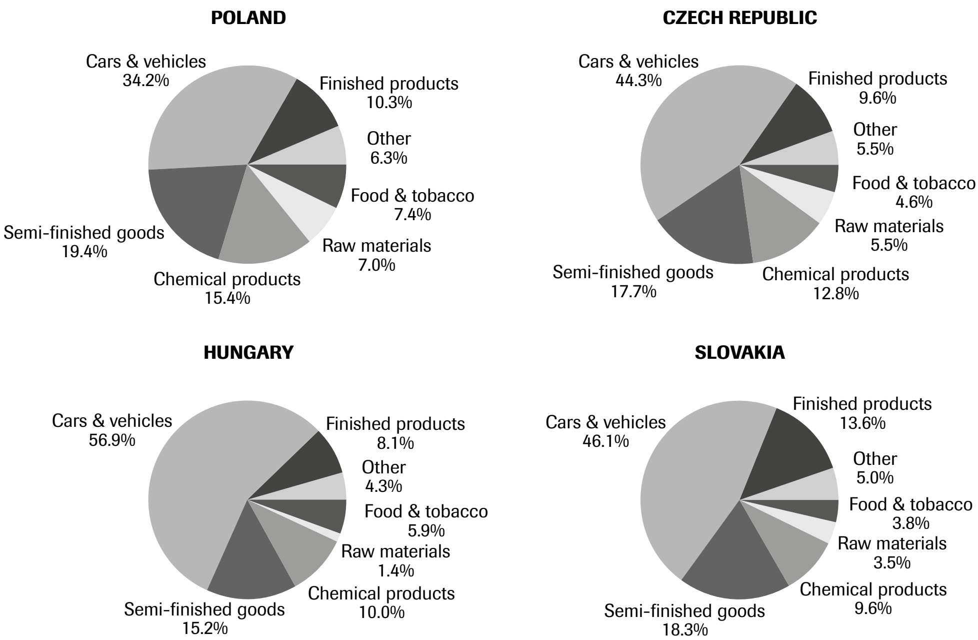
[9] Polish data significantly differ from the German data. According to the Central Statistical Office of Poland in 2015 Poland had a trade surplus with Germany of €8,1 billion, as it had recorded about €4 billion more in exports to Germany (€48,7 billion) and €12 billion less in imports from Germany (€36,6 billion euros than it was shown in the data of the Federal Statistical Office of Germany). According to the information from the Central Statistical Office, these differences stem from the fact that in German statistics, goods sent from China to Poland via the German ports are counted as exports from Germany to Poland. If Polish calculations had been considered in the figure, Poland's trade position with regard to Germany would be closer to that of the other V4 states. (Response by the vice-president of the Central Statistical Office, under the authority of the President of the Council of Ministers, to ques-

generate a balanced trade relationship, however, does not derive from the current attractiveness of V4 products for German consumers, but rather from exports from the German factories located in these countries.

3. Risks associated with the V4's dependence on trade with Germany

The trade structures of both Germany and the V4 states are similar. Certain sectors predominate, such as: machinery, vehicles, and chemical products. Companies from these industries are the leading businesses in Germany, and at the same time major investors in the V4 states. Such trade will bring benefits to the V4 countries in the medium term, but in the long term it is associated with the risk of dependence on overly homogeneous production structures, and on failure to develop in the IT & telecommunications sector.

Figure 9. Structure of Germany's export to V4 countries in 2014 (%)*

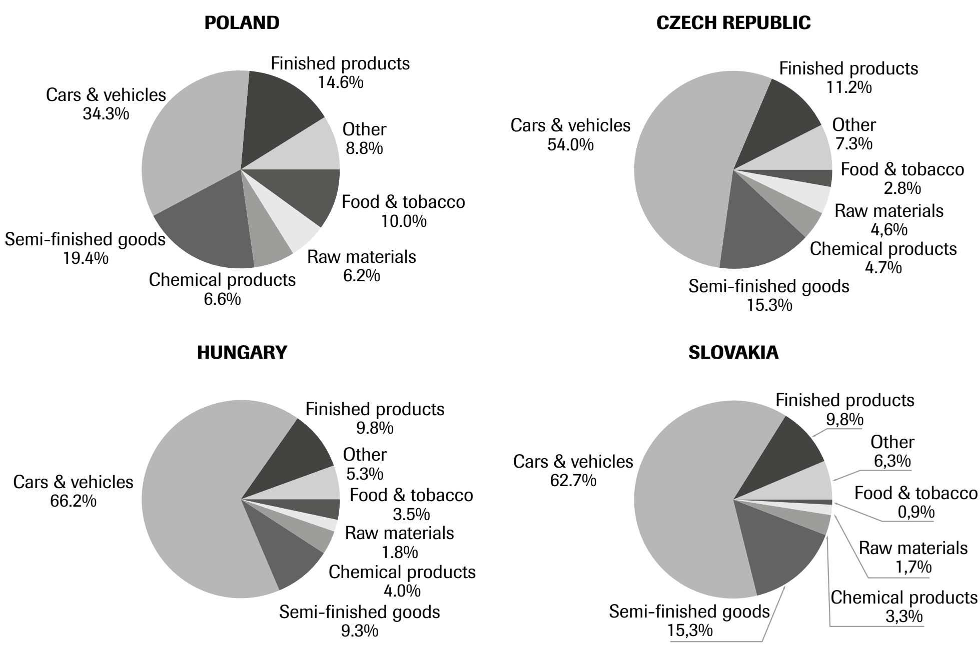


* Categories based on the SITC classification. The 'food & tobacco' category also covers live animals, animal and vegetable fats and oils. The 'raw materials' category includes minerals, as well as non-mineral items such as rubber, cotton and iron ore. The 'semi-finished goods' category includes items such as paper, textiles, cement and steel. The 'other' category covers furniture, clothing, shoes, cameras, books and toys among others (see http://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=14).
Source: Federal Statistical Office

tion no. 22326 on the discrepancies of statistics on trade between the Republic of Poland and the German Federal Republic, presented by the CSO and the Federal Statistical Office; http://orka2.sejm.gov.pl/IZ6.nsf/main/275B09FA)

The structure of German exports to the individual V4 countries is similar. The majority of sales by German companies are the flagship products of the country's economy, namely machines and cars: most to Hungary, slightly less to the Czech Republic and Slovakia, and the least to Poland. It is worth pointing out that some of these exports were components for the factories of the German corporations located in these countries. A significant share of the exports from Germany to V4 is made up of semi-finished goods, other finished products and chemical products. Poland, which imports a much smaller percentage of cars from Germany than other V4 countries, receives proportionately more goods from other categories. This probably accounts for the smaller participation of German automotive factories in trade between Poland and Germany. On one hand, it shows the lower involvement of German car companies in Poland in relation to the size of the economy than in the rest of V4. On the other, the advantage of such a relationship is that the Polish economy is less susceptible to crises on the automotive market. For example, in 2009, when global car market sales collapsed, the economies of the Czech Republic, Slovakia and Hungary fell into recession, while Poland was able to maintain economic growth.

Figure 10. The structure of German imports from V4 countries in 2014 (%)



Source: Federal Statistical Office

The structure of German imports from the V4 countries is similar to that of exports. It is worth noting that in Germany's trade with the Czech Republic, Slovakia and Hungary, the automotive sector's share is higher in imports than exports. This means that these three V4 states have been able to achieve a surplus with Germany in the trade of cars and car parts. Despite the fact that a significant portion of the revenue goes to the German automotive companies which own the factories, it also benefits the Czech Republic, Slovakia and Hungary, thanks to greater employment in these countries, as well as increased tax receipts. Compared to these countries, trade between Germany and Poland in automotive products is much more balanced. When analysing the remaining categories of German imports from the V4 countries, we notice the relatively small proportion of chemical products, due to the continued strong preference of German chemical companies to maintain production in Germany. One feature of German imports from Poland is (as in the case of exports) greater diversity than in the case of the other V4 states. A large percentage of Poland's exports to Germany is represented by foodstuffs and finished products.

When analysing the OECD data, we may add that 49% of the car parts exported from Poland to Germany are imported by automotive companies from Germany for their own exports. For the Czech Republic, this ratio is 32%, for Slovakia 29% and for Hungary 21%. The situation regarding the export of parts for machines is similar; in the case of Poland, 53% of parts sent to Germany are re-exported onwards, in the case of Slovakia 42%, in the Czech Republic 32%, and Hungary 27%. Poland provides more components for products exported by German companies than the other V4 countries.

This close dependence on Germany poses a risk of instability for the economic development of Central Europe. The economic development of Germany is based on the large participation of foreign trade, due to which the country is dependent on the business cycle on the global marketplace to a greater extent than other large economies. If global trade slows down over the next few years, Germany may suffer from this more than those member states which are developing thanks to domestic factors. It is not known whether Germany will be able to maintain its considerable trade surplus. Many countries, as well as the International Monetary Fund, have criticised Germany in recent years for running a model of economic development which is unbalanced and contributes to the emergence of global imbalances. Germany's high trade surplus has been a considerable source of income for German companies. However, it also contributes to significant imbalances in the euro-zone, since the income is not spent within Germany itself, but instead is transferred abroad, in the form of either investments or loans, for example, to the most indebted countries in the euro-zone. At the same time, infrastructure in Germany has been neglected, and its condition has deteriorated over recent years. However, it cannot be ruled out that this situation will change over the next few years. Germany has recently witnessed a revival in domestic demand; the German government is also aware of the problems of the low level of investment in the country. Sigmar Gabriel, Vice-Chancellor and economy minister, suggested in January 2016 that €600 billion euros should be invested in infrastructure development, education, and supporting the car industry by 2025 (by means of a surcharge on the purchase of electric cars)[10].

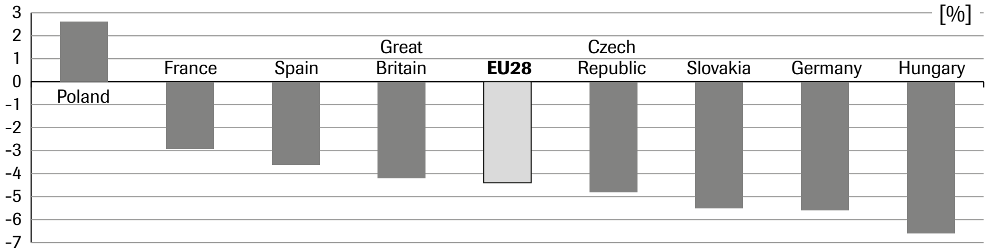
Germany has for years been criticised by the United States, some euro-area states, as well as international economic institutions such as the IMF[11] and the OECD[12], for basing its economic development on exports, generating high trade surpluses and insufficient growth in domestic demand. Germany's international competitiveness is based in particular on the success of the automotive and electro-mechanical sectors. The dynamic development of these industries in recent years stemmed in large part from the development of emerging economies that need machines and vehicles to carry out the process of modernisation. The developed economies, and in particular the eurozone, were not such an attractive outlet market because of the need to implement budgetary savings. In the face of rising geopolitical threats, structural problems, the fall in income from the sale of raw materials, as well as the risk of capital outflow, it seems that the emerging economies will not be able in subsequent years to replace the developed countries in generating global economic growth. Among the countries that have generated large commercial benefits for Germany in recent years, two are in serious crisis (Brazil and Russia), and the situation of China – the third and most important of the BRIC states for the German market – is fraught with increasing uncertainty. If the clear decline in the growth rate of emerging economies proves to be a durable phenomenon, demand for German capital goods will fall, which in turn will reduce the level of orders from the factories of German companies located in the V4 states.

10 SPD: 600 Milliarden Euro für Modernisierung, *Handelsblatt*, 29 January 2016, p. 7.

11 Konrad Popławski, Germany is defending its exports-based model of economic development, *OSW Analyses*, 17 November 2010; http://www.osw.waw.pl/en/publikacje/analyses/2010-11-17/germany-defending-its-exports-based-model-economic-development

12 Germany: Keeping the Edge: Competitiveness for Inclusive Growth, Better Policies Series, OECD, February 2014, p. 6-8; http://www.oecd.org/germany/Better-policies-germany.pdf

Figure 11. GDP growth in selected EU countries in 2009 (%)



Source: Eurostat

The risks associated with becoming dependent on a favourable situation in world trade are well illustrated by the economic situation in Europe in 2009. The world entered recession, and global trade flows in goods fell by 12%. The global crisis affected Germany and the V4 countries (except Poland) to an exceptional degree; they saw worse results than the average for the EU as a whole. The Czech Republic, Germany, Slovakia and Hungary recorded some of the biggest falls in GDP in the world at that time, in contrast to those countries which had less homogeneous structures of production.

The cooperation between the V4 countries and Germany poses the risk that the V4 states will become stuck in the group of countries with a medium level of development. In recent years, the concept of the 'middle income trap' has begun to enjoy a certain popularity. On the basis of historical studies, economists have concluded that it does not require unique skills for a given state to enter the group of countries with an average GDP, as just keeping labour costs low is enough. It is much more of a challenge to join the elite of the highest-developed countries, because to do so it is necessary to build a national system of innovation, that is, to create the institutional and economic conditions to make modern, competitive and profitable products and services. Many states have proved unable to overcome this obstacle in the past[13].

The economic cooperation between the V4 countries and Germany, which has been unbalanced by sales of goods under their own brand names, may be facing two threats. The lucrative nature of the cooperation between V4 businesses and their German partners could deprive the former of the motivation to take risks in developing their own technologies and brands. The wage increases

[13] Fernando Gabriel Im, David Rosenblatt, Middle-Income Traps-A Conceptual and Empirical Survey, World Bank 2013; http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2013/09/09/000158349_20130909085739/Rendered/PDF/WPS6594.pdf

linked to this could lead to the loss of other countries, who would offer lower wages. In addition, the strategy of assembling products for German companies is in the long run linked to the risk of job losses in the industry, as happened in the case of Spain, Italy and the United Kingdom, to the benefit of other, cheaper countries such as Turkey or Ukraine. Selling products from Central Europe under the brand names of companies from Germany does not help in creating their own, powerful, recognisable brands on a global scale, and this is an essential condition for obtaining significant profit margins.

Secondly, the development of the V4 states' economic cooperation with Germany has not been associated with an influx of knowledge connected with information and communication technologies, which would seem to be a key factor in future economic success. German companies do not specialise in this field. For this reason, heads of German companies have been watching the expansion of American and Chinese ICT sector enterprises into traditional markets and their attempts to create driverless cars with growing unease, as this could threaten the strong position of the German automotive industry. In 2015 Volkswagen's chairman Martin Winterkorn mentioned for the first time that IT companies such as Apple and Google, which are pursuing advanced study on driverless cars, could be his firm's main competitors in the future[14]. Leaders of the German economy have grasped that if they simply remain manufacturers of devices and machines, they will be reducing their profits and leaving substantial parts of them in the hands of the manufacturers of the software they use[15]. In the past few years, for example, Samsung has found itself in such a situation; it makes only small margins on its mobile phones, while most of the profits go to Google, with its Android operating system.

14 Winterkorn: Begrüße das Engagement von Apple, Google und co.; http://www.manager-magazin.de/unternehmen/autoindustrie/winterkorn-begruesse-engagement-von-apple-google-und-co-a-1021447.html

15 Germany's industry: Does Deutschland do digital?, *Economist*, 21 November 2015; http://www.economist.com/news/business/21678774-europes-biggest-economy-rightly-worried-digitisation-threat-its-industrial

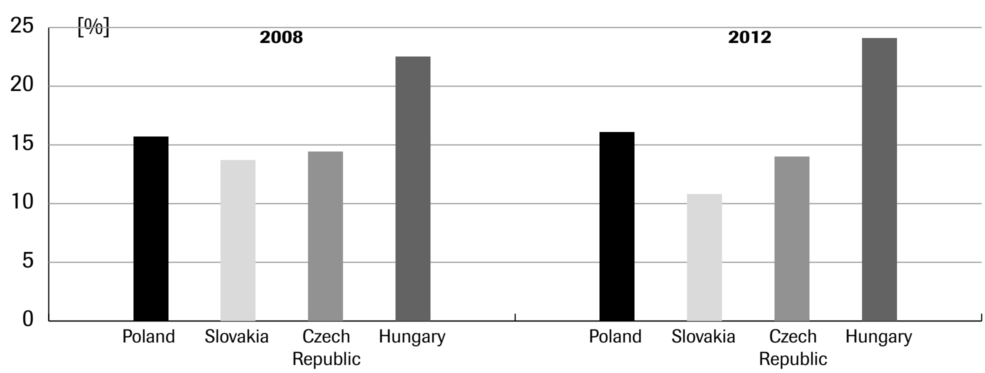
III. THE FLOW OF INVESTMENTS BETWEEN GERMANY AND V4

In recent years, investment relations between Germany and the countries of the V4 have developed intensively, but unilaterally. Germany is the key supplier of foreign capital for most of these countries, and it is German investors who have thus determined the directions in which foreign trade has developed. However, this is not a unique situation. Many countries have been net recipients of capital from Germany, as thanks to a significant increase in exports in recent years, companies from Germany have had considerable resources of cash free to make such investments. The influx of investment from Germany to V4, however, would not have been possible without a significant improvement in the attractiveness of investing in Central Europe, in which the assessment of Poland has improved the most.

1. The flow of investments between Germany and V4

Foreign trade turnover between countries can be subject to large fluctuations. For this reason, the level of investment is a reliable indicator showing the degree of maturity of economic cooperation, since the placement of investments in a given country is a more accurate analysis of that country's prospects for development. On the basis of investment data, it can clearly be seen that the economic ties between Germany and the V4 states are strengthening. However, an analysis of the investment streams allows us to discern the still significant levels of asymmetry in those relationships. Germany is the largest provider of net capital to the member states, thus affecting the direction of the V4 states' economic development.

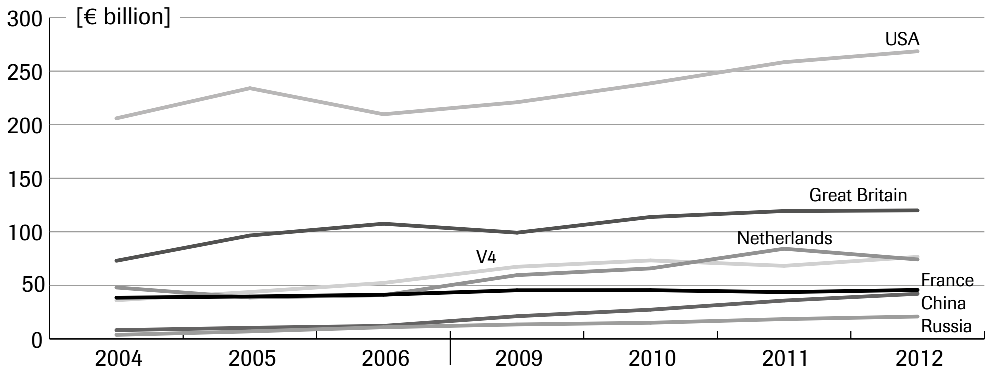
Figure 12. The share of German capital in investment flows to the V4 countries in 2008 and 2012 (%)



Source: Databases of the central banks of the V4 countries

In recent years, Germany has retained its position as the largest investor in all the V4 states, with the exception of the Czech Republic, where the Netherlands came well ahead. The share of German capital in investments in the V4 countries increased slightly in the cases of Poland and Hungary, and decreased slightly in the Czech Republic and Slovakia. In general, it can therefore be concluded that Germany's position as an investor in the V4 countries has developed steadily over the past few years.

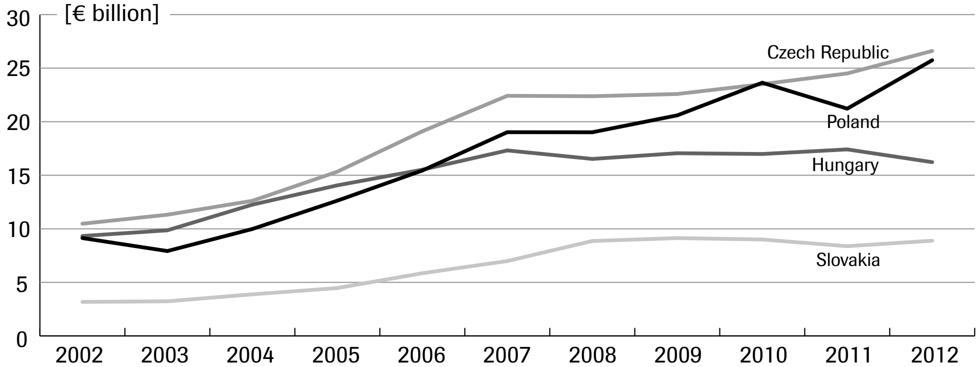
Figure 13. Total foreign direct investment by Germany in selected countries and in the V4 states (€ billion)



Source: Bundesbank

In the period 2004-12, the value of foreign investments from Germany in the V4 countries has doubled, from €36 billion to €77 billion. The V4 states taken together are one of the main targets of German investment, and in 2012 they overtook the Netherlands (€74 billion), which is traditionally linked to Germany by very strong economic relationships, and which is Germany's most important logistics hub. The most important places where German capital is invested are the United States (€269 billion) and the United Kingdom (€120 billion), which as strong financial centres provide a number of services for companies from Germany. Investments by German companies in China (€42 billion) were significantly lower than in the V4 countries, although they have expanded very rapidly. German capital located in Russia (€21 billion) was also significantly lower in value than the funds invested in V4 countries, although these figures do not take into account the still significant outflow of investments from Russia due to the war in Ukraine. From this data, it can be concluded that in a relatively short period of time, the V4 countries managed to attract not only the big German companies, but also small- and medium-sized enterprises, thanks to which the scale of German investment in the V4 has come to exceed that in China or Russia.

Figure 14. Foreign direct Investment in the V4 countries

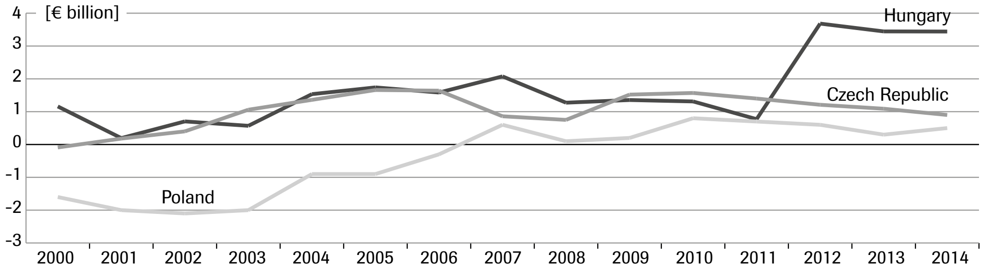


Source: Bundesbank

Analysis of German investment in individual V4 countries clearly shows that the Czech Republic has attracted most investment. In recent years, Poland has begun to catch up with them; Hungary comes in third place and Slovakia fourth. However, comparing these values with the population of each country, we see that Poland receives by far the least investment, only about a third of the investment *per capita* of what Hungary and Slovakia receives, and a quarter of the Czech Republic. This means that the intensity of German investments in Poland is much lower than in other V4 countries. Despite this, we can see that this difference is slowly being levelled out. Investment growth from Germany in the period 2004-12 was fastest in Poland (a cumulative increase of 160%); next were Slovakia (129%) and the Czech Republic (111%), and Hungary in a very distant fourth place (32%).

Recent years have brought a steep rise in capital commitment in Central Europe from German industries such as the automotive and logistical sectors, which have recognised the advantages of investing in the region in order to improve their competitiveness and consolidate their position on the world market. For its part, the retail industry has launched a dynamic expansion in the region, taking advantage of the growing consumption which has reinforced its position in Europe. For other sectors, such as energy or banking, the last few years have been a period of stagnation, or a time in which to verify their investment opportunities. Generally it can be noted, however, that German businesses have increased the scope of their investments in Central Europe, to the extent that their financial situations have allowed (see Appendix).

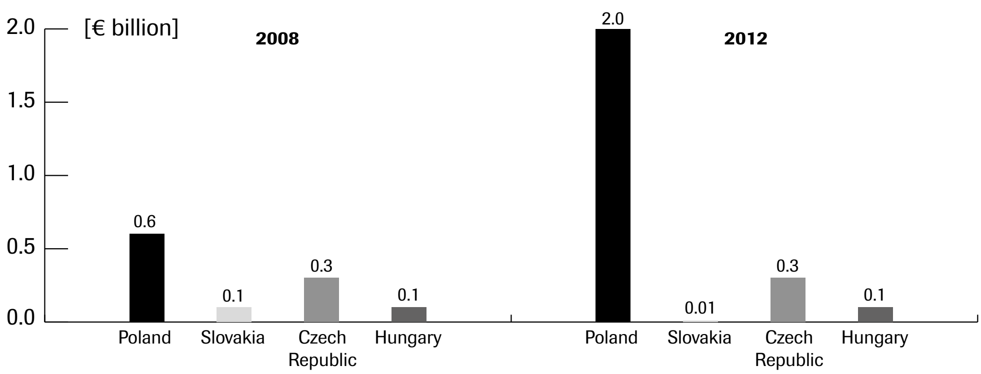
Figure 15. The influence of individual countries on the balance of secondary income of Germany (€ billion)



Source: The author's own calculations, based on the Bundesbank's database: Makroökonomische Zeitreihen, http://www.bundesbank.de/Navigation/DE/Statistiken/Zeitreihen_Datenbanken/Makrooekonomische_Zeitreihen/makrooekonomische_zeitreihen_node.html

By analysing balance of secondary income, which show what the balance of profit flows and assets held abroad looks like, we can partially evaluate the size of the benefit in the form of dividends from German investments in the V4 countries. The data shows that in the period 2004-12, investment in Hungary produced €22 billion of revenues, in the Czech Republic €14 billion, and in Poland €1.6 billion (figures for Slovakia are not available); in all countries, then, a trend towards growth is visible. It seems that Germany's deficit in relations with Poland in the period 2000-6 should be read as resulting from the fact that German companies have mainly invested without receiving significant returns on their investments. In recent years, the outflow of capital from Poland may have been inhibited by the growing number of Polish workers in Germany, who transfer some of their earnings back to their own country.

Figure 16. The value of foreign direct investments from V4 countries in Germany in 2008 and 2012 (€ billion)



Source: Database of the V4 countries' central banks

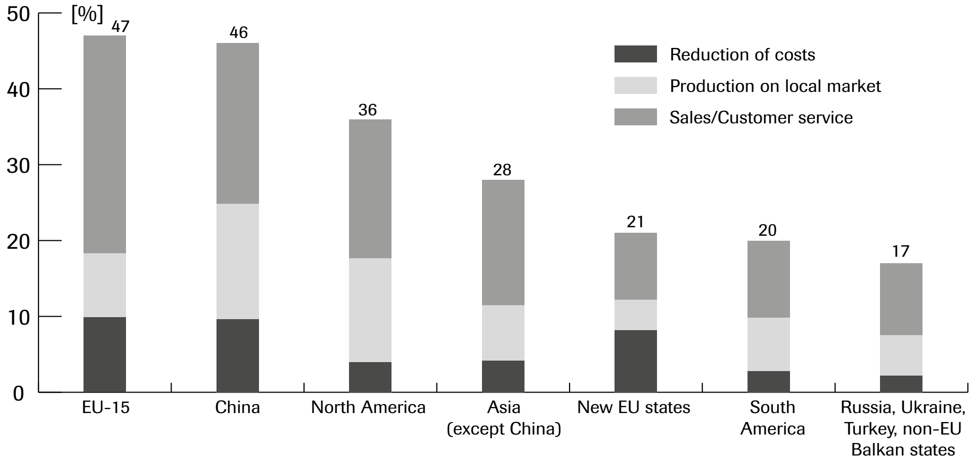
A comparison of investment flows from Germany to the V4 countries with capital flowing in the opposite direction allows us to perceive the considerable imbalance in investment potentials on both sides. The value of V4 capital involved in Germany made up only 3.5% of the German funds invested in V4. It is clear that the only country that significantly increased its investment in Germany was Poland. The value of Polish capital invested in Germany in the period 2008-12 rose by 233% to €2 billion, while the scale of the investment commitments of the Czech Republic, Slovakia and Hungary remained unchanged or even decreased. The increased involvement of Polish companies' capital in Germany could be the result of the improving competitiveness of Polish companies, such as the furniture or computer sectors, which has begun to challenge some of their German competitors. In the period 2008-13, 23% of Polish investments in Germany were in the computer industry, 16% in financial services for companies, and 14% in machine production. Many Polish companies have also decided to enter the German market in order to receive the label 'Made in Germany', which could be a valuable asset in their further expansion onto foreign markets. The analysis shows that 41% of Polish investment projects in Germany involved opening sales and marketing divisions, 18% covered the opening of company headquarters in Germany, and 11% involved offering services there[16].

2. Motives for investment

The main motive for German companies to invest in Central Europe is sales and customer service on the local market, as well as reducing costs. German capital therefore often goes to the V4 countries in order to generate savings on producing goods which are often sold in the countries of western Europe. With differences in pay still remaining, such trends are quite natural. The problem is, however, that German companies still do not see Central and Eastern Europe as places in which to invest in research and development, even over the next ten years, deeming the developed countries to be more attractive locations. China and India are also more attractive in this respect; because they are such large and geographically remote markets, more and more German companies see the advantage in locating their R&D centres close to the factories there. On the one hand, this could mean that the V4 countries are geographically too close and have too similar structures of production to Germany to be able to attract German R&D investments. On the other hand, however, the geographical and cultural proximity of Central Europe could be an opportunity to provide business process outsourcing in this region for German companies.

[16] Polnische Unternehmen erobern neue Märkte, 10 November 2014; http://www.gtai.de/GTAI/Navigation/DE/Trade/Maerkte/suche,t=polnische-unternehmen-erobern-neue-maerkte,did=1112698.

Figure 17. The popularity of different regions as investment locations for German industry, and the main motives for investment in 2014



Source: Europa punktet erneut – Kostendruck wieder wichtiger Auslandsinvestitionen in der Industrie Frühjahr 2015, the German Chamber of Industry and Commerce, Berlin 2015, p. 15

An analysis of the investment relationship between Germany and V4 should start by examining those countries' popularity as investment locations (given as a number above the bars), and the motives for investing in those countries (given inside the figures). The data shows that the new EU countries[17], which include the V4, are the fifth most popular destination for investment from German industries. However, considering that the new EU member states are the region with the smallest potential in terms of economy and population, then their position is more significant. They are more frequently chosen for German industrial investments than South America, Turkey, or countries in Eastern and Southern Europe.

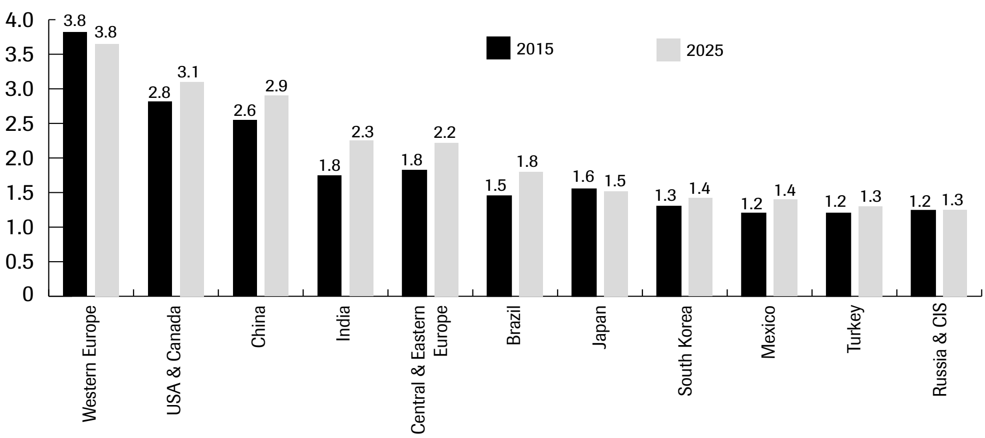
Analysing the motives behind the investment of German capital in Central Europe, we can see how different this region is from other parts of the world. The data shows that the most important purpose of investing in the new EU countries is to sell to customers on the domestic markets, and to offer them services (42%). Compared with other regions, moves to reduce costs make up a significant proportion of the investments in the new EU countries (39%). No other region is used by German industry in this way to reduce production costs. However, this result is not surprising, because given that the EU is a single market, moving production to the cheapest region is a natural process. In other countries there are special requirements for a specific proportion of production to be of local origin, as well as bureaucratic barriers limiting production for other markets. That

[17] In this figure, the 'new' EU countries means those member states which joined the EU after 2003.

is why only 18% of German investment in China is aimed at reducing production costs. A less important motive for investing in new EU countries compared to other regions is production for the local markets (19%), as this is a much more important reason to invest capital in North & South America and China.

Studies suggest that China and Central Europe serve completely different functions for the German economy. Central Europe is much more attractive due to its geographical and cultural proximity[18]; it offers moderate production costs, highly-qualified human capital and increasing productivity, and is the location for the production of more specialised and complex goods, primarily for the European market.China in turn, due to low wages, large numbers of engineers, a very large availability of suppliers, the proximity of resources, and its huge internal market, is a location for mass-produced goods aimed at the local market, and also in part at foreign markets. A key difference between these two regions is the flexibility of production and the security of technology. Production in China involves the risks of technology leaks and unpredictable government actions, and there is also less flexibility in adapting production to significant recent fluctuations in global demand, as it requires quite some time to adapt. It also requires much greater outlay on logistics. Central Europe offers a more stable institutional framework, as well as high flexibility in adapting production to global fluctuations in demand, so that producers can keep tighter control of the production.

Figure 18. The most attractive regions for research and development (on a scale from 1 – unimportant to 4 – very important)



Source: Survey entitled 'R&D Landscape by 2025: Eine Trendstudie der ROI Management Consulting AG. Ein Wegweiser durch die Trends im globalen Management von Forschung und Entwicklung, 2013, p. 11

[18] H.-G. Scheibe, China oder Osteuropa? Richtige Antwort auf eine falsche Frage; http://www.roi.de/fileadmin/ROI_DIALOG/ab_DIALOG_38/ROI__DIALOG_41_web.pdf

Studies suggest that the V4 countries will not be a priority target for innovation transfer over the next ten years. According to a survey carried out among the decision-makers of 60 German medium- and large-sized companies, the countries of central & eastern Europe are the fourth most important location for R&D investment (jointly with India) after Western Europe, North America and China. Their position will be strengthened by 2025, but their distance from Western countries and China will still be significant. The study also found that the position of Central & Eastern Europe will be particularly important in the R&D field of the automotive industry, but less so in the production sector.

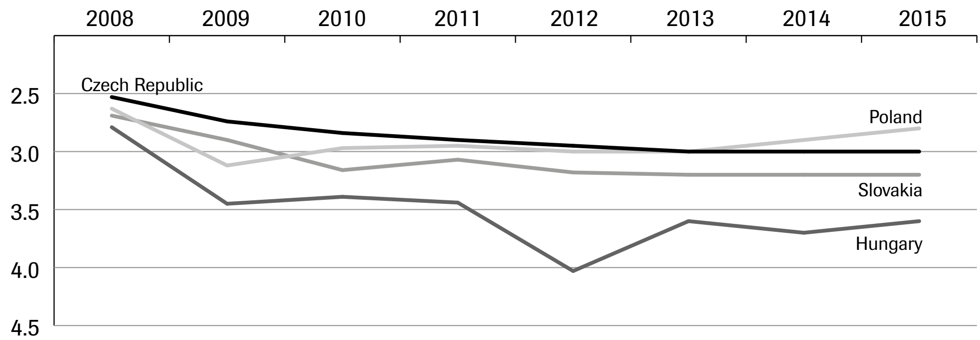
There are slightly more optimistic conclusions from other studies, which show that German companies are becoming more interested in moving various internal activities, such as financial and human resources management, to foreign affiliates. In 2011, 65% of companies preferred to keep their principal activities in Germany, 19% favoured transferring some of these processes to Central & Eastern Europe, and only 3% to other emerging economies such as Brazil, China or India[19]. It is primarily transport and logistics companies that are moving their activities to Central & Eastern Europe (25% of them have branches in the region), as well as banking (24%), and IT (24%). Companies from the banking, energy and water supply industries have chosen Central & Eastern Europe as the place to test their new services and software. The survey shows that the biggest barriers to moving elements of their internal activity to this region are questions of data security and an insufficient knowledge of English in the region. It seems to be in the interests of Central Europe to support the trend to move the business process outsourcing services of German companies to the region, since attracting such investments may offer a way of escaping the middle income trap,. These works allow high added value to be moved to the target countries and ensure the employment of highly skilled workers.

[19] Studie: Osteuropa gewinnt Akzeptanz beim Outsourcing, 14 February 2012; http://www.presseportal.de/pm/50272/2198077

3. The investment climate in the V4 countries from the perspective of German investors

Over the past two years, the investment attractiveness of the V4 countries has increased considerably in the eyes of German investors. In 2014 Poland obtained the best values of specific indicators for investment attractiveness. Data from the surveys confirms that German investors' evaluation of Hungary's economic policy were much higher than the considerable criticism in the German press would suggest.

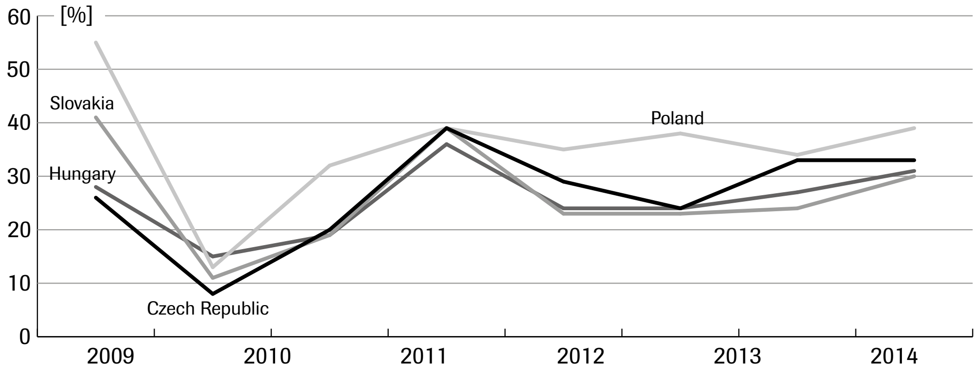
Figure 19. Evaluation of the investment attractiveness of the V4 countries (1–best, 6–worst)



Source: Economic Survey in Central and Eastern Europe 2015, the German Chamber of Industry and Commerce; http://www.ahkungarn.hu/fileadmin/ahk_ungarn/Dokumente/Bereich_CC/Publikationen/Konjunktur/2015/AHK-Konjunkturumfrage_MOE_2015_final.pdf

In recent years, assessments of the V4 countries' investment attractiveness have clearly improved. In the period 2006-12 these ratings were quite stable; the leader was Poland (2.8), the Czech Republic (3), Slovakia (3.2) and Hungary (3.6). The V4 countries' assessments improved significantly in 2013, which may have been the result of better economic conditions in those countries than in the euro-zone. It seems that German investors mostly appreciated the greater political stability in the V4 countries than in Western countries, as well as their lower levels of debt compared to Western countries. The biggest change was Poland's advance to first place as a location for investments as of 2013, as well as the worsening assessment of Hungary. The attractiveness of the Hungarian economy deteriorated in 2009, so even before Prime Minister Viktor Orbán came to power, and did so again in the third year of his rule. The poorer perception of Hungary is not therefore connected only to its controversial economic policy, but rather with the overall economic situation, linked to its high debt.

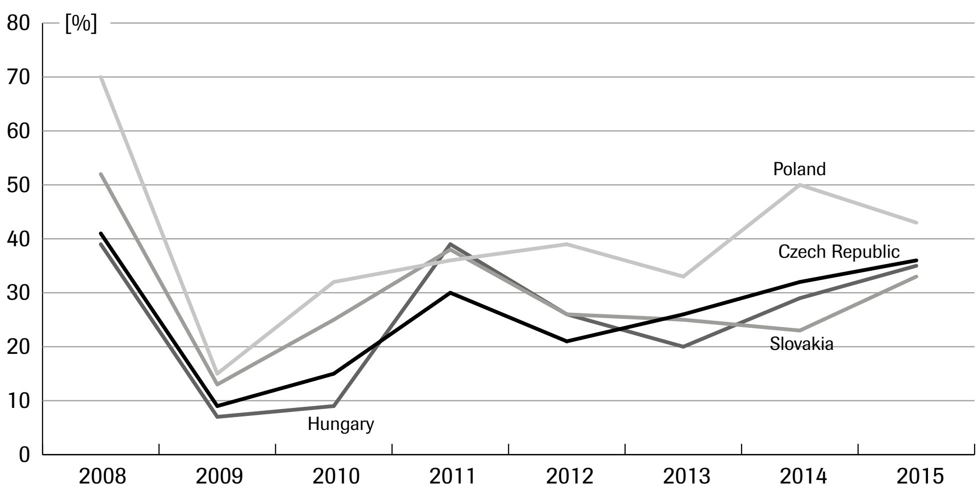
Figure 20. The percentage of German companies which intend to increase investment in individual countries (%)



Source: Economic Survey in Central and Eastern Europe 2015, as above

Analysis of the diagram shows that the percentage of companies planning to increase investment after the decline in 2009 has increased and remains stable. In recent years, around a third of the companies interviewed intended to boost investment. Despite the weaker rating of Hungary's attractiveness in the data cited earlier, this does not appear to have affected the desire to invest. In this respect, Hungary does not differ significantly from the other V4 states. In recent years German companies have been slightly more likely to increase investments in Hungary than in Slovakia. Poland (39%) exhibited more favourable assessments than Hungary (35%), the Czech Republic (33%) and Slovakia (30%).

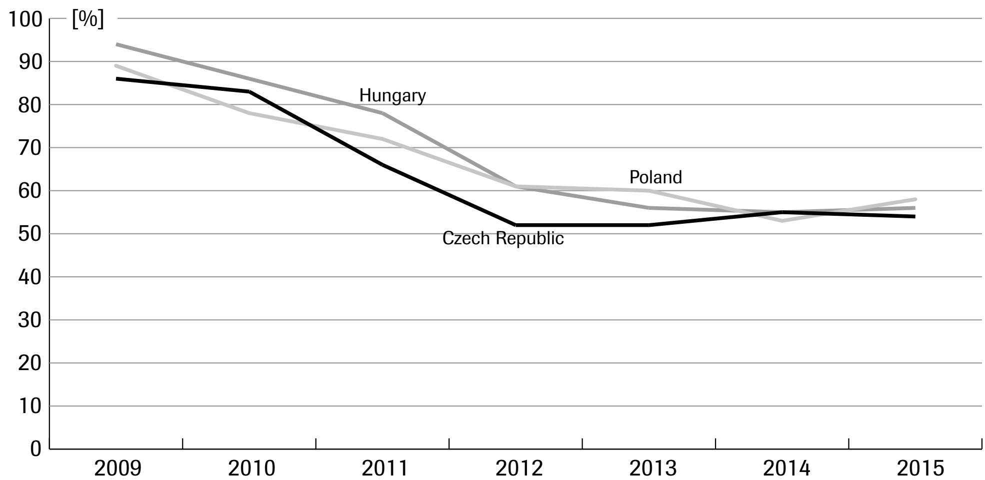
Figure 21. The percentage of German companies which intend to increase employment in individual countries (%)



Source: Economic Survey in Central and Eastern Europe 2015, as above

In terms of the intention to increase employment in the V4 countries, Poland received the best assessment, an improvement over recent years. 43% of the companies interviewed intend to increase employment on the Polish market, 36% in the Czech Republic, 35% in Hungary, and 33% in Slovakia.

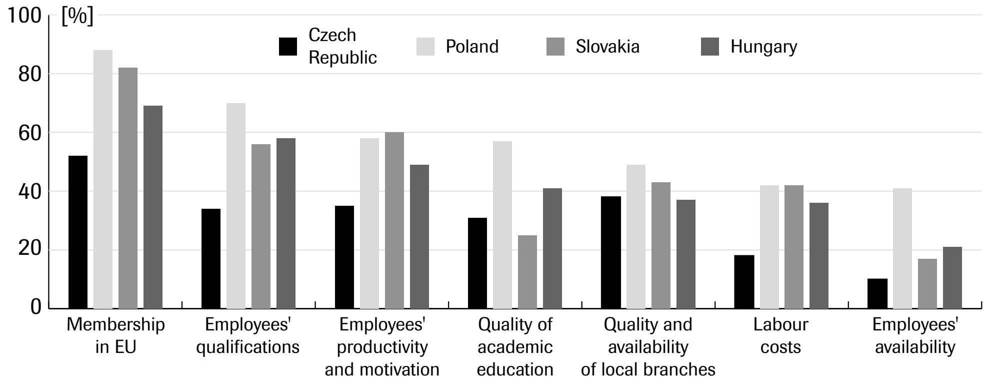
Figure 22. The percentage of German companies which support the introduction of the euro in individual countries (percent)



Source: Economic Survey in Central and Eastern Europe 2015, as above.

There have been clear changes with respect to German investors' attitude towards plans to introduce the euro in those countries of the V4 which do not yet use it. Support for this issue among German companies has fallen significantly in the Czech Republic, Poland and Hungary to similar degrees, probably as a result of the crisis in the monetary union; nevertheless, a slight majority still supports the introduction of the single currency. Whereas in 2009 about 90% of interviewees believed the adoption of the euro would be beneficial for their companies, in 2014 the percentage was only slightly more than 50%. This may mean that some German companies have been taking advantage of the V4 currencies weakening against the euro, which ensures additional savings for them.

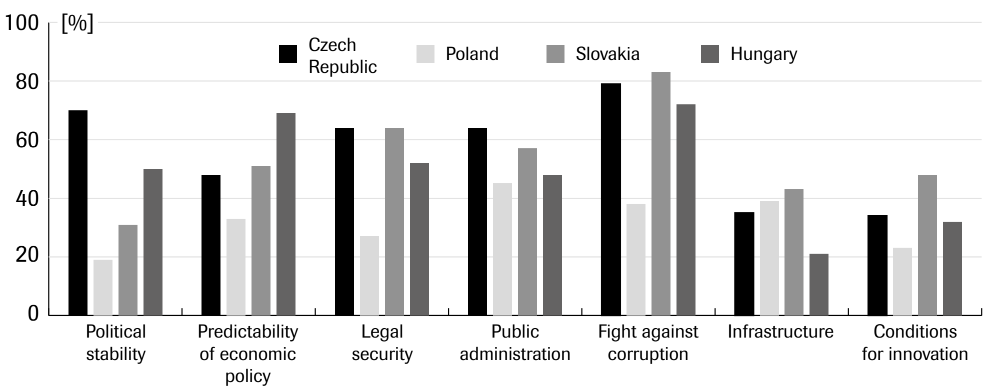
Figure 23. Investors' assessments of individual aspects of competitiveness: percentages as satisfactory or very satisfactory (%)



Source: Economic Survey in Central and Eastern Europe 2015, as above

When carrying out a deeper analysis of the factors that meet the expectations of German companies, it is worth noting the strong position of Poland, which leads the way in all categories. Its good position stems primarily from the quality and availability of its human capital. Slovakia compares to Poland in many categories, although it shows worse performances particularly in terms of academic quality, as well as (to a lesser extent) the qualifications of its employees. Hungary's results are lower than Slovakia and Poland; German investors appreciate (in Poland and Slovakia to similar degrees) only Hungary's labour costs and its accessibility to local suppliers. The Czech Republic deviates from the other countries in almost all categories. Their lower position may, on the one hand, arise from German investors' higher expectations of the country, and on the other from its lower economic performance in recent years.

Figure 24. Investors' assessments of individual aspects of competitiveness: percentages as unsatisfactory or very unsatisfactory (%)



Source: Economic Survey in Central and Eastern Europe 2015, as above

From the analysis of the factors unsatisfactory to German investors, it appears that Poland received the least criticism. Only Hungary is evaluated less critically than Poland with regard to the quality of infrastructure. The other V4 countries have similar ratings. The Czech Republic and Slovakia are judged by a higher percentage of German companies to be worse at dealing with corruption and public tenders, state administration and legal security. The Czech Republic is also criticised for its substantial problems with political stability. Hungary in most categories is not rated as low as the Czech Republic or Slovakia, but from the point of view of German investors, it is assessed most critically in terms of the predictability of its economic policy.

IV. THE POLITICAL PROSPECTS FOR ECONOMIC COOPERATION

In recent years, Germany's good economic performance has afforded it a privileged position in Europe. It was no coincidence that Germany's economy strengthened significantly after the accession of the central European countries to the European Union. The guaranteed security and economic development in the region meant that it became a crucial outlet and an important investment destination for German companies. Its importance will increase in the coming years due to political instability in the rest of the world, as well as the need to overcome three key crises within the EU: the euro-zone, the Russian/Ukrainian conflict and the migration crisis. Due to their geographical and economic importance for Germany, the countries of Central Europe will be a key partner in addressing these issues. It seems that the format of the V4, which has proved its usefulness in the battle for funds for the EU cohesion policy, and over the shape of the EU's energy policy, could be an important instrument to defend the interests of Central and Eastern Europe, especially in the debate on reforming the euro-zone, the shape of the EU's energy policy, and migration issues.

A major downside to the economic relations between Germany and Central Europe will be the reform of the euro-zone. The monetary union's previous corrective actions have been inadequate, and will not ensure its sustainability in the long term, if only because of the high debt many countries have now. A number of proposals which have been debated, such as the creation of a separate parliament or a euro-zone budget, threaten to reduce the importance of previously existing institutions under the guise of building new ones. This could lead to the exclusion of those member states which do not use the common currency from the process of European economic integration, or to the infringement of their interests. This risk has been highlighted by the UK government, which in exchange for remaining in the EU expects that the integration of the euro-zone will not lead to the deterioration of conditions for development in those countries which are not members of the zone.

Until now, Berlin has had problems clarifying what the relationship between the countries inside the euro-zone and those outside it should be after the reform process is over. For example, some reforms to the monetary union, and in particular concerning the financial sector, may affect the economies of the other EU member states, as the financial institutions from the euro-zone have significant shares on the markets of the Czech Republic, Poland and Hungary.

Thus these countries will in effect become members of the banking union, even if they do not formally participate. The global financial crisis showed that member states' excessive dependence on banking groups from other countries carries an increased risk of crises being transmitted from their parent countries to those where they have branches. Worse conditions for financing businesses may thus hinder the activities of German companies involved in Central Europe. Germany should therefore take greater account of the interests of the region's countries during the process of reforming the euro-zone. Protecting euro-zone banks from bankruptcy should not be associated with subsidising them, which could effectively mean giving them unauthorised state aid, thus making it easier for them to compete on the V4 countries' markets. Such a move may raise doubts in Central Europe as to whether the liquidity provided to banks by the European Central Bank interferes with the mechanisms of competition on the banking market, and thus maintains the strong position of Western Europe's institutions in Central Europe.

We may also imagine a situation in which Berlin needs political support from Central Europe. The insistence on austerity policies in southern Europe has become associated with significant social costs, such as declining incomes, rising unemployment and the radicalisation of societies. The new division into southern and northern EU countries seems to have become settled, at least in the medium term, as economic interests become conditional upon levels of public debt. Although the crisis in the euro-zone has now lasted for some years, Germany's budgetary situation has improved significantly, and it now more closely resembles that of the countries of Central Europe rather than those of the south. Germany is also aware that the European Commission, led by Jean-Claude Juncker, plays the role of a political actor, and not simply that of an independent guardian of the treaties which is supposed to oversee fiscal discipline within the EU. It cannot be ruled out that the governments of France, Spain, Portugal or Italy may decide to limit the implementation of austerity, which will fate them to a confrontation with Berlin. In this scenario, Germany will seek allies in Europe to pursue the austerity policy. The countries of Central Europe appear to be the natural choice for this, together with the countries of Northern Europe.

In recent years, energy policy and climate change have become an important axis of the dispute between Germany and the central European countries. The reason for this, on the one hand, was Berlin's desire to promote an ambitious climate policy in Europe and around the world, in which it saw a chance to support the renewable energy sector in Germany, and to meet public expectations on restricting the use of nuclear and coal plants in energy production. On the other hand, the German government has not displayed a full understanding of the structural conditions in the countries of Central Europe, whose energy balance is based on conventional fuel sources (including nuclear energy), and which do not have enough funds to subsidise renewable energy sources. In addition, after the sudden shutdown of some nuclear power plants in Germany in 2011, there were uncontrolled flows of renewable energy from German offshore wind farms, which caused problems with the stability of the energy networks in the Czech Republic and Poland.

It seems that there may be a chance to bring the positions of Germany and Central Europe in the area of energy policy closer together over the next few years. There seems to be ever less determination within the EU to implement a strict climate policy, and increasing importance is being attached to industrial policy. This trend may be enhanced by the low prices of energy carriers around the world, as well as by the process of reindustrialisation in the United States. Many EU countries will long continue to use conventional energy sources; for example, the United Kingdom intends to build a new nuclear power plant. Moreover, decreases in the price of oil and gas on the global market also clearly favour such a trend. The situation in Germany is no exception; Berlin still has no idea how to replace a significant amount of the power which had been generated by coal. Recent decisions by the German government, such as limiting the amount of subsidies for renewable energy, as well as subsidising coal in return for keeping it as reserve stocks, show that the German economy may not be able to bear the costs of a too rapid energy transformation related to the implementation of the EU's climate goals. Therefore the chance for an agreement between Germany and the V4 countries is growing. We may imagine a solution in which the countries of Western Europe, thanks to their financial capabilities, maintain large capacities of renewable energy, whereas the countries of Central Europe could stabilise the energy system in the EU thanks to the significant capacity of their conventional power plants.

More problematic than differences in the field of climate policy, however, may be the difference between Germany and the V4 countries over the issue of diversifying gas supplies. In 2015 Central Europe was once again surprised to learn that Gazprom, together with German and French companies, was planning to add another branch to the Nord Stream gas pipeline. This was an even bigger surprise as the EU had in recent years demanded a greater diversification of energy suppliers, a postulate supported by Germany. Forecasts suggest that expanding Nord Stream would only make economic sense if it is exempted from the EU's energy legislation and Russian companies are able to use its entire capacity. Even now the project is raising concern in the countries of Central Europe, because it will deprive some of them of the profits from gas transit, and it also involves the risk of making gas supplies to the region less certain.

If migration is the process which most affects European policy over the next few years, it may also be a factor which strongly consolidates the V4 countries in other cases. These countries' attitude may conflict with the interests of Germany, if it continues to insist on admitting a large number of migrants and redistributing them among EU countries. In the long term, however, it seems unlikely that Berlin will carry out such a policy, due to the growing resistance of the German public. The German government must also be aware that a too liberal migration policy may induce migration pressure on the countries of Central Europe, which have already been exposed to a significant influx of people as a result of the Russia/Ukraine conflict. Such processes could therefore lead to political and social problems that would adversely affect the economy.

An important role in shaping the political and economic relationship between Germany and the V4 countries will be played by public opinion. In recent years, German newspapers and experts have been focused on the problems of southern Europe, which has reduced their interest in Central Europe. Public opinion in Germany is unaware of the degree to which the region's economic relations with Germany have developed. Since the start of the migration crisis, many German politicians have tried to persuade the member states of Central Europe to change their migration policy by threatening to withdraw EU funding, while German companies are among the biggest beneficiaries of contracts financed from the structural funds. The German media have been speculating on the possibility that the Schengen area will be limited to Germany and the Benelux states. One of the biggest losers from such a solution would be the German automotive sector, whose ability to transport to & from their factories located in Central Europe would be hampered. These examples show increasingly clearly that there is not enough awareness in Germany of its economic dependency with the region of Central Europe. This also results from the restriction of funds to finance research and expertise concerning the region[20].

20 The example of Budapest says a lot, as some of the German interlocutors interviewed in Hungary stated that the media in Germany had reacted too emotionally to the political processes taking place in this country. The misunderstanding of the situation was compounded by the lack of real knowledge; the subject had often been raised by German correspondents from Vienna.

V. APPENDIX

THE INVOLVEMENT OF GERMAN COMPANIES IN SELECTED SECTORS IN THE MEMBER STATES OF THE VISEGRAD GROUP

1. The automotive sector

The automotive sector has, next to the machine sector, been a major source of export competitiveness for the German economy in recent years. An important role has been played in this process by the countries of Central Europe, which have become a focal point for car production, bringing together the world's most important manufacturers and suppliers. Most German companies during this period decided to limit production in Western Europe, and increase it in Central Europe.

The financial crisis has verified many previously existing economic tenets, including the idea that an economy can only be based on the financial sector. Many economists have deemed Germany to be a good model to follow; in recent years its economy has been characterised by high growth dynamics, a strong industrial base, a flexible labour market and high trade surpluses. One of the major factors for stable economic development was the good condition of the automotive sector. In 2013, 5.4 million cars were produced in the factories of German corporations in Germany, and 8.6 million abroad[21]. Until the financial crisis, car production in Germany exceeded the number produced abroad, but after 2010 this ratio was reversed. German automotive companies are distinguished by the share of parts manufactured abroad throughout the production. The companies which manufacture most parts overseas are Volkswagen (79%), then Audi (53%), Daimler (40%) and least of all BMW (36%)[22].

Together with China, Central Europe is one of the most important locations for vehicle production. In total, throughout Central Europe (the V4, Romania and Slovenia) 33 plants operate, producing 3.6 million vehicles, representing 21% of EU production. The bulk of those cars are sold on the market of Western

21 E. Heymann, Zukunft des Automobilstandorts in Deutschland, 2014; https://www.dbresearch.de/PROD/DBR_INTERNET_DE-PROD/PROD0000000000333574/Zukunft + des + Automobilstandorts + URDeutschland.PDF

22 W. Olle, Investitionen folgen dem Wachstum: Auswirkungen auf den Automobilstandort Deutschland, Chemnitz Automotive Institute, 2015; http://cati.institute/wp-content/uploads/2015/07/URKurzstudie_Juni_15.pdf, p. 16.

Europe, and only approximately 700,000 are purchased by consumers in Central Europe[23]. Among German car companies, Volkswagen and Audi have the most manufacturing plants in Central Europe. Only BMW has no factories in the region. Central Europe occupies a special position in the German automotive industry. Typically, businesses in this field invest abroad in order to produce for local markets; however, their investments in Central Europe are to a large extent aimed at reducing production costs[24].

As early as the 1990s, automotive companies invested significant resources in Central Europe, as they could see the advantages of these countries, such as stable political frameworks, geographical proximity and strong industrial traditions. In recent years, there has been a clear tendency to build up plants in Central Europe as a key element in the German corporations' supply chain, to the cost of countries in southern Europe in particular. In recent years, Audi has built a new line of cars in Győr, Daimler a factory in Kecskemét, Volkswagen an assembly line of compact cars at its plant in Slovakia, and will soon complete the construction of a factory in Poznan. Opel (one of the largest American companies in Germany, which has three production facilities there) has moved the production of one of its models from Rüsselheim to Gliwice. For German companies, moving factories to Central Europe was an opportunity to reduce production costs, which was an important competitive advantage, especially in the period of global economic downturn in the world, in which customers have attached great importance to the price of cars. Moving ever more important production phases to Central Europe could also motivate companies to move some of their R&D facilities to this region; it would be most advantageous if those processes were closer to the production sites. An additional incentive for German companies to expand their activities in Central Europe is the growth in the region of a whole cluster of automotive companies, which have been invested in by companies such as Hyundai/KIA in the Czech Republic, Peugeot/Citroën in Slovakia, Suzuki in Hungary and Fiat in Poland. Thanks to the presence of the most important global automotive producers in the region, there are no problems with the availability of suppliers. Many companies in the sector collaborate with the German automotive companies as subcontractors. For example, Bosch has factories in Hungary which produce car parts.

[23] S. Mittelhäuser, FDI als Motor für die Autoindustrie in Osteuropa, 2015; https://owc.de/2015/07/22/fdi-als-motor-fuer-die-autoindustrie-in-/osteuropa

[24] W. Olle, Investitionen folgen dem Wachstum: Auswirkungen auf den Automobilstandort Deutschland, Chemnitz Automotive Institute, 2015; http://cati.institute/wp-content/uploads/2015/07/URKurzstudie_Juni_15.pdf, p. 4.

The threat to move jobs to Central Europe played an important role in negotiations with the trade unions in the automotive sector. It is worth noting that in the last decade, Germany has kept its rises in labour costs relatively small, and the threat of losing German jobs to Central Europe has been widely reported in the media. In fear of these processes, the German trade unions presented fairly low wage demands, and preferred to make agreements with employers which would ensure that jobs were saved. The businesses applied a strategy of encouraging competition between plants to produce specific models. The question of the sale of Opel by General Motors in 2009 also had great resonance in Germany; this transaction (which in the end did not come to fruition) was described in the press as threatening thousands of jobs in Germany, and even Chancellor Angela Merkel weighed in on the matter. Many car companies with headquarters in Germany deliberately chose a strategy of constructing plants in Central Europe which were effectively twins of their counterparts in Germany, which would have been capable of quickly taking over the production of car models if there was no agreement with the trade unionists from factories in Germany.

The data shows that the increase in car production in Central Europe has harmed the industry in southern Europe. In recent years, many of the automotive companies remaining in those countries have not been fully utilising their capacity, and Italy today produces half as many cars as Slovakia. In the period 2003-12 the production of cars in eastern Europe (including Russia) increased by 2.5 million; during the same period, the number of cars produced in the EU-15 fell by 3.5 million, with the biggest decline in the years 2008-12[25]. This process only affected Germany to a limited extent, where production levels have remained relatively stable.

2. The electro-mechanical sector

The electro-mechanical field is the second most important sector in the German economy after the automotive industry. The V4 countries are quite important subsidiaries from the point of view of the biggest German electro-mechanical companies, and their prospects for developing cooperation are favourable. Many of the companies in this industry are committed to Central Europe as a subcontractor for car companies.

[25] Verband der Automobilindustrie [Automotive Industry Association]; https://www.vda.de/de

Germany's electro-mechanical companies, in contrast to its automobile companies, decided not to move their production of advanced goods to Central Europe, and have preferred to focus on manufacturing the machines' simplest components in the region[26], and keeping the most important production processes in Germany. Due to the demographic decline in Germany, as well as the limited capacity of the German labour market to train a sufficient number of engineers, their interest in creating branches in the V4 countries should rise. It is also possible that the companies' internal processes, such as accounting or procurement services, could be farmed out to service providers from Central Europe. However, there would be a number of difficulties with coordinating them, such as missing deadlines, or the quality of the services provided being too low. These companies count on the possibility of winning contracts in Central Europe over the next few years from funding to modernise the energy sector, such as EU structural funds, the EU's Connecting Europe fund, the European Investment Bank, or the Horizon 2020 programme[27]. The activity of the German electro-mechanical companies in Central Europe can be traced back to the example of Bosch/Siemens, which owns the Siemens and Bosch companies.

Table 2. Income and employment at selected branches of Siemens in 2014

Country	Turnover (€ billion)	Number of employees (thousands)
Germany	10.9	115
USA	12.9	46.3
China	6.4	32.3
Czech Republic	0.5	9
France	1.6	6.4
Spain	1.0	3.2
Russia	1.7	3.1
Poland	0.8	1.3
Slovakia	0.3	1.3
Hungary (no data)	-	-

Source: www.siemens.com

26 Strategische Planung bringt Einsparungen bis 15%; http://www.beschaffung-aktuell.de/home/-/article/16537505/26961417/Strategische-Planung-bringt-Einsparungen-bis-15%25/art_co_INSTANCE_0000/maximized/

27 Osteuropa glänzt teilweise mit starken Wachstumszahlen, 2015; http://www.ke-next.de/industrie/osteuropa-glaenzt-mit-teilweise-starken-wachstumszahlen-358.html

Siemens employs approximately 343,000 employees worldwide, and its turnover is €72 billion. The Czech Republic, Poland and Slovakia are responsible for 2.2% of its turnover and 3.4% of its employment. The company's branches in the region are not its largest and employ relatively few people, with the exception of the Czech Republic. So far it does not seem that the V4 countries will be the future location for Siemens plants, because the company has previously only been interested in employing significant numbers of workers in Germany and the largest global markets, such as China and the United States. The example of the Czech Republic, however, shows that Siemens's employment in V4 countries may rise due to the growing demand for engineers, of which the German labour market no longer provides a sufficient number. This is confirmed by Siemens's operations such as the construction in 2010 in Žilina of an engineering centre, and the creation of research units in Łódź and Warsaw. The V4 countries may also benefit from Siemens's interest due to their significant investment in urban energy and modernisation projects financed from EU funds. Among other moves, Siemens has in recent years participated in the modernisation of power plants in the Czech Republic, Poland and Slovakia. In addition, the company may move to Central Europe some of the services that will be implemented there for other global branches as a whole, as evidenced by the transfer of some of the company's accounting tasks for Europe to Slovakia in 2011. Another new trend in Siemens's activity in Central Europe is its joint involvement with Polish producers in acquiring contracts abroad, including Russia.

Table 3. Income and employment of selected Bosch affiliates in 2014

Country	Turnover (€ billion)	Number of employees (thousands)
Germany	49	105.5
China	7.2	54.5
USA	9.1	16.6
Hungary	2.7	10.4
France	2.3	7.7
Czech Republic	1.6	7.7
Poland	0.6	4.2
Russia	0.7	3.8
Slovakia	0.3	1

Source: www.bosch.com

In the case of Bosch, Central Europe has been quite a significant place for investment. The company's branches in the Czech Republic and Hungary are among the largest in the world in terms of employment. Bosch employs a large number of workers, although they generate a relatively small turnover, which means that products are manufactured here to be exported onto other markets. As in the case of Siemens, Bosch may also be expected to further increase its employment, especially of engineers, in plants located in the V4 countries. An important event in Europe for the Bosch-Siemens Group was the acquisition in 2013 of Zelmer, an appliances manufacturer in Poland. The main reason for the acquisition was probably to increase production in Europe in the face of increasing costs.

3. The logistics sector

One of the relatively little-known facts related to the accession of the Central European countries to the European Union was the remarkable development of the German logistics industry. In recent years it has grown much faster than the economy as a whole; in the period 2003-8, revenue increased by 4.6% annually, whereas the average growth has slowed to 3.4% over recent years. The growing complexity of the manufacture of products and the distribution of the stages of the process among different regions means that the logistics industry has gained more than average. An important reason for this, in addition to the high growth of global trade, was Germany's adoption after EU enlargement of the position as the central logistics hub, an important intermediate point in trade between East and West, especially in the fields of rail and maritime transport. The logistics companies have benefited, above all, from the transport of components and raw materials from the emerging economies to the factories of German companies in Central Europe, so they can cash in once more from the transport of finished products going in the opposite direction, or to eastern Europe. Many German logistics companies have decided to open branches in the countries of central and eastern Europe, as this was part of a natural process of bringing the services for their clients from the German automotive and electro-mechanical industries. Given these phenomena, we can see that the German logistics industry has been a major beneficiary of the development of infrastructure in Central Europe financed by the EU's cohesion policy.

4. The energy sector

German energy companies are still important players on the V4 markets, although in recent times their position has begun to wane. The German energy transformation, which accelerated in 2011 after the disaster at the power plant in Fukushima, forced the closure of the oldest nuclear power stations and their gradual phasing out from the market by 2023, the granting of significant funding for renewable energy, and favouring its access to the network. This overlaps with the negative economic situation in Europe, where the demand for electricity has noticeably dropped; this has reduced the profits of German companies, which in addition have to contend with high levels of debt. These processes have undermined the position and profitability of leading German companies, such as E.ON and RWE, whose main source of income was the production of energy from conventional sources, namely nuclear power, gas and coal[28]. Due to these companies' difficult financial situation, Central Europe became a source for them to generate funds by selling part of their assets. The difficult financial situation also meant they did not have the resources to increase their investments in the region, and have been unable to improve their market situation. They have made investments in recent years only to make savings. For example, RWE decided to move some jobs from Germany to Poland as part of its financial savings[29], opening a joint service centre in Kraków in 2013, where financial settlement and human resources management are carried out. Initially 100 specialists were employed there, which was associated with redundancies in Germany. E.ON, like RWE, decided to save on staffing costs by moving part of the company's activity to Cluj-Napoca in Romania. German energy companies have also struggled with difficulties in Hungary; they were forced to sell their assets in the gas sector to the Hungarian government, and were also stricken by the financial effects of the Hungarian government bodies' decision to lower energy and gas prices by 20%[30]. Despite the German energy companies' conflict with the government in Budapest, however, they have retained their most important assets on the Hungarian market.

From an analysis of the situation of the German energy companies, it appears that their position in Central Europe has weakened in recent years. RWE has focused its main venture in Central Europe on the holding company RWE East, which in addition to the V4 countries includes Croatia, Romania and Turkey.

[28] R. Bajczuk, K. Popławski, Niemcy: Ukryte koszty wyjścia z atomu [The hidden costs of ditching nuclear power], *Komentarze OSW*, 25 June 2014; http://www.osw.waw.pl/pl/publikacje/komentarze-osw/2014-06-25/niemcy-ukryte-koszty-wyjscia-z-atomu

[29] RWE verlagert Stellen nach Krakau, *Die Welt*, 15 May 2013; http://www.welt.de/newsticker/dpa_nt/infoline_nt/wirtschaft_nt/article116214659/RWE-verlagert-Stellen-nach-Krakau.html

[30] RWE and E.ON selling up in Hungary, 28 March 2013; http://www.powerengineeringint.com/articles/2013/03/RWE-and-EON-selling-up-in-Hungary.html

The V4 countries, however, yield the predominant part of its revenues and profits. In the Czech Republic, RWE gains the most revenue from among the V4 countries. It is the fifth largest supplier of energy there (2 TWh) and the largest supplier of gas (38 TWh); it also owns some power plants. The company also controls 88% of gas networks in this country (with a total pipeline length of 64,000 km). In the Czech Republic, RWE has sold its company Net4Gas, which sold and stored gas from the Allianz and Borealis consortium, as well as 35% of its shares in the electricity network company Macquarie. In Poland, RWE is one of the largest foreign investors; it is the fifth largest energy supplier (6 TWh/year), and entered the gas sector in 2014. In Poland, RWE has numerous wind farms, and via the company RWE Stoen Operator it controls 1.8% of the country's transmission networks (15,000 km). One feature distinguishing RWE's activity in Poland from the other V4 countries is the establishment there of six wind farms through its company RWE Innogy, which mainly operates in Western Europe[31]. In Slovakia, RWE is the third largest energy supplier (3 TWh) and the second largest supplier of gas (13 TWh). The company controls 22.8% of energy networks in Slovakia (with a length of 21,000 km). In Hungary, RWE is the second largest energy supplier (10 TWh), and is the majority shareholder of several brown-coal power plants in this country. The company no longer has shares in the gas sector, as it sold its minority share packages to the TIGAZ businesses. RWE has sold its shares in the Budapest Waterworks. In 2014, RWE sold the Főgáz company to the state-owned MVM company.

As in the case of the RWE, E.ON was also forced to sell many of its important assets in Central Europe. E.ON began its operation In the Czech Republic in 2004. After the deregulation of the Czech market, the company acquired a significant stake in it thanks to privatisation. It currently holds 19.5% of the shares (10.2 TWh of energy, second after the state-owned ČEZ) on the internal electricity market, and 7.5% in the gas sector (6.6 TWh). The company ranks among the largest foreign investors in the Czech Republic, employing 2500 workers. E.ON also owns 27.6% of the Czech Republic's electricity networks (with a length of 66,000 km) and 12.1% of the gas networks (with a length of 8800 km). Interestingly, in 2015 E.ON sold its interests in power plants in Italy to the Czech firm EPH. In Poland, E.ON's assets are minor; through the company E.ON Edis Energy, it holds shares in the distribution of heating for cities such as Skarżysko-Kamienna, Szczecin and Warsaw. In addition, the company has built five wind farms in Poland, generating a total of 99 MW, and plans to build

[31] RWE Innogy generation data; http://rwe-renewableslive.com/#/map/EU/PP1

two more. E.ON began operating in Slovakia in 2002, and has a 49% stake in the largest energy distributor ZSE (the rest is owned by the state fund). E.ON sells 21.9% of Slovakia's energy (6 TWh) and 1.4% of its gas (0.8 TWh), controls 40.2% of the energy network (length 37,000 km), and also has one gas-fuelled and four biogas-fuelled power plants in the country. The company employs 1800 workers in Slovakia. In 2013, E.ON and GDF Suez sold its shares in the Slovak gas company to the Czech company EPH, which it had acquired in the process of privatization in 2002, and which employs 4000 workers. In 2014, the same company sold its shares in gas reservoirs in Slovakia. In Hungary, E.ON is one of the largest companies, providing clients with 33.2% of the country's energy (35.2 TWh) and 10.4% of its gas (9.1 TWh). The company also owns 52% of Hungary's energy distribution networks (84,000 km) and 22% of its gas networks (18,000 km). In recent years, E.ON has sold part of its stake on the Hungarian market. In 2013, it sold the Földgáz company (which distributes and stores gas) to the state company in the MVM group for €1.1 billion; it had acquired Földgáz in the privatisation process in 2004 for €2.1 billion.

5. The retail sector

German companies from the retail sector have been steadily expanding their presence in the V4 countries, which constitute an important market for them. In recent years, the expansion of the retail trade has aroused great controversy in all the V4 countries; the Czech Republic, Slovakia and Hungary have begun attempting to impose certain restrictions on the industry. However, these new restrictions have not discouraged companies from Germany from increasing their investment in the region. Three financial groups may be named as the major German players present in the V4 countries: Schwarz AG (including the Lidl and Kaufland stores), Metro AG (Makro Cash & Carry, Media Markt and Saturn), and the retail chain Rossmann.

Table 4. The number of Lidl stores in selected countries

Country	Lidl	Kaufland
Germany	3300	640
France	1400	
United Kingdom	568	
Spain	530	
Poland	525	190
Italy	511	

Country	Lidl	Kaufland
Netherlands	400	
Belgium	290	
Czech Republic	250	120
Romania	148	
Slovakia	121	50
Hungary	116	

Source: Lidl, https://de.wikipedia.org/wiki/Lidl#cite_note-52

In 2015 Schwarz AG overtook Carrefour as the largest retail company in Europe. Central Europe has played an important role in the company's development, because it is located in a large number of establishments (about 10% of the Lidl branches worldwide and 30% of the Kaufland outlets[32]). In view of the favourable prospects for growth in the V4 countries, the company plans to boost its investments there. In 2013, the V4 countries generated about 10% of Lidl's total sales (€54 billion)[33]. In Poland, Lidl's shops sold goods with a value of €2.7 billion euros; in the Czech Republic €1.1 billion, in Slovakia €800 million euros, and in Hungary €700 million[34].

It is possible that Lidl's low sales in Hungary resulted from Budapest's policy of blocking the expansion of foreign retailers. In 2015 the country's authorities rejected Lidl's appeal to build 28 new supermarkets[35]. Foreign retail chains have also criticised the decision of the Hungarian government to ban trading on Sunday, as well as the threat to close supermarkets which have shown losses for two consecutive years. In previous years the government imposed a 'crisis tax' on the foreign chains (between 2010 and 2013), a fee for official monitoring of foodstuffs (in the form of a tax on the sale of food products), as well as a tax on advertising revenues. Hungary was not the only country which tried to impose greater requirements on foreign retail networks; a similar debate took place in Slovakia. It was reported there that foreign commercial networks only sold 45% local products in hypermarkets and 51% in supermarkets, while in Slovak chains these figures ranged from

32 From Kaufland's webpages in individual countries.

33 Lidl to invest 9 billion in Czech, 5 December 2015; http://www.internationalsupermarketnews.com/news/21306

34 Romania, fourth market in the region for Lidl based on sales, 11 September 2015; http://www.romania-insider.com/romania-fourth-market-region-lidl-sales/155357/

35 Since 2012 a law has been in force in Hungary (the so-called Plaza-Stop law) requiring a permit for the construction of any store greater than 400 m² in area.

57% to 67%. In Lidl stores only 19% of the products came from Slovakia[36]. As a result, the Slovak government introduced new regulations concerning the relations between foreign retail networks and suppliers. All additional fees paid by producers of goods for displaying their goods on the shelves were waived; the sale of food products below the cost of production was prohibited (apart from a few exceptions); the period within which suppliers are required to guarantee the retail networks a fixed price for their goods was limited to three months; and payment deadlines to suppliers were reduced to 45 days[37]. Very similar provisions were introduced by the Czech government, which also limited the payment deadlines to suppliers (to 30 days), banned the sale of food products below the cost of production, and imposed new responsibilities on the foreign retail networks related to the issue of costs and display of products in shops[38]. Against this background, Poland stands out from the rest of the V4 countries, as there the rules governing relations between the foreign retail networks and the suppliers are definitely milder. One of the few regulations restricting abuse on the part of the retail networks was the introduction in 2013 of an obligation to settle payment for delivery within 30 days or pay statutory interest for exceeding the time limit.

In spite of the restrictions imposed on the retail trade in the Czech Republic, Slovakia and Hungary, none of the commercial networks has withdrawn from those countries. The attractiveness of the region has also been confirmed by Lidl, which in 2014 announced significant rises in expenditure on investments in all four of the V4 countries.

In recent years controversy was aroused by a report about the support provided to the Schwarz group by the European Bank for Reconstruction and Development[39]. The company allegedly receive US$900 million of public support, in the form of low-interest long-term loans for expansion in Central Europe. Bank justified this support by a desire to create jobs and outlets for local producers, as well as offering high-quality products for consumers.

[36] Vertrieb und Handelsvertretersuche-Slowakei, 2016; https://www.gtai.de/GTAI/Navigation/DE/Trade/Maerkte/Geschaeftspraxis/vertrieb-und-handelsvertretersuche,t=vertrieb-und-handelsvertretersuche-slowakei, did=1399410.

[37] *Ibid*.

[38] Vertrieb und Handelsvertretersuche: Tschechische Republik, 2012; https://www.halle.ihk.de/blob/halihk24/international/Aktuelles/downloads/626060/3844a27061455b2aa5272434e5985248/Vertrieb_und_Handelsvertretersuche_Tschechien_gtai-data.pdf, p. 5.

[39] Lidl has received almost $1bn in public development funding, *Guardian*, 2 June 2015; http://www.theguardian.com/business/2015/jul/02/lidl-1bn-public-development-funding-supermarket-world-bank-eastern-europe

Table 5. The number of shops and employment figures in individual branches of Metro AG

Country	Number of shops	Employment (thousands)
Germany	951	87
Italy	166	10
Russia	136	23
Poland	112	11
Spain	109	8
France	93	8
China	78	12
Turkey	67	7
Romania	36	6
Hungary	34	4
Ukraine	33	4
Czech Republic	13	3
Slovakia	6	1

Source: http://www.metrogroup.de

For the Metro AG group, Central Europe is a market of similar importance as it is for the Schwarz group. In the V4 countries, Metro owns 8% of the shops and employs 8% of the workers. The group's involvement in the region has decreased in recent years, after it sold its hypermarkets, in Poland among others, to Auchan. Stable growth prospects in Central Europe were important for Metro as it stabilized its results, which in recent years have been strongly impacted negatively by the situation in Greece, Russia and Ukraine.

Table 6. The number of Rossmann shops in individual countries

Country	Number of shops
Germany	1930
Poland	1000
Czech Republic	124
Hungary	180
Turkey	50
Albania	8

Source: http://www.rossmann.de

Rossmann is a different case from the previously analysed companies, because its foreign expansion has focused almost exclusively on Central Europe. The company has a turnover of €7.9 billion, 26% of which was mainly in the Czech Republic, Poland and Hungary. Given that 96% of its shops abroad were branches located in the V4 countries, provision should be made that they generate almost €2 billion in sales. Foreign sales grew at a rate of 14%, which was twice as high as growth in Germany. Rossmann employs about 17,500 workers (37% of all employees) in the V4 states.

6. The banking sector

The German banking sector decided not to participate substantially in Central Europe in the 1990s; and this situation has not changed since the V4 countries joined the EU. The dominant shareholders in banks in Central Europe are investors from Austria, Belgium and Italy. Overall, foreign banks maintain a dominant market position in all the V4 countries; they own almost 100% of assets in Slovakia, 87% of assets in Hungary, 82% of the assets in the Czech Republic and 62% of assets in Poland[40]. Only small shares of the V4 markets have gone to Germany: about 10% in Poland, 9% in Hungary and around 5% in Slovakia[41]. For major German banks, however, the Polish market seems to be an especially important division on the global scale.

The biggest German bank, Deutsche Bank, has 161 foreign affiliates in Poland (the most in the world after Italy and Spain)[42]. Poland is thus one of its key markets for traditional banking activities, especially in the field of mortgage and corporate lending, as well as in financial advice.

Poland is also in fifth place globally in terms of the value of loans granted (after the Netherlands, the UK, the USA and China). Moreover, Poland has been a market in credit expansion for Deutsche Bank in recent years, when DB reduced the value of loans granted in a number of euro-zone countries, such as Spain, Italy and Portugal, as well as in other countries of the world, such as India.

40 The CEE Banking Sector Report, May 2014; http://www.rbinternational.com/eBusiness/services/resources/media/829189266947841370-on-988671613168380133-1 UR-2-EN.pdf

41 The CEE Banking Sector Report, June 2015; http://www.rbinternational.com/eBusiness/01_template1/829189266947841370-829189148030934104-1079368060623981396-NA-2-EN.html

42 Deutsche Bank Geschäftsbericht, 2013; https://www.bundesbank.de/Redaktion/DE/Downloads/Veroeffentlichungen/Geschaeftsberichte/2013_geschaeftsbericht.pdf?__blob=publicationFile

Table 7. Financial data (in € million) and employment in the various branches of Commerzbank

Country	Revenue	Profit before taxes	Taxes	Employment
Germany	7392	616	221	38,078
Poland	984	441	85	7747
United Kingdom	938	385	19	1369
Luxembourg	392	307	12	556
USA	222	127	51	460
China	109	61	7	231
Singapore	100	38	-4	342
Russia	67	49	10	144
Netherlands	38	29	5	40
France	40	17	11	86
Other	249	85	18	807

Source: Commerzbank Geschäftsbericht 2014; https://www.commerzbank.com/media/aktionaere/service/archive/konzern/2015_2/00_CAA_Geschaeftsbericht_2014_Konzern_DE.pdf

Poland is a key market for Commerzbank, second only to Germany. It is worth mentioning that this financial institution is 15% controlled by the German state, which in 2009 purchased a part of the shares in the company to save them from losing liquidity. Commerzbank has 222 branches in Poland, 26 in the Czech Republic, 9 in Slovakia and 7 in Hungary[43]. mBank, a branch of Commerzbank, is the third largest bank in Poland; it supports 36.4% total clients of Commerzbank(4 million private customers in Poland, compared to about 3.2 million in Germany) and employs 19% of all Commerzbank employees (7700, compared to 38,000 in Germany). The company operates on the Polish market under the brand name of mBank. In 2014 the branch in Poland brought Commerzbank €440 million of profits, when its market in Germany generated €616 million in profit. In its reports the bank stresses that the market situation in Poland has been better in recent years than in the euro-zone. Despite this, the bank has most recently implemented austerity measures in order to increase the scale of its profits on the Polish market. The business model it has operated in Poland has been copied to the Czech and Slovak markets, where branches of mBank have also been opened, but the activity in those countries still constitutes only a small part of the bank's activity.

[43] The CEE Banking Sector Report, June 2015; http://www.rbinternational.com/eBusiness/01_template1/829189266947841370-829189148030934104-1079368060623981396-NA-2-EN.html, p. 55.

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