



Andrea Éltető (ed.)

EXPORT INFLUENCING FACTORS IN THE IBERIAN, BALTIC AND VISEGRÁD REGIONS



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Export influencing factors in the Iberian, Baltic and Visegrád regions

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Foreword

This book is a summary of a research project supported by the National Research, Development and Innovation Office – NKFIH (no. K 115578). The research team had three participants from the Institute of World Economics, Centre of Economic and Regional Sciences of the Hungarian Academy of Sciences: Andrea Éltető, Gábor Túry, Norbert Szijártó. Further three researchers work in other institutions: Katalin Antalóczy at the Budapest Business University of Applied Sciences, Beáta Udvari at the University of Szeged, Faculty of Economics and Business Administration and Patryk Toporowski at the Warsaw School of Economics. The research project – with the title: "Factors influencing export performance – a comparison of three European regions – concentrates on export flows.

The international recession after the crisis of 2008 increased the importance of exports as a source of economic growth in the European Union member countries. For today, these countries have been mostly recovered from the negative effects of the crisis, but these effects were especially long-lasting in certain areas. Our research focused on the exports of three regions of the EU: the Iberian countries (Spain and Portugal), the four Visegrád countries (Hungary, Slovakia, Czech Republic and Poland) and the Baltic countries (Latvia, Lithuania, Estonia). These regions are situated geographically on the Mediterranean and Eastern periphery of the European Union and almost all of them were severely hit by the international crisis. However, there are differences among them, regarding the effects of the crisis and the measures to alleviate them. In the Iberian region recession proved to be prolonged but the Baltic countries showed considerable GDP growth after 2011. The Visegrád countries are heterogeneous in this respect, some (like Poland) could grow to some extent in the past years and some stagnated or showed volatile trends (Hungary, Czech Republic). During the crisis, in most peripheral economies a credit crunch was developed, investments and consumption decreased and governments had to apply tough austerity measures.¹

The Iberian, Baltic and Visegrád countries had already different economic paths of integration before the crisis hit them. Spain and Portugal joined the EU in 1986 with closed economies, dismantling of tariffs, creation of free trade and free movements of capital took place gradually afterwards, already within the Union. The Visegrád and the Baltic states opened up their economies to free trade and foreign direct investment (FDI) in the nineties, a decade before the legal accession to the EU. As a consequence of the transformation of economic structure, lack of domestic capital and considerable domestic entrepreneurship, the economic

¹ In this respect the Greek crisis lasted the longest, but our research has not focused on this country partly because this topic is treated by an abundant literature and partly because the export sector in Greece is relatively small. Neither we analysed the Irish recovery, although it has been strongly export-based, but this unique case of state-led FDI growth model will worth further special exploration.

development became FDI-led in the Visegrád countries (“dependent market economy” model of capitalism). Foreign multinationals included also other peripheral countries rapidly in their production chains and therefore in certain fields they are not peripheries any more. (Regarding manufacturing production and export for example, the centre of the EU shifted eastwards and a “German-Central European manufacturing core” was created.

Having perceived the effects of the crisis and the international trade collapse in 2009 Iberian exports were increasingly directed towards non-EU regions such as Africa or Asia and to some extent a similar trend could be observed also in the case of Visegrád and Baltic exports. This shift, in theory, could have been helped by the Aid for Trade (AfT) scheme of the EU development policy. Aid for Trade is an international initiative created by the WTO in 2005 and the EU prepared an own AfT strategy in 2007. The initiative aims to develop the supply side capacities of the developing countries (improvement of trade infrastructure, training, budget assistance to adjust to the liberalized trade environment) with the overall objective to help developing countries participate in international trade more effectively. As the EU has wide relationship with developing countries, it can gain additional trade too. Earlier research pointed out that this kind of additional trade growth mainly stems from the new EU member states, therefore we investigated the market potentials for the Baltic and Visegrád countries (as new EU Members) and the Iberian countries (as former colonizers) outside the EU.

Certainly, national government policies also have intended to promote exports in all three regions. We analysed the characteristics and effectiveness of these central policies, strategies, institutions. Export promotion policies usually target small and medium-sized enterprises (SMEs). The internationalisation and exporting activity of these firms have increased in all three regions. We conducted a questionnaire survey among Hungarian SMEs to test the various promoting and hindering effects on their exports, detect the opinion of the firms on the benefits of exporting and the utilisation of government incentives. The survey was complemented with personal interviews at companies and most of these cases are presented in the studies.

SMEs also look for possibilities to connect to global production chains. In our research we analysed gross and value-added trade data and also provided an overview on the role of automotive sector that has a large role in integrating the peripheral countries in the global value chains (GVCs). Visegrád economies are the most integrated into these chains, mostly in the low value-added segments of production. The export activity of supplier companies is highly import-intensive, dependence on imported value-added is usually large. (In our research we do not analyse the import structure deeply, we concentrate on export flows). Trade data should be cautiously evaluated because direct gross trade statistics do not show the final destination of the products, which is in several cases outside the EU.

This book contains studies on the mentioned macroeconomic, microeconomic and economic policy factors that have affected the exports of these three regions. During the research we published articles and working papers, the book relies on these, but updated with latest trends

and statistics. The structure of the book leads from the macroeconomic and policy view towards the microeconomic one, backed by statistical data and indices.

The study of **Norbert Szijártó** evaluates the pre-crisis and post-crisis macroeconomic developments of three periphery regions. The Varieties of Capitalism theory separates the three regions into different models – the Iberian countries are Mixed market economies, the Baltic countries as Quasi-Liberal market economies and Visegrád countries represent Dependent market economies –, macroeconomic indicators demonstrated similar tendencies. Pre-crisis macroeconomic conditions can be characterized with large current-account imbalances, decreasing unemployment rates and generally higher rate of labour costs growth than labour productivity as a consequence of peripheral models heavily relied on capital and product inflow. Responses to the global financial crisis and the euro crisis were determined by the applied exchange rate regimes of the countries; the Iberian and Baltic countries and Slovakia had limited adjustment possibilities (internal devaluation and fiscal austerity) due to fixed exchange rate regimes, while the Czech Republic, Poland and Hungary used nominal depreciation to restore competitiveness and enhance economic growth. Despite different crisis management methods, post-crisis macroeconomic developments show some similarity, (corrected current-account imbalances, massive export performance and higher labour productivity growth than the growth of labour costs), however, differences can also be observed in diverging post-crisis employment and unemployment trends. Finally, macroeconomic models of European peripheries have become increasingly similar but deep institutional factors have not changed during the last two decades.

The study of **Katalin Antalóczy** and **Andrea Éltető** presents government policies and strategies that promote export and FDI in the nine countries and points out their similarities and differences. Export capacities have been expanded in several economies mostly via FDI, foreign investment in certain export intensive sectors. Therefore, beside the traditional export promotion measures and institutions, FDI promotion also enhances exports. Geographical and product structure diversification of exports was an important aim in the observed countries, although this aim was not achieved. The reason is that export promotion policies target small and medium sized enterprises, while the magnitude and parameters of exports are defined by foreign multinationals in most countries. These companies have their own intra-production chain trade that has a different pattern from government aims. Thus, FDI promotion (attracting large companies) can contradict export promotion targets (diversification of export). The study describes FDI promotion measures in a narrow sense (special zones, tax allowances, grants) and in a wide sense (general business environment, legal stability) and concludes that these latter have deteriorated in the Visegrád countries. The education, training problems and emigration have led and will lead to serious problems in skilled labour supply in the peripheral countries.

The following study - as a kind of country-case – confirms parts of the above mentioned findings. The Polish member of our research team, **Patryk Toporowski** analyses the changes in

the Polish export since the beginning of the crisis. The aim was to assess whether the evolution of the Polish export is in line with the Polish government strategy or it is an independent process. Government's strategy is confronted with empirical trade data and the paper also contains two case studies of Polish exporting firms. The evidence confirms the gradual evolution of export patterns, yet this change does not reflect much the government's policy. In the case of geographic composition of export, there is a recovery in the share of the European market, reflecting the gradual economic revival in the EU.

The study of **Beáta Udvari** focuses on the European international development cooperation policy and the Aid for Trade initiative. It is shown that Aid for Trade may increase not only the recipients' but the donors' exports too, so this study analyses how AfT provided by the EU influences the trade performance of the nine countries. The research is based on empirical investigation applying an econometric gravity model. The results show that the Aid for Trade scheme for developing countries has significant impact on the exports of some of the countries. However, this export growth is uneven among the three groups of countries, the greatest winners are the Iberian countries - mainly owing to their colonial relationships.

Andrea Élrető provides an overall picture of foreign trade trends of the three regions based on Eurostat Comext data and indices calculated therefrom. The foreign trade per GDP ratio increased in all peripheral countries, in some cases spectacularly. Results show that reorientation of trade towards non-EU areas was only temporary and the product structure of exports remained mostly similar to that of before the crisis. Changes in share of exported high-tech products depend on the activities of foreign multinationals and not on domestic innovation and R&D developments. Trade of services is directed mainly towards the EU and its composition is different in the examined peripheral regions. Value-added trade data can provide a basis for estimating backward and forward participation in global value chains and in this respect the position of the Visegrád countries is outstandingly high (mainly in backward participation). The role of Germany as a hub is essential in this regard. Three company cases demonstrate strong and loose GVC participation. The personality and strategy of the manager proved to be decisive in these cases and this can be a key factor in successful and beneficial GVC integration.

The sector where GVC integration is the most relevant is automotive industry. The study of **Gábor Túry** analyses the role of the automotive industry in the three regions. The automotive industry is the most export-intensive branch in almost all examined countries and usually these companies are the largest exporters. The study discusses the importance of the automotive industry in each economy, the role of automotive companies as well as the global trade relations of the countries. Based on sectoral indicators and export figures, the study concludes that the number of investors and the concentration of investments observed in the sector are also decisive in the development of the production and the future prospects of the industry. The product portfolio of car producers and suppliers is also relevant for the development of production, export and employment data. Furthermore, the replacement of conventional internal combustion engines and introduction of new technologies generate significant

transformation in the sector in the medium term, affecting the role of the countries and supplier firms in the global value chains.

Supplier companies to GVCs are often small and medium-sized enterprises, but also by selling on their own they contribute to the export achievements of a given country. The internationalisation of SMEs in the three regions is assessed by [Andrea Éltető](#). The study provides a brief literature review describing the export enhancing factors showing that peripheral area SMEs are already similar to others regarding these stimuli: manager attitude and innovation being the most important ones. The Hungarian questionnaire survey with a sample of 148 exporting SMEs also reconfirms these findings. The division of the sample into supplier and non-supplier SMEs shows certain differences between the two groups but these are statistically not significant. According to international experiences, exporting firms' results are generally better, which can be due to "self-selection" or "learning by exporting". The survey confirms the latter theory, export had beneficial effects on product and technology development, employment and gaining information on foreign markets. These effects have been mostly felt by export-intensive firms. At the end of the study two successful company cases of SME-internationalisation are introduced.

The study of [Andrea Éltető](#) and [Beáta Udvari](#) is the reproduction of a forthcoming article in the International Journal of Export Marketing (2018 vol2.no2). It aims to identify the export promoting factors and barriers that the Hungarian SMEs face. The basis of analysis is the Hungarian questionnaire survey. The sample is divided into two groups according to the export-intensity of firms. The importance of managerial skills, market knowledge and technological development stand out as main export-enhancing factors. Among the barriers, the lack of information, lack of knowledge of foreign languages dominate and the importance of financial constraints seem to have decreased in comparison with the previous years. Based on these and the presented case study of a successful SME the authors conclude that the development of human resources and education is a key to improve the export performance of SMEs.

Andrea Éltető
editor

Exchange rate regimes, labour market trends and recovery from the crisis

Norbert Szijártó

Abstract

The global financial crisis and the euro crisis had severe negative impacts on the European economy and highlighted the problems of increasing economic heterogeneity among the member states of the European Union. The scope of this study is to scrutinize three different peripheral regions of the European Union – the Iberian, the Baltic and the Visegrád countries. The Iberian, Baltic countries and Slovakia had limited adjustment possibilities (internal devaluation and fiscal austerity), since these member states have been applying fixed exchange rate regimes, (now all countries are members of the Eurozone). In the case of the Czech Republic, Hungary and Poland, the use of nominal depreciation is possible to restore competitiveness and enhance economic growth. The consequences are striking, Iberian countries suffered from a protracted crisis, Baltic countries endured a large decline in economic activity and a strong recovery, while the Visegrád countries have been experiencing a robust economic growth and catching-up process since the crisis. Based on the Varieties of Capitalism framework, we analyse the macroeconomic features of these regions. Although the literature separates the three regions on the ground of deep institutional factors and complementarities, macroeconomic indicators behaved similarly. The pre-crisis period had been characterized by large current-account balances due to capital and product inflow, which was corrected during the post-crisis period. Albeit, differences can also be observed in diverging post-crisis labour market developments.

Keywords: European peripheries, exchange rate regimes, euro introduction, labour policy

1. Introduction

The European Union has never been a homogenous economic community, however the differences among economic models have become ever stronger since the eruption of the global financial crisis of 2008/2009 and the euro crisis of 2010/2012. This study puts special emphasis on the macroeconomic developments with peculiar focus on exchange rate arrangements and its impacts on labour policy outcomes of three periphery regions – the Baltic, Iberian and Visegrád countries – of the European Union. We apply a comparative approach in which member states of the three periphery regions are contrasted in two time periods, the pre-crisis decade before the global financial crisis of 2008/2009 and the post-crisis period till 2017.

Heterogeneity is a particularly striking phenomenon if we examine the regions of the Eurozone, since the Southern periphery countries – Greece, Italy, Portugal and Spain – were during decades unable to catch up with the economic levels of core member states and the two crises

initiated a divergence between the core and periphery member states. Several scholars explain this process with contrasting economic characteristics based on deep institutional factors and varieties of national economic models (also known as Varieties of Capitalism). The Southern periphery, including Portugal and Spain, were not able to implement deep and comprehensive reforms during the so-called Great Moderation's supportive economic environment (economic prosperity, abundance of global liquidity and lack of regional shocks among developed countries). During this period, the project of the Economic and Monetary Union seemed to be a very successful initiative, the European Commission (2008) highlights that common monetary policy efficiently anchored long-term inflation expectations, and the Stability and Growth Pact strengthened macroeconomic stability (fiscal stability) among the Eurozone countries. The pre-crisis period's positive macroeconomic effects are slightly shaded by the fact that the two Iberian countries had contrasting economic growth trajectories, Spain was among the Eurozone member states with highest economic performance, while Portugal was unable to benefit from the supportive impacts of the single currency. The post-crisis period's macroeconomic performance in both countries was a nightmare, the global financial crisis of 2008/2009 revealed the deeper weaknesses of the Eurozone and of the economic models of the Southern periphery member states. A protracted crisis (sovereign debt crisis) emerged in Portugal and Spain. Thus, the post-crisis macroeconomic development of the Iberian countries can be portrayed as follows: almost five years of economic downturn, substantially increased public debt, historically high unemployment rate and youth unemployment and waning foreign economic activities.

In 2004, several Central and Eastern European countries – eight out of ten new member states, namely the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia – joined the European Union. Based on geographical location and proximity, it is generally accepted to treat the Baltic countries and Visegrád countries as 'common' regions, countries with similar economic characteristics and components, even though there are substantial differences among countries inside the specific regions. After the collapse of the Eastern Block, the fundamental strategic goal of the Central and Eastern European countries was to join the European Union as soon as possible. Addressing the economic policy challenges of the regime change – macroeconomic stabilization, economic liberalization, privatization, and restructuring a Western-type institutional system – coincided with the submission of European Union accession requests. The conditions for enlargement are summarized as the Copenhagen criteria that cover several political (stability of institutions guaranteeing democracy, rule of law, human rights and protection of minorities), economic (functioning market economy and the ability of potential member states to compete within the European Union) and institutional (stability and administrative capability of institutions in order to achieve membership obligations, including political, economic, monetary union goals and adopting common rules, norms and policies, the *acquis communautaire*, which embodies the core of European Union law) – factors. By the mid-2000s, Central and Eastern European countries were more or less able to reach favourable macroeconomic conditions; general trends of the region were the following: high or higher than the EU average economic growth, solid real convergence but modest nominal convergence,

relatively high inflation rates compared to the old member states, immense but decreasing unemployment rate and growing employment, severe complications with public finances (large fiscal imbalances and increasing public debt), and enlarging foreign economic activities and growing export performance. The global financial crisis had severe economic impacts on the new member states except for Poland where economic development remained solid during the crisis. In terms of economic growth and stability, the Baltic countries have been performing properly during the last few year, and the Visegrád countries are the winners of the post-crisis period, protracted crisis was not registered in those countries compared to Iberian periphery member states.

To support our comparative approach, it is worthwhile to take a glance at the per capita GDP (PPS) data compared to the EU28 average (Table 1). The post-crisis period depicts divergent economic growth trajectories among the periphery regions, Baltic countries have produced an extraordinary upswing since the global financial crisis of 2008/2009, the Visegrád countries' economic performance can be marked by a modest convergence to the EU28 average, while the Iberian countries, due to the prolonged euro crisis, have still not reached their pre-crisis level of economic development. In 2009, the year of economic downturn in Europe, the difference between the highest GDP per capita country (Spain) and lowest one (Latvia) was 49 percentage points, however this difference until 2017 had been halved, decreasing to only 25 percentage points. After all, we can state that countries of the three regions have almost similar economic development levels, but this kind of equalization is the result of contradictory economic processes.

Table 1. Per capita GDP (PPS) compared to EU28 average

	2009	2017	DIFFERENCE
CZECH REPUBLIC	85	89	4
ESTONIA	64	77	13
SPAIN	101	92	-9
LATVIA	52	67	15
LITHUANIA	56	78	22
HUNGARY	64	68	4
POLAND	59	70	11
PORTUGAL	82	77	-5
SLOVAKIA	71	77	6

Source: Own compilation based on Eurostat

The study proceeds as follows. Regarding the theoretical background, our starting point is the adjustment mechanisms of different types of exchange rate regimes. Exchange rate regimes – fixed or floating regime – play a crucial role in times of crisis management. In case of fixed exchange rate regimes – Iberian countries, Baltic countries and Slovakia – external devaluation is not a feasible option to restore economic growth, so these countries were obliged to use internal devaluation and large-scale fiscal austerity, so these countries relied on a more severe adjustment mechanism. In case of the remaining countries – Czech Republic, Hungary and

Poland – external devaluation was a feasible option to restore prosperity. It is worth underlining that Portugal and Spain were founding members of the Eurozone, Slovakia joined in 2009 during the recession, and Baltic countries joined after the global financial crisis. Since most of the countries were using fixed exchange rate regimes in pre-crisis period, the analysis of real-effective exchange rate movements is also critical for us. On the other hand, our paper is implicitly based on the Varieties of Capitalism theory, because the related literature perfectly separates the analysed periphery regions from core European Union member states, countries of the Southern periphery are Mixed market economies (Molina-Rhodes 2007 and Hassel 2014), and the new member states are Dependent (transitional) market economies (Nölke-Vliegenthart 2009 and Farkas 2011) or Quasi-Liberal market economies (Buchen 2007, Feldmann 2013 and Kuokstis 2011 and 2015).¹ These categories of capitalist systems on the one hand differ from each other, and on the other hand, also show contrast with the capitalist system those of the core European Union member states. The empirical assessment scrutinizes the macroeconomic developments of the three regions in a comparative manner, obviously, the temporal scope of this investigation is based on the pre-crisis and post-crisis decades. The starting point of the empirical part is the domestic economic characteristics (Varieties of Capitalism); how were the economic systems of the periphery regions built up, what was the fundamental driving force of economic growth, and what were the economic outcomes of them, particularly on labour policy developments. Part four briefly discusses the pre-crisis and post-crisis macroeconomic frameworks' consequences on trade performance. And finally, the last lines of this study conclude.

2. Theoretical background

2.1. Historical exchange rate of the three regions

The choice between fixed and flexible exchange rate regimes is not a classical dichotomy, many hybrid exchange rate systems exist (Frankel 1999). Equilibrium currency price in the free-floating exchange rate regime is determined by market supply and demand; meanwhile the monetary authority does not intervene. Therefore, monetary policy and exchange rate policy are independent of each other, so monetary policy can help reaching economic goals such as solid economic growth and higher employment level. The main advantage of the floating system is that the nominal exchange rate via nominal depreciation can be used to tackle external shocks, so the possibility of currency crisis is low. Floating regimes can properly

¹ There is no consensus among scholars regarding the very nature of Baltic countries under the umbrella of Varieties of Capitalism theory. Some argue that Baltic countries are converging towards Liberalized market economies, others use the “immature Liberal market economy” term and if we take into consideration that economic growth models of Baltic countries are principally based on the inflow of capital and investments with large current-account imbalances, Dependent (liberal) market economy is also an acceptable classification. Thus, based on the related literature, we use the term of “Quasi-Liberal market economy” to capture Baltic countries' trends towards Liberalized market economies and to cover differences in the classification of Baltic countries.

operate with smaller amount of foreign currency-denominated reserves. The disadvantage is the harmful economic impact of short-term currency volatility, and on the other hand the inflationary effects of the discretionary monetary policy bias. Strictly fixed exchange rate systems (currency union or currency board) apply legal or economic restrictions that eliminate the independent exchange rate policy (and monetary policy). This system has many positive attributes that make it attractive: credibility, time-inconsistency problem is reduced or eliminated, promotes the disinflationary process, minor risk of a currency crisis, the transaction costs are low, and the interest rate is stable. However, pegged regimes also have some disadvantages: there is no possibility for nominal exchange adjustment, there is no lender of last resort in the system, emergence of large liquidity crisis is high and lack of clear exit strategies; abandoning the fixed exchange rate regime couples with a huge loss in credibility and regularly with currency crisis (Edwards-Savastano 1999).

Among peripheral groups, an intriguing development can be noticed regarding the application of various exchange rate regimes. Former members of the Eurozone generally started using flexible or hybrid exchange rate regimes and then turned to fixed exchange rate regimes. Portugal and Spain were founding members of the Eurozone, for them the previous path to introduce the single currency was an unambiguous process, since they joined the European Economic Community, they had been participating in the European Monetary System (Exchange Rate Mechanisms), which in the 1990s functioned as the antechamber of the euro, and finally in 1999, both countries introduced the euro. The Eurozone is an irrevocably fixed exchange rate regime without any legal exit strategy, but it embodies a fully flexible exchange rate regime with third countries. By contrast, the Visegrád countries (excluding Slovakia) had a completely different path between the two corner solutions: they, introduced fixed exchange rate regimes after the collapse of the Eastern Block. This was an obvious policy step to attenuate the negative impacts of the transformation crisis and maintain domestic and foreign economic stability (easing fiscal and current-account imbalances). Later, through smaller steps they introduced flexible regimes; Poland, the Czech Republic and Hungary started using floating regimes in 1998, 2003 and 2008 respectively. The Baltic states, as extreme small open economies, clearly considered the importance of the stability of exchange rate regimes, so Estonia and Lithuania chose the formation of currency boards in 1992 and 1994 later they joined the Eurozone in 2011 and 2015 respectively. Latvia, since 1994, had applied a strictly fixed exchange rate regime till the country joined the Eurozone in 2014. The vulnerability of hybrid exchange rate regimes was most pronounced in the relation to the Visegrád region – for instance all countries applied crawling peg to make a predictable adjustment of their currencies. However, after the Russian crisis of 1998, there was no currency crisis in the broader region, and neither in the Visegrád region (IMF 2014). A detailed description of changes in the exchange rate regimes of the three regions is displayed in the table below (Table 2).

Table 2. Exchange rate regimes in the Baltic, Iberian and Visegrád countries

Baltic Countries	
Estonia	1992-2011 currency board; 2011 euro adoption
Latvia	1992-1993 floating exchange rate regime; 1993-1994 managed float; 1994-2013 fixed exchange rate regime; 2014 euro adoption
Lithuania	1992-1993 floating exchange rate regime; 1993-1994 managed float; 1994-2014 currency board; 2015 euro adoption
Iberian Countries	
Portugal	1986-1990 floating, outside the ERM; 1991-1992 fixed regime outside the ERM; 1992-1999 fixed regime in the ERM; 1999 euro introduction
Spain	1986-1990 fixed regime outside the ERM; 1990-1999 fixed regime in the ERM; 1999 euro introduction
Visegrád Countries	
Czech Republic	1993-1995 fixed exchange rate regime, 1995-1996 crawling peg; 1996-2002 managed float; since 2003 floating regime
Poland	1990-1991 fixed exchange rate regime; 1991-1998 crawling peg; since 1998 float
Hungary	1990-1993 fixed exchange rate regime; 1994-2007 crawling peg; since 2008 float
Slovakia	1993-1997 crawling peg; 1998-2004 managed float; 2004-2009 crawling peg; 2009 euro introduction

Source: Own compilation

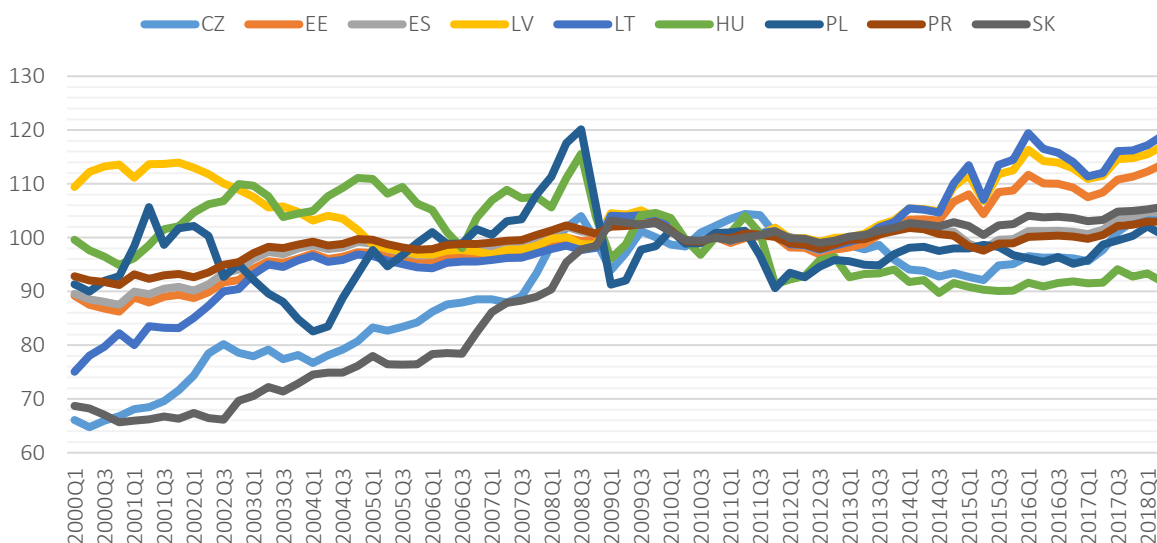
2.2. Nominal and real effective exchange rate developments

The nominal effective exchange rates (NEER) of the analysed peripheral countries do not show precise exchange rate movements due to the fact, that several countries have been applying fixed exchange rate regimes for decades; Portugal and Spain introduced the euro in 1999, Baltic countries applied fixed exchange regimes then introduced the single currency, and Slovakia also joined the Eurozone in 2009. The similarity of NEER trends inside the country groups can be observed, NEER trends of Baltic countries are almost identical, in addition, Portugal's and Spain's NEER trends also can be characterized with strong co-movements. And finally, among the Visegrád countries there is no obvious similar trend, which is a consequence of that these countries (excluding Slovakia) applied flexible exchange rate regimes and relied on financial market mechanisms. A striking feature is that countries which introduced the euro do not share any similarities within the different peripheral groups since these countries followed different monetary and economic policy goals during the pre-accession period.

The practical question concerning the NEER trends is whether it is worth entering the Eurozone with an undervalued or overvalued exchange rate. Both have advantages and disadvantages. The overvalued exchange rate is capable to increase the real purchasing power of domestic households and governmental actors but may reduce the competitiveness of the exporting sectors, which can curb economic growth. The undervalued exchange rate weakens the purchasing power of domestic actors but may have positive effect on the exporting sectors, which can be particularly important for small open economies (potential trade gains during the post-accession period).

The Baltic countries' NEER trends are the following: several years of stagnation between 2003-2013, since then rapid overvaluation process during the last few years (between 15-20% since 2013). In the Visegrád area Slovakia had a constant appreciation trend during the 2000s until the country introduced the euro in 2009. The Slovak government and monetary policy-makers chose to join the Eurozone at an overvalued exchange rate to enhance the purchasing power of households and domestic actors. Since the accession, the Slovakian NEER is stagnant at central exchange rate. The two Iberian countries have been stagnating at a central rate since the early 2000s. The Czech Republic, Poland and Hungary represent a very different NEER movements, the only similarity is the sudden appreciation and following depreciation because of the global financial crisis with different amplitudes, which is close to 30% in the Hungary and Poland and approximately 10% in the Czech Republic (parallel adjustment of the national currencies). Hungary is the only member state, where the NEER has been continuously decreasing since the global financial crisis and suffering from a depreciation trend of the national currency. Figure 1. depicts the NEER trends of observed member states.

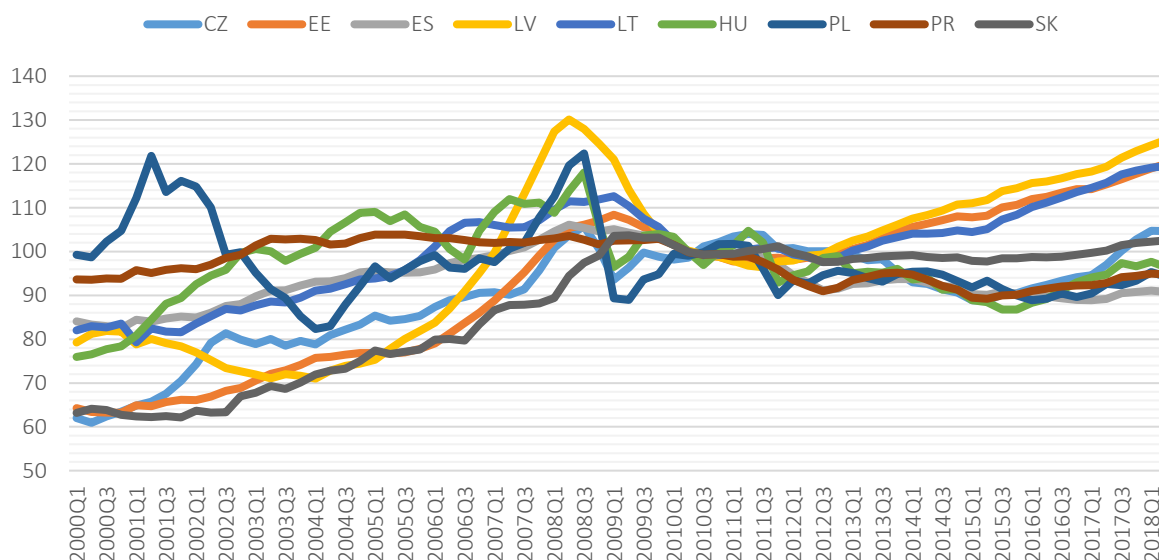
Figure 1. Nominal effective exchange rates of the three regions (42 trading partners, industrial countries, between 2000Q1 and 2018Q2 quarterly data, 2010 = 100)



Source: Own compilation based on Eurostat

The real-effective exchange rate (REER) is an instrument that is able to track the developments of domestic competitiveness by using consumer price indices and unit labour costs as deflators. Quarterly datasets from Eurostat depict similar trends based on the two deflators, so we use the unit labour cost REER variant to show changes in competitiveness of peripheral member states (Figure 2). In the case of Spain, the Baltic countries, the Czech Republic and Hungary an appreciation trend can be observed during the pre-crisis period, which means that these countries' external competitiveness decreased during these years. The Polish unit labour costs based REER represents a distinct trend, in the early 2000s the value of the variable was highly overvalued, which started decreasing till the mid-2000s (soaring competitiveness gains) but from the mid-2000s it displayed an appreciation trend. Portugal was the only country with stagnant unit labour costs based REER during the pre-crisis period but in the case of Portugal weak external competitiveness can be explained by other reasons, the lack of strong export capacity and exporting sectors. The post-crisis period has brought robust co-movement of unit labour costs based REER trends between Iberian and Visegrád member states. The Iberian countries competitiveness gains were based on harmful internal devaluation processes, while the Visegrád countries with flexible exchange rates regimes were able to easily adjust external competitiveness through a nominal depreciation of their currencies. Slovakia, after joining the Eurozone has been displaying a stagnant trend. In the meantime, Baltic countries have shown appreciation since 2012, and has been continuously reducing their external competitiveness.

Figure 2. Real-effective exchange rate of the three regions (37 trading partners, industrial countries, between 2000Q1 and 2018Q2 quarterly data, 2010 = 100; deflator: unit labour costs in the total economy)



Source: Own compilation based on Eurostat

2.3. Internal devaluation

Prior to the global financial crisis periphery countries of the euro area had enjoyed a high level of capital inflow, but these countries could not transform this opportunity into sustainable economic growth. Internal demand and demand for import products were robust during this time. Due to capital and product inflows a huge trade and current account deficit accumulated in the Southern periphery and the hidden public and private indebtedness was revealed when the crisis hit these economies. Another important consequence of the liquidity abundance was that labour costs in periphery economies increased more than their productivity growth. Thus, a serious competitive disadvantage had been built up in the periphery (de Grauwe 2012). Solving this problem was not simple, since the exchange rate devaluation in the case of the analysed five countries was not possible, so to correct these imbalances they had to apply internal adjustment, the so-called internal devaluation (Storm – Naastepad 2015, Gibson et al. 2014, Alexiou–Nellis 2013 and Stockhammer–Sotiropoulos 2012). Internal devaluation basically aims restoring international competitiveness, the application is mainly conducted in fixed exchange rate regimes when there is no possibility of external devaluation due to the introduction of a common currency – like in Portugal and Spain – or there is consensus in the government not to abandon a fixed exchange rate regime – as in the Baltic countries. Regarding the internal devaluation there is no fully acknowledged economic consensus how to implement the adjustment, is it necessary or avoidable. De la Torre et al. (2010) invokes the Argentine economic crisis and supports the possible opportunities arising from fiscal cuts and bailouts. Feldstein (2010) suggests temporary “euro holidays” for periphery countries with a solution that provides possibility to use external devaluation, and after they gained competitiveness re-join the EMU. But this process would risk the whole euro project and would cause disintegration. According to Felipe - Kumar (2011) the unit labour cost-based approach is wrong, competitiveness depends on the products that a country exports and not on unit labour costs thus they discard the internal devaluation process. Darvas (2012), by contrast, argues that the internal devaluation can work, but it is a very painful and lengthy process.

The process of internal devaluation puts emphasis on reducing labour costs, which is generally the result of higher-than-covered labour cost growth; the wages rise in a higher pace than the productivity. Downward adjustment in the labour costs occurs when wages decrease, or the government reduces the indirect costs of employment, which immediately eventuates in rising unemployment rate and diminishing employment, and finally culminates in sluggish or even negative economic growth. The decline in domestic consumption causes decline in the production, which further aggravates the growth problem. After the two crises, periphery countries’ budgetary positions weakened, and the process of internal devaluation eventuated in a growing discrepancy between the revenue and expenditure side of the budget. The negative economic impact of governments’ austerity adds to the economic problems and a

vicious cycle develops between the sovereigns and the financial system. Breaking out from this negative spiral takes years, as it has happened in Portugal and Spain.²

2.4. Periphery regions according to the literature of Varieties of Capitalism

The global financial crisis of 2008/2009d and the euro crisis of 2010/2012 revealed that heterogeneity of member states is still a crucial phenomenon hindering deeper and well-functioning economic integration.³ The following question can be raised: why low heterogeneity (or higher homogeneity) is important for the European Union? The answer is certainly simple, the European Union's common (and community) policies are more effective if member states are homogenous. Several initiatives and reform agendas of the European Union can be thought as steps towards a more homogenous integration. The main purpose of the Community's regional policy has been to support the least developed member states' catch-up process. The Lisbon Strategy wanted to tackle the slow growth and structural weaknesses of the 1990s and early 2000s and aimed to create the most competitive and dynamic knowledge-based economy (Begg 2008 and Copeland-Papdimitrou 2012). The Lisbon Strategy was replaced by another large-scale agenda, the EU2020 Strategy to create a smart, sustainable and inclusive growth-based entity. Moreover, several scholars suggested that EU member states must introduce structural reforms to regain external (global competitiveness). Core countries with the leadership of Germany implemented wide-spread reforms to gain competitiveness, while governments of the Southern periphery and the new member states constantly postponed these reforms.

The Varieties of Capitalism literature is based on historical processes and institutional foundations and divides developed countries into two categories: Liberal market economies and Coordinated market economies (Hall-Soskice 2001). A huge number of institutional factors can be explained to underpin the substantial differences between the two variants: industrial relations and coordination, vocational training and education, corporate governance, business relations, employment, innovation system, legal environment etc. These institutional factors and complementarities among factors create two different but well-functioning capitalist systems. Southern and Eastern European periphery countries do not belong to the liberal or coordinated market economies. The Iberian member states are somewhere between the two

² To restore competitiveness (and the overall macro and micro-economic environment) requires a more complex and broader economic policy coordination which is the implementation of structural reforms. The term "structural reforms" covers several economic areas where reforms are necessary to be implemented, but there is no real consensus on comprehensive reform pack, individual or country-specific factors prevail. The IMF (2015) summaries the following measures to implement: financial sector reform, trade liberalization, institutional reform, infrastructure transformation, market deregulation, and innovation. By contrast, the OECD (2015) specifies four areas: product market reforms, labour market reforms, reforming the tax system and public administration, and reform of the legal environment.

³ It is worth noting that heterogeneity appears not just as economic differences among member states but heterogeneity – necessarily – has political, social, institutional, historical, cultural, geographical etc. aspects.

basic models but the state has a central role facilitating coordination processes in the economy, the countries regularly face higher public and private debt and run severe fiscal imbalances, competitiveness is low, innovation systems are weak, and the countries are built-up on a demand-led (domestic and import) development model. These countries are called Mixed market economies (Molina-Rhodes 2007 and Nölke 2016). A fundamental problem regarding Mixed market economies, is that institutional complementarities do not support sustainable economic growth, since individual institutional factors act against each other. In the case of Portugal and Spain we put special emphasis on how the demand-led economic model works and what are the consequences on macroeconomic variables.

After 2004, the accession of Central and Eastern European countries increased the heterogeneity of the European Union. The interest of scholars has rapidly turned to new member states to scrutiny the national economic models of the transition countries 15-years after the collapse of the Eastern Block. Economic models of post-transition countries, on the one hand were different from Liberal and Coordinated market economies and on the other hand, also from Mixed market economies. Nölke-Vliegenthart (2009) and Farkas (2011) stress the following characteristics regarding these countries: the economic model is initially based on an FDI-led model⁴, which later altered into an export-led economic model, foreign firms have control over local affiliates from external headquarters, the innovation system is weak, the spread of innovation regularly takes place as intrafirm process, governments have difficulties reaching low fiscal deficit thus expenditure on education and training is limited but the labour is relatively skilled at a low-wage level compared to Western European countries. The terminology for these member states is Dependent market economy (particularly for the Visegrád countries) or Quasi-Liberal market economies (Baltic countries), since international capital determine the possibilities of the domestic economy.

Summarizing, we can differentiate two types of peripheries inside the European Union; the Southern periphery (Portugal and Spain – Mixed market economies) is based on a demand-led economic model and the Eastern periphery (Baltic countries and Visegrád countries – Dependent market economies or Quasi-liberal market economies) has been heavily relied on an FDI-led model that over time altered to an export-led economic model.

⁴ Geographical proximity, historical relations and infrastructure were also in favour of supporting foreign direct investments of international firms.

3. Empirical assessment

3.1. Iberian countries

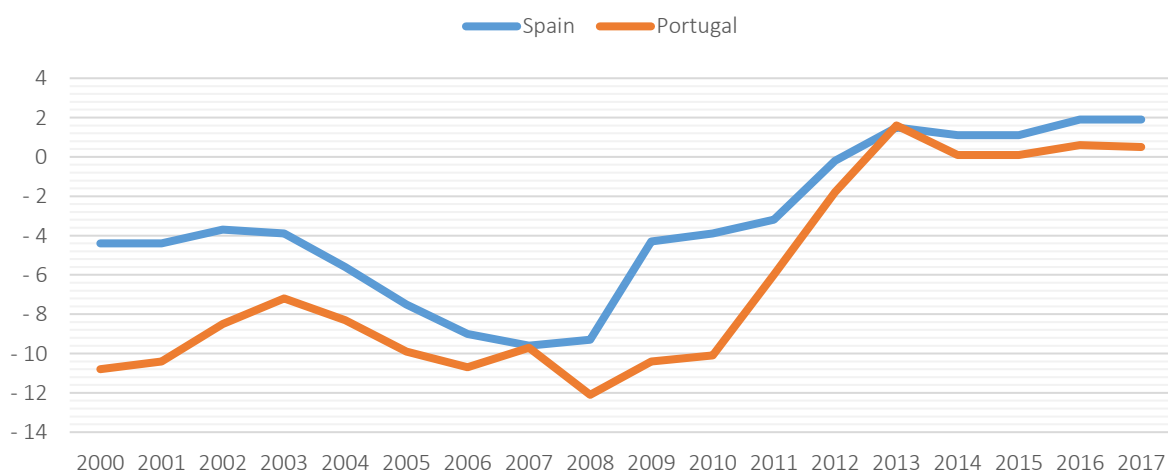
Prior to the launch of the Eurozone, Iberian countries had substantially higher inflation rates than the core member states, however, currency depreciation or devaluation compensated for the negative impacts of inflation on the real exchange rate. During this period, large external imbalances among Northern and Southern European Union member states did not accumulate, because domestic interest rates reflected nominal exchange rate movements and averted from excessive borrowing (Johnston-Regan 2016 and 2018). With the introduction of the single currency and common monetary policy (the loss of control over domestic interest rate policy) the very nature of Southern European member states' economic models significantly changed. Domestic constraints of excessive borrowing immediately disappeared after the introduction of the euro, households, domestic firms, and local affiliates of international companies were easily able to get cheap credit on the international financial market, while repayment of loans was based on the credibility of the European Central Bank. Furthermore, risk premia of Southern European countries' government bonds rapidly decreased to historically low levels and CDS spreads over German bonds almost vanished. Theoretically, Portuguese and Spanish governments were able to rely on the international financial market and finance public debt at a very low level. In the case of Spain, this process successfully prevailed, during the pre-crisis period fiscal deficit was close to zero, well-below the stipulation of the Stability and Growth Pact. Portuguese governments, however, struggled for years to reach the 3% deficit benchmark.

During the pre-crisis decade, the Spanish economy produced excellent macroeconomic trends. Economic growth was well-above the Eurozone average, unemployment rate dropped below 8%, public debt compared to GDP almost halved till the eruption of the global financial crisis and Spanish governments had no difficulties to keep public finances under control, fiscal deficits were close to zero. Nevertheless, the 'Spanish Economic Miracle' was unsustainable, depended on the inflow of foreign workers and a rising real estate bubble (Royo 2009). Abundant liquidity and low interest rates proved to be a toxic mixture of growth engine and led to an enormous expansion of the construction sector (a low productivity sector that maintained high economic growth) but endogenous factors (research, development, innovation, education and higher education) were less and less important and underfinanced. Etxezarreta et al. (2012) characterized the emergence of the Spanish housing bubbles with the following reasons: lack of profitability in the manufacturing and service sectors, an already existing large construction industry, deregulation measures and permissive legislation for building and urbanization, growing Spanish population based on heavy immigration, and finally, abundant and cheap credit. Summarizing, we can ascertain that the domestic economic model clearly represents a Mixed market economy; the country specialized in a non-productive and non-tradeable sector, while inflowing cheap loans financed the enlargement of this sector.

The Portuguese economy performed poorly well before the two crises, the average economic growth between 2000 and 2008 was 1%, the unemployment rate was continuously increasing in this period, and the productivity was weak. During the pre-crisis period, the country could not establish a prudent budgetary policy, which resulted in the continuous increase of the public deficit until the crisis. Reis (2013) explains the economic failure experienced after the accession to the Eurozone with the impacts of financial globalisation, the detrimental effects of a sudden influx of foreign capital made Portugal financially vulnerable. The net stock of foreign capital compared to GDP increased by 78.5% between 2000 and 2007 and in the year of 2007, it reached 165 billion euros which equals to the Portuguese GDP. Santos–Fernandes (2015) mention other structural problems in connection with the crisis-preceding period: backwardness in the education (tertiary and vocational and other trainings) in comparison with the core countries, a one-sided specialization of production mainly in those sectors of the economy that produce low or medium value added, the low level of high technology export and the large concentration of export.

Huge current-account imbalances are usually one of the most important macroeconomic symptoms of Mixed market economies. As we previously assessed, Spain and Portugal heavily depended on external finance, and specialized in non-productive, non-tradeable and low value-added sectors. Figure 3 depicts the current-account balance trends of the two countries; after the launch of the Eurozone, Spain registered 4% of current-account balance compared to GDP, while Portugal had a monstrous deficit over 10%. The Spanish current-account deficit increased till 2006-2008 when almost reached 10% compared to GDP, in Portugal the nadir was also in 2008 with current-account deficit of 12% compared to GDP.

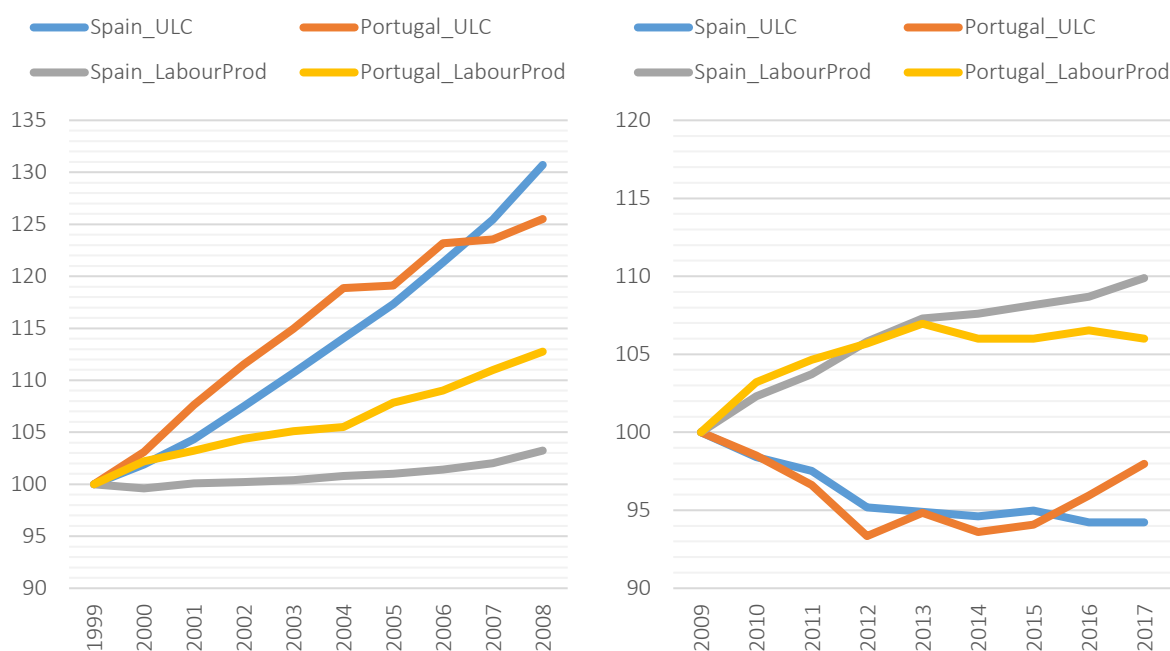
Figure 3. Current-account balance in Portugal and Spain between 2000-2017 (compared to GDP).



Source: Own compilation based on Eurostat

Post-crisis improvements of current-account balances took place in both countries. Two interrelated aspects are worth being highlighted, the first, is the global financial crisis and its substantial effects on international financial markets, the former liquidity abundance environment immediately disappeared as financial markets dried up. Thus, Spain and Portugal were not able to further finance low productivity sectors such as construction. And second, household and local firms reduced consumption of domestic and imported products. Thus, since 2013 both countries have been enjoying a current-account surplus.

Figure 4. Pre-crisis and post-crisis cumulative labour costs and labour productivity trends in Spain and Portugal (left between 1999-2008, right between 2009-2017)



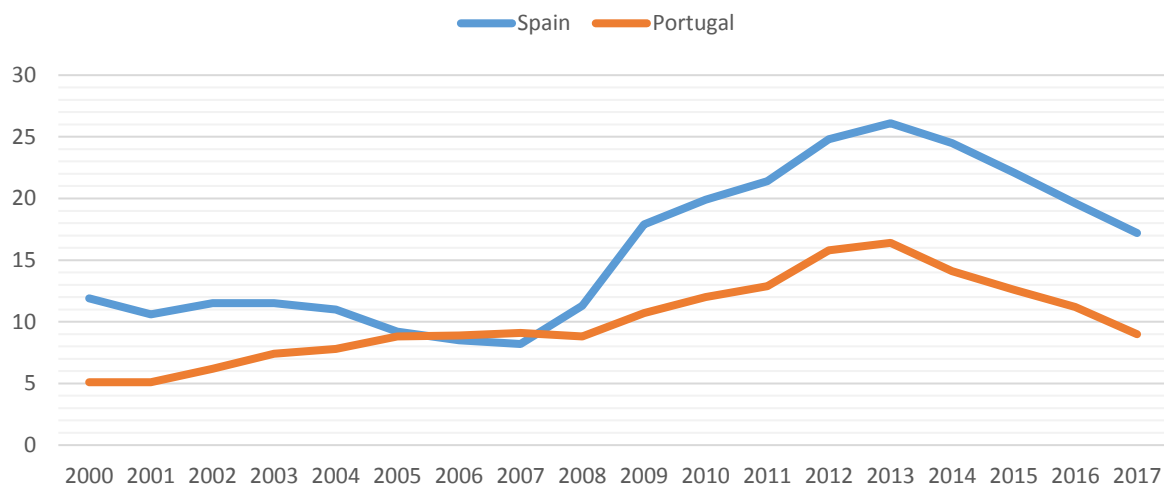
Source: Own compilation based on Eurostat

The problem of the Spanish economy lies in weak productivity. This can be solved with overall structural reforms mainly in the labour market which can increase the competitiveness of the country through the internal devaluation (Armingeon–Baccaro 2012). The implementation of a greater flexibility in the Spanish labour market has been pointed out by several authors (for instance Neal–Garcia-Iglesias 2012), which would mean a flexibility in the temporary employment and could change the privileged status of employees having long-term contracts. This is a kind of historical feature of the Spanish public administration. The Portuguese economy also can be characterized with similar features; low productivity of industrial and service sectors and flawed specialization of the economy. Reis (2013) highlights several factors that contributed to Portuguese weak pre-crisis economic performance: low average education attainment, which is an inheritance of the former dictatorship, shallow spending on higher education, low total factor productivity, rigid labour markets with high costs of firing, inefficient legal system, and inability to compete in regional (European) and global markets. Figure 4. portrays that in

both countries labour costs increased in a much more rapid pace than labour productivity, which is a consequence of wrong specialization. The low-productivity industrial sectors, the construction sector and services employed more and more, while labour costs were on the rise. On the other hand, labour productivity stalled, in Portugal during the whole pre-crisis period there was no progress, while Spanish labour productivity advanced by 13% during a decade. The post-crisis period can be observed through the lens of the internal devaluation process, and we can see that in both countries labour productivity is on the rise, while labour costs have decreased since the global financial crisis.

The labour markets of the core countries (Coordinated market economies) are much more flexible, and the training, retraining and vocational education schemes can more efficiently mobilise the workforce between sectors. Another advantage of the core countries, especially Germany or the Netherlands, is that their economic system is based on export-producing industries, and the global demand for products manufactured in these countries has been restored in 2010-2011. The less efficient labour markets of peripheral countries were mainly built on the domestic consumption and service sectors (including the construction industry), so the drastic drop in domestic demand generated much stronger waves of layoff. Training and retraining schemes are less developed in these countries, and labour penetration into competitive sectors was almost impossible. The reasons behind the protracted crisis and the persistently high unemployment rates are explained by the adverse, cumbersome and slow process of internal devaluation (Wolf 2011, Armingeon–Baccaro 2012, Alexiou–Nellis 2013, Stockhammer–Sotropoulos 2014, Santos–Fernandes 2015 and Theodoropolou 2016). The rise in unemployment rates and the decrease in employment have serious effects on public finances. The Iberian countries' budgets vary in the opposite direction, the expenditure side is rising due to social benefits, while the revenue side is shrinking due to the reduced personal income and consumption taxes. Figure 5. illustrates the developments of unemployment rates of Portugal and Spain. The pre-crisis period shows totally opposite trends, the Spanish unemployment rate decreased from a higher level of 13% to 8% during this period, while the Portuguese unemployment rate increased from 5% to 9%. The two crises had crucial impacts on unemployment and employment developments in both countries. As the low-productivity and non-tradeable sectors collapsed due to the shrinking domestic demand for products, firms dismissed workers. In Spain, the unemployment rate soared to 26% till 2013 and in Portugal it reached 16%. Internal devaluation has had a substantial effect on the labour markets of both countries, improvements can only be seen after 2013. It is worth noting that during this period, labour productivity in both countries have significantly risen and labour costs have contracted. The two opposite processes can contribute to boost in Spanish and Portuguese competitiveness.

Figure 5. Unemployment rate of Portugal and Spain between 2000-2017



Source: Own compilation based on Eurostat

The labour-market related measures of the Spanish fiscal adjustment were launched in 2010 when the salaries of the civil servants decreased by 5 per cent and frozen for the following years. Also, the indexing of the pensions was ceased (Godino–Molina 2011). In 2011 the further planning of the reforms continued with the involvement of social partners where they came to an agreement on the reform of the pension system, the employment policy, the temporary employment, the collective bargaining and sectors of the economy. In 2012 the minister of economy and competitiveness pointed to three factors in connection with the Spanish structural reforms: the transformation of the collective bargaining system from the sectorial level central agreements to the individual companies which could establish the productivity; the simplification of the full-time employment contracts and the promotion of the part-time employment; and an increase of employment in the high-value added sectors (Neal–Garcia-Iglesias 2012). By 2013 the Spanish unemployment rate reached 25 per cent and the youth unemployment surpassed 50 per cent. Since 2013, the Spanish unemployment rate has been descending.

From 2010 the Portuguese government faced serious problems, the costs of financing the public debt increased twofold. In parallel, the public expenditures increased significantly, partly because of the automatic stabilizers, partly because of the promised increase in wages by the new government (Reis 2013). Owing to the recession, the first austerity measures were announced in 2010 and in 2011 the Portuguese government turned to the European Commission for help. The Portuguese government and the troika (European Commission European Central Bank and the IMF) signed an agreement in May 2011 with the term of three years and the overall amount amounted to 78 billion euros. The fundamental aim of the programme was to increase the GDP growth by means of increasing productivity and

employment (European Commission 2011).⁵ The structural reforms in the programme can be clustered into three larger groups: reinforcing the flexibility in the factors of production, mainly in the labour force, sector specific reforms because of increasing the competitiveness and service quality and the reform of the conditions of the business environment namely introduction of changes in the fields of legal, administrative and competition law.

In the Iberian countries the answer to the two crises was fiscal policy adjustment. The lasting and unfavourable fiscal position can be traced back to several factors: first, the prolonged euro crisis, which resulted in a loss of confidence in the periphery countries, secondly the pressure of adjustments stemming from the compulsory internal devaluation to enhance competitiveness.

3.2. Baltic States

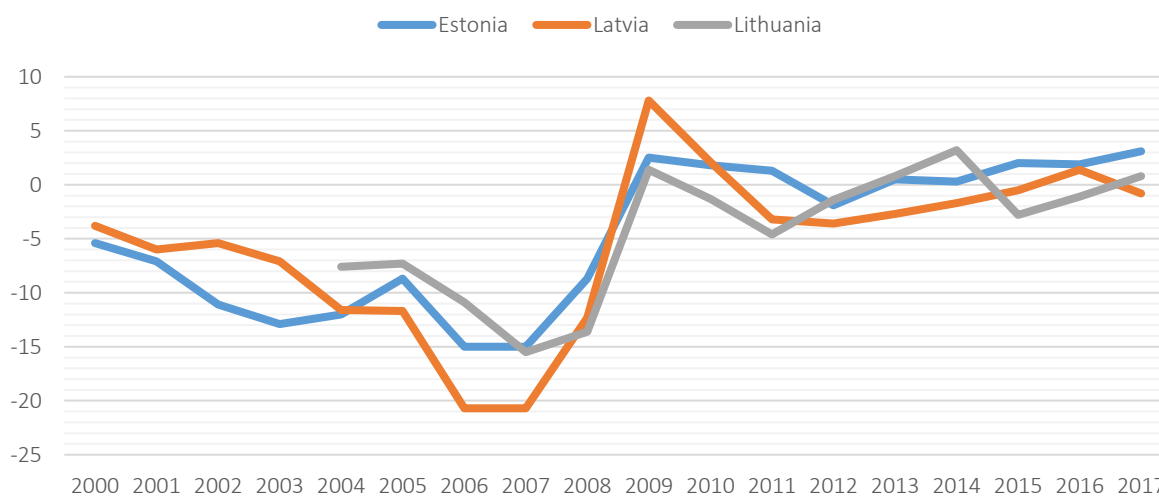
The pre-crisis period of Baltic countries' economic development indicates an enormous catching-up process, a "Baltic Miracle". Compared to the Southern periphery, Baltic countries had very rapid economic growth, during the 2000s and these countries were among the fastest growing economies in the world. The engine of the pre-crisis period's economic growth was also the domestic demand like in Spain and Portugal. Intense capital inflow provided cheap loans and it fuelled consumption (domestic and imported products) and investments. This process had grave consequences on the labour markets and offered an opportunity of solid wage growth and substantially decreasing unemployment rates, however also contributed to the consolidation of a high-inflation regime. Generally, wages increased faster than productivity, therefore competitiveness weakened in the region.

During the 2000s, several scholars started dealing with emerging economies under the umbrella of Varieties of Capitalism theory. New member states of the European Union, Baltic countries, Visegrád countries and Slovenia, quickly became an attractive research topic, since these countries were different from classic Liberal and Coordinated market economies and there was a huge need and interest to somehow categorize these countries. Buchen (2007) and Feldmann (2013) argue that Baltic countries represent Liberal market economies type of capitalism or there is gradual convergence towards Liberal market economies (Quasi-Liberal market economies). Characteristics of Baltic capitalist systems are the flexible labour markets, lack of strong coordinated wage bargaining systems, and higher education system is specialized in general skills and not on specific skills and weak social system. These properties indicate that the Baltic countries belong to the Liberal market economies, although do not purely represent them. Kuokstis (2011 and 2015) discusses that Baltic countries have several features differing from Liberal market economies: regarding corporate relations, strong foreign ownership particularly in services sectors (banking industry); huge inflow of capital; weak export sector;

⁵ According to Pedrosa [2014] and Santos–Fernandes [2015] the more than 200 adjustment programme points in the agreement were not effective and pushed Portugal in a deeper recession and were detrimental to several economic sectors.

and lack of innovation capacity and spending on research and development.⁶ Since the Baltic model of economic development based on inflow of capital and investments (mainly Nordic and German investors), huge current-account balances accumulated during the pre-crisis period (Farkas 2016). Just before the global financial crisis, the Latvian current-account deficit exceeded 20% of GDP and the imbalance in Estonia and Lithuania also reached 15% of GDP (Figure 6). As the Baltic countries drifted into recession, their economic model collapsed, external financial flows and investments ceased, and domestic consumption significantly decreased. The region suffered the largest decline in GDP among the EU member states. According to Purfield–Rosenberg (2010) the huge real economy slump stemmed from two different reasons. First, the domestic demand was frozen, the sales of durable goods simply stopped, the investment projects came to a halt because the demand and supply sides of the credit market withered. Secondly, the collapse of the export must be mentioned since the demand for export products abated from the main trading partners (Northern countries and Russia) so the real effective exchange rate of the Baltic States appreciated because of the depreciation of the currencies of the main trading partners. These developments contributed to diminish external imbalances and establish a more balanced current-account after the crisis.

Figure 6. Current-account balance in Baltic countries between 2000-2017 (compared to GDP).



Source: Own compilation based on Eurostat

In the absence of external funding the Baltic states had just two options for solving the macroeconomic stability and external imbalances namely to reduce the budget expenditures or to give up the fixed exchange rate system (Medaiskyté–Klyviené 2012). The three countries were committed to maintain strict fixed exchange rate regimes, these arrangements served as an economy policy anchor in the way of accessing the Eurozone and enjoyed a decade-long

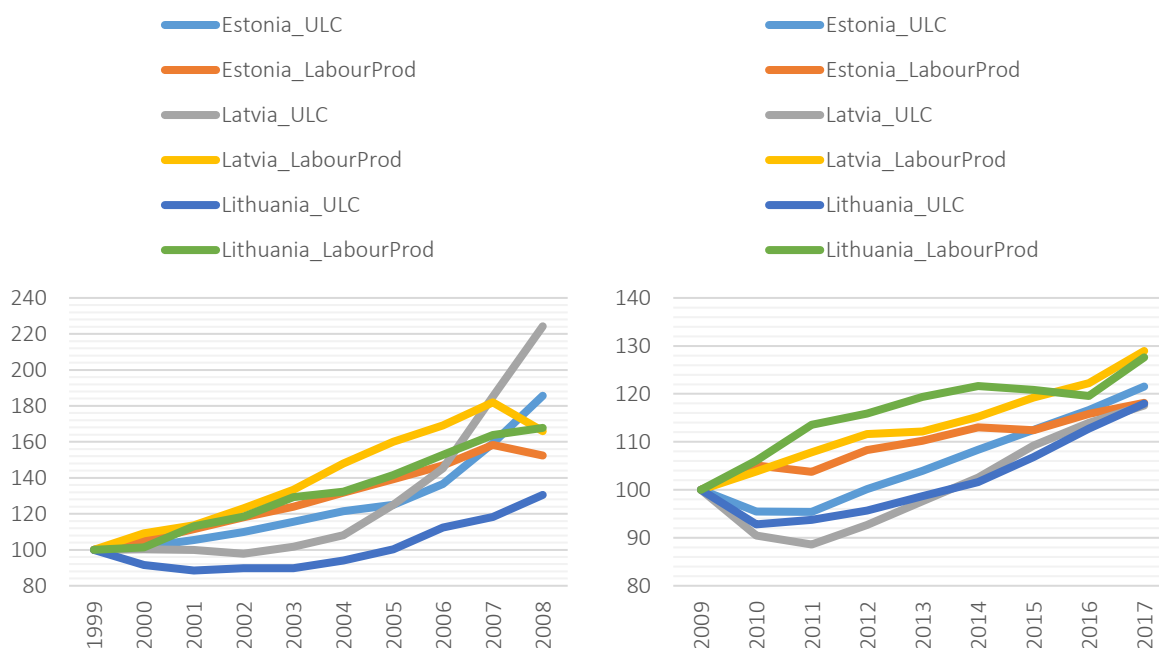
⁶ There is no consensus among scholars regarding the very nature of Baltic countries under the umbrella of Varieties of Capitalism theory. Some argue that Baltic countries are converging towards Liberalized market economies, others use the immature Liberal market economy term and if we take into consideration that economic growth models are principally based on the inflow of capital and investments with large current-account imbalances, Dependent (liberal) market economies is also an acceptable classification.

economic and political support. So instead of a nominal devaluation, the Baltic States opted for internal devaluation which is explained by Purfield–Rosenberg (2010) with four factors. First, because of the euro denominated corporate and household credits the nominal devaluation would have destroyed the value and assets of the private sector which would have had a very negative effect on the financial system and the whole economy. Second, the nominal devaluation would have not resulted in appropriate benefits since the lack of external demand, so the increase of the export competitiveness would not have helped the economy. Third, the Baltic States are exceptionally resilient economies; they weathered the 1998 Russian crisis and the economic transformation after the collapse of the Soviet Union. And finally, fixed exchange rate systems have been the source of macroeconomic stability for about 20 years.

The internal devaluation of the Baltic States took place through fiscal adjustment which was supplemented by the adjustment of the nominal wages and by the fixing of the supervision of the financial system and by reshuffling of the balance sheets of the companies and households (Staeher 2013). The internal devaluation led by fiscal adjustment had an appropriate background even if unpopular measures were not supported by the people. As the result of the fiscal consolidation the Latvian and the Lithuanian budget deficit were around 9 per cent compared to GDP in 2009 (in Lithuania in 2011 as well) then by 2011–2012 the deficit level reached the expected 3 per cent. To sum it up, the Baltic countries successfully cushioned the challenges of the global financial crisis, they did not give up their strictly fixed exchange rate systems, but they chose internal devaluation instead, through fiscal adjustment. Baltic countries became very vulnerable to the fluctuations of the world economic trends (asset bubble on the property market) so it was vital for them to pursue a prudent fiscal policy (creating fiscal reserves in the case of Estonia). One of the degrees of success can be the fact that Estonia joined the Eurozone in 2011 but Latvia and Lithuania have also become member countries of the monetary union since then.

The Baltic model of capitalism, despite high growth and solid catching-up process, carried several weaknesses. One of them is the typical European Union peripheral characteristic, the wage and productivity nexus. Several scholars highlight that in the case of the Baltic countries the growth rate of wages was higher than of productivity during a decade before the global financial crisis, so the region's competitiveness had constantly been deteriorating (Kuokstis 2015 and Farkas 2016). Figure 7 displays the pre-crisis and post-crisis labour cost and labour productivity trends of Baltic countries. Compared to the Iberian countries, a more stable growth of labour productivity took place in the Baltic region, between 50-65% during the pre-crisis decade. Initially, the improvement in labour costs was sluggish, then as the Baltic countries' economic growth accelerated the labour costs started rising in an exponential pace. The increase of unit labour cost in Latvia reached almost 130%, in Estonia exceeded 80%, while Lithuania was the only country in the region, where the rise in labour productivity was higher than the rise in unit labour costs. Impacts of the internal devaluation have been apparent in unit labour costs, for the Baltics it took 3 to 5 years to reach pre-crisis level in 2014.

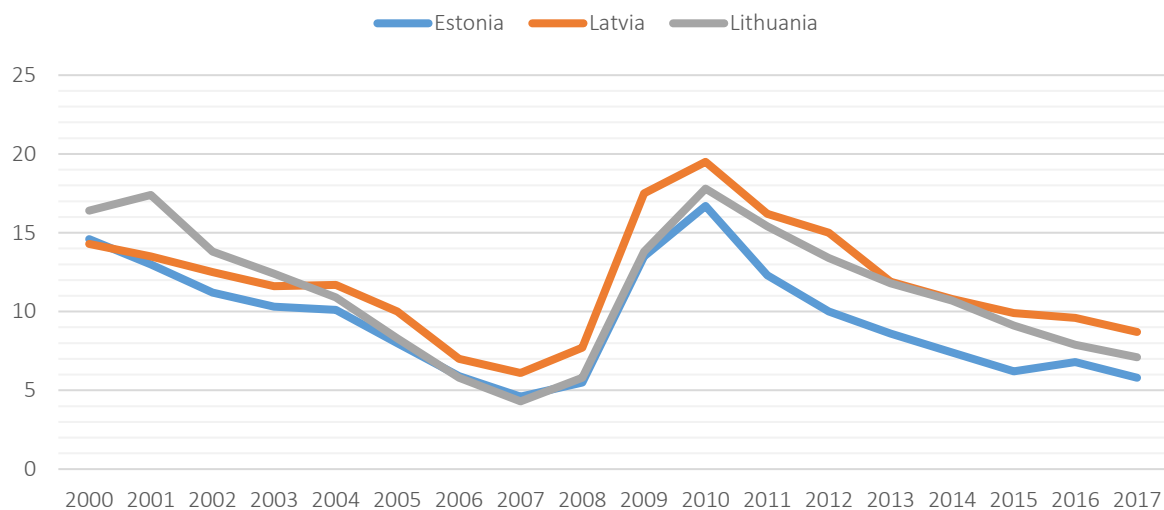
Figure 7. Pre-crisis and post-crisis cumulative labour costs and labour productivity trends in Baltic countries (left between 1999-2008, right between 2009-2017)



Source: Own compilation based on Eurostat

The overheated economic boom of the Baltic countries produced record low unemployment rates and increasing employment. During the 2000s, the Baltic countries had a constantly decreasing unemployment rate that sank from 15% to 5% till 2007. It is worth mentioning that developments in unemployment rates show similar trends among the Baltics, differences among trajectories were less than 2 percentage points during the last few years before the global financial crisis (Figure 8.). Owing to austerity measures and other types of adjustments introduced as a response to the global financial crisis, by 2010 the unemployment rates were between 15 and 20% again. After 2010 we can see a sharp contrast in the labour market trends between Baltic and Iberian countries. In the case of Spain and Portugal the unemployment rate increased until 2013 (Figure 5), before it started declining, while in the case of Baltic countries we have seen a robust decreasing trend since 2010 (Figure 8). Since 2010, the unemployment rates have been dropped by more than 10 percentage points in all Baltic countries and slipped below 8%.

Figure 8. Unemployment rate of Baltic countries between 2000-2017



Source: Own compilation based on Eurostat

3.3. Visegrád countries

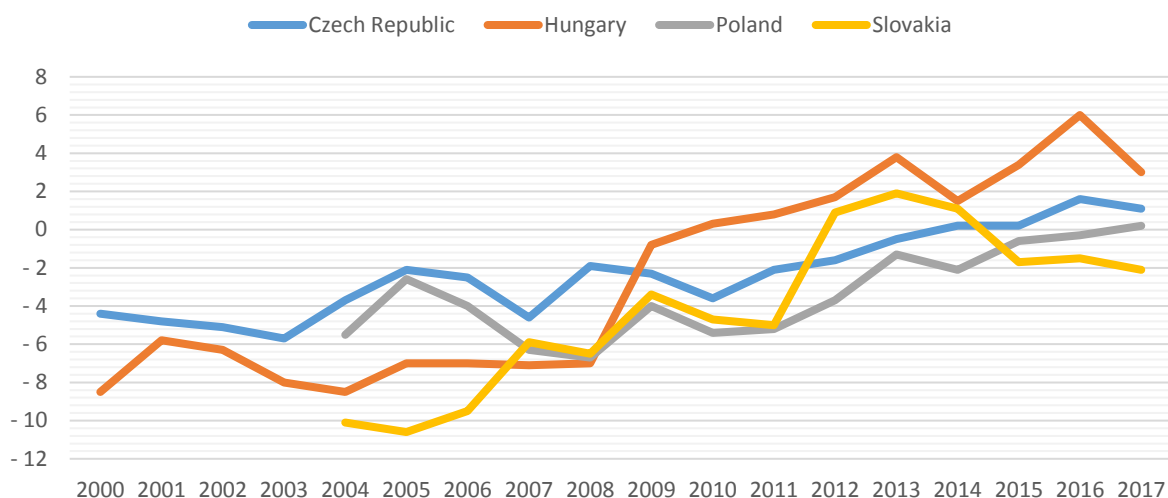
As mentioned, generally, the Visegrád countries' economic development model was based on foreign direct investments. The transition process established good opportunities for foreign multinational companies to implement green and brown-field investments and took advantage of cheap but relatively skilled labour force close to European headquarters. Public utility services and other services industries (telecommunication and financial sectors) and the manufacturing sector were the most dominant branches of foreign investments. The pre and post-accession period displayed a mixed picture in terms of economic developments. The Visegrád countries had difficulties in reaching fiscal balance and preventing the increase of public and private debt, and to anchor inflation (expectations) also was a challenge for the region. These difficulties determined economic growth and success among Visegrád countries. On the one hand, Slovakia, based on political consensus, was committed to introduce the single currency as soon as possible, and the country's efforts reached goal when Slovakia introduced the euro in 2009. On the other hand, Czech Republic, Hungary and Poland were not so busy introducing the single currency, generally fiscal problems emerged and circumvented these countries to join the Eurozone. Economic growth and convergence were the strongest in Slovakia, while, Hungary years before the global financial crisis slipped into a recession due to fiscal problems.

The Varieties of Capitalism theory deals with Visegrád countries as Dependent (Liberal) market economies or dependent market economies (Nölke-Vliegenhart 2009). The Visegrád economic model primarily based on the inflow of capital (foreign direct investments) and domestic consumption (imported products). The FDI-led model partly defines the conditions under these countries operated during the pre-crisis period. First, local affiliates of multinational companies are controlled by headquarters from developed economies (Western European countries,

United States, Japan, South Korea). Spending on research and development were low so technological innovation were (and are) received through multinational companies ('intrafirm' spread of innovation and technology). These countries had (has) limited expenditure on education (higher education) and trainings (vocational trainings), and education is built on general skills and not on specific skills. Thus, foreign multinational could take advantage of low-wage labour (inside the European Union), relatively skilled labour force (legacy of previous educational capacity and knowledge). For the European multinationals, the geographical proximity and relatively developed physical infrastructure also played an important role in investment decisions. Finally, the FDI-led model has a particularly relevant consequence, if foreign direct investments tend to materialize in tradeable sectors (manufacturing industries), the FDI-driven model can easily become an export-led model.

Visegrád countries' economic model – Dependent (Liberalized) market economies – shows the same symptoms and problems such as the Baltic and Iberian states. Historical roots and developments, domestic region-specific institutional structure and macroeconomic developments are different among periphery regions of the European Union but processes that took place before the crisis were almost the same. Visegrád countries also suffered from large imbalances in the current-account (Figure 9). Since intense capital inflow and investments are principal elements of the economic model, and domestic demand (households and firms) heavily relied on imported products current-account imbalances accumulated. The consequences of the global financial crisis were the same in these countries, as large-scale financial flows and investments stopped, the countries crunched into recession. It is worth noting that Poland was the only member of the European Union, where positive economic growth was registered in 2009, the country's large domestic market helped weathering the global financial crisis. The other phenomenon, in the same vein as in Iberian and Baltic countries, is the collapse of domestic demand for imported products (as well for local products). During the pre-crisis period, local currencies were overvalued against the euro (largest trading partner), thus import prices were depressed. The Czech Republic, Hungary and Poland utilized nominal devaluation of their currencies to gain competitiveness and economic prosperity. The post-crisis period's current-account developments do not show a fully convincing image, in Hungary the current-account balance immediately improved and during the last few years reached historical heights, Slovakia's sudden surge reversed, and the deficit is at 2% compared to GDP, and in the Czech Republic and Poland, we have been witnessing a slow upgrading process.

Figure 9. Current-account balance in Visegrád countries between 2000-2017 (compared to GDP).

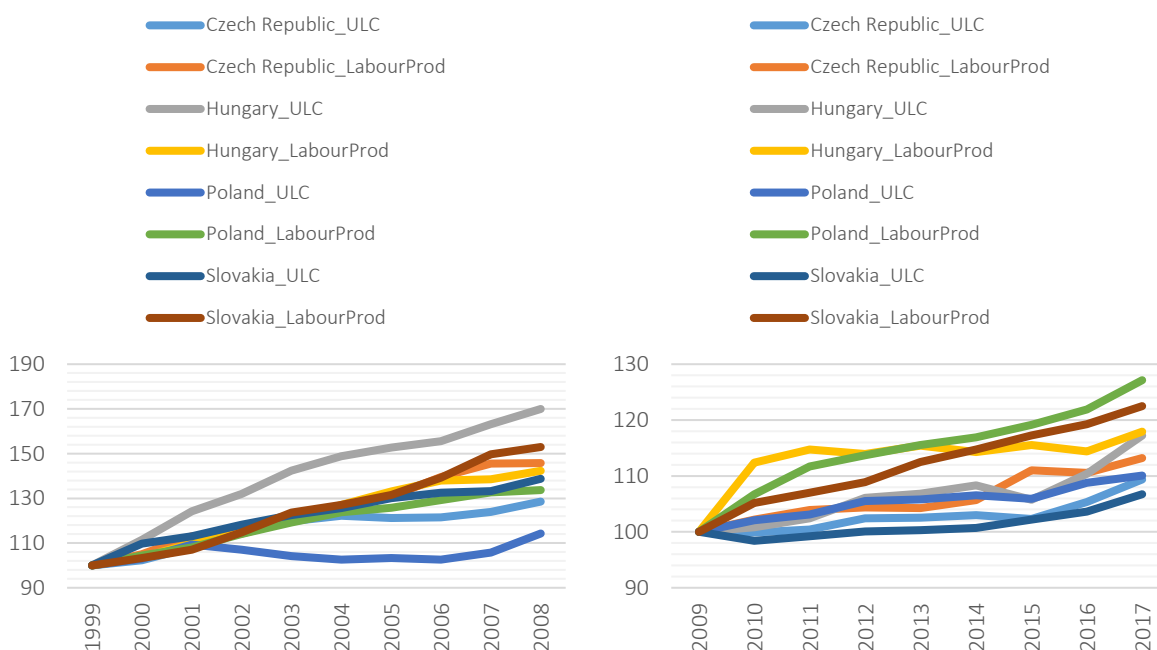


Source: Own compilation based on Eurostat

In the Visegrád countries, the labour costs and labour productivity nexus show a more contrasting picture compared to the Baltic and Iberian states. Generally, labour productivity had a higher growth rate than unit labour costs in the regions apart from Hungary. Hungary registered an extremely high unit labour cost increase in the early 2000s due to state interventions, as governments several times increased minimum wages. Therefore, in Hungary, labour costs rose in a higher pace than productivity, thus the country's competitiveness decreased. In the case of the Czech Republic, Poland and Slovakia, the opposite happened, and labour productivity had a higher growth rate. After the crisis, all countries have enjoyed competitive advantage since national labour productivity growth exceeds the pace of unit labour costs growth.

At the beginning of the 2000s, Poland and Slovakia had enormous unemployment rates, close to 20%, while the Czech Republic and Hungary enjoyed a very low level of unemployment (Figure 11). In the case of the former, a rapid and permanent improvement can be seen, and both countries had unemployment rates below 10% just before the global financial crisis.

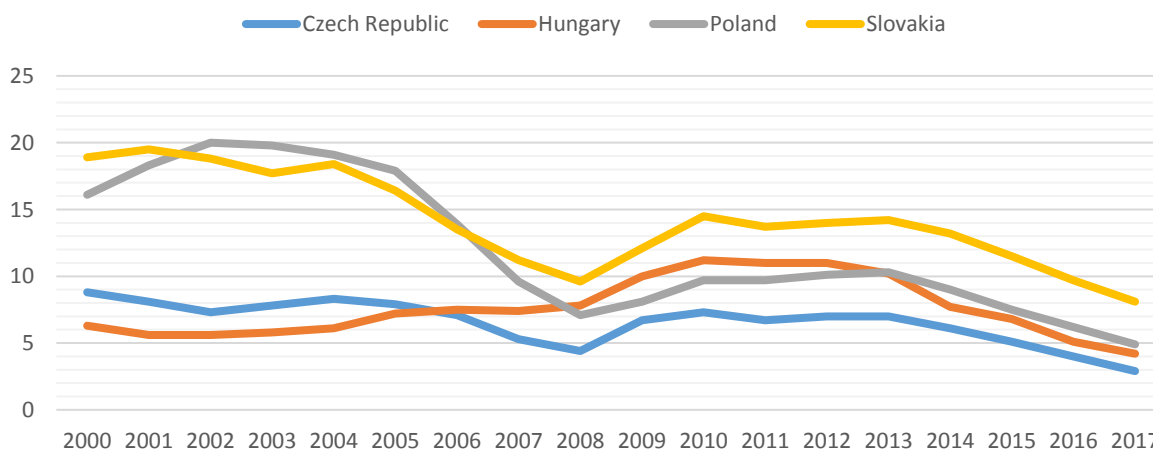
Figure 10. Pre-crisis and post-crisis cumulative labour costs and labour productivity trends in Visegrád countries (left between 1999-2008, right between 2009-2017)



Source: Own compilation based on Eurostat

The recession – obviously – had negative impacts on the labour markets in the region, however, sudden upswings in unemployment rates were less profound than in other periphery regions of the European Union. The Visegrád countries suffered between 3-5 percentage points rise of unemployment rates. The post-crisis macroeconomic performance of Visegrád countries has been among best performing countries of the European Union and export performance has significantly increased since the global financial crisis. Previously fired workers soon found new jobs, in 2017 the Czech Republic, Hungary and Poland all had unemployment rates below 5%, while in Slovakia it fell below 8%.

Figure 11. Unemployment rate of Baltic countries between 2000-2017



Source: Own compilation based on Eurostat

As we can see, exchange rate regimes had influential impacts on labour market developments. The Czech Republic, Hungary and Poland had the possibility to adjust through nominal exchange rates so in these countries fiscal adjustment (curbing social expenditures and governmental sphere) were less significant and drastic compared to countries applying fixed exchange rate regimes. The Czech Crown, the Polish Zloty and the Hungarian Forint reacted suddenly but not lasting to the outbreak of the crisis. After a strong devaluation, corrections were made for all three currencies, which lasted until mid-2011. As the euro crisis deepened, another wave of depreciation has begun and still lasting in the case of the Hungarian Forint. FDI-led economic models of Visegrád countries can change, and export-led economic regime is perhaps a much better description of the current situation.

4. Patterns of changing export performance in the three regions

The pre-crisis period's persistent current-account imbalances are in line with our initial assumptions (as Varieties of Capitalism literature suggests), the three regions macroeconomic model is based on the inflow of capital and products (demand-led approach). This assumes that the Iberian, Baltic and Visegrád countries had suffered from chronic trade imbalances prior to the global financial crisis. As Table 3. depicts, all countries in the regions (excluding Czech Republic) had trade imbalances (sometimes huge) in 2008, a year before the global financial crisis. The three regions can be characterised with divergent trade developments. In the case of the Baltic countries, intra-EU trade imbalances significantly contribute to total trade imbalances. The Iberian countries show a contrasting picture, in Portugal three-fourth of the total trade imbalance were generated inside the European Union, while in the case of Spain extra-EU trade imbalance represents more than 60% of total trade deficit. Among Visegrád countries, Poland was the only member state that had trade deficit both inside and outside the European Union in 2008. The Czech Republic, Hungary and Slovakia enjoyed trade surpluses inside the European Union and extra-EU deficits.

As the global financial crisis hit the peripheral regions, their domestic demand-led growth model immediately collapsed. Large current-account imbalances disappeared after the crisis. Comparing 2017 and 2008 datasets, the cumulative growths of exports are between 37% (Hungary) and 79% (Latvia). In the Baltic countries, total trade imbalances remained, but their structure has changed, intra-EU deficits and extra-EU surpluses. In Portugal and Spain, former huge total trade imbalances have substantially decreased, the Spanish total trade deficit was almost EUR 95 billion in 2008, and it has eased down to EUR 28 billion in 2017, in addition, Spanish intra-EU trade imbalance have totally been eliminated. Recently, Visegrád countries' macroeconomic models considered as export-led models, these countries have built up extensive trade surpluses inside the European Union, while extra-EU trade deficits have remained significant.

Table 3. Trade performance of the three regions in 2008 and 2017 (goods, billions of EUR)

		2008	2008	2008	2017	2017	2017
		EXPORTS (BILLIONS OF EUR)	IMPORTS (BILLIONS OF EUR)	TRADE BALANCE (BILLIONS OF EUR)	EXPORTS (BILLIONS OF EUR)	IMPORTS (BILLIONS OF EUR)	TRADE BALANCE (BILLIONS OF EUR)
ESTONIA	Intra-EU	5,94	8,70	-2,76	9,22	11,94	-2,72
	Extra-EU	2,53	2,20	0,33	3,64	2,80	0,84
	Total	8,47	10,90	-2,43	12,86	14,73	-1,87
LATVIA	Intra-EU	4,73	8,29	-3,56	8,18	11,71	-3,53
	Extra-EU	2,17	2,68	-0,52	4,19	3,20	0,99
	Total	6,90	10,98	-4,08	12,36	14,90	-2,54
LITHUANIA	Intra-EU	9,70	12,17	-2,47	15,41	20,14	-4,73
	Extra-EU	6,37	8,97	-2,60	11,00	8,37	2,63
	Total	16,08	21,14	-5,07	26,41	28,52	-2,11
PORTUGAL	Intra-EU	28,93	48,01	-19,09	40,81	52,58	-11,77
	Extra-EU	9,92	16,18	-6,26	14,29	16,38	-2,09
	Total	38,85	64,19	-25,35	55,10	68,96	-13,87
SPAIN	Intra-EU	133,43	169,65	-36,21	187,92	186,10	1,82
	Extra-EU	57,95	116,46	-58,51	95,65	125,75	-30,10
	Total	191,39	286,10	-94,72	283,57	311,85	-28,28
CZECH REPUBLIC	Intra-EU	85,22	74,34	10,88	133,52	112,18	21,33
	Extra-EU	14,59	22,24	-7,64	25,95	31,19	-5,24
	Total	99,81	96,57	3,24	159,47	143,38	16,09
HUNGARY	Intra-EU	58,84	50,77	8,06	81,84	72,40	9,45
	Extra-EU	14,94	23,29	-8,36	18,91	22,76	-3,85
	Total	73,77	74,07	-0,30	100,75	95,16	5,60
POLAND	Intra-EU	90,54	102,11	-11,57	162,85	145,37	17,48
	Extra-EU	25,36	39,86	-14,50	41,57	58,61	-17,04
	Total	115,89	141,97	-26,07	204,42	203,98	0,44
SLOVAKIA	Intra-EU	41,51	36,77	4,74	64,08	58,82	5,25
	Extra-EU	6,86	13,48	-6,62	10,70	14,87	-4,18
	Total	48,37	50,25	-1,88	74,77	73,70	1,07

Source: Own compilation based on Eurostat

5. Conclusion

Heterogeneity of the European Union member states has always been a problem, however, the global financial crisis and the eurocrisis had severe negative impact on the European economy and further increased economic heterogeneity. The aim of this study was to analyse three different peripheral regions of the European Union – the Iberian, Baltic and Visegrád countries. Taking into consideration that two crises hit the European continent – the global financial crisis of 2008/2009 and the eurocrisis of 2010/2012 – the costs and benefits of different exchange rate arrangements were revealed. The Iberian, Baltic and Slovakia had limited adjustment possibilities (internal devaluation and fiscal austerity), while these member states have been applying fixed exchange rate regimes, (since 2015 all countries member of the Eurozone). In the case of the Czech Republic, Hungary and Poland, the use of nominal depreciation to restore competitiveness and enhance economic growth was possible. The consequences are obvious, Iberian countries suffered from a prolonged crisis, Baltic countries suffered a strong decline in economic activity and a strong recovery afterwards, while the Visegrád countries have been experiencing a robust economic growth and catching-up process since the crisis.

Applying the Varieties of Capitalism framework, we identified strong similarities among the peripheral regions. Even though that the literature separates the three regions into different models, macroeconomic indicators presented similar tendencies. The empirical assessment compared two time periods, the pre-crisis decade and the post-crisis period, and concentrated on macroeconomic variables – current-account balance, labour costs, labour productivity and unemployment rate – through which regional macroeconomic frameworks can be assessed. In addition, a brief part deals with trade performance of the nine countries. The pre-crisis period was characterized by large current-account balances due to capital and product inflow, which has been corrected during the post-crisis period. However, differences can also be observed in diverging post-crisis labour market developments because of different adjustment methods; in fixed exchange rate regimes internal devaluation and fiscal austerity caused substantial increase in unemployment rates (as well as decrease in employment), while floating regimes of the Czech Republic, Hungary and Poland weathered the crises without significant rise in unemployment rates (and decline in employment) through nominal depreciation. Clear relationship between various types of exchange rate regimes and export performance cannot be detected in the post-crisis period. Since the global financial crisis, we have witnessed a rapid increase in export activity in all countries, ranged from 37% (Hungary) to 79% (Latvia), so nominal depreciation's beneficial impacts on export performance cannot be solely explained by the applied exchange rate regimes. Presumably, several other factors have influenced export performance in peripheral countries such as expanding extra-EU export possibilities, sluggish intra-EU demand for imported products, trade activities inside the value chains of global companies (imported inputs) and intra-industry trade. And finally, the collapse of domestic demand on imported products resulted in improving trade balances in all countries of the three regions, however substantive change in trade models (export models) have only taken place in Visegrád countries and Spain.

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Trade and FDI policy promoting export – experiences of the three peripheral regions

Katalin Antalóczy – Andrea Éltető

Abstract

Because of the negative effects of the international crisis, strengthening the export activity became especially important in the peripheral regions of the EU. The objective of the study is to show those central policies that promote export and FDI in these countries and point out their similarities and differences. We analyse the available government documents, strategic papers, indices and also the EU Commission Reports of the given countries. We find that geographical and product structure diversification of exports was an important aim in the observed countries, although these aims were not achieved. The reason is that export promotion policies target small and medium sized enterprises, while exports are defined by large foreign multinationals in most countries. These companies have their own intra-production chain trade that has a different pattern from government aims. Thus, FDI promotion can contradict export promotion targets. The study describes FDI promotion measures in a narrow sense and in a wide sense (general business environment, legal stability) and concludes that these latter have deteriorated in the Visegrád countries. There are serious problems in skilled labour supply, which will have long-term effects of FDI inflow and export achievements.

Keywords: export promotion, FDI, Visegrád, Iberia, Baltic countries

1. Introduction

The international crisis of 2008-2009 and its negative effects increased the significance of export and internationalisation in the EU countries. This was especially important in the peripheral regions that were – because of different reasons - seriously affected by the crisis. Compared to the previous year export dropped in 2009 everywhere, in the EU, in the Baltic states to the highest degree (by 23-30%¹). Usually a year later export volumes returned to the 2008 level but in each peripheral region we can find one country (Portugal, Lithuania and Hungary) where this recovery took place only in 2011. The significance of export is different among the peripheral countries: while the Visegrád and certain Baltic countries are highly export-dependent, open economies, in the Iberian region the export/ GDP ratio is much lower (see the study of Éltető in this book).

Augmenting exports as a way of recovery from the crisis became an issue everywhere. Governments strengthened their foreign economic policies. Our objective is to show those central policies that promote export in these countries and point out their similarities, differences

¹ Based on Eurostat Comext data

and effects. In these countries export promotion takes place on the one hand via attracting large companies to invest and realise export-intensive activity and on the other hand via targeted programs for SMEs. Therefore, export and FDI promotion cannot be separated and usually treated together also by government agencies.

In this study we analyse FDI and trade policy together regarding the Iberian, Baltic and Visegrád region. In several parts we lean on the Working Papers of Antalóczy-Éltető (2016) and Éltető-Antalóczy (2017) updated with new information and trends. We describe the export promoting strategies of the Iberian, Baltic and Visegrád governments and also show their FDI promotion tools. Available government documents, strategic papers, international indices and also the EU Commission Reports of the given countries are analysed. We detect similarities and point out also the differences among these policies.

2. Export promotion strategies and organizations

2.1. Iberian countries

The Iberian countries were particularly strongly hit by the international crisis, the effects of which lasted relatively long. In order to strengthen the export and internationalisation activities, the *Portuguese* government established a Strategic Council for Economic Internationalisation (CEIE²) in 2012 integrating public and private initiatives. The CEIE is presided by the prime minister and includes representatives of ministries, AICEP and enterprise organisations, chambers. CEIE supported the creation of a government program and indeed at the end of 2017 a complex program for internationalisation was launched by the government, taking into consideration 90% of the companies' suggestions in working groups³. This internationalization program is coherent with the National Reform Program presented in 2016 where the Government intended promoting science-technology-innovation, increasing the added value of national production, improving and diversifying exports, and enhancing economic growth. For this purpose, it is necessary to attract investment in R&D, innovation; support entrepreneurship; promote the digitalisation of the economy and promote the internationalisation of the Portuguese economy – declares the Reform Program.⁴

With the Internationalization Program the government expects to increase exports of goods and services - to 50% of GDP in the first half of the next decade - to increase the number of exporters, the diversification of export markets, augment investment levels (national and foreign) and elevate the national added value. The program will be coordinated by AICEP. The

² Conselho Estratégico de Internacionalização da Economia

³ <https://www.jornaldenegocios.pt/empresas/detalhe/governo-aprova-programa-para-aposta-estrategica-na-internacionalizacao>

⁴ https://ec.europa.eu/info/publications/2016-european-semester-national-plan-portugal_en

implementation of the program will be accompanied by the CEIE, that will hold semi-annual meetings. The strategy includes 56 measures grouped in six intervention axes⁵:

1. Business and Market Intelligence (Comparative study of internationalization strategies by other countries, development of a competitive intelligence tool, monitoring the information in the international reports).
2. Qualification of Human Resources and territorial development (National Training Program for Internationalization: to create a multi-year program of training in international trade; to promote programs to support the participation of Portuguese startups in the context of events of international relevance). Develop and update asset listings, identifying local investment opportunities including low-density municipalities.
3. Financing (develop financial instruments to support the internationalization of companies in particular for operations in high risk markets, 200 million euros to stimulate the public-sector Venture Capital Fund, establish a public fund to attract FDI, which will allow additional funds to be invested in co-investment with foreign institutional investors)
4. Support for Market Access and Investment in Portugal (elaboration of a multi-annual program of better coordination and alignment of incentive systems. It also seeks to promote Portuguese products in distribution networks, online platforms. Creating an Entry Portal in Portugal aimed at investors, buyers, external students and tourists, that functions as a single access point to information. An online platform will also incorporate new tools associated with the digitalization process).
5. Development of the Portugal Brand (elaboration of thematic promotional contents focused on sectors in which Portugal has competitive advantages and define the promotion strategy and to promote Portugal as a preferred destination for cinematographic productions.)
6. Commercial Policy and Context Costs (expand the list of investment promotion and protection agreements, double taxation conventions, air service agreements and others aimed at deepening relations with third countries. Continuous surveys of fiscal, tariff and non-tariff barriers in market access and promote appropriate procedures to overcome them).

The internationalization program also contains a timetable for launching and realising the measures. The importance of export development appears in other strategies like the new innovation strategy approved in 2018.⁶ The Portuguese state promotion for internationalisation is heavily supported by the EU funds. The biggest Operational Programme in Portugal is Competitiveness and Internationalization, which is co-funded with 4.4 billion EUR through both Structural Funds, as well as through Cohesion Fund. This means 21% of the

⁵ <https://dre.pt/application/file/a/114311212>

⁶ <https://www.sabado.pt/portugal/detalhe/governo-aprova-nova-estrategia-de-inovacao-para-portugal>

available funds for Portugal.⁷ Tenders were already launched for increasing export base, capitalisation, qualification of SMEs, technology development, innovation. The Portuguese government has had sectoral development programs (fishing, tourism, energy) that also put an emphasis on export increase.

The main executive agency of the government program is AICEP⁸ Portugal Global - Trade & Investment Agency, created in 2007 for attracting investors in Portugal and contribute to the success of Portuguese companies abroad in their internationalization processes or export activities. The agency has a global network, provides support services, counselling, tailored information. AICEP Portugal Global Group also includes AICEP Global Parques - an industrial park-management entity. The aim of AICEP is to attract investments especially in export-intensive sectors and the organization seems to be successful in this respect: FDI has accelerated in the past years.⁹

As far as export credit is concerned, the private insurance firm COSEC has the mandate to manage the official export credit guarantee scheme on behalf of the Portuguese government. Founded in 29 December 1969, COSEC is now present in 52 countries via its network, has an online customer service and large database. Currently, COSEC shares are equally divided between two stakeholders: the Portuguese commercial bank BPI and the German credit insurer group Euler Hermes.¹⁰

In *Spain* the Strategic Plan of Internationalisation of the Spanish Economy was approved by the government in February 2014.¹¹ This is a 120 page document defining the weaknesses and strengths of Spanish external sector and setting development aims, measures and tools. The plan is based on six axes: 1. improving negotiating and business climate for firms. 2. improve market access 3. financial support facilities 4. trade and internationalisation promotion 5. human capital development 6. innovation promotion.

The Strategic Plan gives geographic and sectoral priorities for Spanish exports, and emphasizes the importance of promising non-EU emerging markets. In 2015 sixteen countries were selected¹² based on several factors, like market size, potential, development, macroeconomic stability, degree of openness, development of Spanish exports and FDI, infrastructure, etc. The Strategic Plan describes 41 definite measures, dedicated sums and institutions along the mentioned six axes to support the defined aims and priorities. Since 2012 there is strong government emphasis on branding (such initiatives were made already from 2000-2002 but the

⁷ http://ec.europa.eu/regional_policy/en/atlas/programmes/2014-2020/portugal/2014pt16m3op001

⁸ Associação para o Investimento e Comércio Externo de Portugal. <http://www.portugalglobal.pt/EN/about-us/Pages/about-us.aspx#sthash.OU245B6L.dpuf>

⁹ <https://www.reuters.com/article/us-portugal-investment/investment-in-portugals-export-sector-hits-record-accelerating-idUSKCN1GD59E>

¹⁰ <https://www.cosec.pt/en/cosec/about-cosec/>

¹¹ http://www.mineco.gob.es/stfls/mineco/comercio/140228_Plan_Internacionalizacion.pdf

¹² Algeria, Australia, Brasil, China, Gulf Cooperation Council, USA, Filipino islands, India, Indonesia, Japan, Morocco, Mexico, Russia, Singapur, South Africa, Turkey

crisis gave a further impulse to that), a council of “Marca España” was established, annual reports¹³ are produced that synthesise studies on country image, indicators and rankings, set aims and measures.

In September 2017 the government approved a Strategy for the Internationalization of the Spanish Economy 2017-2027 again, but this time it was a ten-year long term strategy, within it the first Biennial Action Plan (2017-2018).¹⁴ The objective of the Strategy is to ensure the positive contribution of the external sector to economic growth and job creation, as it has been since 2014. The Internationalization Strategy incorporates a wide variety of fields of action and identifies areas and sectors with great potential for external expansion, with the consequent effect on the overall economy. The biennial plans incorporate a set of concrete measures to support exporters and attract investment towards Spain, in collaboration with other institutions and with the private sector. The 10-year program identifies six areas of action on which the efforts of the public sector will focus: 1. Support the needs and profile of companies, encouraging their increase in size. 2. Incorporation of innovation, technology, brand and digitalization in internationalization processes. 3. Development of human capital. 4. Taking advantage of opportunities derived from the common commercial policy and from financial institutions and multilateral organizations. 5. Consolidation of foreign investment with high added value. 6. Reinforcement of the coordination and complementarity of the actions of all relevant public and private actors. In addition, it includes measures to increase the base of companies that regularly export and also to diversify the destination markets and ensure financial support for internationalization operations. The Strategy incorporates a set of actions aimed specifically at startups and for SMEs, it includes the adaptation of financing instruments for internationalization; awareness-raising actions on the importance of going abroad and fostering collaboration among the firms to address international markets.

The elaboration of the Strategy was the task of the Ministry of Economy, Industry and Competitiveness, within the framework of the Interministerial Group of Support to the Internationalization of the Spanish company. It had a broad participation of the different ministries as well as economic and social agents.

The main state agency for Spanish export and investment promotion is ICEX.¹⁵ It has an extensive internet homepage¹⁶ and large network of offices both within Spanish regions and abroad (in 199 countries). ICEX launched at its homepage the so called “Ventana Global” (global window) which offers all public services and information¹⁷ in integrated form with direct access

¹³ http://www.lamoncloa.gob.es/espana/eh15/politicaexterior/Documents/plan_anual_2015.pdf

¹⁴ http://www.mineco.gob.es/stfls/mineco/comercio/pdf/170913_Estrategia_Internacionalizacion_2017.pdf

¹⁵ It was established in 1982 and had the present abbreviation since 1987 meaning Instituto Español de Comercio Exterior. Since 2012 together with organisational changes its official name changed to ICEX España Exportaciones e Inversiones.

¹⁶ www.icex.es

¹⁷ Secretaría de Estado de Comercio del Ministerio de Economía y Competitividad, ICEX Compañía Española de Financiación del Desarrollo (COFIDES), Compañía Española de Seguro de Crédito a la Exportación (CESCE),

for exporting and investing companies. In 2012 ICEX was reorganised, it integrated “Invest in Spain”, and later it incorporated also CECO (Commercial and Economic Study Centre) and the state society “España, Expansión Exterior”. In this way ICEX became an only anchor for internationalising Spanish firms.

ICEX formed its own Strategic Plan that is coherent with the Strategic Plan of Internationalisation of the Spanish Economy. This plan has five main aims (Garzón 2016):

1. Increasing and consolidating the export basis¹⁸.
2. Geographic diversification of Spanish exports.¹⁹
3. Increasing the value-added of produced and exported products²⁰.
4. Human capital formation.²¹
5. Attracting FDI²².

Spanish autonomous regions have promotion tools too. Over the last two decades a growing number of Spanish regional governments have established a network of regional export promotion offices abroad, with the aim of providing qualified support, information and advice to regional companies wishing to introduce their products in foreign markets or to expand their customer base abroad.

The state’s principal financial instrument for export is the Spanish Export Credit Agency CESCE. The Spanish government is majority shareholder (51%) in CESCE, Banco Santander has 21%, BBVA 16%, other Spanish banks 8% and the rest is mixed by other insurance companies. Representatives of the Ministry of Finance participate at the Management Board of CESCE and in the Commission which assesses the risk or not to support projects.

Sociedad Estatal España Expansión Exterior, Instituto de Crédito Oficial (ICO), Enisa, Centro para el Desarrollo Tecnológico Industrial (CDTI)

¹⁸ ICEX provides services with preferential conditions for companies that turn for the first time to ICEX, reinforcing specialist strategic consulting, helping to prepare own export strategy.

¹⁹ The institution focuses to emerging markets, identifies, disseminate and monitors business opportunities in emerging markets, boosts collaboration with multilateral financial institutions and expands the geographical scope of services to areas of difficult access. Personalised services are offered to the firms, for example video conference with the commercial office in the target market (“Contacta days”).

²⁰ ICEX supports activities in high tech and innovative sectors (nanotechnology, astrophysics, scientific equipments, etc.) that have specific requirements. ICEX helps to attract foreign investors for Spanish start-up projects and cooperates with organisations specialised in innovation. In addition, ICEX promotes the country image, quality, undertaking new promotional campaigns in differential sectors and countries.

²¹ ICEX-CECO has 250 professors, virtual campus (<http://www.aulavirtualicex.es>) and trains employees, managers, organises workshops and seminars on foreign markets and internationalisation instruments, provides e-learning services.

²² The agency works along three main lines here: 1. attracts new FDI projects to Spain, promotes investment and reinvestment activities, finds funding for investment, 2. positions Spain as global platform for multinationals, focusing on “multilatinas” offering them a basis for expansion to Europa and Africa 3. fosters a better business climate in Spain, collaborates with Spanish business associations and foreign chambers of commerce, publishes reports together with private institutions and cooperates with other ministry departments.

a) Baltic countries

In Estonia "Made in Estonia 3.0" is the foreign investments and export action plan for the years 2014-2017 for increasing the export capacity of Estonian companies and involving foreign investments.²³ It was adopted by the Estonian government in 2014 as a continuation of similar action plans in 2009-2011 and 2012-2014. "Made in Estonia" is in connection with other strategies and development plans.²⁴

The action plan sets the following goals: increase Estonia's importance in world trade (target level is 0.11% for 2020), increase export turnover across all target countries at least by 10% per year, increase the number of exporters (from 11,281 in 2012 to 15,700 in 2020), growth in average export unit price. The export target countries are the neighbouring countries (Latvia, Lithuania, Finland and Russia), countries of the Hanseatic Road (Sweden, Norway, Denmark, Germany, Great Britain, France, the Netherlands and Belgium) and faraway markets (the large countries in Asia, USA and Brazil). Apart from export, FDI attraction is another pillar of the strategy. The aim is to bring knowledge-based investments to Estonia with setting mandatory criteria including the partial hiring of Estonian workforce, their training, joining networks, developing curricula together with vocational schools and/or universities, conducting courses for preparing specialists at schools, and also organizing social events. The focus is on units of large international groups (turnover exceeding 100 million euros, economic activity in at least three countries) with a high value added, research and development units of international major companies operating in growth areas, datacentres and start-up companies.

The Estonian Export and Investment Strategy is supported by specialized agencies and institutions. The most important is Enterprise Estonia (EAS), founded in 2000. EAS supports the development of enterprises that are capable of export and creating higher added value.

The focus of the activities of EAS is:²⁵

1. Creating new business opportunities. EAS organises national joint displays at international fairs, contact trips and events based on sectors and growth areas for Estonian companies, introduces Estonian companies to sales managers of foreign companies, provides sourcing service and online database of Estonian exporters.²⁶
2. Support for exporters in entering foreign markets outside of Estonia. There are export consultants of EAS for most important target markets (Finland, Sweden, Norway, Denmark, Germany, Great Britain, France, Russia, China and Netherlands). A network of support persons was established for helping Estonian companies (consulting upon entering the market) on foreign markets. EAS aims to improve awareness of Estonia and its reputation to

²³ Made in Estonia 3.0 https://www.mkm.ee/sites/default/files/mie_3.0_english_version.pdf

²⁴ Regional Development Strategy, Tourism Development Plan, Information Society Development Plan, Development Plan for Lifelong Learning, Enterprising Growth Strategy

²⁵ EAS Strategy for 2015-2018, <http://www.eas.ee/wp-content/uploads/2015/11/EAS-Strategy-for-2015-2018.pdf>

²⁶ <https://www.tradewithestonia.com>

create trust for companies. The task of EAS is to introduce Estonia to target groups on foreign markets (incl. at international fairs, contact events, business trips together with the field of foreign investments). EAS also creates efficient financial instruments for Estonian exporters and provides export credit insurance.

Regarding the export credit institution, KredEx was founded in 2009. It is a financing institution helping Estonian enterprises develop quicker and expand more safely to foreign markets, offering loans, venture capital, credit insurance and guarantees with state guarantee.

Two later government strategies should be mentioned in connection with exports. The first is the Strategy of Entrepreneurship that was approved in 2018 for three years with the objective to increase the export of Estonian enterprises by state subsidies and loans.²⁷ In addition EAS supports participation in the new international specialist fairs. In the summer of 2018 a new product development support was launched, as well as an evaluation measure for the possibilities of digitization and automation of industrial enterprises. Enhancing entrepreneurship awareness through training and information days is also important in the state strategy. EAS and KredEx will continue to provide financial support to startup companies, both as loan guarantees and startup aid. Separate programs have also been set up for seed businesses, and they still have the opportunity to submit applications for innovation and development.

The second strategy is “Estonia 2035” that will be completed in spring 2020 following consultations with social partners, experts, politicians and officials. The country-competitiveness strategy will be reviewed annually, considering the impact of external trends and channelling EU funds of the new EU financial framework.²⁸

In *Latvia* we have not found separate foreign trade promotion or export strategy of the Latvian government, but the Industrial Development Policy adopted in 2012²⁹ deals with export development among others. This plan was a reaction to the international crisis aiming to increase openness, competitiveness and value added. It says that the economic model based on internal demand and the influx of external capital no longer exists, there is a need for change of economic development paradigm to a model of sustainable development. Here the main driving forces are: export, the ability to compete in internal and external product markets, as well as the ability to compete in capital attraction to increase the productivity potential of Latvia. With the change of the common economic paradigm there is also a necessity to change the entire policies to comply with modern industrial policy.

Concerning foreign trade and investments the plan aims to: 1. Support export with higher added value by promoting inclusion in supply chains and production of niche products. This support is regularly monitored. 2. Attraction of foreign direct investment with an aim to ensure

²⁷ <https://www.mkm.ee/et/uudised/eesti-eksport-riigi-toel-kasvanud>

²⁸ <https://www.valitsus.ee/en/news/government-decided-begin-working-strategy-estonia-2035>

²⁹ https://www.em.gov.lv/files/uznemejdarbiba/finl_en.pdf

access to finance and markets, and transfer of knowledge, skills and technologies. 3. Support for entering foreign markets by reducing trade barriers in foreign markets and increasing export skills and knowledge of enterprises.

The main institution of export and investment promotion is LIAA (Investment and Development Agency of Latvia) that belongs to the Ministry of Economy³⁰. Its objective is to facilitate more foreign investment, increasing the competitiveness of Latvian entrepreneurs in both domestic and foreign markets, improve business environment and provide business services.

Regarding export finance ALTUM³¹ (Development Finance Institution) provides export credit guarantees and insurance, such as consultation, education and mentoring. Started in 2015, ALTUM is the successor of Latvian Guarantee Agency founded in 1998. It is a state joint stock company and administers financial state aid targeting mainly SMEs, start-ups.

The Export Development Strategy 2009-2013 of *Lithuania* was a consequence of the international crisis. Its main objectives were to expand the opportunities of firms to find new trading partners, increase penetration into new markets and create proper goods and services for an export friendly environment. The strategy aims the increase of production of high value added goods and services supported by state institutions and public bodies. Its vision for 2015 is to develop Lithuania as a centre for services of the Baltic Sea region. Its aim is that services should be around 50% of total exports (intellectual services - 20%, tourism - 10 per cent, other services - 20%). Export is understood to have become the country's long-term growth engine.

The next export development strategy (Guidelines of Export Development for 2014-2020)³² was adopted in 2015, it establishes export promotion policy and measures. Its priority objectives are: 1. to maintain export positions in foreign markets; 2. to penetrate into new markets, especially in third countries; 3. to promote the export development of higher value-added goods and services.

Considering the market size and growth potential, business interest, market demand compliance with the Lithuanian export opportunities and export trends, three priority export market groups were identified. On the enlargement markets – Sweden, Norway, Germany, the United Kingdom, France are the targets; on the perspective markets – the US, China, Israel, Japan, Ukraine are important; and on the so called exploratory markets – the UAE, Canada, Turkey and the Republic of South Africa. Lithuanian government has also been working intensively to attract foreign investments.

The national reform programme for 2018 has also a chapter on export and investment promotion.³³ In order to attract large value added production investments, it is planned to

³⁰ <http://www.liaa.gov.lv/en>

³¹ <http://www.altum.lv/en>

³² <https://ukmin.lrv.lt/en/sector-activities/export/export-promotion-policy>

³³ <https://ec.europa.eu/info/sites/info/files/2018-european-semester-national-reform-programme-lithuania-en.pdf>

create special legal regulation and targeted incentives in 2018. The Ministry of Economy implements measures to attract talents, integrate them, improve the immigration model, and to create incentives for the returning talents.³⁴ In order to facilitate the conditions of employment of highly qualified professional specialists from third countries in Lithuania, the Ministry of Economy periodically updates the list of those professions that require high qualifications and workers that the country is currently most lacking.

In order to help the business in international markets, measures were approved and implemented in 2017–2018.³⁵ The most promising export markets are to be identified in the light of the export potential of high added value goods and services. The diplomatic services and the diaspora network of Lithuania are being involved more actively, visits and cooperation initiatives are being coordinated. Long-term target measures are aimed at strengthening the image of Lithuania and business sectors abroad, improving the national economic representation system, and refining the skills of export specialists. In 2018, granting export credit guarantees to SMEs were initiated and the implementation of portfolio guarantee for factoring is also launched in 2018. Both measures will help SMEs to expand their export activities, strengthen their competitiveness and promote exports of goods of Lithuanian origin.

The agency Enterprise Lithuania³⁶ has strategic goals to help enterprises, and increase financial independence from public funding. Its mission is to support the establishment and development of competitive businesses in Lithuania and to foster the country's exports by facilitating cooperation with partners' networks, to provide quality training, consultancy, market analysis, and business-partner search services. The export guarantee institution "Investiciju ir verslo garantijos" (INVEGA) was established in 2001 on SME development. Its supervisor is the Ministry of Economy.³⁷

³⁴ Together with "Invest Lithuania", four projects are implemented: "Establishment and engagement of the talent attraction unit", "Creation of incentive systems for attracting highly qualified specialists", "Improvement of the immigration model for attracting highly qualified specialists and their families", "Creation of an integration model for highly qualified workers and their families returning to Lithuania".

³⁵ The first call for tenders for "Expo Consultant LT" was announced. In order to support the certification, tests and research of export products by SMEs, a call for tenders for "Expo certificate LT" was announced in 2017. In January 2018, two calls for tenders for "New opportunities LT" were launched in order to encourage SMEs to search for new foreign markets and the development of existing markets. By two other calls SMEs in the cultural and creative industries are supported. In order to encourage SMEs groups that operate jointly to join the international networks so as to find new export markets for their products, in 2018, the 2nd call for tenders for the "Business Cluster LT" was announced.

³⁶ <http://www.enterpriselithuania.com/en>

³⁷ <http://www.invega.lt>

b) Visegrád countries

After a backdrop in 2009 export gained quickly momentum in the Visegrád countries. In most of them we can find central promotion strategies. In the *Czech Republic* there is a continuity in the export strategy since 2006 and from time to time it is updated by the Ministry of Industry and Trade, Ministry of Foreign Affairs. The strategy is publicly available and coherent with other government strategies (innovation, foreign policy, security, development). The presently valid Export Strategy of the Czech Republic 2012-2020³⁸ was adopted in 2012 and last updated in January 2018. It summarises the general vision of pro-export activities by the state, their objectives as well as the measures to be taken in order to achieve these objectives. It follows the Czech Export Strategy 2006-2010. The Strategy identifies some of the major obstacles of Czech export: 1. the high orientation on European Union markets 2. increasing level of sectoral specialisation and low volume of exports in services with high value added 3. insufficient following of trends on world markets 4. insufficient utilization of European Union funds and projects for Czech exporters 5. separation of a role of export agencies financed by the state.

As major targets the Czech Export Strategy wants to achieve by 2020:

- Increase the number of Czech exporters by 15%, the overall export by 25% and SME exporters by 50%, double the number of highly innovative exporters (born globals, born creative)
- Diversify export, especially into the countries outside of the European Union³⁹
- Shift Czech exports into economic sectors with higher added value, more innovation in export production and manufacture. Increase the export volume of services by 20% by 2020, particularly services with high value
- Reduce product concentration by 15% by 2020;

Creating jobs and preparing to Industry 4.0 are also aims of the strategy. The Czech Export Strategy is supported by three main specialized export-promoting institutions. CzechTrade⁴⁰ provides export information and consulting services, it was established by the Ministry of Industry and Trade in 1997. The agency is an official contact partner for foreign companies looking for qualified Czech-based suppliers of products, providers of services or investors. CzechTrade operates worldwide via 47 foreign representatives. It provides a wide range of business support and networking services. Czech Export Bank (CEB), is specialized in export financing especially to less developed and risky countries. Export Guarantee and Insurance Corporation (EGAP) provides insurance against political and non-marketable commercial risk (Janda 2014). In the 2018 update of the Export Strategy the importance of information to

³⁸ <http://www.mpo.cz/dokument104211.html>

³⁹ Twelve priority countries were defined: Brazil, People's Republic of China, India, Iraq, Kazakhstan, Mexico, Russian Federation, Serbia, Turkey, Ukraine, USA and Vietnam. Another target group covers the so-called "countries of interest", with 25 markets: Angola, Argentina, Australia, Azerbaijan, Belarus, Egypt, Ethiopia, Chile, Ghana, Croatia, Israel, Japan, South Africa, Canada, Columbia, Morocco, Moldavia, Nigeria, Norway, Peru, Senegal, Singapore, United Arab Emirates, Switzerland and Thailand.

⁴⁰ <http://www.czechtradeoffices.com/about-czechtrade/>

exporters is emphasized (assistance, consultation, training, fairs, diplomacy). The new brand name is “Czechia” this will be internationally promoted.

In *Slovakia*, a separate export strategy did not exist until 2014. There were three other strategies after the crisis. The first is the National Reform Program 2015 (Ministry of Finance), the second is the Research and Innovation Strategy 2013 (Ministry of Economy) and the third is the Sustainable Economic Development strategy (Government Office). The first program does not give details on export activities.

The Research and Innovation Strategy has a focus on export trends and development. The document states that the main export sectors of the Slovak industry are characterised so far by a high rate of intermediate consumption and low rate of added value. The production of motor vehicles and consumer electronics is more and more integrated into the production structures of the Slovak economy. The Strategy finds it important to strengthen the position of these decisive export sectors in the Slovak economy.⁴¹

The Sustainable Economic Development Strategy⁴² was adopted after the crisis and aims small and medium sized enterprises to be more involved in the manufacturing networks of supranational corporations. Apart from that the government builds conditions for an attractive investment climate for local and foreign investors.

The “Strategy of the External Economic Relations of the Slovak republic for 2014-2020” was approved in 2014.⁴³ The strategy also includes objectives and measures in the areas of support for foreign direct investment, presentations of the Slovak Republic abroad, pro-export orientation. The objectives of the strategy are grouped in four main areas:

A. Business-policy objectives (Increase the number of exporters, securing stable deliveries of strategic goods, diversification of the territorial structure of exports - increasing the share of exports to non-European markets, diversification of the export commodity structure, increase the export share of small and medium-sized enterprises (SMEs), increase the share of export of services including tourism). The implementation of export policy will be implemented through the institutional framework (by the Ministries, SARIO, EXIMBANKA SR and Slovak Chamber of Commerce in cooperation with other institutional actors).

B. Proinvestment Objectives (Increasing inflows of investments, in particular into areas with higher added value and in less developed regions, increasing export performance through investment, increasing investment in industrial R & D, supporting established investors in expanding their activities in the Slovak Republic.)

⁴¹ “The Slovak economy is driven by large ‘key’ multinational companies. Therefore the important factor is the support of the innovation and research and development activities in domestic enterprises operating in the supply chains or enterprises that have the potential to become sub-suppliers for supply chains.” (pp 61)

⁴² <http://www.vlada.gov.sk/sustainable-economic-development/>

⁴³ <http://www.mpsr.sk/index.php?navID=1034&navID2=1034&SID=111&id=8991>

C. Objectives in the field of research and innovation cooperation with abroad (increase the involvement of Slovak business and research entities in international research cooperation projects, to increase the degree of internationalization of the results of domestic research and development, increase the interest of foreign venture-capital funds on projects of Slovak subjects, increase the interest in founding research centers of foreign companies in the SR).

D. Goals in the field of unified presentation of Slovakia (create a functional model of coordination of actors involved in Slovakia's presentation abroad, Create a credible, specific and attractive presentation identity of Slovakia).

As a continuation and update of the External Economic Strategy the "Priorities of Export Policy of the Slovak Republic for the period 2018-2020" was accepted in May 2018. General aims have not changed but in the case of special targets some areas are especially emphasized:

- geographical diversification, increase of non-EU market shares;
- export product structure diversification (share of HS-85-87 electronic machinery, vehicle and components is increasing further, reaching 50% in 2016. Investment policy aims these sectors of manufacturing (attraction of Jaguar LandRover is a good example), but this increases dependency);
- increase the share of SMEs (it was always an aim but in vain, the role of SMEs decreased between 2011-16);
- increase service export, mainly tourism.

The strategy points out that Slovak growth is too heavily based on cheap labour, in the future also export should be based on innovation and increased value added (by higher value added inputs and more domestic suppliers). This requires qualified, creative and innovative human capital, restructuring of industry, decreasing tax burden and improving business environment. The main targets for 2018-2020 are:

- integrated export promotion information system "business missions", diplomacy;
- "business missions", diplomacy;
- trade fairs;
- training of exporters;
- Eximbank support in risky markets;
- promoting internationalisation of SMEs.

Government strategies are supported by specialized export and investment promoting organisations, among them the most important one is SARIO (Slovak Investment and Trade Agency). It was established in 2001, and operates under the Ministry of Economy. SARIO has a network of regional offices in Slovakia and operates worldwide via economic diplomats of the ministry of Foreign Affairs. The goal of the agency is to support export activities of Slovak firms and put efforts into integration of SMEs into clusters. Its key activities are matchmaking, providing information, online services.⁴⁴ The National Business Centre (launched in 2015)

⁴⁴ <http://www.sario.sk/sites/default/files/data/pdf/sario-trade-with-slovakia-ENG.pdf>

serves as an umbrella organisation providing different forms of institutional support to all entrepreneurs interested in expanding their business abroad. It is financed through the operational programme for research and innovation and operates via the Slovak Business Agency under the Ministry of Economy. Regarding export financing EXIMBANKA SR (Export-Import bank of the Slovak Republic) was established in 1997 to support the maximum export volume to numerous countries, while ensuring the return on investment through the minimization of the risks arising from insurance, credit, guarantee, and financial activities. EXIMBANKA SR assist both large and small (SME) companies and is prepared to provide solutions tailored to companies' specific needs. It is the only institution in the Slovak Republic authorized to provide export financing and pure cover backed by the government.⁴⁵

In *Poland*, after the October 2015 elections the new government applied significant institutional changes and the whole economic policy is being reformed. The new Polish government presented its growth strategy (Responsible Development Plan) at the end of July 2016, planning a reorientation of Polish drivers of growth.⁴⁶ The strategy has 316 pages, covers activities until 2020, but also gives prospects until 2030. By 2020, approximately PLN 1.5 trillion on the public (domestic and foreign) side and over PLN 0.6 trillion as part of private investment will be committed to the implementation of the Strategy's development goals.⁴⁷ Five main pillars are named, industrialisation, innovation, capital, export and social-regional development. Reindustrialisation is implemented, among others through the construction of a "car cluster", attracting large foreign investments. Concerning the export pillar, the plan aims to maintain EU markets but focuses on some new Asian, African and American markets. New trade posts are to be created in these countries and the plan envisages an "economic diplomacy push up". The reasoning is that "expanding to new markets is essential for companies because there is insufficient domestic demand for innovative products". In addition, the plan supports the creation of a "new spirit of Polish entrepreneurship" with an emphasis on fostering opportunities in economic sectors that would be export sensitive, the creation of new competitive Polish brands ("Polish Champions") and assure the return of many of Polish emigrants (Hunter 2018).

The new Ministry of Economic Development will define the new Export strategy. This new Ministry was created through the merger of Ministry of Infrastructure and Regional Development and partly a Ministry of Economy. This Super-Ministry will control the new super-agency (the Polish Development Fund) that coordinate many other agencies such as Polish Agency of Enterprise Development, Export Credit Insurance Corporation Joint Stock Company (KUKI), the Polish Agency for Information and Foreign Investment (PAIIZ) and other smaller agencies that facilitate trade or just improve the competitiveness locally.

⁴⁵ https://www.eximbanka.sk/en/english/about-us.html?page_id=192

⁴⁶ https://www.mr.gov.pl/media/14873/Responsible_Development_Plan.pdf

⁴⁷ <http://www.pap.pl/aktualnosci/news,806776,glinski-rzad-przyjal-strategie-na-rzecz-odpowiedzialnego-rozwoju.html>

PAIiZ⁴⁸ was established in 2003, resulting from the merger of the State Foreign Investment Agency (PAIZ) and the Polish Information Agency (PAI). In 2017 PAIiZ was integrated like other agencies under the Polish Development Fund and changed name to Polish Agency of Trade and Investment (PAIH) from January 2017. The budget of the Agency was raised almost ten-times more in 2017 than before.⁴⁹ PAIH established foreign trade offices in several locations of the world.

The agency helps investors to enter the Polish market, provides complex information related to economic and legal environment, helps to obtain investment incentives and to find the appropriate partners and suppliers. The agency's mission is also to promote the 'POLSKA' brand, organizing conferences, seminars, exhibitions, workshops. A network of Regional Investor Assistance Centres has been established across Poland. Their goal is to improve the quality of a region's investor services as well as to provide an access to the latest information – such as, the investment offers and regional micro-economic data. PAIH also launched and supports several “Go” programs (Go ASEAN, Go Arctic, Iran, Africa, India). However central efforts to promote non-EU export have had little results so far, the main targets of Polish export remain the EU economies (see the study of Toporowski in this book).

The main institution for export financing is KUKE (Polish Agency of Enterprise Development, Export Credit Insurance Corporation Joint Stock Company). It is the only insurance company in Poland, authorized to provide export insurance backed by the State Treasury, thus offering insurance cover on markets exposed to higher political risk. KUKE belongs also to the Polish Development Fund now. Another institute is the State Development Bank⁵⁰ that also supports Polish exporters by taking on part of the risk related to trading activities of Polish companies.

The *Hungarian* export development strategy (called “Eastern Opening”) was adopted in 2011 for the 2012-15 period. The text of the whole strategy was not public, only press information was published about it. The aim of the government was to diversify Hungary's foreign economic relations and developing Eastern (or Asian) relations⁵¹. The main goals of the Hungarian foreign economic strategy were the following⁵²: (1) doubling Hungary's exports, (2) developing the exports of Hungarian SMEs, (3) doubling inward FDI flows to Hungary, (4) doubling outward FDI flows to neighbouring countries.

The strategy marks three directions of geographical diversification of export: (1) “Eastern Opening”; (2) becoming suppliers to big European exporters; and (3) economic cooperation in the Carpathian Basin. The foreign economic strategy puts emphasis on developing trade (and technology) relations with China, India, Russia, South Korea, Turkey, ASEAN member states,

⁴⁸ <http://www.paiz.gov.pl>

⁴⁹ <https://www.mr.gov.pl/strony/aktualnosci/program-wspierania-ekspansji-miedzynarodowej-polskich-przedsiębiorstw/>

⁵⁰ <https://www.en.bgk.pl/our-bank/mission-and-tasks/>

⁵¹ http://www.kormany.hu/download/1/d7/30000/kulgazdasagi_strategia.pdf

⁵² This part is largely based on Éltető-Völgyi (2013)

Arab countries and CIS. Besides the geographical diversification, some changes in the export structure would also be desirable.

The state export development is targeted to increase Hungarian SMEs' export capability by: 1. Creating a so-called export academy that will provide trainings in foreign trade for SMEs; 2. creating a programme of 'exports return home' which will make a survey on SMEs' goods/services with export quality, and provide a network of advisers in foreign trade; 3. creating an export directory which will contain the database of Hungarian exporters and available state export incentives; and 4. supporting cooperation among SMEs in the form of cluster or consortium etc. 5. To enhance SMEs' entry into emerging markets, the state opened state-owned trading houses. Thus, at the beginning of 2013, the state-owned National Trading House (NTH) was established.

The "Eastern Opening" strategy was not successful according to the figures, export stagnated towards non-EU regions. In 2015 "Southern Opening" strategy was announced by the Minister of Foreign Affairs⁵³ – without published documents. Later this also seemed to fail. All in all, Hungary does not have an officially published, mid-term export or foreign economic strategy. Intransparency, centralisation and constant reorganisation characterize the system. Some institutions write strategies, "points" (Hungarian National Bank⁵⁴). There are government plans (Irinyi Plan⁵⁵, Industry 4.0 strategy and platform⁵⁶), but these are not really coordinated among ministries and partly not public.

In the past years, export promoting and financing institutions that have existed for decades, have been reformed, renamed, centralised. The direction and ownership was transferred to the Ministry of Economy. Investment promotion was the task of HIPA (Hungarian Investment Promotion Agency)⁵⁷ and export promotion concentrated only on National Trading House. Huge amount of money was spent on opening trade houses in 40 economies, lots of far-away countries among them (Botswana, Namibia, Laos, South Africa, Mexico, Peru, Ecuador, Cambodia, Indonesia, Armenia, Kazakhstan, etc). In 2015 the NTH produced HUF 6 billion loss.⁵⁸ In 2017 14 trade houses were closed. In 2018 the National Trading House merges with its affiliate (Hungarian Trade Development and Promotion Ltd) and HEPA is created (Hungarian Export Promotion Agency Nonprofit Ltd) that aims to help SMEs export. The agency for export financing is EXIM, a merge of the Hungarian Export-Import Bank Plc. (Eximbank) and the Hungarian Export Credit Insurance Plc. (MEHIB).⁵⁹

⁵³ <https://hungarytoday.hu/southern-opening-foreign-minister-advocates-new-trade-strategy-64236/>

⁵⁴ <https://www.mnb.hu/en/pressroom/press-releases/press-releases-2018/magyar-nemzeti-bank-submits-new-proposals-for-improving-competitiveness>

⁵⁵ <http://www.kormany.hu/download/b/fb/31000/IRINYI%20Plan.pdf>

⁵⁶ <https://www.i40platform.hu/en>

⁵⁷ <https://hipa.hu/main>

⁵⁸ http://index.hu/gazdasag/2016/08/26/mnkh_nemzeti_kereskedohaz_hatmilliard_veszteseg_szijjarto_futsal/

⁵⁹ <http://exim.hu/en/>

c) Similarities and differences in export promotion

We have found some similarities in the export developing policies of the given countries. In all cases a government strategy including export promotion, diversification, was announced around 2011-12, as a consequence of the crisis. Geographical diversification was targeted in all economies, non-EU, emerging target markets were named, apart from the traditional partners (see Table 1). In all countries (except for Hungary) the governments realised the importance of a coherent economic policy and connected export promotion policy with other development strategies. Innovation, research and development and increasing domestic value added serve as a basis for medium and long-term export development.

In several countries the export promoting institutions have been reorganised, centralised. In Poland and Hungary this step followed a previous government change. In most cases, foreign trade promotion joins to FDI attraction, incentives in promotion agencies.

Table 1. State export policies and institutions in the observed countries

	GOVERNMENT STRATEGY FOR EXPORT OR INTERNATIONALISATION	AGENCIES	FINANCING (EXPORT CREDIT AGENCY)	NEED FOR DIVERSIFICATION
ESTONIA	Made in Estonia 3.0, Estonian Export and Investment Strategy 2015-18	EAS	KredEx	Geographical
LATVIA	<i>No separate strategy</i> Part of Industrial Development Policy	LIAA	ALTUM	Geographical
LITHUANIA	Export Development 2014-20	Enterprise Lithuania	INVEGA	Geographical
POLAND	Responsible Development Plan, 2016	PaiH	KUKE	Geographical and product
CZECH REPUBLIC	Export Strategy 2012-20 + update	CzechTrade	CEB, EGAP	Geographical and product
SLOVAKIA	Strategy for External Economic Relations of the Slovak Republic for 2014-2020, partly updated to Priorities of Export Policy of the Slovak Republic for the period 2018-2020	SARIO	Eximbanka	Geographical and product
HUNGARY	"Eastern Opening" in 2011, "Southern Opening" in 2015 than no other	HEPA (from 2018)	Exim	Geographical
PORTUGAL	Internationalisation Program, 2017	AICEP	COSEC	Geographical and product
SPAIN	"Strategic Plan of Internationalisation of the Spanish Economy"	ICEX	CESCE, ICO	Geographical and product

Source: own compilation

However, certainly we can find important differences among the policies. Government documents are in some cases very detailed, well prepared and coordinated with other policies (e.g. Spain, Czech Republic, Estonia) and there are countries where separate export strategy does not exist or it is not published (Latvia, Hungary). The level of transparency of state actions is also different. The least transparent was the Hungarian system of trade-houses, but in case of Portuguese and Spanish export financing agencies concerns have been raised too.⁶⁰ In most

⁶⁰ <http://www.eca-watch.org/ecas>

cases the government strategies were formed via consultation with industrial and social organizations, agencies. Hungary is an exception in this respect.

Although geographical diversification of exports appears everywhere as a policy goal, the aim of product structure diversification cannot be explicitly found in all countries. In certain countries the strengthening of the country brand, country-image came also into focus (marca Portugal, marca Espana, marka Polska) and became integrated into the export promotion system, while in other cases this was not in focus.

3. FDI promotion in narrow sense

Regarding FDI promotion policy we can distinguish between promotion tools in the narrow sense and in the wide sense (see detailed in Éltető-Antalóczy 2017). Promotion in the wide sense means such business conditions that are favourable for the functioning of firms (either domestic or foreign). Apart from regulatory factors (ease of doing business, bureaucracy) several other government policies (legal system, education, innovation, infrastructure) belong here. Promotion in the narrow sense means certain measures directly aimed at investors, like investment grant systems, tax allowances and established special economic zones for (mainly foreign) investors. Below we briefly show some facts on FDI inflows, tax allowances and special zones in the nine countries. Tax policy in itself belong to the wider sense promotion but certain features especially relevant for foreign investors are mentioned here too.

3.1. Iberian countries

Investment promotion has always been very important in the Iberian countries. The attraction of large multinationals began in the eighties, together with economic liberalization and EU-membership. These were in large part export-intensive plants, like Autoeuropa, SEAT (Volkswagen). The EU-accession of the CEE countries and the crisis of 2008 were blows regarding FDI inflow in the manufacturing. After the crisis, for giving impetus to the low economic growth and enhance recovery, FDI incentives became especially important.

FDI inflows into Portugal have been on the rise after the crisis. The largest increase in net FDI took place in 2012-2014 when the net stock of FDI widened from 18.6 % of GDP (2011) to 31.2 % (2014). The growth rate slowed down somewhat afterwards, reaching 34.7 % of GDP in 2017. Real estate purchases by non-residents had a substantial weight on FDI inflows particularly in 2015-2016 (EU Commission Country Report 2018). Foreign-owned enterprises accounted for 12% of jobs in the private sector in 2013 and 21% of private sector value added (OECD 2017).

The Portuguese government simplified taxation procedures, developed warehouse and transport logistics and telecommunication infrastructure. In 2012 the golden visa residence

programme was initiated, designed to attract foreign investment into the country.⁶¹ In 2016 the Portuguese government launched Startup Portugal, a series of initiatives aimed at promoting entrepreneurship and attracting investment to Portugal.⁶² In the same year Lisbon won to host the Web World Summit, one of the most important technology events in the world that will be held in Portugal until at least 2020. The prime minister announced an investment of EUR 200 million to co-invest in startups and foreign companies that relocate to Portugal (Brexit has given an impulse to startup relocations from the UK). Promoting innovation, digitalization and high technology is deliberate aim of the government and it is well used by large foreign companies (Volkswagen establishes a software center in the near future).⁶³ There are tax allowances for foreign investors (for productive investments, R&D investments and job creation). There is a special free zone in the island of Madeira although that has become a kind of money laundering area and brought about an EU investigation recently.⁶⁴ Foreign investors are informed about incentives from AICEP agency.

Regarding Spain, yearly inflow of FDI represents around 2,5% of the GDP, foreign-owned enterprises are especially active in most export-intensive branches (like automotive, electronic ones). Spain was the second most popular greenfield investment destination in Europe in 2017 (ICEX 2018). The top investors are Germany, France, USA, UK. Most FDI flows into Madrid, Catalonia, Basque country and originates from the EU (in large part via fiscal paradises like Netherlands and Luxemburg). Like in Portugal, foreign-owned enterprises accounted for 12% of jobs in the private sector in 2013, but they contributed to 21% of private sector value added

⁶¹ Upon purchasing real estate for €500,000 (or 350,000 if renovation is necessary) the Portuguese Golden Visa is issued temporarily for one year which can then be renewed for two consecutive periods of two years making a total of five years. After the five years has elapsed, the holder may apply for a Permanent Residence Permit. Job creation can also be grounds for receiving the Golden Visa, a minimum of 10 jobs will need to be created. Here there is no minimum investment value. In cases of low-density population areas, the investment amount may be reduced by 20 percent (to 8 employees). The scheme allows free travel in Schengen areas and applies to family members too. At the end of January 2018 the complete total investment brought along by the Golden Visa Program has reached over 3.51 billion Euros. Golden Visa program was used in great part by Chinese investors.

https://www.urhomeportugal.com/en/blog/detalhe/the-portuguese-golden-visa-program-2018_169/

⁶² The scheme includes a startup voucher for people aged 18 to 35 with good business ideas. The voucher gives budding entrepreneurs monthly funding, mentoring and technical support in their first year. Startup Portugal offers a Momentum program too, giving graduates monthly funding, free housing and incubation are part of a the one year support program. <https://thenextweb.com/contributors/2017/12/07/tech-industry-players-moving-portugal-heres-take-notice/>

⁶³ "Volkswagen Group is developing a software development center in Lisbon with 300 IT specialists... The Volkswagen Group has been present in Portugal for 25 years. The Palmela-based Volkswagen Autoeuropa plant is the largest automotive site in the country and employs about 5,900 people. It produces the VW T-Roc, the VW Sharan and the SEAT Alhambra." <https://www.fleeteurope.com/en/technology-and-innovation/portugal/features/lisbon-becomes-vws-software-development-hub>

⁶⁴ "For 30 years, the European Commission has been approving very low tax rates on the Portuguese island of Madeira. The goal was to attract companies that create jobs for Madeira's citizens and boost the local economy. But in fact, mainly multinationals and rich individuals have been benefitting from the low taxes, while other countries have been losing billions of tax revenues. And, there are hardly any new jobs for the people of Madeira". <http://portugalresident.com/brussels-opens-formal-investigation-into-controversial-madeiran-tax-breaks>

(OECD 2017). Investment promotion is well managed via ICEX agency. There are regional and sectoral incentives for investments too. Fiscal incentives to investors for R&D activities are the most generous in the OECD. There are 67 Technology Parks with more than 6400 companies (ICEX 2018). Since 2013 Spain also provides visa for foreign investors for living and working anywhere in Spain and Schengen area including their relatives. Requirements are to invest in real estate assets (€500,000); companies shares, investment funds or bank deposits (€1 million); public debt (€2 million), and business projects of general interest.⁶⁵ Easier access to visa is also provided in the Rising Startup program that also offers free workspace in Madrid and Barcelona, €10,000 to cover initial expenses, help to connect with potential investors, multinationals and media visibility.

3.2. Baltic countries

The Baltic economies have been successful in attracting FDI because since the nineties they opted for radical market reforms and rapid creation of functioning market economies. The main policies to attract FDI have included macroeconomic stabilization, structural reforms, the creation of a business-friendly environment, and privatization. According to Šimelyté et al (2015) Estonia seeks stressing that it is different from Lithuania and Latvia, and has old traditions of Northern Europe. Lithuania is also linking itself with the Nordic countries and shapes the image of itself as a new, undiscovered country, recently emphasizing talent, innovation and connectivity⁶⁶ although its image is still not really clear and well understood.

FDI in Estonia mainly has flown into the financial and real estate sector and thirdly to the manufacturing. Main investors are Swedish, Finnish and Danish companies. Foreign owned firms directly support 38% of private sector jobs in Estonia and 41% of value added. The industries where foreign-owned firms produce more value added are also those that are more export orientated. Estonia has high services content in its exports at 62%, and this is correlated with a relatively high share of its inward investment going to the services sector (OECD 2017).

Estonia is one of the least restrictive countries towards FDI within the OECD. Liberal policy and openness made the country attractive for FDI. (There is a special 0% tax rate for reinvested profits). There are also three free trade zones open to foreign investments in Estonia near highways, railways and ports. Goods in the free trade zone are considered as being outside the customs territory, goods later reexported are not subject to value-added tax (VAT), excise or customs duties. There is a number of industrial parks giving 14% of manufacturing production with pre-developed infrastructure.⁶⁷

⁶⁵ Here the job creation, socio-economic effects or scientific innovation of the investment projects are evaluated.
http://www.investinspain.org/invest/wcm/idc/groups/public/documents/documento_anexo/mde2/njyx/~edisp/dax2016661740.pdf

⁶⁶ <https://investlithuania.com>

⁶⁷ <https://investinestonia.com>

The Estonian Investment Agency (EIA) as a part of Enterprise Estonia (agency mentioned in the first part) works to attract foreign investments, promotes Estonia internationally and provides free consultancy services, organises business missions, etc. As another sub-agency Startup Estonia is responsible for attracting and helping startups. Startup visa is provided for foreigners and family with financial resources of at least 130 EUR for every month to spend in Estonia.⁶⁸

FDI in Latvia reached EUR 14.37 billion in 2017. Most of Latvia's FDI inflow has come from neighbouring countries in the Baltic Sea region and other EU member states (mainly from Sweden – 19 % of the total FDI stock at Latvia's economy). The largest share of FDI stock is attributable to services (financial intermediation) and trade, real estate operations.⁶⁹ Foreign-owned enterprises accounted for 19% of jobs in the private sector in 2013 and 32% of private sector value added produced in Latvia, excluding the agriculture and finance sectors (OECD 2017). Latvian Investment Law stimulates FDI and protects investors' rights in the line with international standards and develops an appropriate legal framework for FDI. The law provides certain guarantees; such as to return after tax the unlimited profits, income or dividends to the investor's country. Latvia founded four free economic zones with a well-developed infrastructure offering a wide range of incentives for FDI.

The Investment and Development Agency of Latvia offers comprehensive support throughout the investment process, from preparation through implementation free of charge and tailored to the needs of individual investors. This is the "Polaris process"⁷⁰ that is based on the cooperation among national, local governments, universities, research institutions, industrial organizations. Recently the government of Latvia provides a range of support mechanisms (acceleration funds, innovation voucher 60% co-financed by the government, science commercialization, travel support) to the startups which choose Latvia as their home-base. A new portal (startuplatvia.eu) was created and since January 2017 a Startup Law defines the support mechanisms for early-stage startups: low flat social tax, no individual tax for startup employees, as well as 45% co-financing offered by the government for the highly qualified specialists.⁷¹

Inward FDI stock per GDP ratio is the lowest for Lithuania among the observed nine countries (see Table 2). FDI flows to Lithuania have been fluctuating over the last decade, firstly due to the global financial crisis then due to the regional crisis involving Russia and Ukraine. Foreign direct investment flows mostly into the manufacturing, financial and insurance sectors, wholesale and retail (IT services and service were popular in 2017). Sweden remains the country's main investor, particularly in the energy sector, followed by the Netherlands and Germany⁷². Invest Lithuania is the agency responsible for FDI attraction. It conceives around 30 projects on average creating 2500-3700 jobs per year. Swedish capital companies are the

⁶⁸ <http://www.startupestonia.ee>

⁶⁹ <http://www.liaa.gov.lv/en/invest-latvia/investor-business-guide/foreign-direct-investment>

⁷⁰ <http://www.liaa.gov.lv/en/invest-latvia/investment-services-and-contacts/polaris-process>

⁷¹ <http://startuplatvia.eu/welcome-pack>

⁷² <https://en.portal.santandertrade.com/establish-overseas/lithuania/investing>

biggest creators of jobs in Lithuania and German companies are second, followed by Danish and Finnish firms.

Lithuania provides grants for investors in R&D and human training. In order to attract FDI, there are proposed tax relief (corporate, dividend, real estate tax) for ten years in six free trade zones and there are allowances in four industrial parks, five research centers (Šimelyté et al. 2015). There is a focus on attracting foreign startups with extremely short registration time, fast track startup visa without capital or employment requirements.⁷³ A National Mentor Network was established which allows beginner entrepreneurs to learn from experienced entrepreneurs and experts. The agency Enterprise Lithuania provides consultation and trainings and regularly organises events, such as the LOGIN Start-up Fair, and helps selected start-ups to attend international conferences and networking events. The Action Plan for the Government Programme adopted in March 2017 announced a number of additional measures aimed at further promoting start-ups

Table 2. FDI promotion policies and institutions in the observed countries

	SPECIAL LAW REGULATING FOREIGN INVESTMENTS	AGENCIES	SPECIAL FOCUS ON STARTUPS	INWARD FDI STOCK/GDP % 2015*
ESTONIA	no	Invest in Estonia	yes	83.57
LATVIA	yes (1991)	LIAA	yes	54.59
LITHUANIA	yes (1999)	Invest in Lithuania	yes	35.40
POLAND	no	PaHil	no	38.96
CZECH REPUBLIC	yes(2000, aid)	CzechInvest	yes	62.42
SLOVAKIA	yes (2008, aid)	SARIO	yes	52.59
HUNGARY	yes (1988)	HIPA	no	69.03
PORTUGAL	no	AICEP	yes	59.21
SPAIN	yes (1999)	ICEX	yes	45.41

*Data source: UNCTAD <http://unctadstat.unctad.org>

Source: own compilation

3.3. Visegrád countries

The Visegrád countries are famous for becoming dependent on foreign capital (the "dependent market economy model" was established mostly for them⁷⁴). After the 2008-9 crisis, however, there have been signs of FDI inflow slowing down in certain countries. While foreign direct investment inflows to Slovakia remain strong (especially into the automotive sector), overall investment activity is spread unevenly across the country, regional disparities are high. Foreign-owned enterprises accounted for 22% of jobs in the private sector in 2013 and 35% of private

⁷³ <https://www.startuplithuania.com/whyit/>

⁷⁴ See the paper of Nölke-Vliegenthart (2009)

sector value added produced in Slovakia (excluding the agriculture and finance sectors, OECD 2017). Hungary has a high per capita stock of foreign direct investment but the 2009 crisis strongly affected FDI flows and since then the volume of inward FDI flows has been lower (except for a peak in 2012). Foreign-owned enterprises accounted for 25% of jobs in the private sector in 2014 and 53% of private sector value added produced in Hungary. The automotive and electronic sector are outstanding recipient of foreign investment with previous greenfield automotive factories. (In the summer of 2018 the building of a new BMW factory was announced for more than one billion euros). The planned production is 150 000 cars per year with around one thousand workers. Inward investment in Poland has been growing relative to GDP since 2008 and was equivalent to 40% of GDP in 2016, foreign-owned enterprises accounted for 26% of jobs in the private sector in 2013 and 35% of private sector value added produced in Poland. The Czech Republic remained popular for foreign investors in the past decade. In the Czech Republic foreign-owned enterprises accounted for 27% of jobs in the private sector in 2013 and 42% of private sector value added produced in the Czech Republic. On average, foreign-owned firms in each countries are much more export (and import) intensive (share of exports in turnover) as domestically owned firms (OECD 2017).

The aim of FDI attraction is the same in the four countries: creating jobs, decreasing regional disparities and bring innovation. Promotion tools are similar, although their application can be different. In all countries there are special strategic areas, industrial parks (Czech Republic, Slovakia), special economic zones (Poland) and free entreprising zones (Hungary). These areas provide possibilities for complimentary support of infratructure beside direct grants (without officially counting as state support for a certain project).⁷⁵ All Visegrád governments target certain sectors, activities to support, usually innovation, R&D, service centers and manufacturing. Applied financial tools are similar: corporate income tax allowances, budgetary support for certain aims (new jobs, training, R&D capacities, environment friendly investments or real estate purchase) local tax allowances, etc. The most transparent is the Czech and Slovak system regulated by law. The least transparent is the practice of Poland and Hungary (individual bargains and decision for large investments, strategic agreements). Provided grants – the cost of one created job - can be extremely high, especially for automotive multinationals (Éltető-Antalóczy 2017). Since 2012 until mid-September 2018, the Hungarian government signed 78 “strategic partnership agreements” with transnational companies to reinvest their earnings in Hungary, develop R&D activities, increase their participation in vocational trainings and strengthen supplier relations with Hungarian SMEs.

As we have seen in the case of Iberian and Baltic countries, promotion of startups has become very popular recently in foreign investment attraction. The Visegrád countries are lagging behind of these developments, although initiatives were taken by all governments. In January

⁷⁵ Jaguar Land Rover in Slovakia received EUR 130 million direct subvention and further 300 million infrastructure development (railway station, motorway, etc) took place – officially for the whole industrial park, but without Jaguar it would not have been realized.

2018, the “Constitution for Business” legal packet consisting of over 100 initiatives, among them startup support, were accepted by the lower house of the Polish Parliament.

The government agency CzechInvest, which has years of experience with supporting start-up companies, was named the European start-up ambassador for the Czech Republic by the EU Commission in 2018. The objective of the Startup Europe Ambassadors, which are key institutions in European start-up ecosystems, help start-ups gain access to all offered opportunities at the European level and provide information and advice on the Startup Europe initiative. CzechStartups.org is the first official on-line hub for beginning entrepreneurs in the Czech Republic. This website has been created as a partner project by CzechInvest in cooperation with private firms.

Slovakia’s startup ecosystem was evaluated by European Commission (2018). It states that the “start-up ‘mania’ went into a cooling phase after 2015 and 2016 when large parts of Slovakia seemed to be extremely enthusiastic about start-ups”. Politicians and entrepreneurs developed a more sober assessment of the impact start-ups might have on the country’s industrial structure, that the weight of start-ups in the overall economy might not be high and that most start-ups might scale up abroad, leaving limited traces in Slovakia.

Hungary has a Digital Startup Strategy⁷⁶ from 2016 but its visions are not really supported by implementation plans. The Hungarian government has tried to foster the country’s startup ecosystem by providing funding for local incubators and accelerators. The Hiventures agency⁷⁷ (financed by Hungary and the EU) with 50 billion HUF capital offers venture capital programs and flexible investment conditions for startups. From end 2017 angel investors are entitled to corporate income tax (CIT) allowance.⁷⁸ Hungary also offers cheap entrepreneur visa to foreign investors who start a business in Hungary, without even a requirement to live permanently in Hungary.

4. Business environment, promotion in wide sense

Direct investment incentives are not the most important in decisions of foreign investors. Based on interviews with more than 700 business executives Kusek-Silva (2018) for example shows that incentives rank lower than transparent government conduct, investment protection, and ease of establishing a business. Incentives by themselves are unlikely to convince investors to shift the location of their investment.

Business environment means a large variety of factors, from tax policy to infrastructure, ease of doing business, human capital quality, etc. There are several indices of international

⁷⁶ <https://digitalisjoletprogram.hu/files/89/ea/89eac5ce5f74178f3f527945f7edd08f.pdf>

⁷⁷ <https://www.hiventures.hu/en/investment-constructions/preseed-investment/pre-seed-investment-program>

⁷⁸ https://itcafe.hu/hir/startup_tao.html

organizations (OECD, Worldbank, IMF, etc) that capture these qualities of the countries. There are also country reports of these organizations and other agencies. In this study we treat briefly two aspects that are highly important recently: legal stability and education/training.

4.1. Legal stability

a) Iberian countries

In Portugal, the legal stability of the country is not questioned. Measures to improve the business environment further have been taken, but regulatory restrictions remain in business services. Administrative burden is decreasing thanks to simplification programmes. Time in court remains long, in particular for insolvent firms, and the system's performance scores low compared with the EU average. Corruption and transparency in public procurement are still perceived by businesses as areas of concern.⁷⁹ "Ease-of-doing business" improved between 2010 and 2017 (see Table 3) but product markets efficiency and intellectual property protection can still be improved. Energy prices remain high but Portugal is among the best renewable energy performers. Improvements in business digitisation are visible but bottlenecks remain in the innovation system, such as weak university-business links.⁸⁰ Labour regulations have been eased to increase workplace flexibility and a special aid regime for large products were introduced (over EUR 25 million). The government has reduced bureaucracy too.⁸¹

Corporate income tax rules are relatively stable, but in 2018 the Parliament adopted an increase of the State surcharge from 7 % to 9 % for large companies with profits exceeding EUR 35 million. This was accompanied by a measure increasing incentives for reinvesting profits. Tax collection still needs improvement and tax declaration remained complicated although a series of new administrative simplification measures are included under *Programa Simplex* (EU Commission Country Report 2018).

Spain has a relatively low tax-to-GDP ratio and relies less on labour taxes than other EU countries. In 2015 and 2016, both personal and corporate income taxes were affected by legislated tax cuts. Some of the reduction of the corporate income tax was reversed in 2017, as the corporate tax base was broadened by reducing the deductibility of some items. Employers' social contributions make up a relatively large part of the tax burden, particularly at low wage levels, resulting in a less progressive system (EU Commission Country Report 2018). Corruption perceived by business actors is higher than the EU average (Eurobarometer 2017).

⁷⁹ Eurobarometer (2017) survey shows that 58% of business representatives in Portugal consider corruption a problem for their company, while favouritism and nepotism is considered a problem by 55 % of companies, 70 % of businesses operating think that the only way to succeed in business is to have political connections and 91% thinks that favouritism and corruption hampers competition.

⁸⁰ In January 2017, the Prime Minister presented the national strategy for the digitisation of the economy, *Indústria 4.0*. It mobilises EUR 4.5 billion, encompasses 64 measures involving both public and private sector actors and has a strong focus on human capital development.

⁸¹ <https://en.portal.santandertrade.com/establish-overseas/portugal/foreign-investment>

Regulatory disparities across regions continue to constitute a burden for businesses. The Law on Market Unity⁸² (2013) aims at facilitating access to economic activities and their expansion throughout Spain. The Law aims at rationalizing the regulatory framework on economic activities, eliminating duplicities and simplifying. It also reinforces coordination among competent authorities and introduces a mechanism to rapidly solve problems. While the government has taken steps, its implementation has been slow, especially at the regional level. What is more, the constitutional court ruled against some articles of the law in 2017.

A government report discussing regulatory barriers to business growth identifies three areas for potential policy intervention: removing regulatory thresholds, improving the business environment, and enhancing the implementation of the law of market unity (EU Commission Country Report 2018).

b) Baltic region

Estonia ranks highly in many international competitiveness rankings. The areas where there are no particular problems for doing business include creating a business, compliance costs and dealing with public administration. This performance reflects Estonia's investments in e-government and in public sector efficiency. Consequently, net business population growth and survival rate of Estonian firms is well above the EU average. Corruption perceived by companies is relatively low (Eurobarometer 2017), the lowest in the Baltic region. Lengthy insolvency procedures however hinder the efficient reallocation of resources. In Latvia the shadow economy is higher than the EU average, perceived corruption and the judicial system are the weakest areas of a generally favourable business environment. The shadow economy in Latvia was estimated at 20% of GDP in 2016, higher than in Estonia and Lithuania. Latvia scores low on dealing with construction permits and recovery rates in insolvency cases. The Latvian authorities aim to further improve the business environment by simplifying business-related legislation. The third Baltic country, Lithuania has a relatively good position in the Doing Business Rank (Table 3) and the investment promotion agency usually emphasizes this fact. In general, the law is followed in the Baltic states and transparency is improving. Estonia is by far the best ranked among the nine countries by the corruption index (Table 3).

Estonia's tax system has a relatively growth-friendly structure, with comparatively low direct taxes. Companies can deduct all business-related expenses, and there is no CIT on retained profits, the CIT system is supportive of investment in research and development, even though there are no special provisions that specifically favour R&D activities. Lithuania has the one of the lowest tax-to-GDP ratios in the EU (Table 3). Lithuania relies mostly on indirect taxes and social security contributions, direct taxes account for only 5.7 % of GDP. Additional tax measures to encourage entrepreneurship have been adopted in 2018. They include the

⁸² The Law is mainly based on two basic principles: i) Spanish market unity, in order to guarantee the principle of free movement of goods and services; and ii) the search for a progressive administrative deregulation, which impedes administrations from obstructing the freedom of movement.

additional tax relief for R&D (through reduced corporate income tax rate, 5 % instead of 15 %) and a one-year corporate income tax holiday targeting start-ups. Apart from that, the country has introduced several measures to combat the shadow economy and improve tax compliance and the authorities are working on reducing the administrative burden further.⁸³ In Latvia the corporate income tax rate increased from 15% to 20% in 2018. No CIT is payable if the profit is reinvested. There are other changes in VAT and personal income tax (PIT) system also.

c) Visegrád countries

The country reports of the European Commission of 2017-18 indicated serious problems regarding the rule of law in Poland and Hungary. Hungary performs weakly on the accessibility and quality of public information, regulation, social dialogue, transparency and there are challenges concerning the functioning of the justice system. On 12 September 2018 the European Parliament accepted a report on the Hungarian situation and asked for a further action. This was the first time that Parliament (not the Commission) has called on the Council of the EU to act against a member state to prevent a systemic threat to the Union's founding values⁸⁴ and trigger a procedure of Article 7 of the EU-Treaty.⁸⁵ In Poland the independence of the judiciary and legal certainty, are also of key importance. Since late 2015, the Polish authorities have adopted several laws affecting the structure of the justice system. In this regard, the Commission has concluded that a clear risk of a serious breach of the rule of law exists in Poland, and in December 2017 started the Article 7 procedure against Poland, first in EU's history.⁸⁶ Slovakia is also a low-ranked EU Member State as regards the perceived independence of the judiciary, with no improvement compared to the previous year. Both citizens' and investors' trust and confidence in the judiciary may be harmed by this potentially holding back investment. The security screening of judges based on information from the Slovak National Security Authority raised constitutional complaints and concerns for the judiciary's independence (EU Commission Country Report 2018).

Transparency and competition has been decreased by corruption in the case of public tenders for example. In Table 3 we give the values of the Corruption Perceptions Index, CPI prepared by the Transparency International organization.⁸⁷ The indices show a strong deterioration for

⁸³ Since 2017, any new regulation that would increase the administrative burden by more than EUR 100 000 is reviewed by the Commission for the Supervision of Better Regulation, consisting of representatives from different authorities and stakeholders. The Ministry of Economy regularly reports on the reduction of the administrative burden and biannual plans are adopted with measures to further reduce it (EU Commission Country Report 2018).

⁸⁴ <http://www.europarl.europa.eu/news/en/press-room/20180906IPR12104/rule-of-law-in-hungary-parliament-calls-on-the-eu-to-act>

⁸⁵ <https://www.ceps.eu/publications/european-parliament-vote-article-7-teu-against-hungarian-government-too-late-too-little>

⁸⁶ <https://www.euronews.com/2017/12/20/what-is-article-7-and-why-was-it-triggered-against-poland->

⁸⁷ The complex index was first calculated in 1995 and ranks more than 170 countries according to the perceived corruption in the public sector. The smaller the indice is, the higher the corruption is in the given country. <https://www.transparency.org/research/cpi/overview>

Hungary between 2012 and 2017 and some improvement in the other three Visegrád countries. Corruption remains one of the main barriers to doing business in Slovakia. The country dropped 6 places in the World Bank's 'Doing Business' rankings in two years (Table 3). Slovakia's ranks concerning the diversion of public funds, favouritism in decision-making and irregular payments and bribes place the country among the worst performers in the EU.⁸⁸ Regarding Hungary, corruption, oligarchic system is widespread and institutionalised as shown by the Black Book of the Civitas Institute (2018).

Fiscal policy and the total tax burden of economic actors are important macroeconomic features of the business environment. Certainly there is a tax competition among the Visegrád countries as a part of the race to attract foreign investors. Slovakia introduced an easy and transparent flat tax rate in 2004 being 19% (VAT, PIT, CIT) which was attractive to investors. The system began to change in 2013 by introducing other rates and raising the CIT to 23%. This latter was decreased to 21% from 2017. In Hungary the tax system has been complicated and changed several times. In 2011 a flat rate of 16% PIT was introduced, CIT was reduced to 10% below HUF 500 million revenue. VAT rate was raised to 27% and sector-specific taxes were introduced (mainly for services where foreign investors are active). From 2017 CIT dropped to 9% favourizing large companies. Hungary records relatively high capital inflows and outflows through special purpose entities, which have no or little effect on the real economy.

Poland had a stabile tax system, but since 2016 there have been sudden changes, usually without previous consultations.⁸⁹ In the Czech Republic tax burdens are relatively high and the system is complicated. Founding new companies are difficult and bureaucratic, although simplification measures were introduced. Tax collection has improved, but the frequency of changes and higher compliance costs are worrisome for businesses – states the EU Commission Country Report (2018).

4.2. Education, training, human capital

Proper quantity and quality of workforce is basic condition for growth and development of a country. In investment decisions it can be crucial whether there is available skilled labour force. Changes in production (global production chains, robotization, digitalization) require special skills to which education system should react. In the following we briefly evaluate education systems based on the EU Commission Country Reports, OECD PISA-surveys and other indices.

⁸⁸ The government adopted a number of measures to improve the business environment and boost investment. The first package in June 2017, introduced 35 measures with 9 priority measures. In 2018, the second package of measures based on the inputs from entrepreneurs will be unveiled. Among the priorities, some measures aim to streamline the process of getting a building permit. The measures were selected from a database of 400 proposals, which were reduced to 100 by the Ministry of Economy and then negotiated with the relevant ministries.

⁸⁹ The country modified a number of laws under the 'fuel package' with a view to curbing organised VAT fraud activity in the fuel sector. In 2016, a general anti-avoidance rule for taxation entered into force. In 2017, an amendment to the VAT law was decided. Also, the law on tracking the transport of certain goods became applicable. The tax and customs administrations merged and underwent a restructuring process.

a) Iberian countries

For 2018 Portuguese unemployment has dropped to its lowest level since 2004 and is already below the euro area average. The employment rate increased to the pre-crisis rate in 2017. The recovery has reduced outward migration (60% of the half million emigrated graduates returned), but the demographic imbalance resulting from past migration might create labour supply shortages especially for high skilled workers. Portugalia belongs to the countries where hiring is above average difficult (Manpower 2018). The emigration of highly-qualified researchers limits the positive impact of that development to boost the scientific and innovation performance of the country (EU Commission Country Report 2018).

Spanish unemployment has also been declining rapidly, but it remains very high, especially for the youth (37.5%) and long-term (43.5%) unemployed. The temporary employment rate is still very high (26.8 %) although the share of open-ended contracts in net employment growth has increased. The high share of temporary employment reduces both workers' and employers' incentives to invest in training and improving job-specific skills.

Early school leaving rates remain high in Spain (see Table 3). Low education levels greatly increase the risk of future poverty and social exclusion. Spain also has large levels of income inequality. High labour market segmentation, stagnating incomes in the lower part of the distribution and a low redistributive effect of the tax and benefits system are among the reasons for this. In Portugal early school leaving has decreased significantly in the last decade, but is still above the EU average. While the attainment of qualifications in tertiary education is increasing, the employability of recent graduates is below average.

After a long negotiation, Spain approved new vocational training measures for the unemployed in July 2017. The initiative, known as "*Cheque formación*", will be implemented at regional level and is expected to enhance training of unemployed. Whereas secondary vocational educational training is being strengthened and promoted, enrolment rates are still low. In the tertiary education system, public-private programs are not yet wide. Labour market relevance of tertiary education in particular is weak, both because universities do not frequently consult the private sector and because SMEs have a limited capacity to take in interns and engage with the higher education system.

Regional differences remain in students' performance in terms of skills. Since education is a regional competence, policies also differ considerably. The Spanish Parliament has already agreed on a National Strategy for University Education but it still has to agree a National Pact on (non-university levels of) Education. The process was launched in December 2016 by creating a parliamentary subcommission. In 2018, parliamentary groups are drafting a proposal to reform the Spanish educational system expected to be ready.

b) Baltic countries

Activity and employment rates in Estonia are well above the EU average. Unemployment has been steadily declining since the second half of 2010 and is currently among the lowest in the EU (see Table 3), this also affects young people and the long-term unemployed. However, working age population is shrinking due to low birth rates. Inward return migration has started to offset the net outward migration that prevailed during the last decade, but it is not enough to reverse the demographic trend.

Latvian labour force is also set to decrease because of a shrinking working-age population. While the employment rate is above the EU average and continues to grow, the working-age population is declining quickly, as a result of negative natural growth and net emigration. A shortage of qualified labour to some extent caused by emigration is perceived as a serious challenge for Latvia's competitiveness and economic growth in the long run. The dispersion of employment rates among ethnic groups and regions are larger than before the crisis, suggesting that a substantial amount of labour is not utilised.

Labour market developments in Lithuania are generally positive with an overall increase in employment and a considerable decline in youth unemployment. Lithuanian emigration intensified during the last couple of years, even though there was an increase in immigration in 2017. The main drivers of the country's population decline are continuous high net emigration and negative natural growth. According to latest Eurostat projections, by 2047 the Lithuanian population could decrease by 30 %.

Early school leaving rate remains high in Estonia, double the figure of Lithuania (see Table 3). Since 2013, Estonia has adopted reforms in the higher education, vocational education and training and continues to rationalise school network to meet the demographic change. The government has taken steps to facilitate the transition from education to employment - it is implementing the Lifelong Learning Strategy 2014-2020 and the Adult Education Act adopted in 2015. The Vocational Education and Training programme for 2015-2018 helps to increase participation in vocational education and training and apprenticeships where the dropout rates remain a matter for concern. Authorities are exploring options to raise the age of compulsory schooling to reduce the proportion of low-skilled people. The employment rate of graduates is well above the EU-average. The main challenges in VET include: the low level of participation in apprenticeship training, the high level of dropout from initial VET programmes, and skills mismatches.

Latvia intends to consolidate its highly fragmented higher education system. So far, small higher education institutions are reluctant to merge with bigger ones, even if they do not have a sufficient base for research and innovation. Vocational education and training is undergoing significant reform. Latvia is still one of the few EU countries that do not have a centralised approach to graduate tracking in secondary VET, which hinders efforts to improve quality and labour the market relevance of the training offer. VET curricula reform started in 2010 is advancing with the close involvement of social partners and is supported with EU funds. In

2017, the Law on vocational education was amended to provide a legal basis for modular VET programmes. It is expected that the reform will be finalised by the end of 2021.

Lithuania's education system lacks efficiency and is not sufficiently responsive to labour market needs. In higher education, the number of teachers and programmes, as well as the overall infrastructure, have failed to adjust to a falling number of enrolled students, which decreased by 16 % between 2013 and 2016.

Lithuania has taken some measures to address skills shortages. By adopting the new Law on Employment, some progress has been achieved in improving the effectiveness of active labour market policies. Substantial effort has been put into designing modular VET programmes with a policy target that by December 2020 all VET programmes should be modular. In December 2017 Lithuania has updated the legislation on VET to foster the uptake of apprenticeships and other improvements in the field.

Digital skills are not widespread among the general population. While Lithuania has a relatively high share of science, technology, engineering and mathematics graduates, the share of information and telecommunications technology (ICT) specialists in total employment is lower than the EU average. This is partly a consequence of significant outflows of skilled labour. Established in 2013, the National Digital Coalition advises on the major steps to boost investment in human capital, and works to attract more young people to ICT and other science studies in order to ensure the acquisition of digital skills. Appropriate implementation of the Digital Agenda 2014-2020 should help increase the digital skills of the general population and reduce the digital skills gap in the Lithuanian labour market.

The level of poverty and social exclusion in Lithuania is among the highest in the EU. In Lithuania, pupils from disadvantaged backgrounds are 2.6 times more likely to score low in PISA science than students from other socioeconomic backgrounds. In all three PISA areas (reading, mathematics and science), pupils from rural schools perform worse than pupils from towns or cities. Despite a low general rate of early school leavers, Lithuania has one of the highest rates of early school leavers among pupils with disabilities in the EU (44.6 % v the EU average of 22 %, EU Commission Country Report 2018).

c) Visegrád countries

In Slovakia the unemployment rate has been declining continually since 2013⁹⁰. Falling unemployment, bolstered by faster job creation, has led to increasing reports of labour shortages in some sectors (like IT, manufacturing). About 54% of employers reported difficulties in hiring employees in 2018 (Manpower 2018) thus Slovakia already belongs to the group of countries where job filling is the most difficult. Work permit conditions for seasonal work were

⁹⁰ Although the share of young people neither in employment nor in education and training (NEET) remains slightly above the EU average (age 15-24). The unemployment rate of low-skilled youth continues to be very high (46.5 % vs EU 26.5 %; data for 2016, EU Commission Country Report 2018).

eased and the number of foreign workers in Slovakia grew by 40 % year-on-year in 2017, nevertheless, foreign workers only account for 1.7 % of total employment. The supply of skilled labour has become a significant challenge in Poland too. 51% of employers reported difficulties in hiring employees in 2018 (Manpower 2018) The unemployment rate is at the record lows and the demographic outlook is negative. Immigration continues to increase fast, permanent forms of employment among foreigners increase but most non-EU nationals (especially from Ukraine) in Poland also work through a simplified procedure that enables work for 6 months within a given 12-month period (EU Commission Country Report 2018).⁹¹

Hungarian unemployment rate is also low. However, public works scheme remained the dominant form of active labour market policy. This is less effective than other tools in bringing participants back to regular employment and may even reduce the probability of finding a job. 51% of employers reported difficulties in hiring employees in 2018 (Manpower 2018). Finding skilled labour is yet considered "below average difficulty" in the Czech Republic (36% of employers reported difficulties in hiring employees in Manpower (2018) survey). However, unemployment is record low in the country and several sectors are struggling with employment problems. All in all, because of low birth rates and massively emigrating youth, the combined population of the Visegrád countries will fall by 13 per cent from 2017 to 2050 According to UN projections.⁹²

Available skilled labour is largely determined by the education system in the given countries. Education systems are reformed in the Visegrád countries in 2017-18. In Poland there is a return to the pre-1999 system, in Hungary a new National Curriculum of Education has been developed again with only minor changes and it will be introduced in 2019.⁹³ In the Czech Republic the aim of the 2016 reform is to integrate children with special needs more into the normal education system. Since September 2017, the last year of preschool education has been compulsory to include more disadvantaged children.

General education and vocational training are important in forming labour force. Among the Visegrád countries only Polish students' PISA results are above OECD average in three areas (see Table 4). Results have improved in the recent years. Czech results are the second best and stagnate, Slovak and Hungarian results are below OECD average and deteriorating. Social situation of students, segregation determines education results the most in Hungary but there are severe problems also in Slovakia.

⁹¹ Using immigrants as workforce could be only a temporary solution. Germany for example is considering loosening its rules for Ukrainians in relation to seasonal work. Polish businesses fear that this could lead to an exodus of Ukrainians in some sectors such as agricultural and construction. <https://www.ft.com/content/21c2d25e-a0ba-11e8-85da-eeb7a9ce36e4>

⁹² cited here: "Central Europe running out of steam" <https://www.ft.com/content/21c2d25e-a0ba-11e8-85da-eeb7a9ce36e4>

⁹³ <http://abouthungary.hu/news-in-brief/improvements-to-hungarys-education-system-coming-with-new-national-curriculum-plans/>

In Hungary the early school leaving (ESL) rate increased to 12.5%, above the EU average of 10.6 %. (While ESL has been decreasing steadily across the EU, it has not fallen in Hungary). The problem is especially acute among Roma, for whom the ESL rate stands now at 59.9 % compared with 8.9 % among non-Roma. In Slovakia the rate of early school leaving is lower, at 9.3 %, but shows sizeable regional disparities (largest in eastern Slovakia), and here also, 58 % of Roma children are early school leavers. Poland's and Czech Republic's rate of early school leaving are low (see Table 4) although the estimated proportion of Roma children who leave school early in the Czech Republic remains very high (72%), which significantly impacts their future job prospects.

In Slovakia the proportion of upper secondary students in Vocational Education remained stable and the employment rate of recent VET graduates is similar to the EU average of 75%. To improve the labour market relevance of education, highly relevant programmes ('white lists') benefit of a 10% increase of funding per student, whereas, funding is reduced by 10 % for programmes preparing for skills not required in the labour market ('black lists'). Regional platforms have been created for stakeholders to discuss the data used to update lists of programmes required or not by the labour market. The enrolment in the dual VET scheme has increased, but teachers and trainers have little access to specialised continuous professional development.⁹⁴ A new Act on VET (entering into force in September 2018) seeks to tackle financial disincentives for schools to get involved in dual VET and to create conditions for effective career guidance.

In Hungary the VET has two pathways: vocational grammar schools (*szakgimnázium*) with a higher element of general education and vocational secondary schools (*szakközépiskola*) for less academically inclined students. General education content in vocational secondary schools is limited, which together with the concentration of children of low socioeconomic status explains the heavy deficit in basic skills measured in PISA. This is further reflected in the high dropout rates. In 2016, the dropout rate in vocational secondary schools was 15.3%, against a 6.5% in vocational grammar schools and 1.1% in general upper-secondary schools (*gimnázium*).

In Hungary the impact of pupils' socioeconomic background on education outcomes is the strongest in the EU. The impact of school type on outcomes is also very significant, reflecting early selection in secondary education. The aim of the Hungarian government is to decrease the number of students in general upper-secondary schools and increase participation in vocational schools, but in these latter schools the niveau and structure of education deteriorate. The number of university applicants has been shrinking since 2010, which can only be partially explained by demographic changes. Other part can be explained by government policy measures (paying fees for education, demanding foreign language certificate, etc.).

⁹⁴ To further improve the communication on the benefits of dual VET, a new information portal has been set up by the employers' council and contact points are being set up with ESF support to assist the eight self-governing regions in targeting all stakeholders involved in dual VET: employers, schools, learners and the wide public.

Students from poorer families are squeezed out from universities but vocational education is not adequate enough for them to find proper jobs (EU Commission Country report 2018).

In the Czech Republic several measures to improve vocational education and training and adult learning have been implemented to increase skills supply and address skills shortages. Validation of previously acquired skills and a modular approach in retraining courses are being prepared. All initial VET programmes in the Czech Republic are school-based, but mandatory practical training and work placement are also an integral part of the curricula. However, there is still substantial scope to increase work-based learning as a proportion of VET (EU Commission Country report 2018).

Vocational education in Poland is based on two types of school: basic vocational schools (BVS) and technical upper secondary schools. The BVS is 3 years, technical upper secondary school - 4 years. The BVS students who want to get a high school diploma must complete the so-called "complementary high-school". The proportion of upper secondary students in Poland in initial vocational education and training is slightly above the EU average. The employment rate of VET graduates is similar to the EU average. The 2016 reform of initial VET has confirmed the challenges: lack of a mechanism to match initial VET offers to labour market demand; the absence of flexible learning pathways; insufficient guidance and counselling; low-quality teaching; and a lack of investment.⁹⁵ The 2017 VET reform strengthened existing measures and introduced new components. It aims at promoting employers' co-operation with schools, especially to organise practical training in real working conditions. Poland faces a critical long-term challenge to establish a lifelong learning culture among its population, especially among older and low-skilled people (European Commission 2017).

⁹⁵ Some initiatives by the Ministry of National Education address these challenges: Amending the regulation on the special economic zones of 1st January 2015, which obliges the zones to cooperate with vocational schools to promote VET, support vocational counselling and guidance and inspire entrepreneurs and employers to take a more active role in VET.

Table 3. Selected business environment factors – Baltic and Iberian region

	ESTONIA	LATVIA	LITHUANIA	PORTUGAL	SPAIN
LEGAL, REGULATORY ENVIRONMENT	friendly	shadow economy higher	law is followed	Long court procedures, bureaucracy	Regional disparities
CIT RATE	20	20	15	21	25
TAX REVENUES/GDP, %	35	32	30	37	34
EASE OF DOING BUSINESS RANK 2018**	12	19	16	29	28
CORRUPTION	improving CPI=70	improving recently CPI= 57	improving CPI= 59	worsening recently CPI= 62	worsening CPI= 58
EDUCATION	relatively good	fragmented system	not efficient	improving	regional differences
PISA 2015	534,520, 519	490,482,488	475,478,472	501,492,498	493,486,496
EARLY SCHOOL LEAVING RATE 2017*	10.8	8.6	5.4	12.6	18.3
VOCATIONAL EDUCATIONAL TRAINING (VET)	high level of dropout	reforms, amended law	modular programs, updated legislation	training of unemployed	new programs for unemployed
SKILLED LABOUR FORCE	shortage	shortage	shortage	shortage	available
UNEMPLOYMENT RATE JUNE 2018	4.9	7.4	6.8	6.7	15.2

Notes and source as below table 4

Table 4. Selected business environment factors – Visegrád region

	POLAND	CZECH REPUBLIC	SLOVAKIA	HUNGARY
LEGAL, REGULATORY ENVIRONMENT	The current systemic threat to the rule of law creates legal uncertainty.	Heavy regulatory burden and administrative barriers, but improving	Harmful administrative and regulatory barriers, corruption	Legal uncertainty, changing taxes, deteriorating institutions, corruption
CIT RATE	19	19	21	9
TAX REVENUES/ GDP, %	34	35	32	39
EASE OF DOING BUSINESS RANK 2018**	27	30	39	48
CORRUPTION	improving CPI=62	stagnating recently CPI=55	stagnating recently CPI=51	worsening CPI=48
EDUCATION	Improving, good	Relatively good	Deteriorating	Significantly worsening results
PISA 2015	501,504,506	493,492,487	461,475,453	477,477, 472
EARLY SCHOOL LEAVING RATE 2017*	5.0	6.7	9.3	12.5
VOCATIONAL EDUCATIONAL TRAINING (VET)	Relatively good results	Relatively good outcomes, positive perception	In 2015 introduced a dual VET system, 2018 new Act, slow improvement and increasing participants.	Secondary school types were renamed in 2016, unlikely improvement in basic skills and competencies.
SKILLED LABOUR FORCE	shortage in certain sectors	shortage in certain sectors	shortage	shortage
UNEMPLOYMENT RATE JUNE 2018	3.7	2.4	6.9	3.6

Notes:

* Percentage of the 18-24 olds that had completed at most a lower secondary education and were not in further education or training ('early leavers').

***Doing Business* covers 11 areas of business regulation across 190 economies. Ten of these areas—starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency—are included in ease of doing business ranking. *Doing Business* also measures features of labor market regulation, which is not included in the ranking.

Source:

http://www.transparency.org/news/feature/corruption_perceptions_index_2016

<http://www.oecd.org/pisa/science, mathematics, reading>

<http://www.oecd.org/skills/piaac/>

http://ec.europa.eu/transport/facts-fundings/scoreboard_en

http://ec.europa.eu/eurostat/statistics-explained/index.php/Unemployment_statistics

http://ec.europa.eu/eurostat/statistics-explained/index.php/Tax_revenue_statistics

<http://www.doingbusiness.org>

<https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Tax/dttl-tax-corporate-tax-rates.pdf>

http://ec.europa.eu/eurostat/statistics-explained/index.php/Early_leavers_from_education_and_training

5. Conclusion

After the international crisis, export gained a different, but increasing role in the examined nine countries. Export capacities have been expanded in several economies mostly via FDI, investment in certain export intensive sectors. Therefore, FDI promotion at the same time promotes exports too, beside the traditional export promotion measures and institutions.

In the study we described these institutions and strategies of the three peripheral regions. As we have shown, geographical diversification of exports was an important aim in every observed country. In certain cases, special target regions, countries (emerging markets, Africa, Asia, etc.) were marked out in the government strategies as future markets. SMEs have been promoted in various ways to penetrate or increase their presence in these markets. However, statistics show that this aim was not fulfilled on the long run (see the study of Éltető in this book). After a temporary increase of non- EU market shares in exports, the former "EU-dependency" strengthened again from 2014.

Another aim of export promotion policies has been the product structure diversification. Export is the most concentrated in Slovakia (to automotive parts and components, motor vehicles) and here perhaps the most explicit the government strategy is concerning necessary diversification. In other Visegrád countries and in the Iberian promotion strategies this point is also discussed. However, based on figures of concentration indices (see the study of Éltető in this book) we cannot speak about growing diversification of exports, in fact in several cases exports have become even less diversified after the crisis.

The reason of this is that export promotion policies target small and medium sized enterprises, while the magnitude and features of exports are defined by large foreign companies, multinationals in our observed countries. These companies have their own intrafirm, intra-production chain trade that has a different pattern from government aims. Thus, although the governments want to diversify export via promoting SME exports, their FDI promotion (attracting large companies) can cause contradictory tendencies (concentration of export).

As a consequence of global production in several sectors, multinational companies can react to demands at once. In each country they are present, multinationals form production accordingly (involving supplier SMEs too). Governments do not have influence on or insight in this process. Governments are usually not market players and should not be those, but their task is to ensure stable and favourable business environment. Economic interests should define politics and not vice-versa.

Creating beneficial business environment belongs to the wide-sense investment promotion tools that are important for all firms (be small, large, foreign or domestic). We distinguished investment promotion also in a narrow sense (grants, subsidies, tax allowances). The choice of location for an investment is not a one-step process and incentives in a narrow sense can only play a role if general economic and legal environment of the country is favourable. As Oman

(2000; 10) writes: “the decision is normally a two-stage (or multi-stage) process in which investors *first* draw up a short list of acceptable sites on the basis of the economic and political ‘fundamentals’, largely irrespective of the availability of fiscal and financial incentives from potential host governments, and only *later*, do investors consider — and often seek out — investment incentives.”

Legal stability has shaken in Hungary and Poland, corruption is high in Slovakia, Hungary and the Iberian countries. Apart from proper administration, infrastructure and taxation, availability of skilled workers is essential for investors. However, for today the education and training problems and emigration have led and will lead to serious problems in skilled labour supply in the Visegrád economies most critically in Slovakia and in Hungary but also in the Baltic countries and Portugal. Apart from this in Spain and in the Visegrád area severe regional disparities characterise the labour market and integration of the poor ethnic minorities is not solved. For around 2016-17 the serious problem of education and skilled labour was realised by almost all governments.

Incentives in a narrow sense can be well arranged as regional development aim and can be partly supported by EU funds. In all countries we find special zones, that are made attractive for investors. Clusters, agglomerations, industrial parks are beneficial for new investments, suppliers or capacity extensions. However, regional disparities remained large in the most cases.

Iberian countries are different from the other two regions to that respect that they are members of the EU for a much longer time. Spanish and Portuguese business sector with lots of strong national companies were/are different from the highly foreign dependent Visegrád and Baltic region. Therefore, the effects of FDI and export promotion can also be different.

In the case of the Visegrád countries attracting FDI with tailor-made supports will remain important for the governments in the near future. The reasons for this are that these economies are highly dependent on foreign capital and this marks a path. Apart from that narrow-type incentives can suit better the “style” and aims of the present political governing elite. We should not forget that legal stability has shaken and corruption has increased in these countries in the past years. Bargaining with foreign multinationals fits into this picture. Baltic countries and also the Iberian ones seem to put emphasis on the high-tech, innovation, startup and service sphere in foreign capital attraction. The pattern of FDI inflow will continue to shape export performance of the peripheral countries.

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The era after the euro area crisis in Poland's export: back to the old normal?

Patryk Toporowski¹

Abstract

This study analyses the changes in the Polish export since the beginning of the crisis. The aim was to assess whether the evolution of the Polish export is in line with the Polish government strategy or it is an independent process. In order to do this, I presented the evolving strategy of the government and confronted it with the empirical data based on the UN COMTRADE database. The paper also contains two case studies of Polish exporting firms. The evidence confirms the gradual evolution of export patterns, yet this change does not reflect much the government's policy. In the case of geographic composition of export, there is a recovery in the share of the European market, reflecting the gradual economic revival in the EU.

Keywords: Poland, export, export promotion

1. Introduction

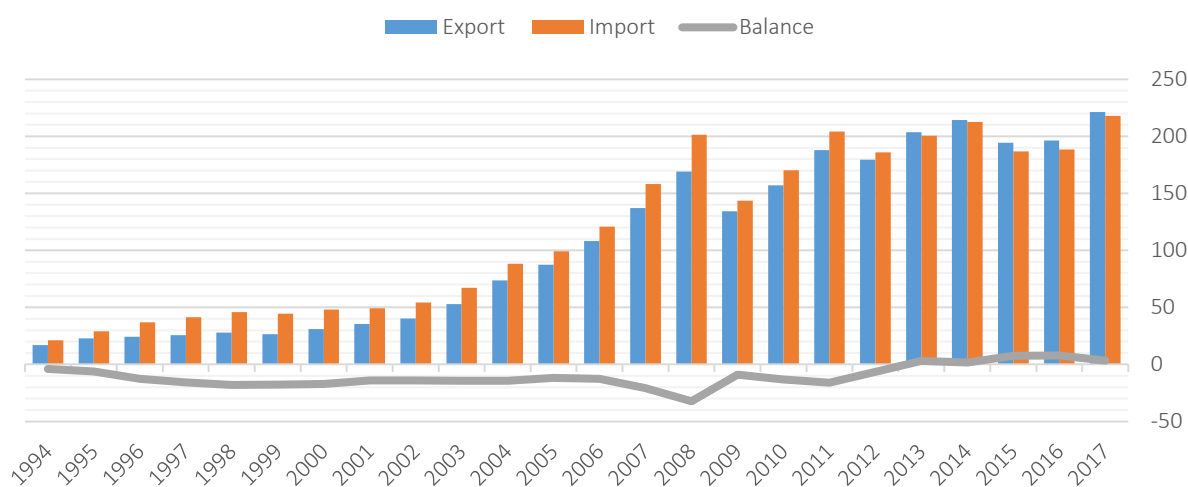
Though Poland's internal market is strong and still developing, Polish firms have been looking for buyers for their products abroad intensively in the past years. Due to geographic, political and historical conditions (including the EU's single market and high incomes of the EU consumers), the export is mainly directed to Western European markets. Yet, since the beginning of the euro-area crisis, the producers in Poland started considering more diversification of their export structure by turning towards more demanding extra-EU markets. Simultaneously, the government became more active in promoting Polish business outside the EU. The support of Polish external trade became one of the pillars of development, especially as the trade balance remained persistently negative until 2013. This change in development strategy, with export promotion in its centre, has the potential to affect trade patterns.

Poland, since the beginning of the transformation, had negative trade balance, witnessing strongly growing domestic demand unbalanced with export. Since then, this unwelcome phenomenon became a topic of discussions among the academia (Jasiński 1997) as well as the policymakers. The negative trade balance as a part of the current account may be a source of external debt in the long-term. According to the Polish government, the trade balance may mark the global competitiveness of the country (Miszczyk et al. 2015).

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However, the latest data show a substantial progress in trade balance (See Figure 1). In 2009, the trade gap narrowed by around 23.2 billion USD. This was the result of the reduction of import value because of lower demand, weakened currency rate and significantly lower oil prices compared to the pre-crisis period.² In 2013, Poland first noted a trade surplus since the beginning of the transformation. In 2016 the surplus reached the highest level in its history, which was 7.9 billion USD. Poland was then the 20th biggest exporting country in the world. In 2017, when Poland became the 16th biggest world exporter, the trade surplus decreased to 3.3 billion USD.

Figure 1. Poland's external trade value in billion USD, 1994-2017



Source: UN Comtrade database (via WITS), accessed 08.07.2018

2. Poland's experience in export assistance

The strategy promoting outgoing export during the crisis consisted of four main elements: promotion of the POLSKA brand, economic missions of high level officials, assistance to Polish firms with information on foreign markets and financial instruments (For more, see: Toporowski 2017, Gradziuk et al. 2014). Although this promotion strategy lasted several years, the POLSKA brand has not been widely recognized abroad. The firms rarely used its logo identifying their products as Polish, which means, that they did not perceive that it would be much valued by their foreign clients. The ongoing export promotion strategy appeared inefficient and ineffective (Toporowski 2017, Gradziuk et al. 2014).

Since 2016, the focus on supporting Polish enterprises abroad became a cornerstone of the economic development strategy of the Polish government (Ministry of Economic Development 2016). The authorities launched a new administration structure to facilitate exportation. Instead of the previous dispersed institutions and agencies controlled by different Ministries

² According to Quartz website, Poland is one the biggest beneficiaries of falling oil price. See: Karaian et al. 2014

(i.e. of Economy or of Foreign Affairs) one greater umbrella-type agency – the Polish Development Fund (PFR) – was founded with assets of some 15 billion euros (Ramotowski 2016) and controlled by the Ministry of Economic Development. The budget of PFR will increase further. Alongside this concentration of competences in one super-agency and one ministry³ the rules to promote Polish products became more coherent (Ministry of Economic Development 2016, p. 86.).

Apart from this, new, professionally managed institutions –Foreign Trade Offices⁴ – have been gradually emerging within the Polish Investment and Trade Agency (PAIH – being part of PFR), and their number will reach 70 in 2019. Their geographic location (roughly one third is currently found in the EU, but this share will decrease) reflects the focus of the government on boosting export outside the EU markets. The rebranded PAIH launched new programs – following *Go China*,⁵ *Go India*⁶ and *Go Africa*⁷ – that support Polish exporters to enter new prospective markets. The names of these programs clearly show the focus of the Polish government: *Go Iran*,⁸ *Go ASEAN*⁹ and *Go Arctic*.¹⁰ On top of that, the government also co-finances the promotion of export targeting five prospective extra-EU markets (most of them being included in the “Go” programs): India, Iran, Algeria, Viet-Nam and Mexico.

There is also a novelty in the scope of the activities of firms to be supported. The PFR, by its own investment funds management company – PFR TFI – launched a closed investment fund (FEZ FIZ AN), the purpose of which is to support the establishment or development of foreign branches or foreign divisions of the Polish entities.¹¹

The strategy includes EU financing. With the community's funds, the government launched *Go to Brand* promotion programs in 2018 via PAIH designed for SMEs from 12 industries. These include activities in: ICT/IT, furniture, yachts, cosmetics, medical equipment, health services, agriculture, construction, biotechnology and pharmaceuticals, fashion, machines, automobile

³ This ministry managed by Mateusz Morawiecki, would gain additional power, because he extended his influence on economy by becoming a head of two ministries: of Economic Development and Ministry of Finance. In the past both Ministries often presented contradictory approaches to economic issues, thus delaying or softening the economic projects initiated by the government. The coordination of them with one person may ease such tensions and help to execute the government's Responsible Development Strategy.

⁴ https://www.paih.gov.pl/about_us/Foreign_Trade_Offices

⁵ See: <https://www.gochina.gov.pl> (accessed: 24.07.2018)

⁶ See: <https://www.goindia.gov.pl> (accessed: 24.07.2018)

⁷ In the program the following countries are included: Algeria, Nigeria, Kenya, Angola, Mozambique, South Africa Republic, Egypt, Ethiopia, Ghana, Morocco, Rwanda, Senegal, Tanzania, Ivory Coast. See: <https://www.goafrica.gov.pl> (accessed: 24.07.2018)

⁸ See: <https://www.goiran.gov.pl> (accessed: 24.07.2018)

⁹ It includes a list of the following countries: Brunei, Philippines, Indonesia, Cambodia, Laos, Malaysia, Myanmar, Singapore, Thailand, Viet Nam. See: <https://www.goasean.gov.pl> (accessed: 24.07.2018)

¹⁰ It includes a list of the following countries: Canada, Denmark with Greenland and Faeroe Islands, Finland, Iceland, Norway, Sweden, Russia, and United States. See: <https://www.paih.gov.pl/GoArctic/Aktualnosci> (accessed: 24.07.2018)

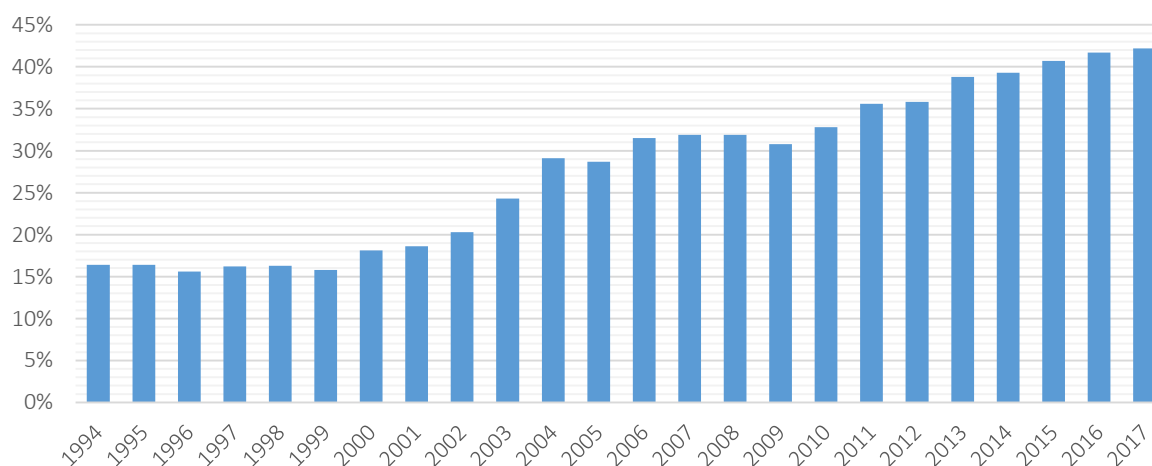
¹¹ <https://pfrtfi.pl/fundusz-ekspansji-zagranicznej-fizan/> (accessed: 21.07.2018)

and aviation industry.¹² The activities of the state include a broad promotion of these Polish industries abroad via trade fairs, facilitating contacts on foreign markets. Each branch is planned to obtain a specific website promoting Polish firms. 9 of these websites are already operational.

3. Any effect on the intensity of exports?

The export share in GDP was rather moderate at the end of the 20. century in Poland and amounted to 16.5% of GDP in 1994 (see Figure 2). The trade openness was constantly increasing since then until 2006 (31.5% GDP), which signifies the increasing role of FDI in the Polish economy. Since 2011, the export share in GDP (35.6%) started rising sustainably again, and in 2017 it was 42.2%.¹³ This is partly caused by the inflow of foreign investment into the exporting sectors (FDI position of Poland was 28% of GDP in 2005 and 45.2% in 2017, though there was a break in the rising trend in 2014).¹⁴ This was due to the relocation of production facilities from Western Europe (incl. Italy, Germany or Great Britain), as Poland proved to be more cost-competitive than the highly developed countries. This also means, that Poland's exports are increasingly dependent on the global value chains rather than on local decision-makers (firms and domestic authorities).

Figure 2. Export as % of GDP, 1994-2017



Source: own calculations based on UN Comtrade database (via WITS) and IMF World Economic Outlook database, accessed 08.07.2018

¹² <https://www.trade.gov.pl/pl/niezbednik-eksportera/polskie-programy-wsparcia-eksportu/branzowe-programy-promocji> (accessed: 21.07.2018)

¹³ But in fact, most countries during this period have also intensified their export performance. See: Ministry of Economic Development 2016, p. 17.

¹⁴ According to the OECD data on Foreign Direct Investment BMD4 FDI aggregates. See: <http://stats.oecd.org/#> (accessed: 08.07.2017).

This rapidly growing export intensity signals the firms' ability and willingness to search and conquer foreign markets. It is difficult to assess to what extent the new strategy of the Polish government affected export trends since its inception (end of 2015). Though, a geographic and structural composition of export puts some light on the effectiveness of the promotion of export.

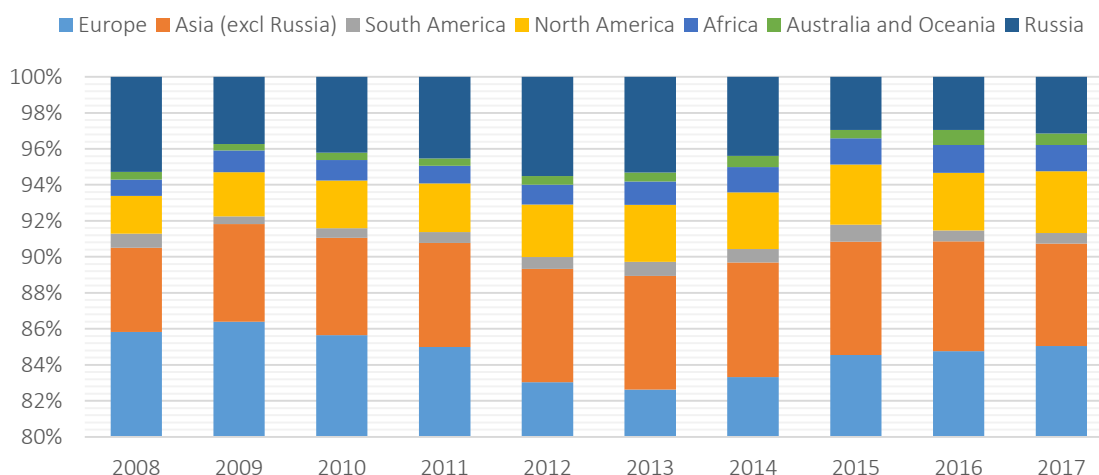
4. Geographic distribution of export

The share of European countries in Polish export was rising far before Poland's EU membership, in the nineties, while during the first years of the EU membership the increase was moderated (Toporowski 2017).

During the financial crisis, Europe (with the prevalence of EU's market), notably Germany, remained the main recipient of Polish goods (see Figure 3). Yet due to the aggravating financial and economic crisis in the euro area the share of Europe in the total Polish export dropped to 82.6% in 2013. Later this share started to pick up slightly, as a consequence of the gradual improvement of the economic situation in the Euro area. One continent clearly became a more important market for Polish products during the crisis: North America (from 2.1% share in 2008 to 3.4% in 2017). This is the effect of the improvement of economic situation of the U.S. consumers. Africa, though being a small market, also became an increasingly important destination: while in 2008 only 0.9% of exports were directed to Africa, in 2013 (when the "Go Africa" program was launched) this share amounted to 1.3%, and in 2017 it was already 1.4%. Asia's share remained stable during the crisis, however within the continent there was a substantial geographical shift in Polish exports. Poland's foreign sales to Russia dropped from 5.3% in 2013 to 2.9% in 2015, and then slightly increased to 3.1% in 2017, due to sanctions against Russia. Other Asian markets gained much more importance having a 4.7% share in 2008 to 6.4% in 2014, but then it decreased to 5.7% in 2017.

When considering the most "*prospective*" markets mentioned in the strategies, there was a change in the list resulting from the new economic and geopolitical conditions. Countries such as Turkey, Kazakhstan or Brazil were erased from the list, while new countries appeared, resulting in the following: Algeria, India, Iran, Mexico and Viet Nam plus the markets being included in the programs (with some of them being already defined by the government as the prospective markets): Go China, Go India, Go Iran, Go Africa, Go ASEAN and Go Arctic.

Figure 3. Geographic composition of Polish exports, by continents and selected countries, 2008-2017



Source: UN Comtrade database (via WITS), accessed 08.07.2018

In overall, the share of the priority (“*prospective*”) markets was rising since the new government was founded in 2015, similarly as from 2008 (see: Table 1). Among the ones with growing share of export is China – the third biggest destination – (from 0.76% in 2008 via 0.99% in 2011 – when the Go China program was launched – to 1.04% in 2017) and there are good prospects to accelerate growth in the share of exports. Both countries perceive each other as an attractive business partner in trade and investment. In 2016 these relations were even strengthened by an official visit of the President of China, Xi Jinping in Poland to make a new partnership and encourage Polish and Chinese firms to do business together (Ministry of Foreign Affairs of the People’s Republic of China 2016).

Regarding India, its share in Polish exports has risen from 0.18% in 2008 to 0.24% in 2013, and then it dropped. In 2015, when the Go India program was launched its share amounted to 0.24%. Since then, the share in Poland’s export to India increased to 0.33% in 2017, which may be an effect of the Go India program. Also, Mexico’s share considerably and steadily increased, from 0.15% in 2008 to 0.34% in 2015. Yet, a drop occurred in 2016, while in 2017 this share grew again to 0.31%. A similar growing pattern occurred in the case of the export to Vietnam.

Yet, some of the priority markets did not attract the Polish exporters, although it had been expected by the authorities. The reasons for it are twofold. First, some of them were not attractive due to a growing economic or political uncertainty. Second, the authorities’ activities towards supporting export to the priority market were either insufficient, imperfectly targeted or late. The implementation of the strategy, regarding the particular markets, was impeded either by lack of capital or by lack of adequate human resources to use them i.e. in trade offices. On top of that, the firms are reluctant to use government-based services.

Though Algeria was classified as a priority market, its share in Poland's export did not correspond to the promotion strategy. The Algerian market share fluctuated around 0.16-0.17% of Polish export during the crisis (except for 0.32% in 2014). Similarly, the Iranian market share did not increase significantly since the financial crisis. However, since 2015 it grew from 0.03% to 0.06% in 2017.

Table 1. Poland's export to the prospective markets plus China, share in %, 2008-2017

PROSPECTIVE MARKETS	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
ALGERIA	0.15	0.16	0.15	0.19	0.18	0.17	0.32	0.17	0.15	0.16
CHINA	0.76	1.09	1.04	0.99	0.97	1.04	1.05	1.04	0.97	1.04
INDIA	0.18	0.25	0.21	0.28	0.37	0.24	0.26	0.24	0.34	0.33
IRAN	0.07	0.11	0.08	0.05	0.03	0.02	0.02	0.03	0.05	0.06
MEXICO	0.15	0.12	0.17	0.23	0.32	0.26	0.23	0.34	0.27	0.31
VIETNAM	0.07	0.08	0.07	0.07	0.09	0.07	0.08	0.12	0.12	0.13
TOTAL PROSPECTIVE MARKETS	1.38	1.81	1.71	1.80	1.96	1.80	1.96	1.92	1.90	2.03

Source: UN Comtrade database (via WITS), accessed 08.07.2018

Though, since 2008 the share of countries within the Go ASEAN program was generally rising (see Table 2), later, since the new government has been elected in 2015, the share started falling. While the share of exports has risen in the case of most of these countries during the entire research period, since 2015 Poland's exports grew only to Thailand's, Brunei's and Cambodia's markets.

Table 2. Poland's export to the Go ASEAN countries, share in %, 2008-2017

Go ASEAN	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
BRUNEI	0.000	0.001	0.000	0.000	0.000	0.003	0.000	0.000	0.001	0.001
CAMBODIA	0.000	0.005	0.005	0.003	0.002	0.001	0.002	0.005	0.004	0.013
INDONESIA	0.03	0.06	0.04	0.06	0.07	0.07	0.07	0.05	0.06	0.05
LAOS	0.002	0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.001	0.002
MALAYSIA	0.11	0.14	0.13	0.09	0.11	0.15	0.09	0.09	0.08	0.06
MYANMAR	0.000	0.000	0.001	0.001	0.001	0.002	0.010	0.015	0.018	0.004
PHILIPPINES	0.01	0.01	0.01	0.02	0.03	0.03	0.05	0.03	0.03	0.03
SINGAPORE	0.08	0.12	0.27	0.31	0.27	0.36	0.39	0.45	0.32	0.11
THAILAND	0.06	0.07	0.10	0.09	0.09	0.09	0.09	0.07	0.10	0.12
Go ASEAN COUNTRIES (INCLUDING VIETNAM)	0.37	0.49	0.63	0.65	0.66	0.78	0.78	0.83	0.73	0.52

Source: UN Comtrade database (via WITS), accessed 08.07.2018

Similarly to the GO ASEAN countries, the share of exports to states within the Go Africa program rose in 2008-2017, but since 2015 it started declining (see Table 3). The case of both groups indirectly point to the relevance of the economic condition of Poland's main trading partner bloc - the EU, and more specifically, the Euro Area. The declining share of these two groups occurs at the same time of a gradual recovery in the EU and as this recovery progresses, these shares become smaller (see: year 2017 in Table 2 and Table 3). Among the Go Africa countries, export share to Mozambique, Senegal and Tanzania increased from 2015, while between 2008 and 2015 an increase took place in most of the countries within the program.

Table 3. Poland's export to the Go Africa countries, share in %, 2008-2017

GO AFRICA	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
NIGERIA	0.04	0.08	0.05	0.05	0.05	0.04	0.07	0.06	0.04	0.05
KENYA	0.01	0.02	0.02	0.01	0.02	0.02	0.03	0.04	0.03	0.03
ANGOLA	0.01	0.02	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01
MOZAMBIQUE	0.02	0.01	0.01	0.01	0.00	0.01	0.00	0.01	0.02	0.02
SOUTH AFRICA REPUBLIC	0.19	0.26	0.29	0.28	0.28	0.30	0.32	0.30	0.28	0.29
EGYPT	0.13	0.21	0.15	0.10	0.11	0.14	0.13	0.20	0.19	0.12
ETHIOPIA (EXCL. ERITREA)	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03	0.03	0.01
GHANA	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02
MOROCCO	0.20	0.11	0.09	0.11	0.13	0.14	0.20	0.16	0.16	0.12
RWANDA	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SENEGAL	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.04
TANZANIA	0.00	0.02	0.01	0.01	0.02	0.01	0.01	0.01	0.02	0.04
COTE D'IVOIRE	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
TOTAL GO AFRICA COUNTRIES (INCL. ALGERIA)	0.78	0.91	0.82	0.81	0.86	0.91	1.15	1.05	0.99	0.92

Source: UN Comtrade database (via WITS), accessed 08.07.2018

Some of the Go Arctic partners belong to the EU, some of them do not. Additionally, within the group there is Russia, which the EU imposed an embargo on. Because of this fact, the overall share of these countries in Poland's export decreased since 2014 and started slightly regaining positions in 2016 (see Table 4). Still, the case of the Go Arctic partners also reflects the trend already visible in the above-mentioned other partner groups (the markets with improved economic conditions tend to gain importance in Poland's export). All EU – Arctic countries lost shares in Poland's export at the beginning of the crisis, and then the relative size of export started augmenting or in the case of Sweden, stabilised. Greenland, having an EU's OCT status (Overseas Countries and Territories), represents only a negligible share in Poland's export, yet it has increased to a particularly high level since 2015. The small share of the Faroe Islands, which is outside the EU, but a part of Denmark, has also been increasing since 2015. Yet, because of the small amount of trade, it's difficult to assess, whether these increases

represented a new trend and whether they were influenced by the implementation of the government's program.

Outside the EU, the share of Iceland, the U.S. and Russia in export has been increasing since 2015. Notably, the growth of the share in export to the U.S. market remains stable. The rise also occurs in spite of the failure to sign the Transatlantic Trade and Investment Partnership between the EU and the U.S., which points to the improved economic environment of this market.

Canada's share in the Polish export, albeit small, grew sustainably during the crisis from 0.39% in 2008 to 0.71% in 2016. In 2014, when Canada was put on the list of prospective markets its share amounted to 0.6%. The Polish government has a positive attitude towards the Comprehensive Economic and Trade Agreement negotiated between the EU and Canada. Yet, in 2017 this share has decreased to 0.59%.

Table 4. Poland's export to the Go Arctic partners, share in %, 2008-2017

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Canada	0.39	0.47	0.59	0.42	0.52	0.49	0.60	0.64	0.71	0.59
Denmark	1.90	1.83	1.84	1.82	1.67	1.68	1.56	1.60	1.70	1.78
Faeroe Islands	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.02
Finland	0.86	0.81	0.72	0.75	0.75	0.77	0.85	0.75	0.80	0.78
Greenland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02
Iceland	0.08	0.03	0.02	0.02	0.03	0.03	0.04	0.04	0.08	0.08
Norway	1.69	1.90	1.49	2.03	1.75	2.01	1.75	1.41	1.26	1.20
Sweden	3.18	2.66	2.97	2.85	2.63	2.72	2.85	2.73	2.88	2.73
Russia	5.28	3.73	4.22	4.54	5.52	5.31	4.39	2.94	2.95	3.14
United States	1.46	1.85	1.83	1.96	2.01	2.38	2.26	2.30	2.45	2.77
Total Go Arctic partners	14.85	13.28	13.69	14.40	14.88	15.38	14.30	12.40	12.85	13.11

Source: UN Comtrade database (via WITS), accessed 08.07.2018

This data illustrate the changing economic and political environments in the priority markets and a high dependence of the Polish producers on global and regional trends. Generally, the markets with ameliorating economic conditions tend to have their share in the rise of Poland's export. On the contrary, those markets that experienced negative economic and even more negative political developments, tend to decrease their share in exports. This suggests that even a big country like Poland (being around the 20th economy in the world) is dependent on the economic circumstances of their trading partners. And as some target groups are recovering (USA, EU), their share in Poland's export is recovering as well at the cost of other markets, including the promoted ones.

The recovery of Europe's share in Poland's export, despite the government strategy, also points to little effectiveness or a significant delay of the effects of the governmental export support program, that assumed an increasing geographical export diversification. There was no

significant shift of money from the non-priority trade offices to the priority ones, which disabled them to sufficiently increase support of Polish business abroad. The other problem was the fact, that non-priority trade offices in the EU were easier to establish and to develop due to the abundance of skilled human capital, as opposed to the trade offices in the priority markets or specific “Go” markets.

5. The commodity structure of exports

Poland's export profile was mainly shaped by a considerable amount of FDI that was allocated in Central and Eastern Europe.¹⁵ These investments led Poland to become an important exporter of electric goods, including consumer durables (i.e. TV sets), automobiles, parts of machinery for production of energy. As seen in Figure 4, the structure of exports systematically evolved over time towards more sophisticated products,¹⁶ yet since the beginning of the crisis, the trade pattern has remained stable. Primary materials represented 4.5% in 2008 and 4% of exports in 2017 and there was a slight decrease in share of the processed materials (from 38.9% in 2008 to 44% in 2017). But during the crisis there was also some continuation of the increasing trend in exporting final goods (from 33.6% in 2008 to 36.6% in 2009), which may reflect the crisis-led changes in consumer behaviour in the main foreign markets. In the latter years, the share in final goods tended to decrease to 38.2% in 2014, and subsequently this share once again started rising. This overall result coincides with the consecutive Polish trade strategies, that assumed an increase of share of sophisticated commodities in total export.

Interestingly, since the nineties, there was a sharp increase in intermediate goods (from 6.1% in 1994) up to 18.3 in 2007. This clearly shows the growing Polish involvement in the regional cooperation within specific clusters (as in the case of automotive industry) and in global value chains. More interestingly, since the beginning of the crisis this share has remained sustainable at around 17% level, which suggests that Poland's position within these chains has stabilised.

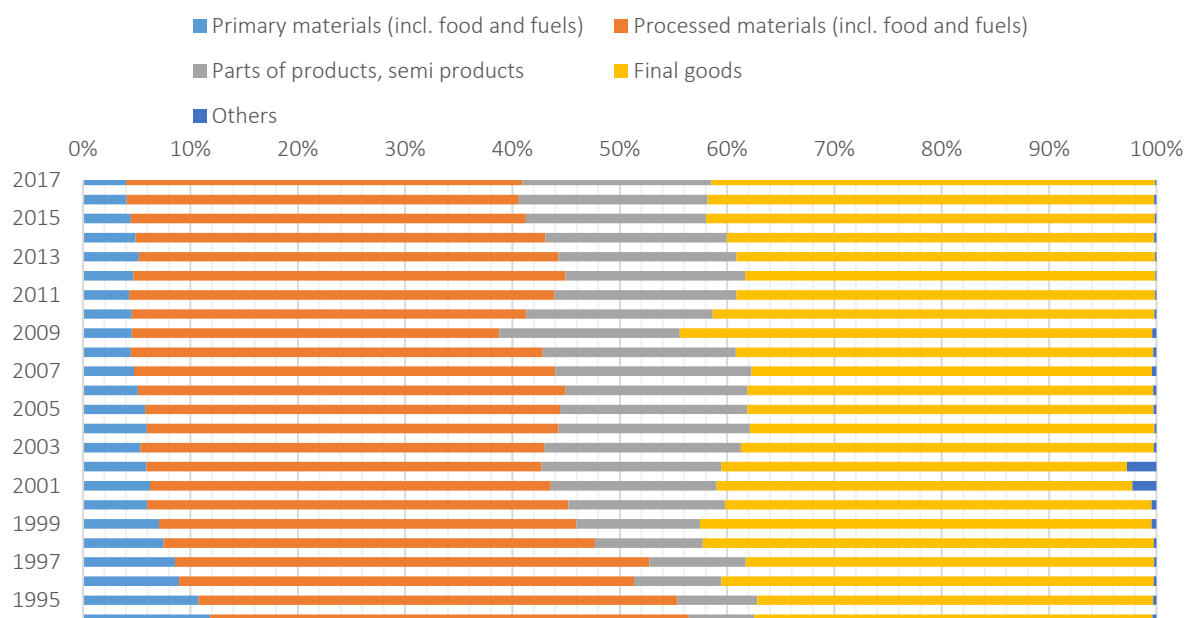
Poland's export specialisation is linked to machinery and transport equipment, notably parts of motor cars. The biggest product group in the Polish export is “other parts and accessories of the motor vehicles” (SITC code 78439) that in 2017 ran to 4.04% of total export (see Table 4). Poland also has a comparative advantage in selling items within this product group, witnessing

¹⁵ The government officials estimated that around 60% of Polish exports stem from the foreign capital. (See: Stelmach 2012)

¹⁶ This may be seen in the rising high quality vertical industry trade share. See e.g.: *Polska w handlu światowym...*, op. cit.

RCA¹⁷ value 2.25 in 2017, which was in general a stable ratio during the crisis, though lowered in 2017.

Figure 4. The structure of Polish export, based on BEC classification, 1994-2015



Source: UN Comtrade database (via WITS), accessed 02.09.2016

Another significant group (but less than half as big as the product group 78439) is “motor vehicles for the transport of goods, not elsewhere specified” (code 78219), amounting to 1.75% of total Polish export. A comparable share has a product group “other parts and accessories of motor vehicle bodies” (code 78432) with 1.69% share in 2017. Poland also has comparative advantage in exporting this product group at the level of 1.39.

The pharmaceutical industry, being technologically advanced also became an increasingly important export category during the crisis. A product group with code 54293, which stands for “medicaments, n.e.s., put up in measured doses or in forms or packings for retail sale” became the fourth biggest export category in 2017 (in 2008 it was 15th) with 1.58% share.

Poland remains a strong exporter of furniture, which is the fifth biggest spending category, “parts of seats (other than for medical purposes or for i.e. barbers), whether or not convertible into beds” that stood for 1.45% of total export (and this share is persistent during the crisis) in 2017. Poland has a comparative advantage in exporting this commodity, with RCA at the level of 5.87 in 2015. During the crisis this comparative advantage has, however, weakened over time. For comparison, in 2008 this index amounted to 6.65. This weakening of RCA within this

¹⁷ Revealed comparative advantage was calculated as follows: $RCA_a = \frac{x_a^{PL} / X^{PL}}{x_a^W / X^W}$, where: x_a^{PL} denotes for Poland's export in commodity a ; X^{PL} denotes for Poland's total export; x_a^W denotes for world's trade in commodity a ; X^W denoted for total world's trade.

product group is rather positive, as this signifies the gradual replacement of the commodities with lower technology intensity with ones with higher technology intensity.

Table 4. The biggest exporting items, % five-digit SITC rev. 4, 2008-2015

SITC CODE	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
78439	3.58	4.02	3.99	3.65	3.51	3.48	3.66	3.92	4.24	4.04
78219	1.74	1.34	1.30	1.43	1.58	1.33	1.21	1.11	1.23	1.75
78432	1.56	1.57	1.53	1.39	1.35	1.39	1.43	1.43	1.59	1.69
54293	0.99	1.33	1.55	1.30	1.32	1.54	1.76	1.65	1.39	1.58
82119	1.48	1.58	1.48	1.55	1.46	1.34	1.40	1.46	1.53	1.45

Source: UN Comtrade database (via WITS), accessed 29.09.2016

Surprisingly none of the commodities in which Poland has the biggest comparative advantage was a main export product. Also, during the crisis there was a shift in the products with the highest comparative advantage in Poland. While in 2008, the products with the biggest RCA values were: “other coal” (SITC code 32122), possibly lignite, that noted RCA value 30.4; “swivel seat with variable height adjustment” (code 82115) used in the automotive industry with RCA reaching 28.1; “artificial monofilament”, that is a yarn (code 65177) with RCA reaching 25.1; “safety razor blades” (code 69635) with RCA at the level of 23.5 and “clothes drying machines” (code 77512). None of these goods (apart from clothes drying machines to some extent) was technology-intensive. In 2017, only one of these commodities remained in the group of goods with highest comparative advantage: “swivel seat with variable height adjustment” (with RCA reaching 30.5).

The only remaining competitive product group between 2008-2017 was “swivel seat with variable height adjustment” (code 82115) which also noted the highest RCA ratio, at the level of 30.5. Since the beginning of the crisis, the groups of the products with highest RCA were only slightly replaced by the others, more technology intense. The second group with the highest RCA was “good of subgroup 658.2, n.e.s. (tarpaulins, awnings and sun-blinds, tents, sails (...))” (code 65829). Tough this product group already had a considerable revealed comparative advantage during the crisis, in 2017 its comparative advantage considerably increased. The other group with a similar trend was “mattresses of cellular rubber and plastics” (code 82123). The most technology-intensive product group, which in 2017 showed the fourth highest RCA ratio – 21.0 – was “reciprocating piston engines (...)” (code 71321). In 2008, its RCA was only below 5, and in the next years it exceeded 15. The RCA of the fifth product “Windows, French windows and their frames” (code 63531) was relatively stable since the beginning of the crisis, ranging from 15.5 in 2008 to 20.5 in 2012.

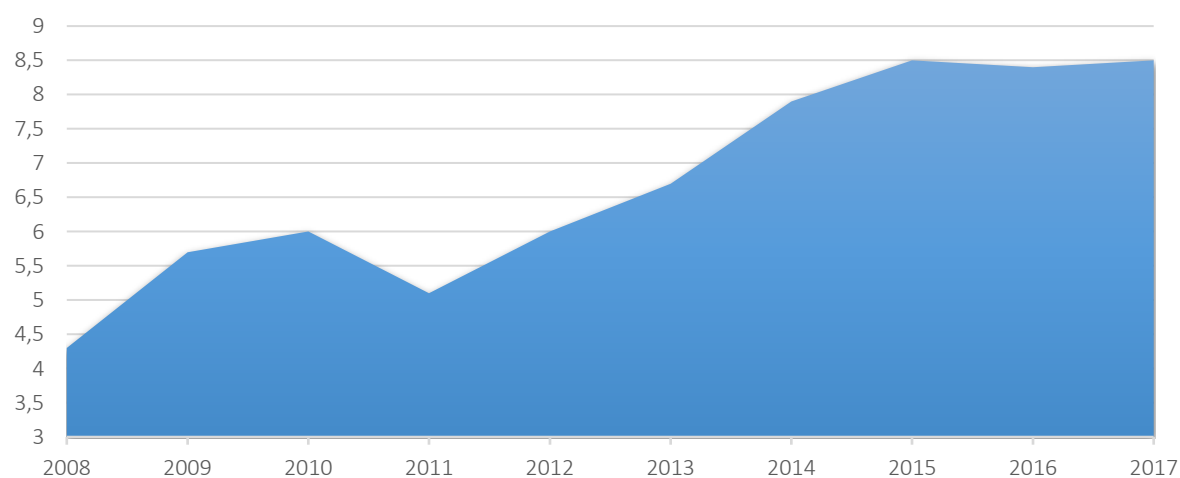
Table 5. Commodities with the highest RCA, five-digit SITC rev. 4, 2008-2017

SITC CODE	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
82115	28.1	29.9	30.5	28.0	24.8	23.8	23.6	22.5	24.3	30.5
65829	26.0	10.3	11.1	13.2	14.2	14.0	12.9	13.0	12.3	30.4
82123	11.2	19.2	22.4	26.0	24.3	21.7	19.5	20.2	17.7	29.1
71321	4.1	22.2	19.0	18.2	20.1	17.8	16.5	17.4	24.8	21.0
63531	15.5	16.1	19.1	19.9	20.5	20.4	19.1	19.7	17.3	17.8

Source: UN Comtrade database (via WITS), accessed 29.09.2016

Other empirical evidence shows, that since the beginning of the crisis, there was a sharp rise in exports in high-tech products until 2015. According to the EU data, in 2008 the share of technologically advanced goods¹⁸ in total export amounted to 4.3% (see Figure 5), compared to the EU average share of 15.4%. The only exceptional year from the rising trend was 2011, when the high-tech share dropped to 5.1%. Afterwards the share started rising again, and in 2015 it amounted to 8.5% of total export. Since then, the share of high-tech products stabilised. Still, it remains small compared to the share of similar products at EU level, amounting to 17.8 in 2017)

Graph 5. High tech products in Polish export, in % of total export, 2008-2017



Source: Eurostat, high-tech exports, basing on SITC rev.4; code: tin00140

The data shows, that there is a slight but stable improvement in technology-intensity of goods exported from Poland. However, despite the government strategy, this improvement in the recent years slowed down, as it is seen in Figure 4.

¹⁸ The group of high tech products is defined by Eurostat services with SITC Rev.4 and consists of: Aerospace, Computers-office machines, Electronics-telecommunications, Pharmacy, Scientific instruments, Electrical machinery, Chemistry, Non-electrical machinery, Armament.
See: <http://ec.europa.eu/eurostat/tgm/web/table/description.jsp>

6. Case studies

The motivations of the firms to expand on the foreign markets may be various, including access to new markets, economies of scale, a greater profitability, the usage of the competitive advantage, learning new skills or risk mitigation (see: Ganesh-Kumar et al. 2001; Campa and Shaver 2002; Greenaway et al. 2007). The two SMEs presented in this section encompass these motivations, yet both suggest that export may almost determine the survival of the firm. These cases also prove, that export may be triggered or developed by external support (mostly EU funds).

The first case is about **Dywilan S.A.** – a small family company in the textiles industry.¹⁹ The firm has a long history in production of technical textiles (mainly top-shelf woollen carpets, including hand-made ones and blankets), reaching back to the end of 19th century. It is located in the Łódzkie region, which has a strong tradition in the clothing industry and related sectors. During its golden age the firm even employed 2500 employees and produced blankets and other materials for military purposes (before Second World War). During communism, it focused on carpets, and it became the biggest exporter of these products in Poland. The sheikhs in the Persian Gulf were important buyers of the firm's products. In the recent decades however, fast-growing competition from the Far East countries deteriorated this industry in Poland. On top of that, the conflict in the Persian Gulf froze the sales to that region. This resulted in the firm's insolvency in 1999. A year later, a part of the firm's assets – including the manufacturing facilities – together with the trademark were purchased by the firm J. Jakubiak S.A. and a restructuring process was launched, reshaping Dywilan to a small (below 50 workers), innovative, family company focused on woollen carpets.

However, because of the growing competition financial recovery was slow, and the firm had to seek other solutions to stay in the market, or to maintain its size at best. EU funds helped a bit: in 2008 these enabled the firm to modernize its production site. Other EU grants pushed Dywilan to innovate and find a new production method – invented in cooperation with the Ghent University – of the artificial woollen grass, by using equipment and some stages of production designed primarily for carpets manufacturing. The artificial and hybrid turf is designed either for decoration or for sport purposes (i.e. football). The company gained FIFA certificates to be a verified supplier of sport grass. With weak and unstable demand for traditional carpets (as it is not a basic good) this new product gave new opportunities to expand on foreign markets.

The magnitude of the firm remained stable over time. While the total assets decreased by one-third since 2009, the equity increased from EUR 1.3 billion in 2009 to EUR 1.5 billion in 2017. The cost structure is gradually improving. The investment in the new production technology gradually pays off and the share of artificial grass in total sales is rising. Since 2009, the revenues

¹⁹ The data on this firm are gathered from the media, the official website, the annual financial reports and from a conversation via phone with the CEO of a company.

rose from EUR 3.4 million to EUR 3.6 million in 2017.²⁰ While in 2009 merely EUR 90 thousand of products were exported (representing a 2.6% of total sales), in 2017 the value of export hit EUR 650 thousand (18% of total sales). The employment is stable, with a slight decrease in salespersons in 2013 and 2014. The sales staff is not divided into domestic and foreign divisions. The main markets of the turf, which is the biggest exporting item, are the Netherlands and Germany.

The competition in the textiles industry has always been very high. This requires Dywilan to seek market niches and innovations. Without these, the firms in this industry would not survive. Similar was the case of some local competitors, which underwent a resolution process.

The firm actively used the financial support from the EU funds (via central or local government agencies). These external funds (as a R&D support) were a trigger to introduce artificial and hybrid grass as a new product in the firm's portfolio. Also, the funds included i.e. grant for building solar panels placed on roofs of the facilities for own purposes. Moreover, Dywilan gained a grant to facilitate the application of a patent on a shock-pad for the sport hybrid turf or decorative hybrid turf in the European Patent Office. However, the management is reluctant to use any financial support, which is too strict and involves fines for not sticking to the contracted agenda while the economic circumstances are volatile thus adjustments can be necessary. The firm did not use government support regarding information about foreign markets. Instead of this, Dywilan used the knowledge shared by their peers operating on foreign markets. Although the firm entered the Warsaw Stock Exchange alternative trading system – NewConnect – it plans to leave it.

The second case represents a new entrant – a firm, whose business strategy was to export products and services since its inception.²¹ **LS Tech-Homes** was founded in 2009 and produces composite materials and final products for the construction industry. Since its inception, the firm concentrated on and were active in seeking a sustainable financing, i.e. by entering NewConnect trading system in 2012. It also gained financing through an investment agreement with the government venture capital fund – ARP Venture Sp. z o.o. (currently PFR Venture Sp. z o.o.) in 2015, which became a strategic investor to increase the firm's production capacities. LS Tech Homes is also active in gaining EU-related funds, i.e. distributed by the Polish Agency for Enterprise Development. In 2017 the firm also issued bonds whose value amounted to around EUR 9 million. Without this external financing, the development of the company would be severely limited. The firm strategy includes moving to the Warsaw Stock Exchange main market within 12-18 months.

LS Tech Homes in the first phase of its operation, focused on investment in improving the production capacities and on R&D. It has 4 facilities, one opened after another and it rents the

²⁰Dywilan S.A., Annual report 2010; Yearly report 2017; see:
http://www.dywilan.com.pl/relacje_inwestorskie/okresowe (accessed: 30.07.2018)

²¹ The data on this firm are gathered from the media, the official website, the annual financial reports and from a conversation via phone with the company's sales manager.

additional production site, all located in Poland's Special Economic Zones. The company strategy includes the opening of a production site abroad, notably in the U.S., in the state of Nevada. The firm is innovation-oriented, and it cooperates with the Gdańsk University of Technology and the Częstochowa University of Technology in product development. The firm obtained management certificates ISO 9001, as well as other branch-specific certificates. In 2018, the company invested to have a greater focus on sales.

The company has a broad, gradually growing portfolio of – mostly environment-friendly – products (including materials resistant to weather or with high thermal insulation). LS Tech Homes sells composites for construction purposes, and the firm also offers modular buildings, including houses made of modules, the use of which drastically decreases construction time. The modular buildings and services connected to this product represent the biggest share of the firm's revenues.

The firm has been export-oriented since the beginning of its operation. In 2017, its export represented around 70% of its revenues. The company sells its products mostly to Western Europe (notably Germany, the Netherlands), where passive, highly energy-efficient buildings or buildings designed for tourism gained popularity. But it is also engaged in selling its products in Angola, Africa. Due to the end of the investment and R&D phase, both domestic and foreign sales are accelerating (more than tenfold in 2017 compared to 2016, and forty times compared to 2015). After years of investment, these significant increases in sales fruited in positive profits amounting to EUR 247 thousand in 2017, compared to losses (i.e. EUR 2 million in 2016) in the previous periods (LS Tech-Homes S.A. 2017).

The number of staff increased in several stages, which was the result of the consecutive launch of the production sites. In 2017 the number of employees grew to 73 regular posts, from 52 in 2016. The sales team is not divided into domestic and foreign divisions.

7. Conclusions

The collected data in this paper show slight changes in Poland's export patterns. Apart from a rise in export share in GDP, the commodity structure evolved only moderately towards products with more technology-intensity after the crisis.

Despite the Polish government's strategies to support domestic exporters, there is little evidence that they affected the trade patterns in the past decade. A more visible trend is a dependence of the geographic composition of the export on the changing socio-economic and political conditions of the markets. Europe, notably the EU, remained the main export destination. Since 2013 the European market due to its economic recovery has gradually been regaining its share in Poland's export, showing that such a geographic trade composition is a steady state. Africa and North America gained some importance as destination markets, which

was in line with the aims of the trade promotion strategies including the geographic diversification of the Polish export.

On country-level, data showed a growth of shares only in some selected priority markets. Once again, we can conclude that the mixed results reflected the aggravation of economic and political conditions in some specific markets, which resulted in a decrease in their share in total Polish exports. However, this data also indicate the low effectiveness of the government strategies, which was mainly caused by inertia or by the inefficient allocation of resources or the lack of such resources (either funds or human resources).

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Impacts of the Aid for Trade Initiative on the Export Performance of the Visegrád, Baltic and Iberian countries

Beáta Udvari

Abstract

As a result of the global economic crisis and the crisis in the EU, exports of the Baltic, Iberian and Visegrád countries decreased temporarily towards the EU countries, while there was a slight increase in exports to other regions, mainly to developing countries all around the world. The trade performance of the EU members is also influenced directly or indirectly by several EU policies. Regarding the European international development cooperation policy, the Aid for Trade (AfT) initiative has a crucial role in helping developing countries participate in international trade more effectively. It is shown that AfT assistance provided by the EU generally increases trade between the EU and the recipient countries; however, there is no information on how this increase is distributed among the EU members. Consequently, this research aims to respond to the question of how AfT influences the trade performance of the Baltic States, Iberian countries and Visegrád countries. The research is based on empirical investigation applying a gravity model. The results show that Aid for Trade provided by the EU for developing countries has significant impact on the exports of some of the countries, and the colonial past plays a crucial role. However, this growth is uneven among the three groups of countries.

Keywords: Aid for Trade, export performance, Baltic States, Iberian countries, Visegrád countries

1. Introduction

Since the 70s, economic literature has been dealing with the role of exports in economic growth. Export orientation undoubtedly proved to be successful in several countries, while in others growth was based on domestic factors. The international recession after 2008 increased the importance of exports as a source of economic growth again in the member countries of the European Union. Trade as an engine of growth has always been accepted by economists (Ekholm–Södersten 2002, Freund–Bolaky 2008). Trade can contribute to economic development, foster access to new technology, and encourage growth in productivity owing to the more intense competition (Irwin 2003, Manole–Spatareanu 2010, Yanikkaya 2003). The success of the export-oriented South-East Asian nations (South Korea, Taiwan, Hong Kong or Singapore) also strengthened the positive impacts of an export-oriented economic policy. However, some researchers draw the attention to the role of institutions in this process (e.g. Chang et al. 2009, Freund–Bolaky 2008). After the international recession in 2008, the importance of exports as a source of economic growth has increased in the European Union member countries, too. In small countries, like the Baltic countries (Estonia, Latvia and Lithuania), Iberian countries (Spain and Portugal) or the Visegrád countries (the

Czech Republic, Hungary, Poland and Slovakia) liberal trade policy and an open economy is even more necessary for their economic development.

The EU Members' trade performance is influenced by several EU policies. Among others, the industry policy and the international development cooperation policy may have impact on it. Regarding the EU's international development policy, the Aid for Trade (AfT) initiative has a crucial role. Aid for Trade is an international initiative emerged in the framework of the World Trade Organization in 2005. The EU prepared its own AfT strategy in 2007 and tries to integrate it into its development cooperation program. The initiative aims to improve the supply side capacities of the developing countries. The overall objective is to help developing countries participate in international trade more effectively. Although AfT is a new type of aid activity, there is an empirical literature on its potential effects on trade costs (e.g. Cali-teVelde 2011) and export expansion (e.g. Bearce et al. 2013, Helble et al. 2009, Moreira 2010; Pettersson-Johansson 2011; Vijil-Wagner 2010). Furthermore, Bearce and co-workers (2013) present that besides the trade expansion of developing countries, exports of the USA as a donor also increased owing to the AfT. Since the EU has wide-ranging relationship with developing countries, Member States can gain additional trade, too, by providing AfT to them. According to Udvari (2013), Aid for Trade assistance provided by the EU generally increases trade between the EU and the recipient countries: 1 percent growth in AfT provided by the EU increases trade 0.1 percent between the EU and the recipient countries. However, we do not have information about how this increase is distributed among the EU Members, and whether the larger colonizers are in better situation or not. Does the international development cooperation policy of the EU have any impact on seeking new export markets? Consequently, this research aims to respond to the question how Aid for Trade initiative influences the trade performance of the Baltic, Iberian and Visegrád countries.

The research – besides analysing the existing literature – is based on an empirical investigation. The gravity model (where the dependent variable is extra-trade, and the independent ones are GDP, GDP per capita, distance and Aid for Trade and some dummy variables) covers the period of 2002-2014. As a result of the analysis, we can gain information on how the export performance of the two Iberian countries, and the country groups of Visegrád countries and Baltic States were influenced by the Aid for Trade activity of the EU and of their own. In more general, how an EU policy could influence the trade performance of these Member States.

The structure of the paper is as follows. The next section details the Aid for Trade initiative itself. In the second part of the paper the empirical analysis is detailed emphasizing the results of the applied models.

2. The Aid for Trade initiative

Developing countries have strong relations with developed countries, which appear in the form of financial flows and this may have an impact on the exchange rates of developing countries (Kiss 2015). Since many countries were unable to follow the liberalization process and adjust to the new international trade environment, the World Trade Organization (WTO) launched the Aid for Trade initiative in 2005. AfT may be essential for developing countries, since they would be the main losers if the Doha Round failed (Abbott et al. 2009, Deardorff–Stern 2009).

The programme aims to help developing countries *expand* their exports, *participate* in the multilateral trade system more effectively and *benefit* from liberalisation. In order to meet these goals, *six areas of financial assistance* were determined (WTO 2006): *trade policy and regulation; trade development; trade-related infrastructure; building productive capacity; trade-related adjustment; and other trade-related needs*. As a result, the primary objective of AfT is to improve the supply-side capacity (Hallaert–Munro 2009), which may lead to the development of the business environment. And business environment of high quality is essential to enjoy positive effects of participating in international trade (Dreger–Herzer 2011, Freund–Bolaky 2008). However, the programme has also been sharply criticized: although AfT aims to support the least developed countries, there is empirical evidence showing that in practice aid allocation does not follow this expectation (Udvari 2011, Uhrin–Schusztter 2013). For instance, the European Union has implemented more AfT projects in China (as one of the largest exporters in the world) than in Sub-Saharan Africa (Udvari 2013).

Although AfT belongs to the financial assistance group, its economic impacts seem to be more spectacular and persuasive than the effects of general development assistance, but the overall evaluation is mixed (Haynes–Holden 2016). According to official documents, it is not expected that AfT would behave as a tied aid, that is, recipient countries do not have to follow the conditions of donor countries. However, relevant literature analysing the potential impacts of AfT assumes this statement. Studies discussing these impacts can be grouped as follows: studies which analyse the impacts of AfT on export volumes regardless of donors (Cali–te Velde 2011, Pettersson–Johansson 2013); or studies which investigate the impacts of AfT provided by a donor on trade between the recipient and the donor (Bearce et al. 2013; Udvari 2013; Uhrin–Schusztter 2013). Furthermore, only few studies have dealt with the European Union’s AfT-activity. Udvari (2013) showed with a gravity model that AfT provided by the EU might cause trade expansion between donors and recipients, though in her analysis total trade (sum of exports and imports) was the dependent variable. Consequently, these results may be distorting as her model does not answer the question whether AfT contributes to the export or import expansion in developing countries, that is, which party (the EU or the developing countries) gain more. In her later study, Udvari (2014) showed that trade expansion between the EU and the ACP countries is due to the old EU member states.

Cali and te Velde (2011) analysed the export volume changes by involving 100 developing countries in their empirical investigation. According to their econometric results, AfT assistance on the development of economic infrastructure results in growing exports. Pettersson and Johansson (2013) have similar results: supporting the development of the trade infrastructure results in export growth, however, the authors do not give as large emphasis to AfT as Cali and te Velde (2011) did. Helble et al. (2009) found the assistance on trade policy a significant factor: one percent growth in trade policy aid results in 818 million USD trade expansion worldwide. Bearce et al. (2013) narrowed their analysis to the aid activity of the USA. Their results indicate that one dollar growth in AfT results in 65 dollar trade expansion in the recipient country, but this impact may be higher in countries most in need (poorer, landlocked). Vijil and Wagner (2010) found that a 10 percent growth in aid for improving trade infrastructure results in 1.22 percent growth of the recipient's export. Regarding trade costs, Lanz et al. (2016) and Melo and Wagner (2016) showed AfT's possible contribution to decreasing the very high trade costs of both merchandise and services trade.

Furthermore, Vijil (2013) analysed how AfT may contribute to economic integration. According to her results, AfT has positive effects on both South-South and North-South integrations. However, there is no answer about how AfT influences intra-trade within an integration. Huchot-Bourdon et al. (2009) analysed these processes in a different way. They analysed the relationship between FDI, trade and development, and they created groups of developing countries reflecting the different needs these countries have and determining the priorities of the recipient countries to help donors in their aid allocation. Their results indicate that trade-related needs, especially infrastructure development, are more highlighted in East and West Africa. Consequently, Aid for Trade may have significant effects in the region's development process, including the integration process, too. Nevertheless, the impact of AfT on the integration process has not been proved. For example, the empirical results of Udvari and Kis (2014) proved that AfT provided to the member countries of the Economic Community of West African States (ECOWAS) does not have significant impact on expanding intra-integration trade.

Some empirical analyses (Udvari 2013, Uhrin–Schusztter 2013) justify the claim that although AfT has several good objectives, economic, political and strategic interests are more important for donor countries than the real needs. For example, Iraq and Afghanistan are among the most supported countries. Or in the USA's aid policy, the USA's own interests are the most important factors. All these may hinder the effectiveness of AfT. This may be proved by the following. There are studies investigating the effects from a donor's perspective. These analyses may be more reliable since the well-performing countries would not cover the less well-performing countries' achievements (or vice versa). Brayzs (2013) dealt with four donors (USA, Japan, Germany and Norway) in four recipient countries (Indonesia, Philippines, Timor-Leste and Vietnam). The author stated that the AfT had different impacts depending on the donor and the recipient. Another example is the study of Bearce et al. (2013) in which it is proved that the US exports are growing due to AfT assistance! This statement refers to the fact that aid activities (including AfT) need to be analysed in a donor-specific way.

Effects of AfT may appear not only in trade expansion but in investments, too, as Lee and Ries (2016) emphasized. Their argument shows that improvement in the business environment, supply-side capacity and development, and decreasing trade costs may attract more greenfield investments in the recipient countries. Altogether, AfT may contribute to the development of recipient countries through direct and indirect channels. Furthermore, it is worth investigating whether a better business environment and a better position in international trade result in more imports in developing countries or not. To respond to this question, we take the Aid for Trade provided by the EU and the trade between developing countries and Baltic states, Iberian countries and Visegrád countries into consideration. The EU is one of the largest donors and provide relatively high amount of AfT to developing countries and we could see that AfT results in more trade between developing countries and old EU member states. Furthermore, we could see that developing countries have a growing role in the exports of these countries. So the question is: has AfT any impact on this process?

3. Impacts of AfT on exports

This section details the methodology and the results of the empirical analysis concerning the impacts of Aid for Trade provided by the EU on trade expansion. First, the process of selecting the recipient and donor countries and indicators is detailed, including the measurement questions of Aid for Trade. Then, the gravity model applied is discussed followed by the analysis of the results.

3.1. Sample countries and the measurement of AfT

Regarding the recipient countries, the main goal was to involve as many developing countries as possible into the analysis. Out of the 123 developing countries in the world, 78 countries were included in the analysis, out of which 39 countries belong to the ACP group. 29 countries are least developed countries, and 24 of them belong to the ACP block. The remaining developing countries were left out, as there was no available data, regardless of the fact that they received any AfT assistance from the EU or not between 2005 and 2012. The most recent available data were used in the empirical analysis. The export data of the selected countries were collected from the UNCTADStat database for the period between 2006 and 2013 – then they were aggregated (excluding the Iberian countries owing to their colonial ties).

Calculating Aid for Trade was slightly complicated. A decision about the donors and how to calculate the total amount of AfT had to be made:

- 1) Donors: the OECD's Development Assistance Committee was the starting point. All old EU Member States (EU-15) are members of this organization, and since 2013 four new Member States (the Czech Republic, Slovenia, the Slovak Republic and Hungary) have become members, too. None of the Baltic States are member of this organization. Since the analysis covers the AfT-activity between 2006 and 2012, the aid provided by the EU-15 and the EU

Institutions was considered as the entire EU's donor activity. Since the EU-15 has experience in development policy and has built up a widespread aid activity, while new Member States have less relationship with developing countries, this choice cannot have a distorting effect on the results.

2) Total amount of AfT: Calculating the current amounts of AfT, recommendations of Turner (2008), OECD-CRS (2016) and Hynes and Holden (2016) were followed. According to them, AfT amounts are equal to the sum of assistance provided to several sub-sectors on which the OECD collects data. The sectoral data contained only disbursed aid. Similarly to Helble et al. (2009), Cali and te Velde (2011), Hoekman and Wilson (2010), and Vijil and Wagner (2010), the following sectors were selected to calculate the sum of AfT: (1) *Trade related infrastructure* appears in the OECD database as *economic infrastructure* containing the subsectors of transport and storage; communications; and energy supply. (2) The categories of *building productive capacity* and *trade development* appear in the OECD database as *building productive capacity* and consists of three subcategories: bank and financial services; business and other services; agriculture and industry. (3) The category of *trade policy and regulations* is the same as in the OECD database.

A cross-sectional analysis was prepared because of the short (official) existence of AfT. Data were collected for the period of 2005–2014 (the official existence of Aid for Trade), but in order to handle the endogeneity problem (which will be discussed later), there was a one-year-lag in the case of independent variables. The trade and GDP data originate from the on-line database of UNCTADStat (2018), the aid data originate from OECD-CRS (2016) and the distance, common language and colonial past data originate from CEPII database (Mayer–Zignago 2011).

3.2. Methodology

The aim of the investigation is to analyse whether Aid for Trade provided by the EU contributed to the improvement of the export performance of the Baltic, Iberian and Visegrád countries significantly or not. In order to achieve this purpose, a gravity model is applied which is an appropriate method to investigate trade flows (Carey et al. 2007). According to the model, trade is positively affected by the income of partner countries and negatively affected by their distance as a proxy for transport costs (Africano–Magalhães 2005). In order to conduct the best analysis, we run three models. The ground specification in present paper is as follows:

$$\ln EXP_{j,t} = \beta_0 + \beta_1 \ln(Y_{i,t-1}) + \beta_2 \ln(YC_{i,t-1}) + \beta_4 \ln AfT_{i,t-1} + \varepsilon, \quad (1)$$

- $EXP_{j,t}$ denotes export from j Baltic country to developing countries; exports from Baltic countries are aggregated;
- $Y_{i,t-1}$ denotes the GDP in country i , and this shows the market size;
- $YC_{i,t-1}$ denote the GDP per capita in country i referring to the income level.

In the second model, a dummy variable for the economic crisis (*Crisis*) was added where 0 denotes the years before and after the crises and 1 represents the years during the crisis (2008–2009). The distance between country *i* and Baltic States ($Dist_{i,j}$) was also measured as an independent variable:

$$\ln EXP_{j,t} = \beta_0 + \beta_1 \ln(Y_{i,t-1}) + \beta_2 \ln(Yc_{i,t-1}) + \beta_3 \ln Dist_{i,j} + \beta_4 \ln AfT_{i,t-1} + \beta_5 Crisis + \varepsilon, \quad (2)$$

In order to analyse what kind of direct effects the Aid for Trade has in the different country groups (ACP, LDC and oil-exporting countries), the equation (3) contains the following interactions: the coefficients of $\ln AfT * LDC$, $\ln AfT * Oil$ and $\ln AfT * ACP$ show how much impact the Aid for Trade has on the trade expansion if a certain recipient country belongs to the least developed countries, oil exporter countries or the ACP countries, respectively.

$$\ln EXP_{j,t} = \beta_0 + \beta_1 \ln(Y_{i,t-1}) + \beta_2 \ln(Yc_{i,t-1}) + \beta_3 \ln Dist_{i,j} + \beta_4 \ln AfT_{i,t-1} + \beta_5 Crisis + \beta_7 \ln AfT^P * ACP + \beta_8 \ln AfT^P * LDC + \beta_9 \ln AfT * Oil + \varepsilon, \quad (3)$$

In the case of Spain and Portugal, we changed the model, since these countries were colonizers and they had more relations with the Latin American countries, so colonial status and being a Latin American country as an independent variable was also included into the model reflecting the specific case of the two Iberian countries. The regression models for the Iberian countries were the following:

$$\ln EXP_{j,t} = \beta_0 + \beta_1 \ln(Y_{i,t-1}) + \beta_2 \ln(Yc_{i,t-1}) + \beta_3 \ln Dist_{i,j} + \beta_4 \ln AfT_{i,t-1} + \beta_5 Crisis + \beta_6 Colony + \varepsilon, \quad (4)$$

In order to analyse what kind of direct effects the Aid for Trade has in the different country groups (ACP, LDC, oil-exporting and Latin-American countries), the equation (3) contains the following interactions: the coefficient of $\ln AfT * LA$ shows how much impact the Aid for Trade has on the trade expansion if a certain recipient country belongs to the Latin American countries. The other interactions ($AfT * LDC$, $AfT * Oil$ and $AfT * ACP$) can be solved similarly.

$$\ln EXP_{j,t} = \beta_0 + \beta_1 \ln(Y_{i,t-1}) + \beta_2 \ln(Yc_{i,t-1}) + \beta_3 \ln Dist_{i,j} + \beta_4 \ln AfT_{i,t-1} + \beta_5 Crisis + \beta_6 Colony + \beta_7 \ln AfT^P * ACP + \beta_8 \ln AfT^P * LDC + \beta_9 \ln AfT * Oil + \beta_{10} \ln AfT^P * LA + \varepsilon, \quad (5)$$

It was a great challenge to handle the case when AfT was zero in a certain country in some of the investigated—but not in all—years. Wagner (2003) and Cali and te Velde (2010) suggest a solution: if the aid is zero, one can calculate as $(1+aid)$, but they remark that it may have a distorting effect. To handle this situation, Wagner (2003)—who Cali and te Velde (2010) follow—recommends dummy variables (1 if aid is zero, and 0 if aid is above zero), which methodological device was partly adopted during this analysis. Consequently, when calculating the logarithm of aid, the following specification recommended by Wagner (2003) was used: $\ln(\max(1, aid))$.

But the dummy variables contained no extra information, so they were left out. As a result, this calculation was able to keep aid level zero where it was zero originally.

Aid-related regression models always raises the question of endogeneity (Ghimire et al. 2016), meaning that dependent variables are highly correlated with the error term. In the present case it means that it is not sure whether aid increases trade positively, or better trade performance has a positive impact on aid allocation. Since endogeneity has a distorting effect, it is needed to be solved. One solution is to involve instrumental or proxy variables in the analysis (for instance, Angeles–Neanidis 2009, Grange et al. 2009). However, it should also be considered that these instruments may describe the original variable incorrectly, causing further distortion (Younas 2008). In aid studies, the most common tool for handling the endogeneity problem is to calculate with lagged independent variables (Younas 2008, Kimura et al. 2012). However, there is no consensus in this question. Cali and te Velde (2011) calculated with lagged aid data in their regression model, while Wagner (2003) analysed the effects of lagged and not-lagged aid on trade. He concludes that the current (and not the previous) year's development assistance contributes to the trade performance in the current year. According to these conclusions, in the present analysis all independent variables are lagged by one year. Its economic sense is that previous economic performance determines present trade performance, and AfT received in the previous year leads to trade expansion which appears in the following year's performance.

These calculations were prepared for the groups of the Baltic States; Iberian countries and Visegrád countries. The models were also tested whether they met the requirements of the regression models (heteroskedasticity, multicollinearity, autocorrelation).

3.3. Findings

Before going into details, a correlation analysis was employed to analyse how strong the connections between the variables are, proving the necessity of their involvement in the model (Table 1). The results indicate significant correlations in all cases (GDP, GDP per capita, distance and Aid for Trade) showing that these explanatory variables may have significant impact on the exports of all selected country groups.

In the following we present the results by country groups – firstly, we introduce the Baltic States. Although the correlation analysis suggested strong results in this case, too, the regression analysis showed only solid results: the R-square is still acceptable but is below 50% in all three models (Table 2). The first model, which contains only the basic indicators, shows that all indicators (GDP, GDP per capita and Aid for Trade) have significant impact on the export expansion of the Baltic States. That means that growing Aid for Trade resulted in growing Baltic exports to developing countries. However, the GDP per capita has a negative sign indicating that the Baltic States trade more with richer countries. In the second model, the results are similar, but the Aid for Trade has lost its significance, and distance as a new indicator also has a remarkable impact on the export of the Baltic States: countries which are located farther from

the Baltic countries receive less Baltic exports. The third model contains the direct impacts of the aid provided to different country groups. None of these variables are significant: *in the case of the Baltic States, there is no impact on their export performance whether a developing country, which received Aid for Trade assistance from the EU, is an ACP-, an oil exporting or a least developed country.*

Table 1. Correlations with exports of all country groups

		BALTIC STATES	IBERIAN COUNTRIES	VISEGRÁD COUNTRIES
GDP/CAPITA	Pearson Correlation	0.274**	0.487**	0.476**
	Sig. (2-tailed)	0.000	0.000	0.000
	N	624	624	624
GDP	Pearson Correlation	0.616**	0.538**	0.839**
	Sig. (2-tailed)	0.000	0.000	0.000
	N	624	624	624
DISTANCE	Pearson Correlation	-0.187**	-0.313**	-0.207**
	Sig. (2-tailed)	0.000	0.000	0.000
	N	624	624	624
AFT	Pearson Correlation	0.340**	0.261**	0.387**
	Sig. (2-tailed)	0.000	0.000	0.000
	N	624	624	624

** : Correlation is significant at the 0.01 level (2-tailed).

Source: own calculations

Table 2. Coefficients of the gravity models, Dependent variable: Baltic exports

	MODEL 1		MODEL 2		MODEL 3	
	COEFFICIENT	P-VALUE	COEFFICIENT	P-VALUE	COEFFICIENT	P-VALUE
CONSTANT	-22.680	0.000	-6.142	0.020	-6.563	0.022
AFT	0.278	0.014	-0.026	0.818	-0.044	0.733
GDP_C	-0.372	0.021	-0.468	0.003	-0.425	0.022
GDP	1.330	0.000	1.491	0.000	1.497	0.000
DISTANCE			-2.120	0.000	-2.127	0.000
CRISIS			0.014	0.960	0.015	0.956
ACP_AFT					0.005	0.954
LDC_AFT					0.039	0.689
OIL_AFT					0.010	0.905
R SQUARE	0.399		0.452		0.452	
ADJUSTED R SQUARE	0.397		0.447		0.445	

Source: own calculations (published in Udvari 2017)

As for the Iberian countries, Table 3 contains the coefficients of the gravity models for Portugal. The first model, which contains only the basic indicators, shows that the crisis and aid for trade had no significant impact on export expansion of Portugal, but GDP and GDP per capita of the recipient countries together with the distance are significant variables. In the second model, the results are similar but the colonial past as a new indicator also has significant impact on the export of Portugal: Portuguese exports are more intense with former Portuguese colonies. The third model contains the direct impact of aid provided to different country groups. Out of the three relevant variables, only the Aid for Trade provided to ACP countries is significant, while Aft to Latin-American countries is not. It shows that the relatively strong ties of the EU with ACP countries affect the relations of the member states.

Table 3. Coefficients of the gravity models, Dependent variable: Portugal exports

	MODEL 1		MODEL 2		MODEL 3	
	COEFFICIENT	P-VALUE	COEFFICIENT	P-VALUE	COEFFICIENT	P-VALUE
(CONSTANT)	43.462	0,000	9.541	0,000	7.389	0,000
CRISIS	-0.179	0.207	-0.178	0.093	-0.157	0.133
AFT	0.087	0.185	0.03	0.542	0.004	0.933
GDP	0.554	0,000	0.742	0,000	0.807	0,000
GDP_CAPITA	0.71	0,000	0.481	0,000	0.535	0,000
DISTANCE	-1.88	0,000	-1.812	0,000	-1.774	0,000
COLONY			4.353	0,000	4.229	0,000
LA_AFT					0.002	0.824
ACP_AFT					0.036	0,000
OIL_AFT					0.006	0.489
LDC_AFT					-0.002	0.874
R SQUARE	0.534		0.740		0.750	
ADJUSTED R SQUARE	0.530		0.738		0.745	

Source: Udvari (2016), p. 14.

Regarding Spain, Table 4 contains the coefficients of the models. The first model shows that the crisis and the aid for trade were not significant variables (that is, they did not influence exports of Spain to developing countries significantly), but GDP and GDP per capita of the recipient countries together with the distance are significant variables. In the second model, the results are similar but the colonial past as a new indicator also has significant impact on the export of Spain (just as in the case of Portugal). In the third model, we can analyze the direct impact of aid provided to different country groups. In the case of Spain, both Aft offered to ACP countries and to Latin-American countries are significant. That means that the aid that the EU provides to these countries created more markets to Spain and contributed to the Spanish export improvement. This is an opposite result to that of the Portugal performance.

In an addition, we should highlight that neither in the case of Portugal, nor in the case of Spain, the years of the crisis were significant. That means that the crisis did not reduced (or increased) trade with developing countries. This suggests that both countries tried to find new partners and markets outside the European Union in order to boost their exports. Aid for Trade as a financial assistance contributed to trade more with some developing countries.

Table 4. Coefficients of the gravity models, Dependent variable: Spanish exports

	MODEL 1		MODEL 2		MODEL 3	
	COEFFICIENT	P-VALUE	COEFFICIENT	P-VALUE	COEFFICIENT	P-VALUE
(CONSTANT)	7.048	0,000	9.085	0,000	9.263	0,000
CRISIS	0.067	0.404	0.049	0.517	0.052	0.491
AFT	0.05	0.192	0.067	0.063	0.036	0.322
GDP	0.768	0,000	0.776	0,000	0.836	0,000
GDP_CAPITA	0.495	0,000	0.363	0,000	0.303	0,000
DISTANCE	-1.37	0,000	-1.57	0,000	-1.651	0,000
COLONY			0.973	0,000	0.789	0,000
LA_AFT					0.023	0.011
ACP_AFT					0.012	0.035
LDC_AFT					-0.005	0.443
OIL_AFT					-0.016	0.007
R SQUARE	0.791		0.815		0.821	
ADJUSTED R SQUARE	0.790		0.814		0.818	

Source: Udvari (2016), p. 16.

As for the Visegrád countries, the results are very similar to those of the Baltic States. Table 5 details that Aid for Trade is significant only in the first model, but when other control variables are included in the model, this impact becomes insignificant. Furthermore, it seems that only the GDP (i.e. the size of the market) and the distance are the key factors of the export of the Visegrád countries. Altogether, although most of the Visegrád countries have become active participants of the international development cooperation as they are members of the OECD Development Assistance Committee, they still have less connections to developing countries. Their long-term strategies cover trade more with less developed countries (Antalóczy–Éltető 2016), probably its impact will be seen later, if any.

Table 5. Coefficients of the gravity models, Dependent variable: exports of Visegrád countries

	MODEL 1		MODEL 2		MODEL 3	
	COEFFICIENT	P-VALUE	COEFFICIENT	P-VALUE	COEFFICIENT	P-VALUE
(CONSTANT)	-12.974	0.000	-1.357	0,143	-1.261	0.207
AFT	0.158	0.000	-0.054	0,180	-0.043	0.340
GDP_C	0.010	0.880	-0.057	0,297	-0.074	0.251
GDP	0.946	0.000	1.058	0,000	1.068	0.000
DISTANCE			-1.487	0,000	-1.505	0.000
CRISIS			-0.033	0,731	-0.031	0.748
ACP_AFT					-0.010	0.721
LDC_AFT					-0.013	0.696
OIL_AFT					-0.064	0.033
R SQUARE	0.712		0.791		0.793	
ADJUSTED R SQUARE	0.71		0.79		0.79	

Source: own calculations

4. Conclusions

The aim of this study was to investigate whether the international development cooperation policy of the European Union contributed to the export expansion of the three country groups that were significantly affected by the global crisis of 2007. The three groups were the Baltic, Iberian and Visegrád countries – all members of the European Union. As an example, the Aid for Trade initiative was taken into consideration for several reasons. On the one hand, the Aft improves trade capacity in developing countries and promotes economic development there. On the other hand, it is shown that Aft contributes to the export expansion of not only the recipient but also the donor countries through the developed business environment. This research with empirical results shows that Aid for Trade assistance provided to developing countries did not contribute to the export expansion of either the Baltic States or the Visegrád countries, but it had impact on the Iberian countries. The main explanation can be that the colonial past has stronger influence than only being a member state of the European Union.

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Foreign trade of goods and services of the peripheral regions – characteristics and tendencies after the crisis

Andrea Éltető

Abstract

The decreased domestic demand as a consequence of the international crisis induced firms to look for foreign markets for their products. The importance of exports increased, and it was manifested in the growing openness of the countries. The objective of the study is to analyse the trends in the past decade, whether the effects of the crisis induced long-term geographical and product structure changes in exports. In the study the data of the Eurostat Comext are analysed, indices are calculated focusing on the Iberian, Baltic and Visegrád countries. Results show that reorientation of trade towards non-EU areas was only temporary and the product structure of exports remained mostly similar to that of before the crisis. Changes in share of exported high-tech products depend on the activities of foreign multinationals and not on domestic innovation and R&D developments. Trade of services is directed mainly towards the EU and its composition is different in the examined peripheral regions. Value-added trade data can provide a basis for estimating participation in global value chains and in this respect the position of the Visegrád countries is outstanding. The role of Germany as a hub is essential in this regard. Three company cases demonstrate strong and loose GVC participation.

Keywords: export, services, Baltic countries, Visegrád countries, Spain, Portugal

1. Introduction¹

During the international crisis the export activity of the countries became especially important as a source of growth. Economic slowdown was particularly traumatic (although to different extent) in the peripheral economies like Iberia, the Baltic region and the Visegrád economies. Domestic demand decreased significantly, therefore companies looked for foreign buyers. Non-EU, emerging markets were important target markets, which were less affected by the crisis. In this study I examine to what extent the export was directed towards external markets and whether this trend proved to be durable on the longer run. Changes of the target areas (geographical structure of exports) can bring about changes in the product structure too. The study examines to what degree such changes took place during the post-crisis decade. Similarly, geographical diversification can result in larger product structure diversification, so it is relevant to analyse the concentration of exports in the nine countries.

¹ This study is based on Éltető (2018) and Antalóczy-Éltető (2016) in large part but data are updated, and the latest trends are included.

In the past ten years the global production process went through constant and significant changes. New technological development, product innovations, increasing robotisation proceeded and the importance of services has augmented. Manufacturing has been more and more “servicited.” The question is whether the peripheral countries could react to these changes and whether these are apparent in their exports.

The first part of the study demonstrates the increased significance of export-import in the examined countries since the crisis. The geographical structure of trade and its changes are also examined. The second part analyses the product structure, technology-intensity and concentration of foreign trade. Furthermore, the similarity of present trade structure with the pre-crisis structure is examined. In the following part of the study the characteristics of foreign trade in services is depicted in the three regions. Finally the the integration into global value chains is discussed and the case studies of three companies are presented.

2. Trade dynamics and directions between 2007-2017

Until the crisis exports grew dynamically, especially in the Visegrád, but also in the Baltic countries. Accession to the EU gave an impetus to foreign trade in these countries, in great part towards each other. I describe the features of this intra-regional trade in the following parts. The importance of export is different among the observed economies, this is shown by the export/ GDP ratio. Below, this kind of “openness” and also the main export partners of the given countries are analysed. The following analysis of trade in goods is based on the Eurostat Comext database.

2.1. Export trends and openness

The significance of trade is well illustrated by its share compared to GDP, which is a traditional index of “openness”. EU-member states are heterogeneous in this respect, however, some economies are usually much more open than others. In the last decade, however, the trade/GDP ratio increased in every country within the EU, mainly between 2009 and 2013. This shows, on the one hand, the decrease in GDP and, on the other hand, the increased role of trade in crisis times when domestic demand is low. Among the nine peripheral countries the Iberian ones show the lowest openness ratio (around 31-43%), while we can find extremely high ratios (90-96%) in the case of Slovakia and Hungary (Table 1). The Iberian economies have traditionally been less open, but the trade/GDP ratio has also increased here, mainly in the case of Portugal. Regarding the Baltic countries, the jump in the index between 2009 and 2013 is spectacular, showing a massive increase in foreign trade during this period, as we will discuss later. In the case of the Visegrád countries the increase of openness is also dynamic in this period (mainly for Slovakia and the Czech Republic) but then it slows down a bit. Throughout the whole period the trade/FDP ratio is much higher in the Baltic and the Visegrád regions than the EU average. As far as the increase of the ratio is concerned, during these ten years a

spectacular growth of openness took place in six EU members. Four of them belong to our observed economies (Latvia, Lithuania, Poland, Portugal) and the other two are also peripheral economies (Ireland and Greece).

Table 1. Export and import (goods and services) in percentage of the GDP

	EXPORT				IMPORT			
	2007	2009	2013	2017	2007	2009	2013	2017
EU 28	38.0	34.9	42.0	46.0	37.3	33.8	40.2	42.2
CZECH REPUBLIC	66.4	58.7	76.9	79.8	64.0	54.8	71.1	72.3
ESTONIA	63.2	60.8	84.3	78.0	72.1	55.8	82.1	73.5
SPAIN	25.7	22.7	32.2	34.1	31.7	23.8	29.0	31.4
LATVIA	38.5	42.6	60.3	60.5	57.5	44.2	63.9	61.8
LITHUANIA	50.4	51.9	84.1	81.3	63.5	53.6	82.8	79.3
HUNGARY	77.9	74.4	85.7	90.1	77.3	70.4	78.7	82.3
POLAND	38.6	37.2	46.3	54.0	42.1	38.0	44.4	49.9
PORTUGAL	31.0	27.1	39.5	43.1	38.6	34.0	38.5	42.1
SLOVAKIA	83.3	67.6	93.8	96.3	84.4	69.1	89.6	92.9

Source: Eurostat

<http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tet00004>

The spread of the international crisis in 2008 caused a fall in trade across Europe. The drop was especially sharp in the Baltic economies (see Table 2). However, it is also seen that by 2011 they could increase their exports the most, exceeding largely the 2008 level. Most peripheral countries already tried to recover exports until 2010. It was the most difficult for Portugal, Lithuania and Hungary.

Table 2. Export volumes compared to 2008 (2008 = 1)

	2009	2010	2011
SPAIN	0.85	1.00	1.15
PORTUGAL	0.82	0.96	1.10
ESTONIA	0.77	1.03	1.42
LATVIA	0.80	1.04	1.37
LITHUANIA	0.73	0.97	1.25
POLAND	0.84	1.04	1.17
CZECH REPUBLIC	0.81	1.01	1.17
SLOVAKIA	0.83	1.01	1.19
HUNGARY	0.81	0.98	1.09
EU28	0.82	0.97	1.08

Source: own calculations based on Eurostat Comext data

As mentioned before, as a consequence of the crisis and the general trade collapse in 2009 companies of the peripheral EU-regions especially tried to boost exports outside the EU, looking for new markets in Asia, Latin-America or Africa. This step was also promoted by the

governments (Antalóczy–Éltető 2016). Therefore, in 2010-12 extra-EU exports increased very dynamically in our observed countries too (see Figures A1-A3 in Annex). However, later a stagnation or decline of extra-EU exports has been experienced. Although this recent trend is similar across countries, the reasons can be somewhat different.

Overall export of the Baltic countries decreased or stagnated between 2013-2016. As the figures in the Annex show, the main reason for this is the sharp decline of extra-EU deliveries, mostly to Russia. The share of Russia in the total export of the Baltic countries was around 20% in 2014 but dropped to 6-13% by 2015.² Extra-EU exports gained momentum in 2017 again. In the case of the Visegrád countries extra-EU export increased until around 2012. However, later it stagnated and showed a slight decline. There was a significant export volume decrease to Russia, Ukraine, some CIS and African states. At the same time, export towards the EU increased dynamically.

Spanish and Portuguese exports to non-EU areas exhibit a stagnation between 2013-2016, while export to the EU (and total export) increased. Among the non-EU areas exports decreased to Venezuela, Ecuador, Russia, China, Brazil. Portuguese exports decreased also to Angola, which had become a promising export market in the last decade. This ex-colony was the fourth biggest export destination in 2014 but one year later it was only at the sixth place, which shows that the low oil prices were weighing on Angola's economic prospects. The economic weakening of emerging markets had negative spillovers to Portuguese exports. Spanish exports have grown at a much larger pace than GDP since 2010. Spanish companies became more and more internationalised³, their presence in China, Latin-America and Africa increased until 2013, however, later a stagnation was also experienced here. By 2017 extra-EU exports gained momentum again in both Iberian countries.

2.2. Main partners

It is obvious that – although extra-EU trade intensified after the crisis – the share of the EU remained decisive in the exports and imports of the peripheral countries. This share is the highest in the Visegrád countries (see Table 3) and the lowest in the case of Lithuania and Spain. Here we should note that the “export to the EU” does not mean that the final destination of the product is within EU countries. There is a considerable re-export (for example from Germany) to Asian and other non-EU members within the global production chains. Normal trade statistics do not reflect this. Intra-EU trade is boosted by re-export (usually the “port

² Following the Russian annexation of Crimea, several countries have introduced economic sanctions against Russian firms and individuals. In August 2014, Russian President Vladimir Putin announced economic counter sanctions against the EU, Australia, the USA, Norway, and Canada. These sanctions involved an embargo on several agricultural and food products, including meat, dairy products, fruit, and vegetables. Within the EU, the export of the Baltic and Visegrád states have been significantly affected by the countersanctions. Apart from the countersanctions other developments of the common agricultural policy in the EU, the depreciation of the rouble, the economic slowdown in Russia also influenced exports to Russia.

³ There were 99.000 exporting firms in 2009 and 147.000 firms in 2015 (García-Legaz 2016)

effect” of the Netherlands is large for example) and certain peripheral countries play an important role in this.⁴

Table 3. The weight of intra-EU trade in the total trade of the member states, %

	EXPORT				IMPORT			
	2007	2009	2013	2017	2007	2009	2013	2017
SPAIN	70.9	69.9	62.9	66.3	63.0	62.4	55.3	59.5
PORTUGAL	77.1	75.4	70.3	74.0	76.6	78.6	72.0	76.2
LITHUANIA	64.8	64.3	55.4	58.2	68.4	59.1	60.3	70.2
LATVIA	72.5	67.7	66.4	66.8	77.5	75.5	80.0	78.6
ESTONIA	70.3	69.5	70.9	71.5	78.6	80.4	82.1	81.0
CZECH REPUBLIC	85.8	85.1	81.1	83.7	80.2	78.1	76.8	78.3
HUNGARY	80.4	80.2	77.8	81.1	69.8	68.9	71.7	76.0
POLAND	79.2	79.9	75.0	79.6	73.4	72.7	69.0	71.3
SLOVAKIA	87.2	86.3	82.9	85.7	74.8	75.0	74.3	79.8

Source: own calculations based on Eurostat Comext data

No wonder that among the five most important export markets for our nine countries all but one are EU members (see Table 4). The exception is Russia which is a very important target country for Baltic companies. Estonian exports are mostly directed to Finland and Sweden. For the Iberian economies France, Germany, Italy and UK are the most significant export markets and for Portugal the neighbouring Spain is by far the most relevant.

In the case of the Visegrád countries the export dependency on Germany is apparent. 25-30% of exports are directed to Germany from each country (and these are only the direct deliveries, indirect exports via each other for example elevate this dependency even further).

Usually one or more neighbouring countries are among the most important five export partners in each case. It shows the importance of intra-regional trade, which seems to have strengthened recently.

⁴ See the example of the large Polish banana export: <https://www.thefirstnews.com/article/poland-is-one-of-the-eus-main-exporters-of-bananas-1100>

Table 4. Main export partners of the observed countries in 2017, percent of total exports of goods

LATVIA		ESTONIA		LITHUANIA	
LIT	15.79	FIN	16.15	RUS	14.91
RUS	13.90	SWE	13.51	LAT	9.91
EST	10.91	LAT	9.22	POL	8.12
GER	6.89	RUS	7.28	GER	7.32
SWE	5.72	GER	6.83	USA	5.20

CZECH REPUBLIC		SLOVAKIA		HUNGARY		POLAND	
GER	32.78	GER	20.67	GER	27.70	GER	27.40
SK	7.75	CZ	11.58	ROM	5.42	CZ	6.40
POL	6.06	POL	7.73	IT	5.12	UK	6.36
FRA	5.11	FRA	6.29	AUS	4.99	FRA	5.59
UK	4.91	UK	6.05	SK	4.81	IT	4.90

SPAIN		PORTUGAL	
FRA	15.15	SP	25.20
GER	11.26	FRA	12.50
IT	7.85	GER	11.33
POR	7.05	UK	6.62
UK	6.90	USA	5.17

Source: own calculations based on Eurostat Comext data

2.3. Intra-regional trade

Regarding shares in foreign trade, *the Baltic countries* have the strongest tie among each other. This intra-Baltic trade has even become stronger during the past decade. Since 2015 Latvia's first export market is Lithuania. Latvia's biggest export item to Lithuania (and Poland) consists of petroleum oil products.⁵ Here we should mention re-exporting as an important part of trade in the Baltic countries. The economic literature defines "re-exports" as foreign goods that are exported in the same state as previously imported.

Benkovskis et al. (2016)⁶ calculates that more than 50% of total Latvian export to the neighbouring Lithuania and Estonia is re-export. Main reason is that logistic chains (given the

⁵ Petroleum oil products are leading exports items in other cases too. In Estonia, it is Russian oil exported to other countries through Estonia's ports. In Lithuania oil refinery is also important, PKN Orlen Lietuva is the most significant supplier of petrol and diesel fuel in the Baltic countries, its products are also exported to Western Europe, USA, Ukraine, and other countries.

⁶ Benkovskis et al. (2016) use detailed anonymized firm-level trade database of the Central Statistical Bureau of Latvia. Monthly frequency data are used to control that a firm imports a product prior to exports. Re-exports are evaluated based on volumes rather than values, which improves the preciseness of the calculations. The authors also estimate the mark-ups of re-export operations, indicating that, despite low domestic content, re-export activity may provide a contribution to Latvia's GDP.

small size of the countries), treat the Baltics as one region. In Baltic ports firms often operate warehouses serving more than one of the Baltic States. Latvian re-exports also account for a significant part of total exports to Poland and Russia. Overall, from 2005 to 2013 the weight of re-exports in total exports from Latvia increased from 20% to 32%, as a consequence of the increasing globalization and production fragmentation. The increase in the weight of re-exports during the post-crisis years was the largest in exports to Poland, driven by a sharp increase in the re-exports of mineral products.

Similar tendencies are described by Lietuvos Bankas (2014). The share of Lithuania's re-exports in total exports grew from 26% in 2004 to 48% in 2013. The analysis of re-export destinations revealed that the geographical vicinity of the Russian market accounts for the biggest share of re-exports and Belarus, Latvia and Estonia are also important targets. Re-exports were among the key factors of growth in the exports of certain groups of goods, such as vehicles or machinery and appliances. In 2017 Lithuanian exports to Russia grew by 30% but excluding re-export the increase was 12%.⁷

Estonia as well has a role in Baltic re-exports. Kerner (2012) gives the example of building machines and tractors imported from the United Kingdom to the Estonian intermediate depot which after being warehoused are re-exported to Russia. Several international companies operating in Estonia use the possibility of processing trade and re-export. The share of re-exports in Estonian export increased by 17% from 2001 to 2011.

We have seen thus, that the share of re-export is significant in the Baltic trade and one of the main directions of re-export is the Russian market. Therefore Oja, (2015) analyses that despite their large exports to Russia, the Balticum could be less exposed to the effects of Russian countersanctions than is often believed, because trade volumes are inflated by re-exports. Re-exports can be estimated by using mirror statistics⁸. These show that exports from the Baltic economies to Russia are significantly lower than the direct export data would suggest. Apart from that, in Estonia, Latvia, and Lithuania the export turnover to Russia is generated by retail and wholesale trade companies, which also shows strong re-export activities.

As written, intra-Baltic trade is first induced by logistical considerations: “port and warehouse effects”, re-export; and second by the activities of global production networks or value chains (GVCs) directed by multinational companies.

Regarding the intra-regional trade of *the Visegrád countries*, the global production factor (GVC) is the most important. (Refined Russian crude oil is also exported here but also within local

⁷ www.baltictimes.com/lithuania_s_exports_to_russia_up_30_pct_in_2017__goods_of_lithuanian_origin_by_12_pct_y/y/

⁸ The Baltic countries report all exports destined to Russia as exports to Russia, but Russia counts only goods that were produced in the Baltic states as imports from these countries, thus excluding the re-exports of the Baltic states.

value chains⁹.) As known, Hungary, the Czech Republic and Slovakia are especially strongly linked to global value chains. The effect of foreign multinational companies on export is the highest in these three countries among the member states of the EU. Non-EU multinationals are also active in the Visegrád region, but it was mostly Germany that involved these economies into production networks already before legal accession to the EU (see the study of Éltető on GVCs in this volume). The Visegrád countries export large volume of automotive, telecommunication, electrical and metal products to each other. These are mainly produced by affiliates of multinational companies. Thus, these affiliates organise intra-Visegrád trade too.

The importance of intra-trade within *the Iberian countries* is asymmetrical for the two countries. Portugal is much more dependent on Spain than vice-versa and the trade balance is increasingly favourable for Spain. Portugal's share in Spanish exports decreased from 9.7% in 2004 to 7% in 2017 but its share in Spanish imports grew slightly from 3.3% to 3.7% in this period. At the same time 25-28% of Portuguese exports is usually directed to Spain and 32% of Portuguese imports came from the big neighbour in 2017. Portugal exports mainly automobile parts, refined petroleum products, textile articles, furniture, plastic, food and tobacco to Spain. Spain exports mainly motor vehicles and parts, petroleum products, paper, copper¹⁰ and food to Portugal. Three factors are important in intra-Iberian trade: natural geography, re-export and global production chains.

Bordering regions in the two neighbouring countries have an important role in mutual trade. Galicia has the highest trade volume with Portugal, followed by Andalusia, Castile and León, and Extremadura. There have been intentions to improve cross border communication but government measures to promote transport and trade of bordering regions and development of infrastructure have not been fully implemented due to the economic crisis of 2008. (Pérez Castro et al. 2015). However, some years later these initiatives were put back on the agenda again, together with the creation of an Iberian Gas Market.¹¹ Similarly to the Baltic countries, the ports in Portugal play an important role in re-export. In the largest, deep sea port of Sines there is a big oil refinery of Galp Energia built in 1971, which has become a major energy hub.¹²

⁹ The exports of the Hungarian MOL, the Slovak refinery Slovnaft (affiliate of MOL Group) and the Polish PKN Orlen are significant.

¹⁰ Between 2005-2013 copper production in Spain increased by 4000% and the country became the third largest copper producer in Europe. However, 60% of the exported copper is recycled. The largest export destination for copper is China. In 2015 the price of copper decreased significantly, which had an effect on production. (http://www.elconfidencial.com/economia/2016-03-06/la-dura-resaca-de-la-fiesta-del-cobre_1163753/)

¹¹ Portugal and Spain hold annual bilateral meetings of prime ministers and ministry representatives. The mentioned measures were decided by the 28. Bilateral Summit in June 2015. <http://www.europapress.es/galicia/noticia-espana-portugal-avanzan-desarrollo-mercado-iberico-gas-20150622173455.html>

¹² Terminal XXI of the port was given in thirty-year concession to the Singaporean PSA Group, a major global player, and its investments increased competitive advantages of Sines port (Moreira 2015). Sines has a good chance to attract traffic to and from Madrid, from vessels not calling at Mediterranean ports or for shippers targeting to trade directly with South American and African markets. Sines port also hosts the only LNG terminal of Portugal. Chinese consortiums will build a new port terminal as part of the Belt and Road initiative (<https://clbrief.com/chinese-groups-interested-in-portugals-port-of-sines-terminal/>)

Portugal does not have any crude oil, it is dependent on imported oil. Despite this, petroleum products are leading export items of Portugal to the EU (mainly Spain), indicating re-export activity. Intra-Iberian trade has also been boosted by the growing Iberian activity of global value chains. Amador–Stehrer (2014) analysed Portuguese integration into GVCs between 1995 and 2011. They concluded that the Portuguese economy in GVCs is still limited, especially compared to other EU members with similar size. The study also supposes a strengthening of Iberian GVCs.

3. Trade structure of goods

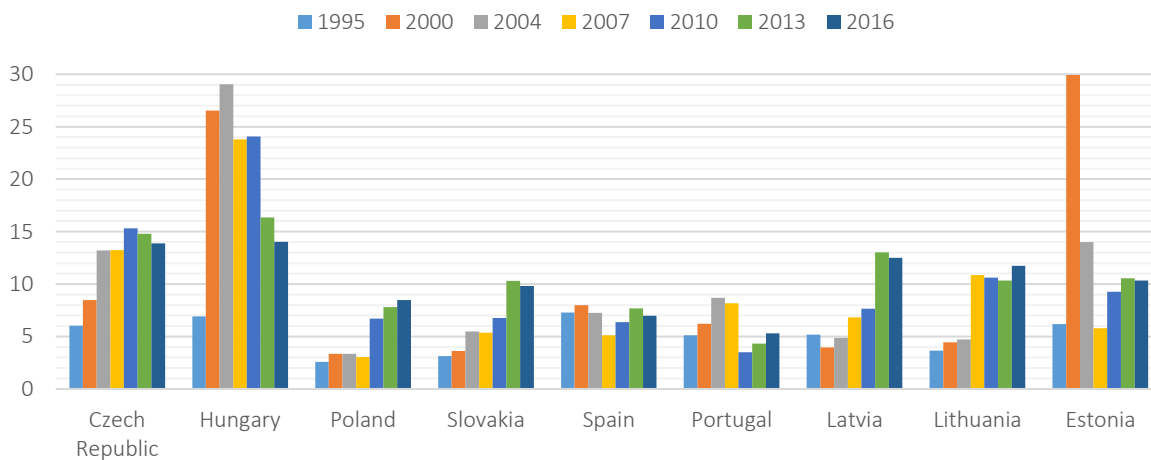
3.1. Technology intensity of trade

In principle the export structure can reflect the level of technological development, economic and production structure of a country. Technological upgrading is considered a key component of sustainable economic growth and development. The empirical literature confirms that high-tech products are the fastest growing segment of international trade. There is also strong evidence that developing countries are increasingly becoming exporters of high-tech products. It is typically assumed that high-tech exports reflect the technological intensity of the local business activity, with limited attention given to the possibility that actual technological content may differ across countries (Srholec 2007). Lall (2000) states that a significant part of the high-tech industry development in developing countries might be “something of a statistical illusion”, as they specialize in labour-intensive processes within high-tech-intensive industries. As Srholec (2007) points out, production became strongly fragmented globally, firms become increasingly specialized in particular segments of value chains within industries. Specialization in simple assembly of electronics products is intensive in cheap labour. Labour-intensive fragments of value chains from different industries tend to cluster in countries with relevant endowments. Therefore, we can observe increasing exports of high-tech products from these countries, whereas the most skill-intensive activities, such as research and development, might remain in developed countries. Even if a country exports large amounts of high-tech products, it can remain specialized in low-tech and low-skill fragments of the particular value chain while actually mastering very limited technological capabilities. The fundamentals might not have changed so much in the country. Mani (2001) and Srholec (2006) analyses patenting activity and R&D intensity of developing countries with a rapid growth of high-tech exports and they conclude that these are rather low. High-tech export is a consequence of some multinationals in electronics with high share of imported components. The actual value-added of the country can be low. However, a typical industrial policy is focused on providing incentives to attract investment into high-tech sectors, without sufficiently considering the real activities that the investor is going to develop locally.

All these aspects written above are valid for our examined peripheral countries. In some cases we have spectacular increase of high-tech exports (see Figure 1), like for Hungary, Estonia and the Czech Republic. However, evidence shows that the CEE countries remain in the lower end

of the value-added assembly stages of the global value chains (Leitner-Stehrer 2014). As Radosevic (2017) shows, the structure of innovation expenditures is quite different between developed and less developed EU countries. This is important regarding our peripheral country groups. Innovation in the CEE and EU South groups includes a greater proportion of acquisition of new machinery, equipment, and software, licenses and relatively less of R&D activities. (Half of the total R&D expenditures of Hungarian enterprises for example is given by six companies, among them Audi Hungaria as the most important. 95% of Audi’s R&D expenditures is however intrafirm “purchased R&D” and not own activity.)¹³

Figure 1. Share of high-tech products in export



Source: World Bank, World Development Indicators

Technology-upgrading of the export structure was already apparent in the second half of the nineties. Éltető (2001) showed that the high-tech products are overwhelmingly produced by multinational affiliates like IBM, Phillips, Renault, Volkswagen, Elcoteq or other major foreign firms in the Central and Eastern European region.

The jump of Estonian high-tech exports in 2000 (Figure 1) was caused by Elcoteq Tallinn AS, an affiliate of the biggest electronics manufacturing company in Europe with headquarters in Finland. It mainly manufactured electronic parts and accessories for mobile phones, but also provided engineering and after sales services. The company was also the biggest exporter since 1994 contributing around 15% to Estonia’s total exports. Between 1997-2001 the affiliate produced complete Ericsson mobile phones (that is reflected in the high values in Figure 1). In 2009 Elcoteq was bought by the Swedish Ericsson¹⁴. Figure 1 shows that Hungarian high-tech export decreased significantly in 2012-14. In 2012 Nokia downgraded its affiliate in Hungary, switched assembly to Nokia’s plants in South Korea and in Beijing. Therefore, in 2012 the previously huge export of cellular phones from Hungary decreased. In 2014 Microsoft (the

¹³ <https://g7.hu/allam/20180807/magyarorszag-a-globalis-innovacio-segedmunkasa-ot-ceg-kolti-el-az-orszagos-kf-felet/>

¹⁴ <http://www.balticbusinessnews.com/article/2012/8/21/ericsson-eesti-becomes-estonia-s-largest-manufacturing-corporation>

owner of Nokia Komárom company) announced the closure of the firm (Éltető 2014). In the case of Latvia we can see an increase of high-tech exports since 2013. There are some examples of enterprises working in the high-tech industries.¹⁵

The share of high-tech products in imports of these countries is also high and even higher than in exports in several cases. According to the calculation of Éltető (2014) the share of high-tech imports is much higher from the extra-EU markets (probably from Asia) than from the EU. High-tech trade of the Baltic countries between 1997-2014 is analysed by Falkowski (2018) who finds that trade balance was negative for all of them. A particularly rapid rise of the negative balance occurred in 2001–2007, which was mainly connected to the liberalization of trade rules due to WTO and EU accession. Estonia's trade deficit in high-technology goods was the smallest, while Lithuania's was the largest. Thus, the Baltic States do not have any comparative advantages in the high-technology goods trade. In the case of Latvia, the most competitive high-technology goods in 2014 were colour television receivers, transmit-receive apparatus for radio, electrodes for line medicaments (Falkowski 2018).

3.2. Similarity, changes in structure

The year 2007 can be considered as the last pre-crisis year. In the following years foreign trade of the countries were affected by the serious economic problems of the peripheral countries. Presently the last available trade statistics are until 2017, therefore we can judge the extent of trade structure changes in ten years. The effects of the crisis have faded, but the question remained whether these could rearrange the export and import structure of these countries. In order to estimate this, I calculated the Finger similarity index using SITC 3 digit-level classification, which consists of 290 product groups. (The index is sensitive to the level of data aggregation, its value increases with the higher level of aggregation. 3 digit-level represents a structure, which is detailed enough but not too sophisticated.)

The indices are calculated for the intra-EU trade and the extra-EU trade separately. Table 5 demonstrates that in the intra-EU relation the Latvian export structure changed the most (it is the least similar between 2007-2017), but in general similarity remained around 80%. Thus, even if the crisis could cause smaller reorganizations in the short term, pre-export structure later came back. (Intra-Union import indices values also show rather great similarity everywhere between 2007 and 2017 structure.) The situation is a bit different in trade with extra-EU markets, indices here are lower, thus there is a somewhat greater structural change

¹⁵ JSC "Grindeks", a manufacturer of original and generic pharmaceutical ingredients, JSC "Olainfarm" (chemical and pharmaceutical products) "Mikrotik" (computer equipment) "Draugiem LV"(smart home products, telemetry), "HansaMatrix" (contract electronics), "Rīgas Elektromašīnbūves Rūpnīca" (electric machines and machinery for passenger trains), "SAF Tehnika" (digital microwave radio data transmission equipment), "ISP Optics Corporation" (high-precision optical components). In the manufacture of air and spacecraft the largest enterprise is "UAV Factory", a designer and manufacturer of UAV platforms (Menaker-Ozolina 2018)

than in intra-EU trade. Here again the Latvian export structure changed the most both in export and import.

Table 5. Similarity between 2007-2017 intra and extra-EU trade structure, Finger similarity index

EXPORT	INTRA	EXTRA	IMPORT	INTRA	EXTRA
SLOVAKIA	79,56	77.10	SLOVAKIA	83.30	72.90
LITHUANIA	79,36	65.45	LITHUANIA	80.02	76.22
HUNGARY	80.03	64.15	HUNGARY	85.86	73.78
CZECH REPUBLIC	84.25	77.94	CZECH REPUBLIC	86.30	71.95
ESTONIA	80.51	64.47	ESTONIA	83.71	66.11
LATVIA	71.11	63.89	LATVIA	79.33	62.17
POLAND	80.47	77.59	POLAND	84.42	73.89
PORTUGAL	81.52	72.09	PORTUGAL	87.91	79.20
SPAIN	82.21	82.17	SPAIN	83.68	81.16

Source: own calculations based on Eurostat Comext data, SITC 3 digit level

Note: Finger index: $S(ab,c) = \{ \text{SUM_min}[Xi(ac),Xi(bc)] \} * 100$ where $Xi(ac)$ is the share of "i" product group in total export in year "a" (2007), $Xi(bc)$ is the share of "i" product group in year "b" (2017). 100 means total similarity.

3.3. Concentration level

After the crisis, in several economies the necessity of product diversification was raised by policy makers (see the study of Antalóczy-Éltető in this volume). Export concentration is perceived to increase vulnerability, while diversified trade can mitigate possible crisis effects. Via providing a broader base of exports, diversification can stabilise or increase export revenues. Export diversification also mitigates economic and political risks. Sustainable long term export growth requires both horizontal (adding new products), and vertical (move to higher value-added manufactures) diversification (Samen 2010). However, effects can vary according to the type of products the country is concentrated on (primary and homogeneous products or not). Gurgul-Lach (2013) examine the growth effects of export diversification in the case of CEE and Baltic countries using data of 1995-2011. According to their results, export concentration correlated with the economic growth before the crisis but afterwards the situation changed. Countries with more concentrated export structures (like Slovakia, Lithuania) experienced more decreasing growth than those with more diversified exports (like Poland and the Czech Republic). These latter economies experienced smaller shocks (Antalóczy-Éltető 2016).

The question is, whether exports in the post-crisis period have become more diversified. Diversification means the decrease of concentration, so the Herfindahl-Hirschman concentration index (Hirschman, 1945) was calculated based on SITC 3 digit data for the exports of countries towards the EU and non-EU areas.

$$HHI = \nu(\sum_i s_i^2)$$

where "i" is the given product group, "s_i" is its share in total exports. If HHI is 100 there is total concentration. The smaller the index the more diversified the export structure is.

Table 6 shows the results of the calculations. Regarding extra-EU markets, it is striking how strongly concentrated Slovakian exports are. This concentration – the consequence of the large weight of personal cars in exports – decreased before the crisis, but increased afterwards. In the case of the Czech Republic concentration increased mostly after the crisis. Polish export concentration is the lowest among Visegrád countries, and to the extra-EU direction it decreased further until 2017. Concentration of extra-EU exports of Hungary decreased significantly between 2008-13 (in great part as a consequence of the local Nokia affiliate's closure that had massively exported mobile phones to Asia until 2011-12). Iberian extra-EU exports became more concentrated before the crisis and were diversified a bit afterwards. Regarding the Baltic countries, Lithuanian export is rather concentrated, but the index shows a constant decrease until 2015 and a little increase until 2017. By 2008 Estonian concentration became strong, but it decreased after the crisis (except for 2017 too). On the contrary, Latvian export concentration increased after 2008 constantly.

Regarding intra-EU relations, Polish exports are the most diversified among all countries. Slovakia, the Czech Republic, Lithuania and Spain show the highest indices. Concentration increased in the whole period for Slovakia and the Czech Republic and since 2013 for Poland.

Table 6. Export concentration indices

	EXTRA-EU EXPORT					INTRA-EU EXPORT				
	2004	2008	2013	2015	2017	2004	2008	2013	2015	2017
HUNGARY	22.98	29.34	19.31	15.75	15.64	19.77	17.04	15.31	17.34	16.25
CZECH REP.	13.76	14.65	17.52	18.09	18.05	14.87	15.02	15.94	17.18	18.29
SLOVAKIA	44.58	33.56	38.95	38.47	41.21	17.87	20.70	20.36	21.50	21.74
POLAND	14.17	13.17	13.65	14.70	11.65	14.81	14.18	12.76	12.95	13.00
ESTONIA	15.75	25.00	17.09	16.81	18.14	22.47	14.16	18.21	18.14	14.92
LITHUANIA	29.24	22.87	19.95	19.37	20.36	23.53	27.53	28.36	19.45	16.10
LATVIA	17.16	15.26	19.15	18.30	21.24	21.80	13.75	14.09	14.48	13.61
SPAIN	13.65	17.36	16.55	14.19	13.92	20.40	17.29	16.21	18.05	17.17
PORTUGAL	16.85	19.76	18.88	16.82	17.20	15.77	13.20	13.96	13.75	13.49

Source: own calculations based on Eurostat Comext data

Based on these figures we cannot speak about growing diversification of exports, in fact in several cases exports have become less diversified after the crisis.

In Hungary, the Czech Republic and Slovakia export is concentrated mainly on automotive, telecommunication and electrical products, produced within GVCs. In the extra-EU export motor cars represent 39.8% for Slovakia, 12.2% for the Czech Republic and 6.2% for Hungary. To the EU these shares are: 16%, 12% and 8% respectively. (The calculations of Túry in his study

in this volume demonstrate that the weight of the automotive industry in the total exports increased significantly after the crisis in Slovakia and Hungary and to some extent also in the Czech Republic.) In Polish exports to the EU car parts (6.3%), motor vehicles (3.5%) and furniture (5.7%) are in the first places, to non-EU countries engines (4.3%), ships (3.7%) and furniture (3.3%). The Baltic countries export mostly raw and base material, agricultural and wood products, furniture. An exception is Estonia where telecommunication equipment is significant, its share is 8.6% in the export to the EU and 5.7% to extra-EU. Lately, Latvian telecommunication equipment export has also grown, its share is 4.5% towards the EU and 7.4% to non-EU regions. Because of the already mentioned re-export, petroleum oil products lead the exports in the Balticum, representing 17% of Lithuanian exports to non-EU areas and 10% to the EU. In the case of Estonia its share is 13% in non-EU exports and 4% to the EU.

Refined petroleum oil export has similar concentration effect on Portuguese exports towards extra-EU territories: representing 13.5% of exports. Apart from that, paper (3.5%), alcoholic beverages (3.2%), motor cars (2.8%), cork and construction materials are the main export products. The country exports to the EU mainly automotive parts (6.3%), motor cars (4.3%), footwear (4.2%) furniture and textile. Spanish exports to the EU are driven by motor cars (14.2%), their parts (3.7%), fruits and nuts (3.9%), vegetables, medicaments (petroleum oil product export is significant here too (3.5%)). Towards non-EU markets Spain exports petroleum oil preparations (8.7%), motor cars (5.1%), medicaments (3.9%), car parts, construction materials, perfumery and food. Altogether, since the crisis, the export concentration of Iberian countries has decreased to extra-EU direction and stagnated or increased a bit towards the EU.

4. Export of services

The weight of services in the world's GDP was 55% in the seventies and already 65% in 2017 according to the World Bank's data.¹⁶ Around 20% of world trade are services and this share has hardly increased since the eighties (compared to trade of goods and services, which increased equally intensively). As gross trade data show, the "trade collapse" in 2009 affected the trade of services too, but to a smaller extent than the trade of goods. Services are basically necessary for production, intangible and indivisible; therefore, their demand is more stable and less shock-sensitive than that of the goods. Financing need of services is smaller and the risk of late payment is also lower, because in general we pay for them at once (Ariu 2014). Value-added trade data, however, show a similar backdrop in service trade to that in goods' trade (Nagengast–Stehrer 2016).

Tradability of services has increased in the past decade considerably because of digitalisation, internet, and liberalisation (Kordalska–Olczyk 2016). However, services are still much less

¹⁶ <http://wdi.worldbank.org/table/4.2>

tradable than goods. According to the General Agreement on Trade in Services (GATS) service trade has four modes. The first (1) is cross-border services (via internet, phone, nobody crosses physically the border). About 30% of service trade is realised this way. The second (2) is consumption abroad (consumer travels to the country where the service is effectuated, like tourism). The share of this is around 10% in service trade according to WTO. The third mode (3) is trade presence (via foreign affiliate), that is the most relevant, around 55% of service trade. The fourth (4) is the presence of natural persons (service provider travels to the consumer's country, like business counselling). This makes up around 5% in all service trade (WTO 2015). The GATS four modes of services supply described above do not account for the fact that a substantial and increasing share of services is being embodied in products and traded around the globe. Cernat - Kutlina-Dimitrova (2014) take this share in the EU for 34% of manufacturing and primary sectors exports. Thus, there is also a mode 5, which means services exported as part of goods. Typical mode 5 services include design, engineering and software that are incorporated and traded as part of manufactured products. For the majority of WTO members, the significance of mode 5 services is ranging from 27.5% to 41% (Antimiani- Cernat 2017). Mode 5 services do not include services that can be sold separately and are not part of the production process (like distribution services, after-sales, maintenance). Regarding mode 5, value-added trade databases like TiVa give the share of domestic service input incorporated in domestic value added of manufacturing and primary sector exports¹⁷. Data of value added trade show that the share of services here is 40-50 percent (Stehrer et al. 2016), much higher than in the normal gross trade (around 20%). However, the value added trade data do not contain in-house services either... Studies concluded that imported services increase manufacturing export and productivity (mainly in technology-intensive branches), while domestic services do not (Stehrer et al. 2015). A probable explanation is that via foreign trade companies can buy the best price/value business services.

In the recent years, composition of service trade changed: the share of travel and transport has decreased and the share of business services has increased. Other business services have 20-25% in the Visegrád service export, but hardly 10 percent in Lithuanian service export. Travel services have an outstanding role in the Iberian service export and transport is highly important in Latvia and Lithuania. Rodríguez et al (2018) shows that the share of intermediate commercial service exports has increased impressively in the case of Estonia, followed by Latvia and

¹⁷ It should be mentioned that there are difficulties in measuring service-trade. Most of the databases (IMF, OECD, UN) gives information on the first and second mode, the very significant mode 3 trade can be grossly estimated based on the Foreign Affiliates Statistics (FATS, for firms with more than 50% foreign ownership). FATS, however, do not include foreign trade data (turnover, value added, research, production data yes). When foreign-owned firms export, there is an overlap between cross-border trade (mode 1, 2 and 4) and mode 3. On the one hand, the sales of foreign-owned firms are mode 3 trade in services in the host economy, on the other hand, the exports of affiliates are cross-border trade in services (mode 1, 2 or 4) between the host economy and third countries. This overlap between cross-border trade and mode 3 trade in the services also has implications on measurement: it is likely that some double counting is involved: the same transaction, i.e. the services exports of foreign affiliates will be recorded both as mode 3 and cross-border trade but from the point of view of different reporters and partners (Andrenelli et al. 2018).

Lithuania. In contrast to the Euro area, the Baltic States are not specialized in trade in intermediate services, but exports are mainly related to transport and wholesale trade. This is partly due to the advantageous geographical location of the region and the existence of a well-developed transportation infrastructure. Overall, the authors find the share of wholesale trade intermediate services was substantially higher in Latvia and Lithuania compared to Estonia. In contrast, a comparatively low share of intermediate financial services exports in the Baltic States and intermediate business services in Latvia and Lithuania, was found.

Table 7. Distribution of service trade in EU and extra-EU relations, 2016, %

	INTRA-EU	EXTRA-EU
EU28	55.6	44.4
LATVIA	61.4	38.6
LITHUANIA	63.1	36.9
SPAIN	63.0	37.0
PORTUGAL	71.6	28.4
CZECH REPUBLIC	67.1	32.9
ESTONIA	69.3	30.7
HUNGARY	71.5	29.5
POLAND	69.6	30.4
SLOVAKIA	80.6	19.4

Source: Eurostat (online data code: bop_its6_tot)

Table 7 displays that the service trade of the Baltic, Iberian and Visegrád countries takes place much more in intra-EU direction than the EU average. The service trade of Slovakia is in the highest part (80%) directed towards the EU.

According to the data of UNCTAD (based on Balance of Payments) Spain is among the main service-trader EU members, its service export is above 2% in the world's total service export (see Table 8). However, during the pre-crisis period (2005-2009) this share was above 3%, so Spain has lost some of its positions. The Visegrád countries maintained their share during the years 2000 except for Poland that even increased its weight after 2015 to above 1%. Regarding the Baltic countries, it is Lithuania that could increase the world share of its service export considerably by 2017.

Manufacturing industry depends more and more on services (as inputs or after-sales services), this is called "servicification of manufacturing". This was analysed by several studies in the past decade (Pilát–Wölfl 2005, Nordås–Kim 2013, Lodefalk 2015, Lanz–Maurer 2015). Services are parts of business contacts. According to Miroudot–Cadestin (2017) the servicification means three trends: 1.the increase in the use of services inputs leading to a higher share of value-added originating in services industries; 2. the shift towards services activities within manufacturing firms with less resources devoted to core manufacturing and assembly and more to support service functions (R&D, design, distribution, logistics, marketing, sales, after-sale services, IT, back-office and management). Maintaining or outsourcing services depend on

costs and strategies (PricewaterhouseCoopers 2012). 3. the convergence between goods and services, sold bundled together by manufacturing firms that are increasingly selling services to add more value (maintenance, installation, etc). Customers often would not buy goods without these services (National Board of Trade 2014).

Table 8. Composition of service export according to categories, 2017, %

	CZECH REPUBLIC (0.49)	HUNGARY (0.49)	SLOVAKIA (0.18)	POLAND (1.10)
GOODS-RELATED SERVICES	10.71	9.51	4.81	10.38
TRANSPORT	22.88	25.23	27.90	26.84
TRAVEL	26.11	23.74	29.95	21.57
OTHER SERVICES.	40.30	41,52	37.35	41.21
TELECOMMUNICATIONS, COMPUTER, AND INFORMATION	14.31	8.24	12.19	10.81
OTHER BUSINESS SERVICES	19.43	20.36	20.14	22.36

	ESTONIA (0.13)	LATVIA (0.10)	LITHUANIA (0.18)
GOODS-RELATED SERVICES	5.93	1.04	6.60
TRANSPORT	29.54	42.08	58.34
TRAVEL	23.74	16.02	13.69
OTHER SERVICES.	40.29	40.85	21.37
TELECOMMUNICATIONS, COMPUTER, AND INFORMATION	10.76	12.73	5.83
OTHER BUSINESS SERVICES	19.01	13.25	9.15

	SPAIN (2.60)	PORTUGAL (0.64)
GOODS-RELATED SERVICES	3,24	3.27
TRANSPORT	12,77	21,07
TRAVEL	49.09	50.27
OTHER SERVICES.	34.89	25.38
TELECOMMUNICATIONS, COMPUTER, AND INFORMATION	9.08	4.76
OTHER BUSINESS SERVICES	17.54	14.76

Note: Below the country names in parenthesis the percentage share of the given country's service export in the world service export.

Source: UNCTAD Service Trade Statistics

Export of goods and services often takes place in one transaction, one contract, therefore it is very difficult to separate them statistically. Miroudot–Cadestin (2017) using the ORBIS company database for the year 2013 gave the share of firms involved only in manufacturing activities, only in service activities or in both. Sales in "both" categories was extremely high for Hungary, the Czech Republic and Slovakia (around 46 -60%)¹⁸ while in Poland, the Baltic and Iberian states it was 20-30%.

5. Global value chains – motors of export at different levels

Automotive and electronic products have a considerable weight in the intra-EU trade (Éltető 2018). These are produced globally, within multinational networks. The role of the global value chains (GVC) have increased in the past decades, more and more production phases are fragmented and outsourced optimally to more countries. Because of that, intra-industry and intrafirm trade expanded (according to estimations one third of the world trade took place within firms in 2015 (UNCTAD 2016)). Apart from intrafirm trade, the traditional trade has also increased with the globalization of production. Integration into these chains can bring chances and risks. Capital inflow and job creation are on the positive side, but in case of a crisis its negative effects can spread rapidly via global networks (Escaith et al. 2010, Stehrer et al. 2012). There are authors saying that globalization reached its limits and local and regional production networks will become more intensive in the future than global ones (Stank 2014).

5.1 GVC participation manifested in trade

Literature on global value chains has become more abundant since 2012-13 when international value added databases appeared.¹⁹ Inclusion into GVCs is measured by the foreign value added content of exports in several studies based on these databases. (A detailed analysis and methodology of value-added trade data referring to the trade flows within OECD countries can be found in Vakhal 2017). Foster-Stehrer (2013) show that between 1995-2011 this foreign value added increased in all EU countries and the Visegrád countries had especially high (above 40%) levels, much higher than the Baltic and Iberian economies.

Naturally, parallel with the increase of GVC activities and augmenting foreign value added in exports, the domestic value added decreases. Figure 2 shows the pattern and degree of decreasing domestic value added in the period of 1995-2014 for our nine countries. (In the year 2009 there was everywhere a transitory increase because of the severe crisis of the world trade.) As mentioned, the most radical decrease can be observed for the Visegrád economies. It is also seen that the bulk of this decrease took place before 2005, so before the admission to the EU, as a consequence of economic liberalisation and FDI inflow during the nineties.

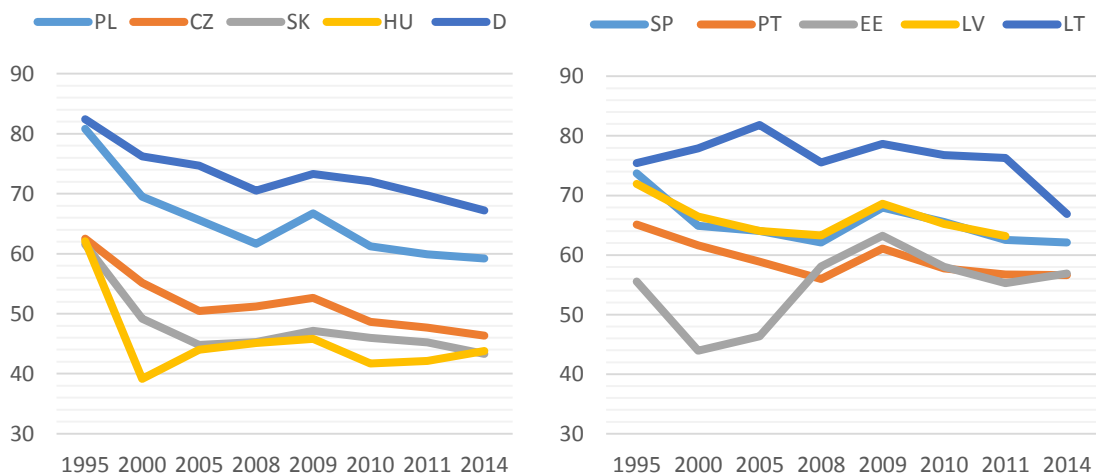
¹⁸ These are the highest rates in the EU, only the Italian figure was similar (52%).

¹⁹ These databases used national input-output tables aggregated to world input-output tables (WIOD, OECD TiVA)

In the case of the Iberian countries, the decreasing path is smoother: the share of domestic value added in export remains above 50-60%. Amador–Stehrer (2014) for Portugal show that the main origins of foreign value added in exports are Spain and Germany. Spain has significantly increased its importance as a source of value added that is embodied in national exports, while Germany has decreased. Most of the value added embodied in Portuguese exports to Spain and Germany themselves is originated in these same countries (increasingly in Spain). Regarding Spain Prades–Villanueva (2017) shows that the country increased its participation in GVCs by 7% between 2000-2011 but this trend stagnated by 2014. The Spanish economy has the lowest participation in GVCs compared to our other examined countries.

Concerning the Baltic economies, domestic value added in Lithuanian exports has been the highest. Estonia showed the lowest value in 2014, although there was a considerable increase of the index between 2000-2009. Latvian trends are very similar to the Iberian ones. German data are also shown in the figure as a kind of reference for a large developed economy; here there is also a decrease in domestic value added showing the intensified interactivity of global value chains.)

Figure 2. Domestic value added in manufacturing export, %



Source: calculations from OECD-WTO TiVA database

In global production the same component can cross the borders several times (built in other products) and the normal trade data register it every time, thus foreign trade is statistically swollen. Rahman–Zao (2013) show that if the export growth of a country stems from values crossing borders in such a way, and not from domestic value creation, then effects on employment and growth are small. Value added trade data show, however, the further route of domestic value-added and the share of foreign value added in domestic export.

It is important to know the final target market of the value added from the selling country, because of foreign demand shocks. The fact that export uses foreign value added means the so called "backward" participation in production chains. Part of the domestic value added in

export goes further to reexport to third countries, which is "forward" participation. Adding these two shares (in percentage of total exports) participation of countries in global value chains can be approximated (Koopman et al. 2014). If this sum is high, it refers to a significant integration into international trade, because its export is import-intensive and, on the other hand, the country exports several intermediate products that are included in other countries' products.

In this way GVC participation was calculated for the period between 1995-2011 based on OECD-WTO TiVa database. In general, GVC integration increased in every EU member country and in 2011 it was the strongest in Slovakia, the Czech Republic and Hungary (see Table 4).

Table 4. Participation in global value chains (backward B and forward F indices), 2011

	B	F	Gvc
GERMANY	25.5	24.1	49.6
SLOVAKIA	46.7	20.6	67.3
HUNGARY	48.5	16.6	65.1
CZECH REPUBLIC	45.1	19.6	64.7
POLAND	32.3	23.3	55.5
LITHUANIA	23.7	22.6	46.3
ESTONIA	35.1	20.4	55.5
LATVIA	28.6	24.0	52.6
SPAIN	26.8	19.7	46.5
PORTUGAL	32.6	17.7	50.3

Source Éltető (2018) from WTO Trade in Value Added and Global Value Chains statistical profiles https://www.wto.org/english/res_e/statis_e/miwi_e/countryprofiles_e.htm

Concerning the composition of the participation index, in the case of the Visegrád countries the backward type of participation is much larger (more than double) than in other countries. That means that imported intermediary goods are decisive in production and export mainly in electronics, car industry and machinery.²⁰

In 2016 a second release of the WIOD database appeared with world input-output data between 2000-2014.²¹ These show the trends after the crisis. Prades–Villanueva (2017) and Constantinescu et al. (2017) first analysed these data and showed that after the radical increase between 2000-2011, the average level of participation in global value chains worldwide stagnated or hardly increased, global fragmentation of production seemed to be saturated. (Apart from that, in certain large important countries (China, USA) the increase of domestic value-added content replaced the import content (World Bank 2015)). The long-term competitiveness of the Visegrád countries strongly depends on global, or European firms.

²⁰ In these branches the share of foreign value added in export is 60-70 percent.

²¹ The first and second releases of WIOD cannot be combined to consistent time series, because their geographical and sectoral structure is different. The 2013 database contains 40 countries and 35 sectors, the 2016 database contains 43 countries and 56 sectors.

(Balaz et al. 2017). The most important export market for them is Germany, with 27-32% share.²² In the German intra-EU export and import the share of the four Visegrád countries altogether was 18-21% in 2017, more than that of the USA, China or France.

5.2. Germany as a hub

Germany's leading role in the intra-EU trade cannot be questioned and for the Central European economies this country became an economic and trade hub. Already at the beginning of the transition, in the nineties, German firms utilised the subcontracting regulations of the EU the most, outsourcing a part of their production to Central European companies (Gross 2013). These contracts founded the inclusion of firms into German directed global production chains. In the stagnant German economy after the reunification, the cheaper labour force in the Visegrád countries increased the productivity of German firms.²³ The integration of the Central European countries in the German automotive networks not only gave an impetus to the trade with Germany but also the intraregional trade increased mainly in cars and components (Molnár et al. 2015).

After a dynamic increase, the share of the Visegrád countries in German transport equipments' value added export is much higher (3.39%) than in manufacturing export (2.38) and in the German total export (1.89%).²⁴ The hub characteristic of Germany will remain but can decrease a bit with a certain shift towards Central Europe. Based on the latest release of WIOD data Nordström–Flam (2018) concludes that the share of all intermediate value-added exports in the EU passing through Germany has fallen whereas it has increased for Poland. Anyway, all European hubs have lost some ground to countries outside the European Union (mainly China).

The strong dependence of the Visegrád countries on GVCs (mainly German ones) raised the question of upgrading and positioning within these networks (see Grodzicky 2014, Vlčková 2015, Szalavetz 2016, Vakhal 2017). Central European firms in the automotive networks showed certain upgrading and modernization in the nineties and at the beginning of the 2000s, but they are still in the lowest part of the "smile curve" with low value creation. Participation in higher value-added activities (research, marketing, etc) is scarce. Mother companies usually maintain the design and R&D in the headquarters (Jürgens-Krzywdzinski 2009). In the area of services, it is difficult for the Visegrád countries to be competitive against traditional service states like USA, UK, Hong-Kong (Olczyk–Kordalska 2016). Therefore, reindustrialization is often supported by policy makers in this region. For the development of industrial and service upgrading skilled labour, R&D support and stable institutions are necessary (these factors have unfortunately deteriorated in the Visegrád countries in the past years, see the study of Antalóczy-Éltető in this volume).

²² Based on Eurostat Comext data.

²³ A detailed analysis of the significance of Central Europe for Germany is in Popławski (2016).

²⁴ Calculations based on OECD TiVa database

5.3. Hungarian case studies

As a part of our empirical research we conducted semi-structured interviews at companies. In the following three company case studies are presented. Two of them belongs to one given value chain, because of their foreign ownership by the lead firm of the chain. One company – Fémalk – is a Hungarian owned exporter participating in several value chains.

Antal Metal Trade Ltd – SME strongly in a German chain²⁵

Attila Antal founded the Antal Metal Trade Ltd in a South Hungarian village in 2009. The company focuses on manufacturing special stainless steel and aluminium vehicle bodies, parts for these (like roller and tilting containers) and single- and multi-axle trailers. The quality manufacturing is based on high level skills and knowledge and on the modern machinery park. In the first years, the employees of the company worked for the German Köpf Fahrzeugbau GmbH effectively in Germany. In 2014 Mr. Antal decided to bring the manufacturing process from Germany to the Hungarian premise. The German Köpf Fahrzeugbau GmbH became the owner of 30% of the Antal Metal Trade Ltd.

The company had a very significant progress and dynamic growth of revenues in the last few years, 90% of which came from export. The Antal Metal Trade Ltd. realized mainly process and organization innovation. The company builds their export activity on these, and continuously looks for new equipment with higher technological level. The company did not launch any new products, they produce the same products as in Germany before.

At the beginning, 6 employees worked for the company, currently their number is 9 but they would like to employ more people. Employees are all committed to their job. The company suffers from the negative consequences of the labour shortage: on the one hand, they have to reject orders, on the other hand, the working processes are divided into smaller parts but in case of holidays, it is difficult to substitute one (or more) person(s). Because of the difficulties in hiring skilled workers the company offers training places for students studying in vocational schools.

Internationalization in a network

Antal Metal's success relies on their working moral and the fact that they work precisely and high-quality level. Their financial situation improved due to the sales of high-quality products to Western partners. As a result of this, the company can sell its products at higher prices, and the majority of the profit is reinvested in the manufacturing and technology development.

It is an important factor in the export activity and internationalization process that orders are received from the German owner, and the company does not have to look for partners on its own. In this case, the tight partnership and the operation in a network ensure the stable market.

²⁵ Source: interview of Beáta Udvari with the daughter of the CEO.

In 2017 a new, Swiss partner also appeared with whom the company could build up a relationship through the German owner (the Swiss partner ordered products from the German owner, but the transportation is organized directly with the Swiss company). For the next five years the German and Swiss orders completely take up the production capacities of the firm. Presently the products of the company appear in two countries: Germany and Switzerland. The Antal Metal Trade Ltd. emphasized that they do not plan to enter new markets, however, through the German owner a French relationship is also under progress. Furthermore, they are so overloaded that they had to refuse several Hungarian orders. The coordination of the company's international activities is managed by the CEO and his daughter. Neither of them has qualifications in foreign trade; they both learned these tasks in practice (for 6-10 years), and they both speak German fluently. So instead of formal advisory services and trainings, the informal learning and the learning by doing are more important in the Antal Metal Trade Ltd.

The company has not applied for state support or national financial assistance. However, they implemented two EU-financed projects: both aimed at purchasing new equipment with which they could improve their machinery park. This equipment supports the long-rung manufacturing at high quality.

The benefits of being in a network are completely true for Antal Metal, because market and information are secured, and the firm is shielded from barriers of internationalization (Giovanetti et al. 2014). It is also true that the company is restricted in its decisions (Hakansson - Ford 2002) however, it is in good terms with the German partner firm. Furthermore, the foreign partner has a large influence on Antal Metal's business and production: the Hungarian firm is rather a passive follower (in the sense of the definition in Coviello - Munro 1995). So Antal Metal is an example of "locked" firms (Gulati et al. 2000) but partnering with other firms is not hindered (as for the German mother company brought another (Swiss) partner). Dependence here means safe selling possibilities – but of course the Hungarian firm is bound to the destiny of the German partner.

Fémalk Zrt. - large domestic GVC supplier firm²⁶

The Fémalk Casting and Spare Parts Closed Joint Stock Company (hereinafter Fémalk Zrt.) was established in 1989 by some former engineers of a ceased state owned company specializing in the manufacture of aluminium castings. The company form first transformed into a limited liability company and later changed to closed joint stock company. After a few years József Sándor had acquired all the shares of his business partners and had become the sole owner of the company. Since the foundation no other investor was involved. The philosophy of József Sándor is, that all developments and large investments (buildings, tools etc.) should be financed by internal sources only (operating budget or capital income).

²⁶ Source: Interview of Gábor Túry with the Head of Finance of the company.

Fémalk Zrt. is a large enterprise that employs about 1300 people and has three production plants. The basis has been in Budapest since 1995. In order to serve the growing customer needs, Fémalk Zrt. had to increase its production capacity, therefore in 2014 it opened its first greenfield investment in Dunavarsány, near Budapest. In 2017 it started production in its newest factory in Erdőhorváti (in Borsod-Abaúj-Zemplén County). It is the smallest factory of the company, which was built in the settlement, where Sándor József the founder was born. The investment offered a catch-up opportunity for a high-unemployment ridden Eastern Hungarian area.

The main product of the firm is engine bracket for automotive companies. The range of activities carried out by the company, has been expanded by a number of new activities since its founding. Currently Fémalk Zrt. has three main activities: aluminium die casting, machining and assembly. Besides these, there are supporting activities such as mould design and mould production, innovation and predevelopment, and testing. The company supplies automotive OEMs (Original Equipment Manufacturer) and first/second tier suppliers. The main partners are the German BMW and Volkswagen.

Increase of the company and the components of business success

The number of customers has been gradually being built over the years through formal and informal channels. Increase of the net sales based on new products i.e. new supplier contracts. Financial data are available from 2003, from that date until 2010 the company was a medium sized enterprise (with an annual average of 230 employees). Due to increasing orders, production and the number of employees grew dramatically, and since 2011 Fémalk Zrt. has been a large enterprise with tens of HUF billions net sales per year. The export ratio is over 90 percent and trade partners are from all over the world. In order to serve the growing customer needs, Fémalk Zrt. has been increasing its production capacity continuously.

In terms of future prospects, there are some risks that may affect the company's profitability. Labour shortage and labour costs are currently limiting its net profit. Market development trends, like the future of the autonomous driving or community cars influence the number and structure of the vehicles to be sold. EU funds are used for financing research and development activities and technology development. Fémalk Zrt. had five EU financed projects during the previous budgetary period (2007-2013). There are limited opportunities of applying for EU subsidies, because the company operates in the most developed Central-Hungarian region. To finance research and development activities at the company, the company won two National Research, Development and Innovation Fund (NKFI Alap) tenders in the last years. József Sándor has been honoured for his years of work and he received the "Entrepreneur of the Year" prize in 2012.

One of the main drivers of a company's success lies in the professional knowledge of the founders and the market knowledge of the current owner. József Sándor has built an internationally competitive and highly adaptable company. The commercial department

manager is responsible for trade at the company, the customer relations (mainly with German firms) was outsourced to an external company.

There were around 1300 employees at the company in the end of 2017. Fémalk Zrt. has a 20 percent rate of labour fluctuation annually, which is quite high despite the fact that the wages are much higher than the industrial average. This is mainly because foundry work is hard physical work. The firm participates in dual education programs collaborating with technical schools and universities. There are working possibilities in dual secondary and high-level programs as well as in vocational practice.

There isn't any difference between export markets in the global supply chain, provided that the company meets the international standards of high quality requirements and reliability. Therefore the main philosophy of the company is constant innovation (both product and process innovation). Nowadays in the automotive industry, suppliers are taking on more and more development tasks from OEMs. In the case of parts manufactured by the company, Fémalk Zrt. handles all phases of product development: from samples and lab testing to production. The company has had its own research and development department since the beginning.

Egis Pharmaceuticals PLC – loosely in a French network²⁷

Egis is a vertically integrated firm producing generic medical products, undertaking R&D, production and marketing activity. Production takes place in three plants, number of employees was 4400 in 2017. Two-third of the revenues comes from cardiovascular, nerve medicines. Egis introduced in 2013 biosimilar monoclonal antibodies and intends to be leader on this market. In 2016/17 77% of the revenues stemmed from exports. Egis has a significant R&D basis, spent HUF 13 billion on that in 2016/17 being thus among the five largest R&D financing companies in Hungary.

History and characteristics of the company

Egis is one of the four large pharmaceutical companies in Hungary with a tradition of a century. It is hundred percent foreign owned and has considerable export. The legal predecessor of the company was founded in 1913 by Sandor Balla and Albert Wander. First the firm produced Ovomaltine nutrition and later medicines produced from imported chemicals. From 1950 the company functioned under the name: EGYT. Investments took place, new products were introduced, R&D activity increased. EGYT – as other Hungarian pharma firms – exported largely to foreign markets (mainly to CMEA). International quality control was applied (Good Manufacturing Practice) and the USA Food and Drug Administration security conditions had to be fulfilled. In 1982 the name of the company was changed to Egis, this sounded better abroad. After the system-change a profile cleaning took place. Egis became a joint stock company and its privatisation began in 1993. Finally, with the help of the EBRD and NatWest bank the French

²⁷ Sources: interviews of Katalin Antalóczy with Csaba Poroszlai economic director, earlier research of Katalin Antalóczy and www.egis.hu

Servier became the owner in 51% and 48% was registered at the stock exchange. At the end of 2013 the Servier Group purchased all shares of the EGIS.

Internationalisation, export

Egis is a large, traditional firm with significant international contacts. Exports have always been important. 63% of export revenues stems from Russia, CIS and CEE area. These are strategic markets for Egis. It can be especially interesting regarding internationalisation that

- how Egis could preserve Eastern European markets after the system-change
- how its export and contacts developed after becoming totally foreign owned

During the communism the foreign trade of the pharmaceutical companies were done by Medimpex foreign trade company. Egis had close contacts with the personnel of Medimpex. In the beginning of the nineties foreign trade was liberalised and producers were allowed to trade themselves. Egis and Richter (another pharma firm) bought and shared Medimpex. Egis received the Eastern European trade offices, thus it could preserve and develop these markets. Egis was loosely integrated in the value chain of Servier, its own contacts remained. Only around 10% of sales is directed to Servier. Since 2013 strategic control of Servier is stronger. Servier is an original producer, meanwhile Egis is a generic one with much more products and cheaper prices. Research is done for Servier according to the French owner's direction.

Egis exports to 62 countries and is present in 17 countries with own products via own trading affiliates. Poland and Russia are crucial markets. The company is present in the USA, Canada, Brasilia, China Egypt and Saudi Arabia too and in the past five years in Finland, Belgium. The scale of exported products increased. Own research basis is very important here – that means developing generic products very fast. Egis has no producing affiliate abroad.

Regarding state support, state price regulation has an essential role in pharmaceutical industry. Egis therefore tries to stabilise its domestic positions via several channels, contacts. It is a member of the Hungarian Pharmaceutical Association, in fact the general director of Egis was more times the president of the Association. Egis uses EXIM insurance for export with the same conditions as other pharma firms.

6. Conclusion

The effects of the international crisis in 2009 broke the dynamism of exports in every observed country. However, the Iberian and the Visegrád economies increased exports at a similar pace afterwards. (With the exception of Hungary, where exports slowed down in the years following the crisis). The situation was different in the Baltic countries, where exports dropped in 2012-16, partly because of the Russian embargo.

Statistics and calculations showed in this study that geographical and product structure diversification of exports have not taken place on the longer run, although these were explicit aims of government export promotion strategies (see the study of Antalóczy-Éltető in this volume). Certain shift towards non-EU markets could be detected after the crisis until 2013, but later the share of EU in exports increased again. Concentration of product structure remained considerable or even increased in some countries.

In the Visegrád and in the Baltic countries the EU accession gave an impetus to intra-regional trade, which was further boosted by re-exports and the organisation of global production. Neighbouring countries are among the main export markets. The Visegrád countries show a dependence on Germany and Portugal on Spain. In the case of refined petroleum re-export is considerable in certain countries and in the Visegrád countries the role of automotive and electronic sectors is decisive. Regarding service trade, the “profile” of the three regions is different. In the Baltic states transport services provide the bulk of the service export. In Spain and Portugal travel services (connected to tourism) are the most important. In the Visegrád area “other” – mostly business – services export is significant.

Peripheral countries are lagging behind in inherent technological development and R&D. Although the technology structure of exports reflects significant high-technology shares in some cases, but these are volatile and the results of some multinational firms’ activity. Multinational firms are decisive in shaping trade in the Visegrád countries that are the most integrated into the global production chains among the three peripheral regions. This integration has been on the one hand beneficial but on the other hand has brought a risk of being locked in the low value-added segments of the production chains. We presented short case studies of three Hungarian firms that strongly or loosely connected to value chains of foreign companies because of ownership and supply of products. The personality and strategy of the manager proved to be decisive in these cases and this is a key factor in successful and beneficial GVC integration.

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Annex

Figure A1. Export to EU and non-EU areas, Baltic countries

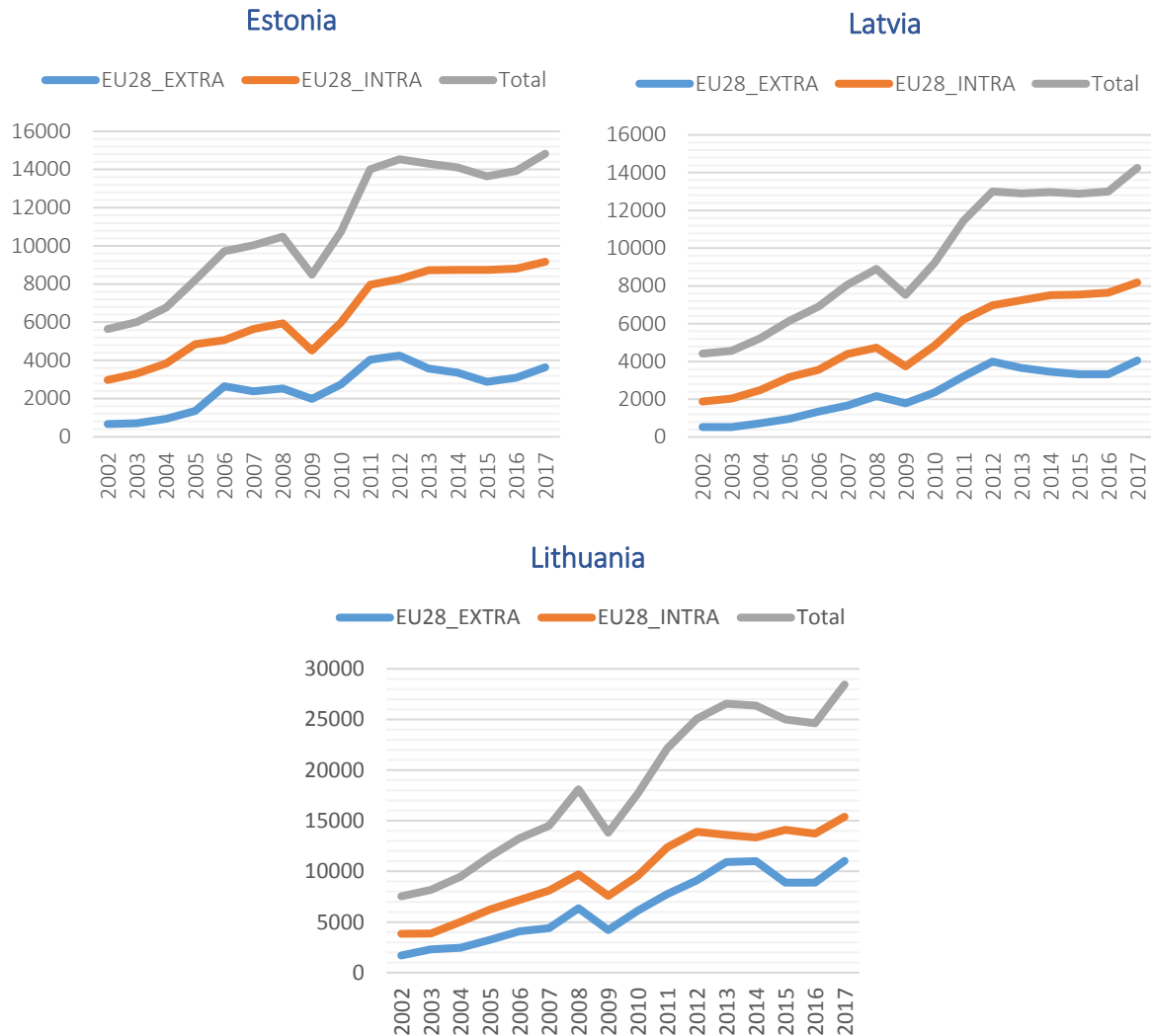


Figure A2. Export to EU and non-EU areas, Iberian countries

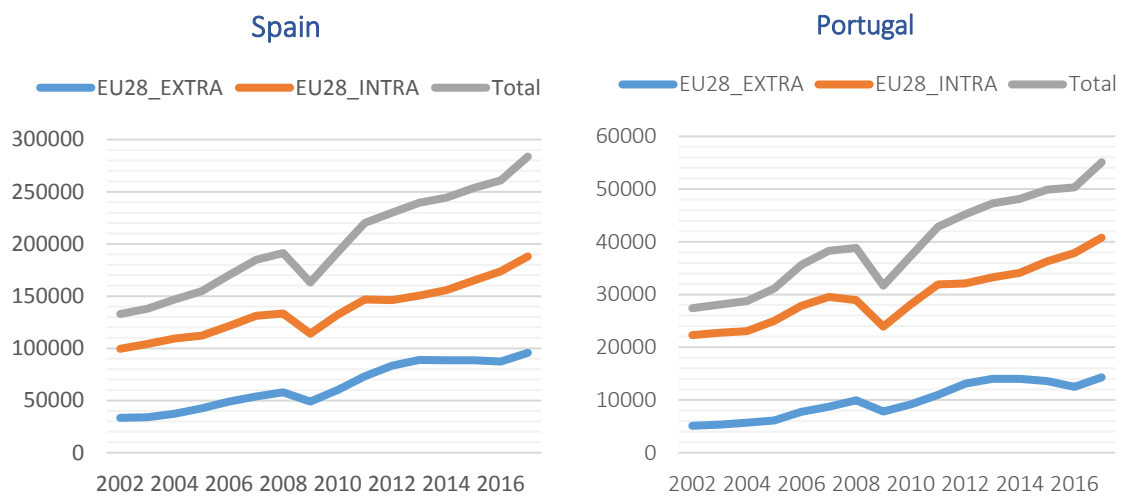
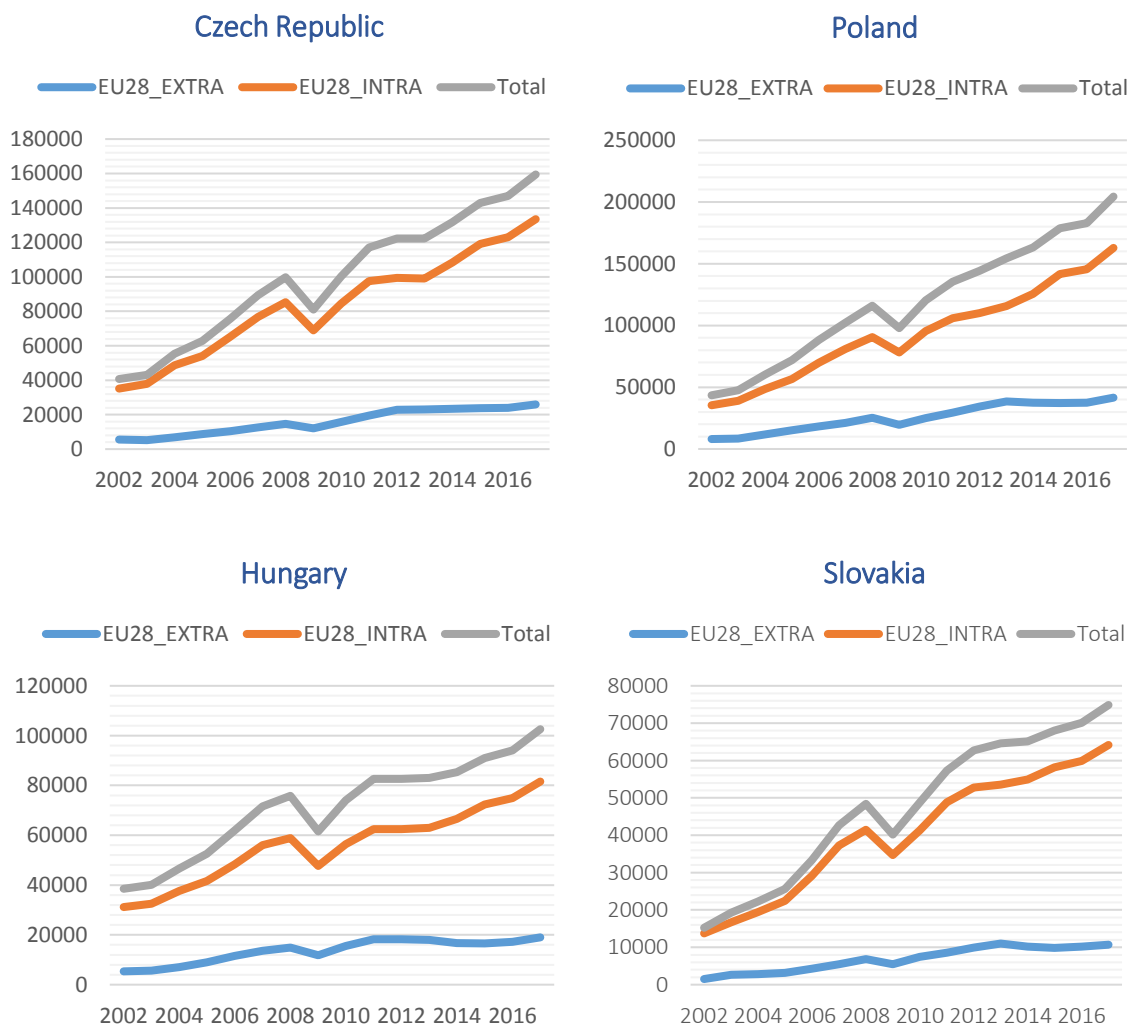


Figure A2. Export to EU and non-EU areas, Visegrád countries



The role of the automotive industry as an export-intensive sector in the EU peripheral regions

Gábor Túry

Abstract

The paper investigates the role of the automotive industry in the Baltic-, Central European- and Iberian region. In the analysis of each country, the study discusses the importance of the automotive industry in the national economy, the automotive companies as well as the global trade relations of individual countries.

Examining production and trade data, it was obvious that the output of the automotive industry is not just a matter of external demand, but it depends on the companies in the sector as well. Based on medium-term production data it can be stated that the trade performance and adaptability of the industry can be improved by increasing the number of manufacturers. Specialization also plays an important role in this export-intensive industry which affects trade and market relations. Finally, taking part in the replacement of conventional internal combustion engines, competition started between the host countries for investments in new technology. The current structural change in this export-intensive industry is determined by this technological development.

Keywords: automotive industry, external trade, Baltic countries, Central Europe, Iberian countries

1. Introduction¹

Intra-industry and intra-firm trade of these multinational companies give more than 80 percent of the global trade (UNCTAD 2014, p. 135). Therefore, those sectors that have an intense relationship with international companies have a significant structural impact on the individual economies. Automotive industry is one of these export-intensive sectors. At the same time, auto industry plays a key role in the economy not only in its participation in international trade, but also in employment and innovation, which justifies its examination.

This study investigates the nature of the automotive industry in the nine countries (EU9) from the Baltic, Visegrád and Iberian region, summarizing the relevant literature. In the analysis of each country (Spain, Portugal, the Czech Republic, Hungary, Poland, Slovakia, Estonia, Latvia and Lithuania), the study discusses the role of the automotive industry in the national economy and the position of the individual countries in the global trade.

To give a holistic picture, the paper first uses activity based classification (NACE Rev.2) to describe the position of the automotive industry in the individual economies as well as the

¹ This study is partly based on Túry (2017)

changing role of these countries within the global value chain of vehicle manufacturers. After this part, the study investigates foreign trade to examine the composition of trade and the geographical pattern of the export. In the final part, the paper analyzes the past ten years after the global financial and economic crisis, which resulted in the acceleration of structural changes both at industry and corporate level.

2. Literature background and methodology

Economic structural changes in an open economy can be linked to the development of export-intensive activities as we could see in example of the Asian export-led development economies from the 70's (Schmiegelow 1991). In this context, there is a gap between indigenous and foreign owned enterprises. According to OECD (2017) the average export-intensity (share of exports in turnover) of foreign owned enterprises in the OECD countries is 22 percent, which is more than four times higher than the figures of domestic owned companies. Many researches (among others: Dunning 1993, Barry - Bradley 1997, Munkácsi 2009) also confirmed the above average of the export (and import) intensity of foreign owned companies.

Based on the trade figures (OECD 2017) automotive export has decisive role (see below Table 1) in almost all examined countries. The trade linkages within the global automotive production networks were examined by several authors (see among others Sturgeon and Florida 2000, Pavlínek 2002, Dicken 2003, Humphrey and Memedovic 2003, Molnár 2009, Barta 2012). These analyses highlighted the fragmentation of the production, the global manufacturing network as well as patterns of geographical specialization. Despite the market presence of the automotive multinationals in Southern- and Central European countries, subsidiaries in this region only have a "supply role" (Sturgeon–Florida 2000, Humphrey–Memedovic 2003, Nunnenkamp 2005, Barta 2012), into the worldwide corporate networks (i.e. global value chains). Based on the gross value added per employee, it is clear that the Central European region performs generally more labor-intensive activities (Barta 2012, Vass 2005, Tirpak–Kariozen 2006). The biggest advantage of the region is its production costs. Comparing labor cost levels between Western Europe and the Central and Eastern European countries we can see that the difference is fivefold, benefitting the Eastern countries (PWC 2013). Geographical proximity to the main markets is also a crucial factor when investing into the new EU member states (Schmitt–Van Biesebroeck 2013).

Regarding the global position of the Southern- and Central and Eastern European economies, according to Lung (2007) and Pavlínek (2015) the automotive value chain in Europe is characterized by two hierarchical structures. On the one hand, the *assembly-based hierarchy* resulted in a centrum-periphery geographical pattern, where France and Germany are the core areas and the rest of the European countries belong to the peripheral states. The high-end

model is assembled in the core countries while mainly the smaller vehicles² are assembled in the periphery, like Spain and Portugal or the Central and Eastern European countries. The position of the Spanish automotive industry within the global production networks was confirmed by Aláez-Aller and his co-authors (2015); the country's role in the European value chain has been limited to the assembly of vehicles with medium or low added value. Central European subsidiaries of the multinational companies have strong linkages to the production sites and markets in Western Europe: the "supply role" of the Central European region has been mentioned earlier.

On the other hand, the *function-based hierarchy* means that strategic functions like R&D centers are concentrated in the home countries of the automotive companies and the supplier as well (see detailed in Sturgeon et al. 2008). The assembly functions were more widely scattered following the above-mentioned assembly-based hierarchy.

Concerning the economic contribution of the automotive industry, generally there are two kinds of approaches. On the one hand, the activity-based classifications, among others the Statistical Classification of Economic Activities in the European Community (NACE). On the other hand, there are product-based approaches using the Standard International Trade Classification (SITC). There are differences not only in the interpretation of the automotive industry, but the goals of the examinations are different as well. The activity-based analyses focus mainly on the employment, production, value added or research and development activities of the sector while the product-based classifications concentrate on foreign trade.

3. Characteristics of the export-intensive sectors in the Iberian-, Central European- and Baltic countries with a special focus on automotive industry

In term of the export-intensity, comparative studies (OECD 2017) highlight the role of the foreign companies. The OECD average is for foreign companies 24 percent (i.e. share of exports in turnover), while for domestic companies 5 percent. Export-intensity for foreign companies are around the OECD average in Portugal, Latvia and Poland while in Hungary, Slovakia and Estonia these firms have above average (35-55 percent) figures according to OECD (2017) data.

There are no detailed and comparable export-intensity statistics available for the examined countries, but we can find some other examples about the export-intensive branches. Riker (2015) examined the export-intensive activities in the U.S. economy in 2012. Based on turnover, the five main export-intensive branches are the Computer and electronic products (NAICS³ 334); Machinery manufacturing (NAICS 333); Electrical equipment and appliance manufacturing (NAICS 335); Transportation equipment manufacturing (NAICS 336) and the Textile, apparel,

² In some cases not only small or economy vehicles are assembled in the region. Large SUV vehicles, i.e. Volkswagen Tuareg and Audi Q7 went into production in Volkswagen's Bratislava plant in mid of 2000's.

³ North American Industry Classification System

and leather manufacturing (313-316). For the examined countries we have comparable data about the top exporting industries (see Table 1) for 2008 and 2015. For the largest export products, there are no main differences between the two examined years, the automotive industry has a leading position in the Iberian and Central European countries. In Hungary computer, electronic and optical production (ISIC 26) companies were the biggest exporters in 2008 and then in 2015 automotive companies took over the first position. In the Iberian and Central European countries the electronic manufacturing and the metal production industries and in Poland the food industry also play an important role in the export revenues.

Table 1. Top exporting manufacturing industries (ISIC sectors, revision 4) in 2008 and 2015

COUNTRY/ RANK		1.	2.	3.	4.	5.
CZECH REPUBLIC	2008	29: Manuf. of motor vehicles, trailers & semi-trailers	28: Manuf. of machinery and equipment n.e.c.	26: Manuf. of computer, electronic and optical prod.	25: Manuf. of metal prod. (exc. ISIC 35)	27: Manuf. of electrical equipment
	2015	29: Manuf. of motor vehicles, trailers & semi-trailers	28: Manuf. of machinery and equipment n.e.c.	25: Manuf. of metal prod. (exc. ISIC 35)	27: Manuf. of electrical equipment	22: Manuf. of rubber and plastics prod.
HUNGARY	2008	26: Manuf. of computer, electronic and optical prod.	29: Manuf. of motor vehicles, trailers & semi-trailers	27: Manuf. of electrical equipment	28: Manuf. of machinery and equipment n.e.c.	10: Manuf. of food products
	2015	29: Manuf. of motor vehicles, trailers & semi-trailers	26: Manuf. of computer, electronic and optical prod.	28: Manuf. of machinery and equipment n.e.c.	22: Manuf. of rubber and plastics prod.	27: Manuf. of electrical equipment
POLAND	2008	29: Manuf. of motor vehicles, trailers & semi-trailers	10: Manuf. of food products	25: Manuf. of metal prod. (exc. ISIC 35)	26: Manuf. of computer, electronic and optical prod.	27: Manuf. of electrical equipment
	2015	29: Manuf. of motor vehicles, trailers & semi-trailers	10: Manuf. of food products	27: Manuf. of electrical equipment	25: Manuf. of metal prod. (exc. ISIC 35)	22: Manuf. of rubber and plastics prod.
SLOVAKIA	2008	29: Manuf. of motor vehicles, trailers & semi-trailers	24: Manuf. of basic metals	26: Manuf. of computer, electronic and optical prod.	28: Manuf. of machinery and equipment n.e.c.	25: Manuf. of metal prod. (exc. ISIC 35)
	2015	29: Manuf. of motor vehicles, trailers & semi-trailers	28: Manuf. of machinery and equipment n.e.c.	22: Manuf. of rubber and plastics prod.	26: Manuf. of computer, electronic and optical prod.	27: Manuf. of electrical equipment
ESTONIA	2008	26: Manuf. of computer, electronic and optical prod.	16: Manuf. of wood, prod. of wood, cork	25: Manuf. of metal prod. (exc. ISIC 35)	27: Manuf. of electrical equipment	10: Manuf. of food products
	2015	26: Manuf. of computer, electronic and optical prod.	16: Manuf. of wood, prod. of wood, cork	27: Manuf. of electrical equipment	10: Manuf. of food products	25: Manuf. of metal prod. (exc. ISIC 35)

Table 1 (continued)

LATVIA	2008	16: Manuf. of wood, prod. of wood, cork	24: Manuf. of basic metals	10: Manuf. of food products	14: Manuf. of wearing apparel	25: Manuf. of metal prod. (exc. ISIC 35)
	2015	12: Manuf. of tobacco prod.	19: Manuf. of coke and refined petroleum prod.	16: Manuf. of wood, prod. of wood, cork	10: Manuf. of food products	26: Manuf. of computer, electronic and optical prod.
LITHUANIA	2008	12: Manuf. of tobacco prod.	20: Manuf. of chemicals and chemical prod.	10: Manuf. of food products	31: Manuf. of furniture	16: Manuf. of wood, prod. of wood, cork
	2015	12: Manuf. of tobacco prod.	19: Manuf. of coke and refined petroleum prod.	20: Manuf. of chemicals and chemical prod.	10: Manuf. of food products	31: Manuf. of furniture
SPAIN	2008	29: Manuf. of motor vehicles, trailers & semi-trailers	24: Manuf. of basic metals	20: Manuf. of chemicals and chemical prod.	10: Manuf. of food products	28: Manuf. of machinery and equipment n.e.c.
	2015	29: Manuf. of motor vehicles, trailers & semi-trailers	10: Manuf. of food products	20: Manuf. of chemicals and chemical prod.	24: Manuf. of basic metals	28: Manuf. of machinery and equipment n.e.c.
PORTUGAL	2008	29: Manuf. of motor vehicles, trailers & semi-trailers	26: Manuf. of computer, electronic and optical prod.	14: Manuf. of wearing apparel	25: Manuf. of metal prod. (exc. ISIC 35)	10: Manuf. of food products
	2015	29: Manuf. of motor vehicles, trailers & semi-trailers	19: Manuf. of coke and refined petroleum prod.	22: Manuf. of rubber and plastics prod.	14: Manuf. of wearing apparel	25: Manuf. of metal prod. (exc. ISIC 35)

Source: OECD.Stat 2018, Trade by Enterprise Characteristics,
https://stats.oecd.org/Index.aspx?DataSetCode=SSIS_BSC

In contrast, in the Baltic countries automotive companies are not the largest exporters, they are not even included in the first five exporting sectors. In Estonia computer, electronic and optical production enterprises, in Latvia tobacco- and wood-, in Lithuania tobacco companies are the main exporters.

Production statistics confirm the above detailed export statistics. Concerning the examined countries only Spain, the Czech Republic and Poland had remarkable automotive tradition before the intensive appearance of foreign capital in the 70s and 90s. Both in Spain and in Poland the biggest automotive companies concluded a partnership with the Italian FIAT in the 50-60s. The Slovak automotive industry was only a supplier to the Czech companies (for Škoda, LIAZ and Tatra) and from the 1970s there was a small-scale production at the Bratislava Automobile Factory and the Trnava Automobile Factory (Jakubiak et al. 2008). Hungary was specialized in the large-scale production of buses and partly truck production before 1990. There was no major automotive production in the Baltic countries in the Soviet era, except for the Riga Autobus Factory in Latvia.

There were two waves of spreading the automotive production in Europe after the Second World War that greatly affected the countries surveyed (Túry 2017). One was in the late 70s

and one was during the 80s, after the consolidation of the political situation in Southern Europe. Portugal and Spain attracted a number of new vehicle assembly plants (Klier–McMillen 2013). The noticeably lower wage levels in European comparison, attracted automotive assembly capacities in the Iberian countries. The second wave was the production outsourcing in the early 90s when the automotive production expanded eastward. A potential market (market-seeking motives) of some 100 million consumers attracted Western automotive companies to invest in the newly democratized countries. Almost every main carmaker and their suppliers, accounting for 80 percent of world production, are present in the Central European region. It came as no surprise that given the developments in the 2000s, the region has been labelled the “new Detroit” (Unicredit 2007). At the same time no major automotive player chose the Baltic region as a manufacturing location in the transitional period (Tiusanen 2004). According to the International Organization of Motor Vehicle Manufacturers, the European Automobile Manufacturers' Association as well as the United Nations' List of Industrial Products, road vehicle assembly does not exist in Estonia, Latvia and Lithuania, only production of parts and accessories for automotive firms. Despite existing companies, there is an untapped potential for automotive industry (Invest Lithuania 2018).

Table 2. Automotive production in the examined countries, 1000 vehicles

	PORTUGAL	SPAIN	CZECH R.	HUNGARY	POLAND	SLOVAKIA	EU27	TOTAL
2005	209	2,753	602	152	613	218	18,385	66,720
2006	213	2,777	855	191	715	295	18,674	69,223
2007	158	2,890	938	292	793	571	19,725	73,266
2008	155	2,542	947	346	953	576	18,439	70,730
2009	121	2,170	983	215	879	461	15,290	61,762
2010	149	2,388	1,076	211	869	562	17,079	77,584
2011	183	2,373	1,200	214	838	640	17,522	79,881
2012	156	1,979	1,179	218	655	927	16,276	84,236
2013	148	2,163	1,133	321	590	975	16,318	87,311
2014	156	2,403	1,251	438	594	971	17,127	89,776
2015	149	2,733	1,304	495	661	1,000	18,177	90,781
2016	135	2,886	1,350	527	682	1,040	18,596	95,058
2017	164	2,848	1,420	505	690	1,002	18 768	97,303

Note: Portugal and Spain without double counting figures

Source: OICA (2018): production statistics

If we look at the figures concerning the vehicle assembly, there are quite large differences among the observed economies. Half of the countries are big producers, the other half in absolute terms has lower figures (see Table 2). Spain is the largest, Portugal is the smallest producer within the group, but if we take the size of the economies into consideration, Slovakia and the Czech Republic are among the largest players.⁴ Furthermore, taking European trends into account, the Central European automotive sector has greatly benefitted from the

⁴ Automotive production per capita is the biggest in Slovakia and the Czech Republic.

European and global demand situation over the recent years: from the 2000s the region showed explosive growth in car assembly, even though the European (EU27) production stagnated.

The novelty in these new Central European assembly capacities is that among the OEMs there were not only European and U.S. (like Ford) but Japanese (Toyota and Suzuki Motor) and Korean (Daewoo Motor Corporation and Hyundai Motor Group) companies as well. Later, it set up its European assembly in the Czech Republic and Slovakia. This diversity will make the region's global production more complex in the future.

Table 3 shows the change in the regional distribution of the production in the last decade. There are eleven OEMs in the list which produce passenger cars, light commercial vehicles and heavy trucks in the examined countries. On the one hand, while U.S., European and Japanese OEMs have reduced their European production share between 2005 and 2016, market seeker Korean and Japanese companies increased their European presence in terms of assembly. In addition to global market trends, it should also be taken into account that the regional economic transformation of production was affected by the financial and economic crisis that began in 2008, causing significant losses for US companies' European interests. There have been companies that ceased their production (Saab), others were sold (Volvo, Jaguar, Land Rover and later Opel).

However, if we look at the absolute figures (number of cars), while Italian, French and U.S. companies decreased their European output, European (eg. Daimler and Volkswagen), Korean and Japanese manufacturers increased the production.

Table 3. Changing global pattern of production at the OEMs for companies in the examined countries, %

	EU/WORLD		EU9/WORLD		EU9/EU	
	2005	2016	2005	2016	2005	2016
DAIMLER*	73.6	68.8	4.9	11.1	6.6	16.1
FIAT*	64.5	59.5	16.5	14.4	25.6	24.2
FORD**	33.4	17.3	6.2	6.2	18.7	35.6
GENERAL MOTORS	26.6	13.0	8.3	7.2	31.4	55.6
KIA-HYUNDAI	5.8	8.9	5.8	8.9	100.0	100.0
NISSAN	14.6	11.3	5.5	2.2	38.0	19.3
PSA	83.3	67.6	20.2	31.8	24.2	47.0
RENAULT	82.3	52.6	19.2	17.1	23.4	32.4
SUZUKI	7.0	7.2	7.0	7.2	100.0	100.0
TOYOTA	6.1	5.0	0.0	0.9	0.0	17.8
VOLKSWAGEN	70.6	48.8	29.1	21.0	41.2	43.1

* without Chrysler

**Saab ceased its production in 2012, Volvo was sold to Chinese Geely in 2010

Source: authors' calculations based on OICA (2018)

The role of the examined countries (EU9) in world production was different. There were companies that allocated a significant part of their production to the EU9 area (Daimler, PSA, KIA-Hyundai), and there were those who relatively reduced (even to a considerable extent) their regional presence. At the same time, presence of this sub-periphery region within the European output has increased. All companies, except FIAT and Nissan, increased their presence in the region in relative terms as well.

At the same time with the production growth, in three Central European countries (the Czech Republic, Hungary and Slovakia), the number of employees also increased. Comparing the direct automotive employment figures to the figures of the manufacturing industry, the Czech Republic, Hungary and Slovakia have very high, above average employment figures (see Table 4).

Table 4. Direct automotive manufacturing employment, Number of people employed in the manufacture of motor vehicles, trailers and semi-trailers

	PERSONS EMPLOYED			AS PERCENT OF MANUFACTURING SECTOR IN 2016
	2005	2010	2016	%
CZECH REPUBLIC	142,106	139,129	168,408	13.0
HUNGARY	63,236	65,153	92,816	12.6
POLAND	126,149	148,716	187,334	7.3
SLOVAKIA	41,479*	51,082	71,240	15.0
ESTONIA	3,309	3,032	3,061	2.8
LITHUANIA	4,056	1,295	5,009	2.3
LATVIA	989	989	1,899	1.6
SPAIN	179,780	140,909	152,011	8.2
PORTUGAL	37,850	30,132	33,501	4.9
EUROPEAN UNION 28**	2,487,600	2,171,800	2,505,758	8.3
GERMANY	814,269	749,496	857,337	11.8

* 2006

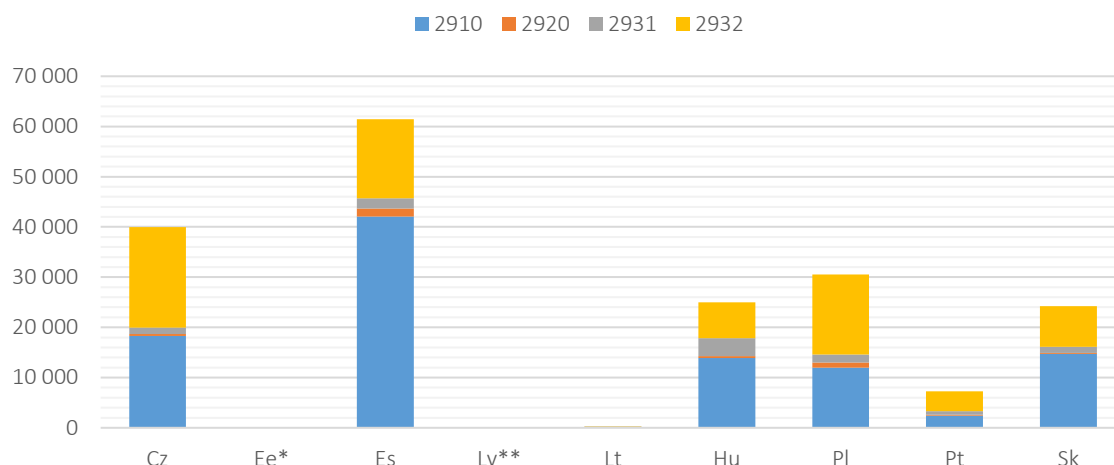
** in 2005 and 2010 without Croatia

Source: Eurostat (2018): Annual detailed enterprise statistics for industry

In addition, there are contradictory data about direct and indirect employment of the automotive sector. Due to the use of different methodology, the data of direct employment often do not match official statistics. Eurostat has data about direct and indirect employment relating to automotive production on a European level. 2.5 million persons are being employed in the direct manufacturing activities and further 900 thousand people are working in the indirect manufacturing sectors (see more ACEA 2018a). For instance, according to data of the Slovak Investment and Trade Development Agency (SARIO) at the end of 2017 129,000 people were employed directly by the three car producers (VW, PSA and Kia) and tier 1 suppliers. Including the indirect employment, the total number of employees is 250 thousand (SARIO 2017). Concerning the direct automotive employment, these figures are 1.5 times higher than

the NACE based Eurostat data. According to the report of Price Waterhouse Coopers (2018) in Hungary, almost 170 thousand people work in the sector. The Spanish employment figure is two times higher than the official number, according to Attradius market monitor (2017), the number of employees in the industry reached 330,000 in 2016.

Figure 1. Production value of the manufacture of motor vehicles, trailers and semi-trailers by main activities, 2015, m EUR



* 2009

** 2014

Note: C2910 - Manufacture of motor vehicles; C2920 - Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers; C2931 - Manufacture of electrical and electronic equipment for motor vehicles; C2932 - Manufacture of other parts and accessories for motor vehicles

Source: Eurostat (2018): Annual detailed enterprise statistics for industry

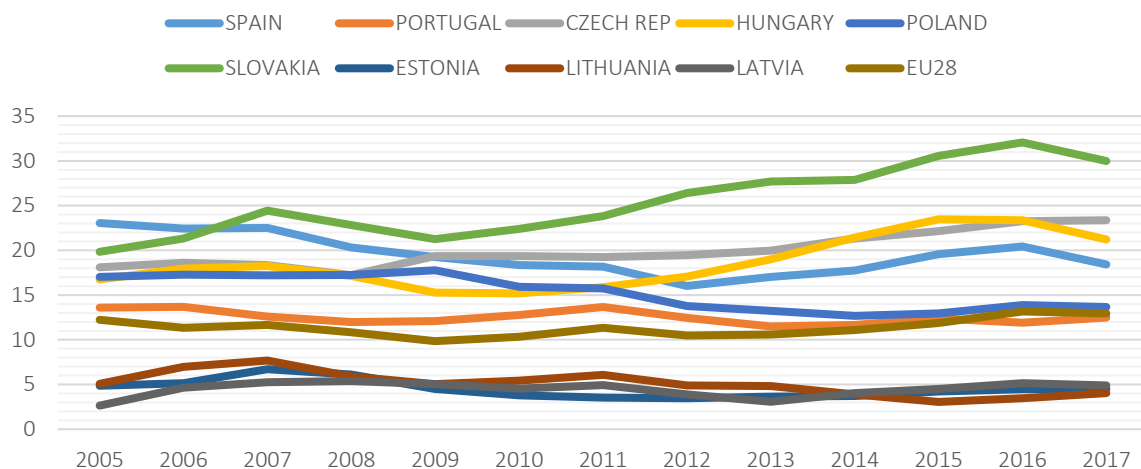
In accordance with another example, there are structural differences regarding the automotive industry in the examined countries. Figure 1 shows the production value of the selected NACE classes. While car production (NACE Rev.2 2910) dominates the output in Spain and Slovakia, there is a considerable part and component production in Portugal, Hungary and Poland. There are other differences in the production value of the vehicle assembly. However, the analysis did not consider the size of the economies (i.e. the Spanish economy is three times bigger than the Polish or the Czech economy is two times bigger than the Slovakian), beside Spain, the production value of the automotive industry in the Central European countries is high in absolute term as well. In contrast, the Baltic countries and Portugal have the lowest figures. At the same time, figures show differences between car assemblies. Although, the number of assembled vehicles are two times higher in Slovakia, there is no difference between Slovakia and Hungary in the production value of the manufacture of motor vehicles (NACE Rev.2 2910). Based on the estimated value of assembled cars (see Annex 1), the Slovakian production value should be two times higher than in Hungary according to the number of vehicles assembled. This shows such a structural difference, which requires further detailed analysis. Since, this difference is not explained by the dissimilarities in Gross Value Added per employee (see Annex 2.).

As mentioned earlier, the production of these examined countries orientated towards foreign markets, which determines their “supply role” within the global supply chains. The Central European countries has the highest export ratio where 98-99 percent of the production (OEMs and suppliers as well) goes abroad (Túry 2014). In Portugal the export ratio of the vehicles is 95.9 percent (ACAP) in Spain 81.4 percent (ANFAC 2018). Regarding the global embeddedness of the automotive industry of the Iberian, Central European and Baltic countries, in the following part we will examine the intra and extra-EU trade relations, to see how far these economies go beyond the framework of internal EU trade. In addition, as a consequence of the fragmentation and offshoring of production to the European semi-peripheral countries, re-export of the “traditional” automotive producing countries in Europe increased (Dudenhöffer 2005, Sinn 2006). Therefore, we have to take into account that some part of the intra-EU export of the examined countries is sold again on the global market.

Comparing the foreign trade figures, automotive export has above average share in the six (except for the three Baltic countries) examined economies (see Figure 2). Cost-cutting motives of the foreign companies caused a dynamic growth in export in the Central European region (Pavlínek et al. 2009), resulting in a higher export ratio later. Therefore, the Central European countries increased their exports, causing Spain, the previous predecessor, to lose its previous leading position. As Figure 2 shows, over the last few years the export share of automotive products⁵ in some Central European countries have become two or three times higher than the European average. On the other hand, Poland experiences a similar decline like Spain, while Portugal does not show any significant deviation from the European figures.

⁵ The following products, based on nomenclature of the SITC rev. 4: 71321 Reciprocating Piston Engines of a Cylinder Capacity Not Exceeding 1,000 cc; 71322 Reciprocating Piston Engines of a Cylinder Capacity Exceeding 1,000 cc; 71323 Compression- ignition internal combustion piston engines (diesel or semi-diesel engines) of a kind used for the propulsion of vehicles of division 78; 77831 Electrical ignition or starting equipment of a kind used for spark-ignition or compression-ignition internal combustion engines (e.g., ignition magnetos, magnetodynamos, ignition coils, sparking-plugs and glow plugs, starter motors); generators (e.g., dynamos and alternators) and cut-outs of a kind used in conjunction with such engines; 77833 Parts of the equipment of heading 778.31; 77834 Electrical lighting or signalling equipment (excluding articles of subgroup 778.2), windscreen wipers, defrosters and demisters, of a kind used for cycles or motor vehicles; 77835 Parts of the equipment of heading 778.34; 781 Motor cars and other motor vehicles principally designed for the transport of persons (other than motor vehicles for the transport of ten or more persons, including the driver), including station-wagons and racing cars; 782 Motor vehicles for the transport of goods and special-purpose motor vehicles; 783 Road motor vehicles, n.e.s.; 784 Parts and accessories of the motor vehicles of groups 722, 781, 782 and 783; and 62510 Tyres, pneumatic, new, of a kind used on motor cars (including station wagons and racing cars).; 62520 Tyres, pneumatic, new, of a kind used on buses or lorries; 62592 Retreaded tyres; 62593 Used pneumatic tyres; 62594 Solid or cushion tyres, tyre treads and tyre flaps of rubber.

Figure 2. Automotive export as percent of the total export



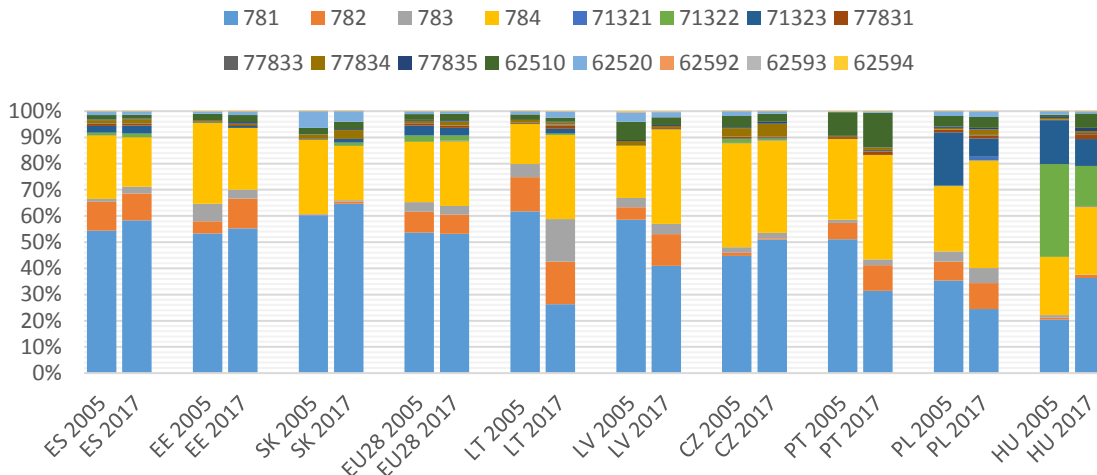
Source: authors' calculations based on Eurostat ComExt database (2018)

However, there are differences among the countries regarding the main export products. Some countries are car exporters, others are mainly linked to the production of main parts and components. At the same time, car assembly and export are also related to the manufacture of main components. This is because each country is involved in the supply chain in a different way: some are mainly engaged in the final assembly (eg. Volkswagen Slovakia) while others are involved in the whole production (eg. Škoda auto). This difference must be taken into account in the data analysis.

Most of the Spanish, Czech and Slovak automotive exports are passenger cars (see Figure 3), which corresponds to the average of the European Union (EU28). In contrast, the export content is different in Portugal, Poland and Hungary where main parts and accessories dominate the export. In this the SITC rev. 4, 784 has the major parts. This includes (United Nations 2006) chassis (784.1); bodies (784.2); bumpers and parts (784.31); brakes and servo-brakes and parts (784.33); gearboxes and parts (784.34) and drive-axles (784.35). At the same time, in the case of Portugal the tires for cars (62510), in the case of Poland and Hungary the diesel engines (71323 – Compression- ignition internal combustion piston engines) and in the case of Hungary the gasoline engines (71322 – Reciprocating Piston Engines) have remarkable share.

Comparing the data between 2005 and 2016, there are three automotive producer countries where significant change occurred (see Figure 3). In relative terms export of main parts and accessories grew in Poland and Portugal. An opposite process has taken place in Hungary, because of the growing vehicle production, export share of the internal combustion engines decreased. For all the three countries, restructuring of a firm's operations lay in the background (see later).

Figure 3, Composition of the automotive export by main products in 2005 and 2017



Note:

For details see footnote 4.

Vehicle exports are SITC rev. 4 781; 782 and 783!

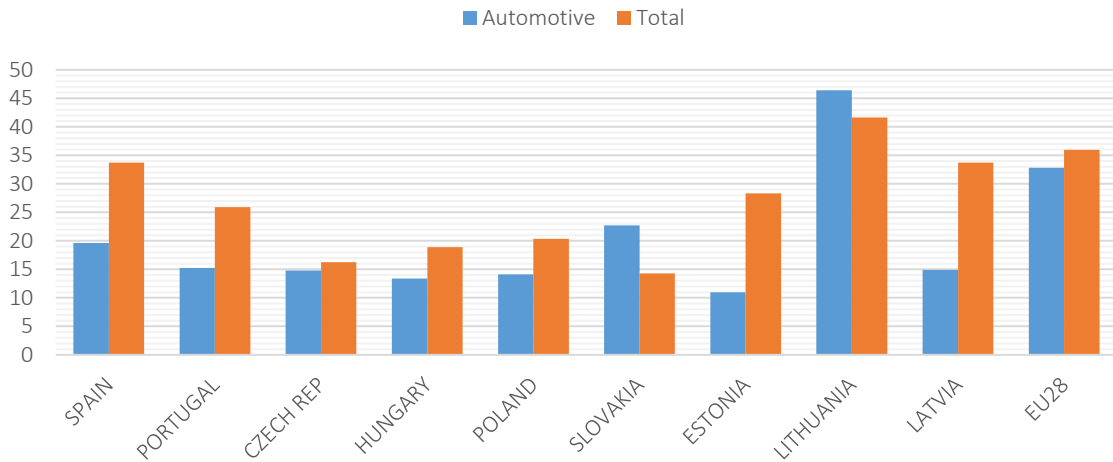
In the case of the Baltic countries automotive export (SITC rev. 4 781; 782; 783) is re-export.

Source: authors' calculations based on Eurostat ComExt database (2018)

Based on the trade figures of the examined countries, we can see that the integration of the automotive industry into the direct global trade (extra-EU) is at a low level and the pattern of the trade and intra-firm trade linkages are mostly European. Extra-EU automotive trade is around 14-15 percent in most of the examined countries, while the EU average is more than two times higher (see Figure 4). The only exceptions are Spain and Slovakia where 20 and 23 percent of the automotive trade respectively went to third countries in 2017.

In addition, comparing the total exports to the automotive exports into non-EU direction (see Figure 4) the result we get is, that the automotive production (except for Slovakia) is more EU based in all examined countries. The differing values of the Baltic countries are caused by trade with Belarus and Russia where re-export of (used) transport vehicles modify the data (Ministry of Finance of the Republic of Lithuania 2017). For instance, re-export in the Lithuanian economy gave almost 40 percent of exports of goods revenue in 2013 (Notten 2015), which modified the real data (see Figure 4).

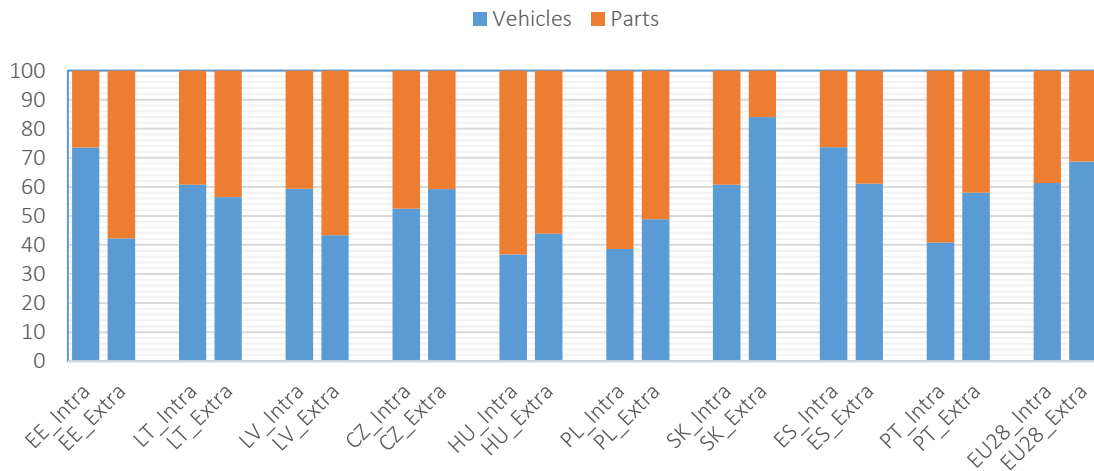
Figure 4. Share of total and automotive export with third (Extra-EU) countries, As a percent of total and automotive total export in 2017



Source: authors' calculations based on Eurostat ComExt database (2018)

Concerning the characteristics of the direct regional and global linkages (the study does not deal with the re-export off the EU countries) of the automotive industry (see Figure 5), there are significant structural differences between the countries, resulting from the geographic allocation of the production capacities (Sturgeon et al. 2008) driven by the global strategy of the automotive companies. Looking at the main commodities, there are countries which export mostly vehicles to the EU markets (the Czech Republic, Slovakia and Spain) and others (Hungary, Poland and Portugal) which export mostly main parts and accessories. Spain and Slovakia have high figures, but the other examined countries have lower than EU average ratio of vehicle trade (see Figure 5).

Figure 5. Intra and extra export trade of the vehicles and parts as a percent of the total automotive export



Source: authors' calculations based on Eurostat ComExt database (2018)

Concerning extra-EU trade, the European Union is mainly involved in the global trade of motor vehicles. Trade with third countries gives 69 percent of the total automotive export. Slovakia is the only country to have higher figures, while others have lower rates. Spain is the only country where the extra-EU export of the motor vehicles is lower than the trade to EU countries. Trade of vehicles dominates the trade with third countries in the Czech Republic, Slovakia, Spain and Portugal while in Hungary and Poland the trade of parts and accessories has the main role.

4. Changing the export-intensive production after the recent economic crisis

The automotive industry was one of the activities which were most affected by the crisis (OECD 2009). The global road vehicle production declined by 3.5% in 2008 and by 12.7% in 2009 (OICA 2017). Right after the crisis, the world production grew by 25.5% in 2010, but due to the global market turmoil the growth slowed down later and was only 1.1 percent in 2015 (OICA 2017). The consequences of the crisis hit the industry's extensive vertical network (through strong linkages with other automotive-related industries). In addition, the crisis has highlighted the structural problems of the industry (overcapacity, globally uncompetitive production, modest sales development in the mature markets). The solution was postponed through indirect (car scrapping schemes) and direct (firm restructuring measures) government interventions. The crisis transformed not only the consumption of the vehicles that shifted from the mature markets to the emerging markets (Brazil, India and China) but the geographical pattern of the production as well. While China contributed 8.5% in 2005 and 13.1% in 2008 to the world production, in 2009 it already gave 22.3% and in 2017 29.8% of the output (OICA 2018). In addition, from 2005 as a result of continuous decline the share of the core regions (U.S., the European Union and Japan) in the world production dropped by one third and represented only 40.8% in 2017.

In the Europe Union, Germany was the first largest automotive manufacturer and Spain became the second in 2017 with a production of almost 2.9 million vehicles, ahead of the former second largest country, France. Spain reached the second position due to the crisis when the decrease of output was tremendous in France. One quarter of the production disappeared from the European production after 2007, because the output fell from 20 million to 15 million in 2009. The decline affected the European economies differently. While the traditional producers suffered, in the emerging economies like the Central and Eastern European countries the setback was moderated. Therefore, we can see that the dynamism of the after-crisis recovery was stronger in the Iberian country than in Central Europe.

The figures of the output development between 2005 and 2017 show that most of the European production declined, including Hungary, Spain and Slovakia. The Czech Republic and Portugal show dynamic growth while Polish figures are moderated. On the one hand, it is because of the automotive output is quite heterogeneous, as we mentioned earlier. A dozen car manufacturing companies from Japan to the U.S. and another half dozen automotive firms

(in the bus and truck industry) currently have almost three dozen production sites throughout the Iberian and Central and Eastern European countries. On the other hand, as a result of the bankruptcies, mergers and acquisitions, the role of these offshore production places has been changing.

Analyzing the export figures during the after-crisis recovery, we can conclude that almost all countries have a structural difference from the developed and traditional automotive countries (Germany, France and Italy). After the year of the deepest fall in 2009 the export figures of automotive parts showed higher growth than the vehicles even in Hungary where remarkable investment took place in the automotive assembly.

If we want to know how the value chains of the European automotive industry changed during the crisis, we must take into account that there is a tense competition between the Iberian and the Central European capacities. As mentioned, both regions are specialized in small vehicles so the biggest competitors for Spain and Portugal are the Central European countries. The crisis also highlighted the competition among the less developed countries, because it contributed to the relocation of the production from traditional automotive countries to semi- and peripheral regions (Pavlínek 2015). Opening new assembly plants or increasing the volume of the production in the Central European subsidiaries threatened existing production (Aláez-Aller et al. 2015), although empirical analysis showed that the automotive companies are unlikely to close their factories in Spain. During the crisis the biggest challenge was not only to maintain the production in the Spanish factories but to find a way to reduce production costs and increase productivity in the short term (Aláez-Aller–Barneto-Carmona 2008). Making the country attractive became more important, because there is a huge competition among the peripheral countries for the closed Western European capacities.

Besides these, it is also important to emphasize that production figures do not always show the automotive performance of a given country. For instance, as a consequence of the global crisis, Ford restructured its European production. As the output fell in Spain, the local subsidiary took over many model assemblies from discontinued Western European sites (Aláez-Aller et al. 2015). During the crisis, when the engine production decreased by 27 percent between 2008 and 2009, the Hungarian Audi affiliate Audi Hungaria Motor (currently Audi Hungaria Services Zrt) announced a number of new activities (Czakó 2014). The investments proved to be useful, because the recovery of production was already visible from 2010 not only in the developed regions but also in the integrated peripheral markets (Pavlínek 2015).

Except for one or two cases (in Portugal), car makers have been striving to handle the decline in foreign demand in a flexible way. As mentioned earlier, taking advantage of the efficiency of production in the region, they enhanced their global competitiveness. As an impact of the crisis, the total number of employees decreased by 4.7%, approximately by 150 thousand employees (European Trade Union 2014) in the European Union between 2008 and 2011. Lithuania suffered the hardest decline (46%), but in Poland and Latvia it was also relatively high (20%). On the other hand, the 2011 figures are higher than the figures in 2008 in Estonia (+24%) and

Hungary (+17%). The automotive companies tried to handle the decline by launching the implementation of flexible work arrangements (changes in working hours and hourly wages) in order to keep their employees. However, the statistical data do not reflect the measures by the automotive-related companies. Despite the crisis, according to aggregated data, wages per hour in the European automotive sector showed an upward trend compared to other sectors between 2008 and 2011. Regarding country data, there are significant differences among the countries: the biggest decrease was in Lithuania (-55%) and the biggest increase was in Poland (35%). The excess capacity was used by the automotive companies by introducing reduced working hours. Between 2008 and 2011, the total number of working hours in the automotive industry in the European Union decreased by 7%. The Baltic region experienced the sharpest decline in Lithuania and Latvia, where the number of working hours were reduced by 54% and 24% respectively.

4.1. Iberian countries

Despite a remarkable internal market in **Spain** (in 2017 1,462 thousand new registered vehicles) the output of its assembly plants is destined mainly for export. In 2017 exports accounted for around 81.4% (2.32 million vehicle) of the total production (ANFAC 2018). This means that with a production of 2.85 million units in 2017, every third car sold comes from Spain.

Due to the high export share of the European and North American markets the crisis has severely affected the Spanish automotive industry. Taking the long recovery of the European vehicle markets into consideration, the corresponding figures between 2007 and 2013 show that Spain had the worst figures with a 32 percent decrease compared to 18 percent decrease in EU28 market (OICA 2017). At the same time, because of their different market orientation and product structure, the crisis affected each company differently. While the German automotive firms (Daimler and Volkswagen Group) showed the best performance – better than the EU28 average – among the European companies (PSA and Renault-Nissan) French ones performed the worst. But U.S.-based companies also reported a decline in production over their European companies during this period. Volkswagen was the biggest producer in 2017, 699 thousand Seat, Volkswagen and Audi vehicles were produced in the Spanish factories (Seat 2018; Volkswagen Navarra 2018). PSA, Renault, Nissan, and Iveco also have two factories, while Daimler, GM-Opel and Ford have one factory each.

Due to the global financial and economic crisis, sales of the automotive vehicles between 2007 and 2009 decreased by more than 5 million. According to OICA data, in 2007 18.8 million new vehicles were registered in Europe (EU28 + EFTA), while in 2010 when the global figures started to grow again European sales were only 15.6 million and in 2013 it fell to a historical low of 14.1 million.

It is important to emphasize that the decrease of the vehicle assembly during the crisis was not homogeneous for individual manufacturers. The performance of the German-based assemblers with plants in Spain (Volkswagen and Daimler) is better than the general average

trend for the European Union. The French-based assemblers with plants in Spain (PSA and Renault) were worse in terms of output than the general average for vehicle production in the EU. The U.S.-based assemblers had the worst figures during the crisis, with the number of vehicles assembled dropping by more than half between 2007 and 2013 (Aláez-Aller et al. 2015).

In the after-crisis development period the market growth of a wide range of non-EU export markets –from Turkey to North America and Southeast Asia - had positive effect on the increase of production (ANFAC 2016). Relying on future growth the Volkswagen Group announced a 4.2-billion-euro investment in 2015 in the Spanish affiliate SEAT (SEAT 2015), to begin the production of new models.

In 2017, 164 thousand vehicles (without double counting) were produced in **Portugal**, most of them (126 thousand) were personal vehicles. There are four car manufacturers, the German Volkswagen is the biggest producer (assembly Volkswagen and SEAT brands), while the French PSA concern is the biggest commercial vehicle producer. The two Japanese companies Mitsubishi and Toyota produce only commercial vehicles. The Portuguese export ratio is very high, in last year 150 thousand vehicles were exported. Since 2014 when the fourth largest automotive producer Isuzu/VN Automóveis moved its assembly to Italy, there have been four automobile factories in Portugal. In 2017, 164 thousand vehicles were assembled: mostly cars (Volkswagen Sharans and Sciroccos, Seat Alhambras and Citroen Berlingos) but also buses and light and heavy commercial vehicles. Volkswagen AutoEuropa the largest one, produced over 110 thousand units in 2017, which shows that output has been increasing since 2013. The France PSA produced 53 thousand (PT Jornal 2017) vehicles and the output of the Japanese Toyota and Mitsubishi was below 10 thousand vehicles in 2017.

Due to the global market crash, output of the export-based Portugal automotive industry fell by 28% in 2009. In the next year, production reached the level of the previous years, but the volatility over the coming years has highlighted the vulnerability of the export-oriented automotive sector. In addition, analyses (Aicep Portugal Global 2016b) pointed out some structural problems in the sector. Domestic supplier companies suffer significant competitive disadvantages compared to multinationals, for instance in terms of qualification of labor force or capitalization of the enterprises, which decreases their export opportunities. The average size of component companies, mainly SMEs and family-based companies, limits R&D investment and productive capacity. On the other hand, lack of autonomy of OEMs and local integrators in supply chain management makes the catching up more challenging.

According to the latest figures, in 2015 the automobile industry comprised 4 per cent of all enterprises in Portugal (15,000 enterprises), accounting for 7 per cent of its turnover. The importance of the automobile industry is shown by the fact that only in the automotive components sector there are about 200 companies, representing 42,000 jobs in Portugal (Aicep Portugal Global 2016a). According to the data of Associação Automóvel de Portugal (ACAP 2018) the export share of the vehicle production was 95.9% in 2017. Regarding the automotive

sector (vehicles and components) the main markets (86.5%) are the members of the European Union i.e. Spain, Germany, France and the United Kingdom. In terms of vehicle export (cars, LCVs, buses and HCVs) the Portugal automotive sector is embedded globally, China is its third largest trade partner. Due to its high export share, Portuguese automotive vehicles account for 2.7 percent of the local market.

The auto component industry also has high export ratio (in 2015 84 percent)., There are not only Portuguese OEM subsidiaries but others like BMW, Daimler, Fiat-Chrysler, Ford, GM and Volvo among the partners. The main trade destinations are Spain and Germany with almost the half of the export value.

The future prospect of the Portuguese automotive industry is the supplier industry. It means not only conventional products but there is development potential at the new technologies changing the internal combustion engines. There is an opportunity in the battery industry since Portugal is the leading lithium producer in Europe and has the fifth largest resource in terms of the known reserves (Aicep Portugal Global 2016b).

There is a gap between multinational suppliers (like Bosch, Delphi, Faurecia, Visteon) and the indigenous companies. Portuguese suppliers are relatively small (Leal et al. 2002 Product Development in the Autoparts Industry), and because of cost pressures and thin profit margins, they lack capital to invest. Because of the competition some companies had to cease activity and sell themselves to other companies, mostly for multinationals.

4.2. Central and Eastern European countries

Concerning the automotive sector there are many similarities between the Iberian and the Central and Eastern European countries. Global embeddedness results in strong external trade linkages and high share from export (see Figure 2). There is a large number of multinationals in the Central and Eastern European region. In some countries (like Portugal, the Czech Republic, Hungary and Slovakia) also the Volkswagen Group plays a decisive role. Volkswagen (its local subsidiaries) is significant in the Czech Republic, it gives 61 percent of the total personal vehicle production (Automotive Industry Association 2018b), compared to Spain, where it is 48 percent (SEAT 2018, Volkswagen Navarra 2018). This concentration of the production highlights a dependency not only on the automotive industry but on the car manufacturers (companies) too.

As a result of their close integration, activity in individual countries also depends on the matrix of the global value chain of the automotive firms. It is not only determined by the global patterns of productions, but also by co-operations and mergers or bankruptcies which brought changes in the position of the foreign subsidiaries. Although Pavlínek (2015) emphasized that the crisis caused low number of bankruptcies, plant closures and relocations in the Czech Republic and Slovakia. However, in the long term the fall in demand causes structural changes (reposition of some brands) within automotive companies. One example of that is General

Motors that did not finance the losses of its European subsidiary, Opel, instead it concentrated its resources in the North American and Chinese markets and also on technology development (Automotive News 2017). General Motors sold Opel to the French PSA concern in early 2017. The acquisition affected two production plants in Poland, one in Hungary and one in Spain and altogether the future of more than 9 thousand employees. There are vehicle-assembly capacities and there is even engine assembly in Hungary and Poland.

On the other hand, irrespective of the crisis, manufacturing and technology co-operation of independent car manufacturers can also strengthen or change cooperation between countries. An example of this cooperation is between Japanese Suzuki and General Motors' Opel that in the early 2010's increased the production of the Hungarian Suzuki factory (Népszabadság 2011).

Between 2000 and 2017 road vehicle production in the Central European countries became three times higher (from 1.2 million to 3.6 million cars), while global production increased only by 20% (OICA 2017). The outsourcing of production to the semi-peripheral regions (Nunnenkamp 2005) caused an increasing role of the region in the last decade. The Central European output reached 3.7% of the world and 19.3% of the European output until 2017. Central Europe is popular among automotive investors. Besides its market potentials, the geographical proximity to the main (Western) markets is also a crucial factor when investing into the Central European countries (Schmitt–Van Biesebroeck 2013). Basically, the Central European production capacities are export-oriented investments and the products are almost entirely exported (Túry 2014). The statistical figures confirm the relevant literature about the position of the region within the global value chain (see: Lung 2007, Pavlínek 2015). The number of employees directly related to the automotive industry in the Central European countries accounted for 21 percent of all European (EU28) workers in 2016. While up to 19% of European road vehicles are produced in these four countries (ACEA 2018a), which shows that it is a labor-intensive production.

There were almost three dozen OEMs assembly and production plants in the Central European region, 16 in Poland, 8 in the Czech Republic, 4 in Slovakia and 5 in Hungary at the end of 2017. Despite the increasing labor shortages, the potential of the region, has not yet been exhausted. Additional investments in modernization will result in an increase in production. There are new factories during realization (in Slovakia) and under development (in Hungary).

The most important manufacturer is the German Volkswagen Group producing passenger cars, commercial vehicles (LCV, HCV, buses) and also main parts (engines, gears, brake drums and brake wheels etc.) in all the Central European countries. The German Daimler produces cars in Hungary and engines in Poland. These two companies strengthen the position of the German supply chains that dominate the region (Hanzl-Weiss 2014). The French companies are also very active in the region. PSA has one production plant in Hungary and two in Poland. Vehicles are assembled in two other PSA factories in Trnava (Slovakia) and in a joint venture with Toyota in Kolín (Czech Republic). Beside the European manufacturers, overseas companies from Japan,

South Korea and India have local affiliates in all these countries. Japanese Suzuki in Esztergom (Hungary), Toyota in the Czech Republic and Poland have assembly and engine production, and South Korean Kia-Hyundai has production in Žilina (Slovakia) and Nošovice (Czech Republic). The region's commercial vehicle production is also significant. Iveco is one of the leader European bus factory in the Czech Republic (Vysoké Mýto), and Swedish Volvo and Volkswagen owned Scania and MAN also have notable outputs in Poland.

In the **Czech Republic** the global crisis hit the vehicle assembly less than in other countries, only the growth rate was moderated (OICA 2017). However, the demand on the main markets declined, OEMs intended to relocate assembly to foreign peripheral locations in order to reduce their production costs (Pavlínek 2015). The number of employees in the sector decreased significantly (by 13.5%) from 2008 to 2009, which shows a significant decline in the output of the automotive companies. Due to the increase in demand on external markets, the decline in employment stopped, but the number of employees has not yet reached the level of previous years.

Currently there are three passenger car production factories, Škoda (part of the Volkswagen Group), Hyundai and the TPCA as a joint venture of the Peugeot Citroën and Toyota. In the commercial vehicle category there are the Italian Irisbus-Iveco, and two Czech owned producers the bus factory SOR and the heavy truck factory Tatra.

The moderate impact of the crisis can be explained, on the one hand, by the difference in the product portfolio not only in the case of the Czech automotive production but in the personal vehicles as well. There are wide range of products for Czech automotive production from small to large cars (Commission of the European Communities 1999). Even before the crisis, the growth in the market share of small cars was observed in the European Union, which was further enhanced by the crisis (ACEA 2018b). Therefore, until the Skoda car production fell by 15 percent between 2007 and 2009, the small car producer Toyota-PSA increased its output. On the other hand, new investments could moderate effects of the crisis. The production of the Hyundai factory in Nošovice started in 2008 just in the beginning of the crisis, it was able to offset the decline in Škoda production.

In addition to passenger cars, there is a substantial drop in commercial vehicle production and export between 2008 and 2012 (Automotive Industry Association 2018a). Czech heavy truck factory Tatra, the Irisbus-Iveco bus manufacturer decreased their production, until Indian owned Avia (part off the Ashok Leyland group) referring to the global economic slowdown ceased its activity in 2013. In the case of heavy vehicles and buses from 2013, we can see growth again.

The global crisis affected the **Polish** output the most in the Central European region. The production figures remained declining and stagnant until 2015. The Polish economy has been able to show growth in the years of the crisis due to domestic demand (European Commission 2010), which, however, is not valid for the automotive industry, that depends on foreign

markets. Due to the crisis, production data for the first time fell in 2009 (OICA 2017). As a result of the crisis, sales of heavy-duty vehicles fell significantly (PZPM 2014), while the downturn of passenger cars mostly took place at the biggest producer, the Italian FCA's (Fiat Chrysler Automobiles NV, hereinafter FIAT) in Poland. The drastic drop in the European sales of the FCA since 2010 (FIAT 2011, p.100, FIAT 2013, p.71) was the cause of the decline. Until the crisis FIAT assembled a record 605,800 cars in 2009 in its two factories in Poland but produced only 263,400 units in 2017. (PZPM 2013, 2018). FIAT's share is still decisive in Polish automotive manufacturing, so the increasing investment and output of other companies cannot counterbalance the fall in the production of the Italian company. Despite the unfavorable production figures, as a result of the large number of investment projects (into heavy-duty vehicle manufacturing and other light commercial vehicle production), employment in the automotive industry has been increasing steadily in recent years (PZPM 2018). The revival of the Silesian (South Poland) automotive production practically eliminated the country's unemployment.

Unlike the FIAT, Volkswagen is steadily increasing its production. The newest factory, opened last year, is exclusively producing vans (Volkswagen Crafter). But activities include not only vehicle assembly but powertrain production as well. Poland has one of the main diesel engine factories of Volkswagen. The Swedish firm Scania, the majority of which is owned by Volkswagen AG, has a factory in Poland, where buses are assembled. Volkswagen-owned German MAN has a bus and component factory, a component manufacturing factory and a truck production facility. The export revenues of the three car and component manufacturing related companies of the Volkswagen Group in Poland altogether were worth more than 16 billion złoty in 2015 (Rzeczpospolita 2016), which is the second position in the Polish export ranking.

Indigenous companies are remarkable as well, the Polish family owned Solaris is the third largest bus factory in Europe. To maintain its development Solaris signed an agreement with the Spanish railway rolling stock and equipment manufacturer CAF (Construcciones y Auxiliar de Ferrocarriles) in 2018 to sell the Polish bus and tram manufacturer to the Spanish company.

Hungary is the second smallest car manufacturer among the examined countries. Taking the export product classification of the automotive trade into consideration, the automotive output of Hungary consists of many main parts and accessories. Therefore, the effects of the crisis appeared not only in the vehicle assembly but in the supplier employment figures as well, which shows that there is a large number of automotive-related suppliers and main part producers. Vehicle assembly fell by 38 (!) percent. Automotive companies cut their employment by 17 percent in 2009 which is the highest figure among the Central European countries, and export figures also declined between 2008 and 2010.

Despite the decline in global and regional sales there were additional investments in the automotive sector during the crisis. Not only OEMs – Daimler in 2008, Audi in 2010 and BMW in 2018 – announced new investments, but tier 1 suppliers like Knorr-Bremse Magyarország

(hvg.hu 2010) and also Bosch (Bosch 2010) announced the increase of its production in 2010. Due to investments and the growth of the demand in the foreign market, vehicle production was 36 percent higher in 2016 than the peak in 2008.⁶ Thanks to investments, production capacities have increased significantly, but the earlier rate of growth in production cannot foreseeably be maintained.

Besides the global economic crisis, the Volkswagen's (diesel) emission scandal in the U.S. had been high on the agenda in Hungary since 2015. Some of the engines involved in fraud were assembled in the company's factory in Hungary. Audi Hungaria as the largest engine factory within the Volkswagen Group produces diesel and petrol engines in Győr. Due to the high export ratio, the Hungarian affiliate is one of the biggest exporters and a leading automotive company in the country. Global value chains linked the production to other European factories. One of these factories is the Volkswagen's Bratislava factory where the SUV model of Audi is assembled exclusively. The scandal also had a tangible impact here, along with the decline in production. In late 2016 Volkswagen announced that its brand Audi buys back 25,000 diesel Audi Q7 models in the U.S. (Reuters 2016). The model was assembled in the plant in Bratislava and the engines were assembled in the plant in Győr, Hungary. The scandal highlighted the mistakes of current technologies and raised the issue of the need to introduce future technologies, which are needed to preserve the current position of Hungary.

Recently, in relation to the investments announced in Hungary, the production of alternative (electric) drives replacing traditional internal combustion technology is increasingly emphasized. Audi Hungaria has started the series production of electric motors at its plant in Győr in 2018. The current production capacity is for approximately 400 electric axle motors per day but in case of an increase in demand this number can be expanded. In addition, the Daimler's factory that already operates in Kecskemét and the new BMW factory in Hungary, announced in 2018, are also producing vehicles that can later be fitted with electric drives.

The crisis reached the **Slovakian** automobile industry during an intensive growth period. In the early 2000's two manufacturers – the French PSA and the South Korean Kia-Hyundai – arrived in Slovakia. As a result of the investments, car production was to exceed 800,000 units by 2010 (Sario 2007). Due to the decline in demand on the major markets, however, output growth stalled in 2009 and automotive assembly dropped by 20 percent. Decrease of employment was the second highest here among the Central European countries (15.6% in 2009).

However, the recovery of the production was very fast, in 2010 the output grew by 22 percent (OICA 2017). Export figures also have shown dynamic growth from previous years since 2010. The crisis highlighted the unbalanced external dependency of the automotive sector in Slovakia. At the same time the geographical diversification of the markets of the suppliers helped Slovakia to decrease dependence. (PWC 2014). Investments from existing OEMs have been

⁶ Regarding the automotive production, there was a slight downturn in 2016, the figures in 2015 were 43 percent higher than in 2008 (OICA 2017).

made since 2012 and also new greenfield investments were announced. In 2012 Volkswagen started its new city car production in the plant in Bratislava. At the end of 2015 Jaguar Land Rover (part of the Indian Tata Company) confirmed its plans to open a new factory in the town of Nitra in Western Slovakia. The capacity of the new factory will have an annual output of up to 300,000 vehicles, and its operation will launch in early September 2018. The factory will build the next-generation Land Rover Discovery. The factory has been criticized, on the one hand because while these vehicles are powered by traditional internal combustion engines, the first electric driven Jaguar-Land Rover vehicles are assembled at Magna-Steyr in Austria (Just Auto 2018). On the other hand, because the growth prospects of the industry are threatened by the extremely strong regional concentration of the further investments. The territorially unbalanced automotive investment was highlighted by several authors (see more: Jacobs 2017). The main OEMs are in the Western and North Western cities (Bratislava, Žilina, Nitra, Trnava) and only suppliers moved to the Eastern part of the country.

4.3. Baltic countries

According to an OICA statistics (2017) and the United Nations' List of Industrial Products (UNSD 2018), passenger car manufacturing does not exist in Estonia, Latvia and Lithuania. In the Baltic countries, the automotive sector is concentrating more on specialist component manufacturing, rather than the assembly of vehicles (ACEA 2012).

In **Estonia** some sub-sector companies (Silwi, Baltcoach, Respo Haagised) assemble special vehicles or trailers (Terterov and Reuvid 2009, p. 132) based on imports, whereas others produce various spare parts for vehicles and subcontract to large automotive companies (Volvo and Scania). In the supplier sector, they produce plastic and rubber goods, metal parts and automotive safety systems for automotive industry (Ministry of Economic Affairs and Communications, Ministry of Finance 2016).

The same applies to the automotive sector in **Latvia**, which consists of small and medium-sized enterprises (Amo Plant) mainly producing car components and trailers. In **Lithuania**, the situation is similar: the automotive industry focuses on the manufacturing of automotive components. More than 400 companies produce electrical and electronic, metal and plastic components to the automotive industry to various OEMs (Invest Lithuania 2014). In Lithuania the automotive companies produce mainly bodies (NACE 34.2) and parts (NACE 34.3), electrical equipment in particular and plastic parts (Ekonomines Konsultacijos ir Tyrimai UAB 2002).

5. Conclusion

The automotive industry has shown fundamental differences during and after the market turbulences (i.e. the global crisis) that distinguishes the performance of the countries examined and their future development opportunities. In terms of the comparable output data (based on NACE classification) figures did not include other parts and accessories, we had mainly vehicle production figures about the automotive manufacturing related activities. Therefore, we could compare only the number of vehicles assembled. The figures did not permit a full comparison within the countries. In addition, the export figures did not include components and main units used domestically as part of the supplier network.

Based on empirical study and the statistical data, we can articulate some findings. Firstly, as a significant part of the production is sold to export markets, the production figures of the selected countries also reflect the performance of the companies on these markets. The output of the industry is not just a matter of external demand, but it also depends on the companies. Taking production data of the selected countries into account, in the case of Spain the French and the U.S. companies and in the case of Poland the Italian companies showed the worst figures. The poor performance of FCA (Fiat Chrysler Automobiles) after the crisis continues, worsening the Polish export indicators. Overall, it can be stated that the German companies (Volkswagen Group, Daimler) showed the best performance in the countries surveyed.

Secondly, the number of investors and the concentration of investments observed in the sector is also decisive in the development of the production volume and the future prospects of the industry. In the case of Poland, FIAT has a significant role in the automotive industry. Whereas, in Portugal, Hungary and in Slovakia the importance of the Volkswagen Group can be highlighted. In the case of Spain, the three dominant car manufacturers (Volkswagen, PSA, Ford) had greater latitude/variance in the sector's price competition, appreciating the importance of the country. If the economic dominance of the automotive industry could not be avoided (see Hungary or Slovakia), it can be stated on the basis of medium-term production data that the trade performance and adaptability of the industry can be improved by increasing the number of manufacturers.

Thirdly, in the case of OEMs and suppliers, the product portfolio is relevant for the production, export and employment data. The Czech Republic and Poland have significant bus production and Poland also has remarkable heavy-duty vehicle assembly. These are labor-intensive activities employing a significant number of workers but cannot be compared with the production of passenger cars by the production numbers. This results in a unique situation, because while the automotive production in Poland is growing, the export share of the sector does not reflect the development of the output.

Fourthly, the specialization and characteristics of the industry also have an impact on trade relations. Export of parts and components are more EU-oriented than the trade of vehicles. Spain is the only country where the non-EU trade is higher than the trade within the European

Union. This may be due to some company's production specialization, and that certain types/brands are assembled only at European sites.

Finally, with the replacement of conventional internal combustion engines, a competition started between the host countries for investments in new technology. We can see that the technological level of the current production is far from desirable, except for one or two examples, these countries have not been able to incorporate new technologies. The current structural change in this export-intensive industry is determined by this technological development.

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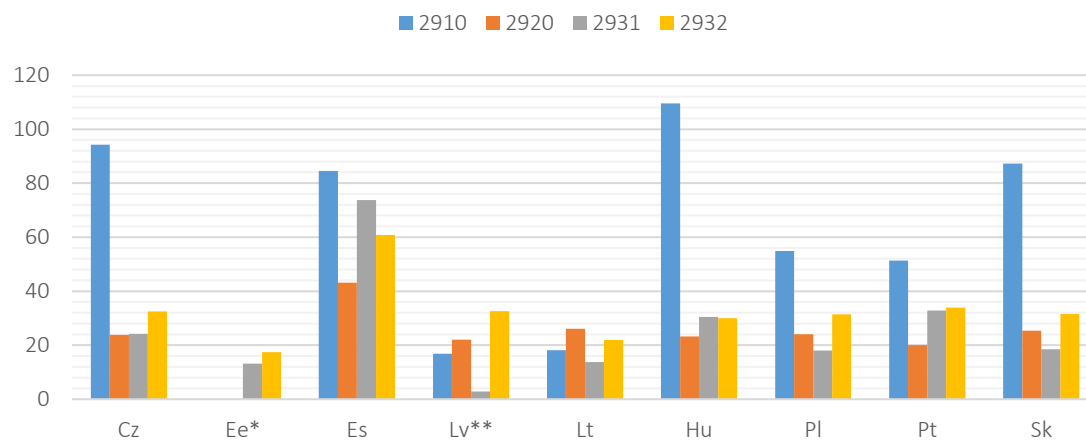
Annex

Annex 1. The number and estimated value of assembled vehicles in Slovakia and Hungary, 2017

COUNTRY/MODEL	STARTING PRICE (EUR)	NUMBER OF ASSEMBLED (PCS)	ESTIMATED VALUE OF ASSEMBLED CARS (M EUR)
SLOVAKIA			
Citroen C3	8,990	235,174	2,114
Peugeot 208	9,990	82,445	824
KIA Venga	12,150	24,163	294
KIA Cee'd	13,990	98,834	1,383
KIA Sportage	18,390	212,603	3,910
Volkswagen up!	9,975	155,828	1,506
Škoda Citigo	7,990		
SEAT Mii	11,020		
Porsche Cayenne	74,828	205,948	13,459
Volkswagen Touareg	57,125		
Audi Q7	64,100		
TOTAL		1,014,995	23,488
HUNGARY			
Suzuki Vitara	17,990	122,225	2,199
Suzuki Swift	13,790	199	3
Suzuki SX4 S-CROSS	19,790	56,200	1,112
Mercedes B	20,990	193,000	4,822
Mercedes CLA	28,467		
Mercedes CLA Shooting Brake	25,490		
Audi TT Coupé	35,000	105,491	3,604
Audi TT Roadster	37,500		
Audi A3 Limousine	27,740		
Audi A3 Cabriolet	36,400		
TOTAL		477,115	11,739

Source: www.citroen.sk; www.peugeot.sk; www.kia.com/sk; www.mercedes-benz.sk; www.audi.de; www.suzuki.de; www.volkswagen.de; <https://www.porsche.com/germany>; <http://www.skoda-auto.sk>; <https://www.seat.de>

Annex 2. Gross value added per employee, thousand EUR



* 2009

** 2014

Note: C2910 - Manufacture of motor vehicles; C2920 - Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers; C2931 - Manufacture of electrical and electronic equipment for motor vehicles; C2932 - Manufacture of other parts and accessories for motor vehicles

Source: Eurostat (2018): Annual detailed enterprise statistics for industry

Export of SMEs after the crisis in three European peripheral regions – stimulating factors and effects on firms

Andrea Éltető

Abstract

After the serious effects of the international crisis of 2008 export activity – as a main form of internationalisation – proved to be an important element of survival and growth for small and medium sized enterprises. Iberian, Baltic and Visegrád countries are in the focus: a brief literature review describes the export enhancing factors based on existing enterprise surveys and studies prepared after the crisis. These show that peripheral area SMEs are already similar to others regarding these stimuli, manager attitude and innovation being the most important ones. According to international experiences exporting firms' results are generally better, which can be due to "self-selection" or "learning by exporting". The survey we conducted among Hungarian SMEs confirms the latter theory; export had beneficial effects on product and technology development, employment and gaining information on foreign markets. At the end of the study, we introduce two successful cases of SME-internationalisation.

Keywords: SMEs, export, internationalization

1. Introduction¹

European small and medium-sized enterprises (SMEs)² suffered the effects of the 2008 international crisis. Decreasing demand, worsening access to credit, finance, delayed payments and postponed orders caused serious difficulties for these firms (OECD 2009). The number of SMEs in 2009 fell (Ecorys 2011) and afterwards the pace and extent of recovery were different along the regions. Export activity was an important component of this recovery, since it provided revenues to the firms and countries. Foreign trade was the most popular form of internationalization among European SMEs even before the crisis. (More than 26-30% of European SMEs were involved in exporting or importing between 2006-2009, while less than 8% were active in other modes of internationalization (EIM 2010)). The different modes and stages of firm - internationalization are extensively discussed in the economic and business literature. It is also described that internationalisation of SMEs has specific features compared to that of large companies: SMEs are often managed by one person, have less capital, less access to information, but they are more dynamic and flexible than large firms (Kubícková et al. 2014). A significant attention has been paid to SME - internationalization within networks, especially with the spread of global production chains. The network approach emphasizes that firm networks may be fundamental for SMEs to be able to overcome the drawbacks of their

¹ This study is partly based on Éltető (2019)

² By EU definition SMEs have less than 250 employees, turnover of less than or equal to 50 million euros and balance sum of less than or equal 43 million euros.

limited resources, skills, capabilities, and knowledge. SMEs rely on network relations to select markets and facilitate or accelerate their internationalization process.

Wach (2014) points out that a comparative analysis about the internationalization of SMEs is difficult, because data is often collected at different time intervals with different methodologies. However, certain general indicators can be gathered; the Eurostat Comext Trade Enterprise database provides data on SMEs' export activities. The SME Performance Review regularly published by the EU Commission monitors the development of SMEs in each EU country. The Small Business Act (SBA) Fact Sheets are published each year and provide a general view on the distribution and role of firms according to their size in the economy.

Éltető (2019) describes the main features of SMEs (their role in value-added, employment, export). The overwhelming number (98-99%) of companies in all European countries consists of SMEs. However, their weight in value added and employment is much less. Recovery from the crisis effects was the most difficult and took the longest in Spain and Portugal, where low domestic demand was a push factor for internationalization of SMEs. The share of SMEs in value added is the lowest in the Visegrád countries of the three regions. All in all, the role of SMEs in the economies of the three regions is not radically different from the EU-core (Éltető 2019).

There is a considerable difference among the three regions concerning the value of exports by SMEs. Éltető (2019) shows that SMEs had by far the largest role in the Baltic economies in 2008, meanwhile in the Visegrád countries over 60% of exports was provided by large companies (who give only 1-5 percent of total number of enterprises). The foreign trade data of the firms demonstrate a kind of geographic rearrangement between 2008-2013, (increased exports to non-EU countries and less increase to EU area) for the given countries. This geographical shift, however, proved to be temporary, because after 2013 the weight of the EU increased again in exports, deliveries to EU markets increased. It seems thus, that the EU remains the most important market, with even reinforced weight.

Based on Éltető (2019), I briefly summarise the export-influencing factors for SMEs in the following parts. In the second part of the study the effects of export on SMEs are demonstrated based on the article of Éltető–Udvari (2018) that evaluates the results of a Hungarian questionnaire survey too. Finally, I present two companies with short case studies based on interviews made by our research team.

2. Influencing factors of SMEs' exports in the regions

There are company surveys in the three regions that analyse the export-driving factors of the post-crisis period. One important external factor to ease export can be bound to the governments that generally intend to promote the internationalization of SMEs and create favourable business environment (about these see the study of Antalóczy–Éltető in this volume more detailed). However, there are also internal factors to increase a firm's competitiveness.

One group of internal factors concerns the product characteristics of the firm (its quality, development, adaptation, and production cost reduction). Another group consists of the features of the workforce (specialised, qualified employees, expertise, managerial behaviour). Foreign market-related factors (finding customers, contacts, network, marketing) form a third group. The surveys analysed in Éltető (2019) reveal several factors of these three groups behind successful exports, I provide a brief review here.

In *the Iberian countries*, the role of small and micro (often family-owned) companies is traditionally large. The international crisis of 2008 induced a strong wave of internationalization, the number of exporting *Spanish* SMEs and export intensity of the firms increased considerably. Firms that began exporting in 2005 on average had one foreign market, which increased to four by 2014 (Bonet–Minguez 2015). Their main partners are core EU countries, Portugal, Morocco and some culturally close Latin American areas (Banco de España 2015). As key internal stimulating factors, Spanish companies mentioned competitive prices, adequate human resources, brand and establishment of strategic alliances. The management's international experience, expertise, innovation activity were also important parameters. In *Portugal* too, the share of exporting SMEs increased in number and in turnover after the crisis. Spain and France are the most important markets for Portuguese firms, followed by Germany and the role of Angola and Brasil has also increased in the past decade. The saturation of the national market proved to be the most important reason for going international and the majority of firms chose culturally close markets.

SMEs in the Visegrád region follow two basic models of internationalization: the stage model and the early internationalization model (Zapletalov 2015). Having a managerial global vision and product innovations proved positively influence the internationalization process in the *Czech* case. Behind *Hungarian* SMEs' export success there are good quality products, excellent contacts, language knowledge, competitive prices, qualified employees and managers, developed technology, adaptation to international standards and having information on foreign market possibilities (Szerb et al. 2013). Kazai–Pecze (2014) prove that successful exporters rationalized their product range, improved production efficiency, developed new products and looked for new markets. Internationalization of *Polish* companies remains at a lower level than in the Western countries (Czerniak–Stefanski 2015). Polish SMEs indicated long-term cooperation with foreign partners as most important motivation to export, followed by high demand in foreign market (Malecka 2017). Jarosiński (2013) provides a literature review on Polish articles on internationalization and finds that both the stages model and the model of early internationalization exist in Poland, while born globals started to appear already in early 1990s – similarly to more developed countries. Danik et al. (2016) found that the major internal drives behind rapid internationalization were the founder's personality, managerial reactions and their own network of relations. Innovation also contributes to the intensification of the internationalization process, as described by Wach (2016). For *Slovakian* SMEs Horská–Gálová (2014) show that two thirds of successfully internationalised firms implemented (mainly

product) innovation in the last three years. Another key element of internationalization is the vision of top management Kokavcová (2016).

Regarding the *Baltic firms*, a driver of *Estonian firms'* exports is the limited domestic market. The competitive advantage of SMEs is in the quality of their products, good contact network, low production cost, professional expertise of employees. In *Latvia*, the crisis induced a restructuring among firms. Major barriers for the development of SMEs were access to qualified employees, funding and strong competition. Important factors of export success are having an exporting vision, conducting research on export markets and marketing activity (Éltető 2019). The survey of Korsakiene (2014) proved that *Lithuanian* firms mainly export to neighbouring countries (Latvia, Estonia and Poland). Own products or services are the major strengths for export/internationalization, followed by the search for new opportunities and information on customers. Skilled labour and personal relationship appear among motivations to internationalise. Sekliuckiene (2017) analysed case studies of born global Lithuanian SMEs and found that entrepreneurial vision, formal and informal contacts are extremely important in rapid internationalization.

If we compare the major export-promoting factors found in the surveys focusing on the period after the crisis we can find that two common internal parameters stand out: the role of the management (attitude, expertise, vision) and innovation. In this respect, these countries are not different from other EU or global economies – effects of managerial behaviour on export have already been proven in research articles in the eighties (Leonidou et al. 2010). Similarly, it has been demonstrated that innovation (R&D, technology) is a major factor that facilitates exports and internationalization (Ribau et al. 2016). Much less emphasis was placed on external factors in the surveys: domestic market shrinkage/saturation was mentioned in the Iberian countries and demand/opportunities on foreign markets in the CEE countries.

2.1. The example of Hungarian SMEs

In order to have a deeper view on the export enhancing and hindering factors for SMEs we conducted a questionnaire survey. The study of Éltető–Udvari in this book describes the methodology and characteristics of the survey. Our questions focused on the importance of export promoting factors and barriers. The internal factors referred to the management commitment, technology development, knowledge of foreign languages and knowledge of markets (based on the relevant literature). Concerning export barriers, lacking information, capital, qualified workforce, developed technology and foreign language knowledge are internal features that can hinder exports. As external barriers, we listed administrative, bureaucratic regulations on target markets, exchange rate fluctuations, reorganization at the buyer firm and decrease of foreign demand. Apart from the questionnaire we conducted personal interviews in the beginning of 2018.

Our sample consists of 148 SMEs. More than two-third of them operates in the manufacturing. Around 15% of our SMEs were founded after the crisis of 2008 and the large majority of them

is in domestic ownership. 112 firms indicated the beginning of their export activity and 65 percent of them began exporting within three years from foundation. In our sample, most of the SMEs exported to Germany and Austria but Slovakia and Romania were also important markets. Half of the SMEs (51%) mentioned that they are suppliers of multinational companies in Hungary or abroad. In our survey, we partly focused on the difference between supplier and non-supplier SMEs regarding their perception of export influencing factors. Our hypothesis was, that suppliers to multinationals significantly differ from other exporters regarding the export influencing factors.

We divided our sample into two groups (suppliers- non-suppliers, see Table 1). For the supplier SMEs the factors like permanent buyer, devoted management, market knowledge, speaking foreign languages) are somewhat more important than for the non-suppliers. However, we could not find statistically significant differences between the two groups concerning export promoting factors (based on values of Kruskal-Wallis H test).

Table 1. How important are the following factors for successful export?
Percentage of valid answers of the groups

FACTOR	VERY IMPORTANT			IMPORTANT		
	T	S	NS	T	S	NS
PERMANENT CUSTOMER ON THE EXTERNAL MARKET	73.6	76.3	70.8	23.6	23.7	23.6
COMMITTED OWN MANAGEMENT	66.7	71.1	62.0	29.3	27.6	31.0
MARKET KNOWLEDGE	62.8	64.5	61.1	34.5	32.9	36.1
KNOWLEDGE OF FOREIGN LANGUAGES	56.8	60.5	54.2	37.8	36.8	38.9
CONSTANT DEVELOPMENT OF TECHNOLOGIES	49.3	50.0	52.8	41.9	47.4	36.1
STABLE, PREDICTABLE DOMESTIC ENVIRONMENT	48.3	44.7	46.5	35.4	38.2	32.4
STATE HELP, PROMOTION	24.0	22.7	25.4	32.9	36.0	29.6
DEVALUATION OF THE DOMESTIC CURRENCY	11.7	14.9	8.5	33.1	27.0	39.4

Note: T=total, S=suppliers, NS= non suppliers

Source: own calculations

We also found some differences between supplier and non-supplier SMEs concerning the export hindering factors (Table 2). Those firms that deliver to multinationals consider the demand on foreign market, the lack of information, lack of language knowledge a smaller problem than non-suppliers. But, understandably, reorganization at the buyer firm is a larger barrier for suppliers. Lack of developed technology is a larger export barrier for those who do not sell within networks, do not have contacts with multinationals. However, neither regarding these hindering factors there is statistically significant difference between suppliers and non-suppliers. The exception is "lack of information" that is the only significant item, being much more important for non-suppliers. This is understandable, because regular suppliers are either provided with necessary information or do not need too much information compared to those who search partners on their own.

Table 2. What are the barriers of successful export?
Percentage of valid answers of the groups

FACTOR	STRONGLY RESTRICTIVE			RESTRICTIVE		
	T	S	NS	T	S	NS
DEMAND ON FOREIGN MARKET	39.9	35.1	44.9	41.3	47.3	34.8
LACK OF INFORMATION	37.9	29.3	47.1	49.7	52.0	42.9
LACK OF FOREIGN LANGUAGE KNOWLEDGE	31.5	28.4	34.8	47.6	48.6	46.4
LACK OF CAPITAL	29.2	29.3	29.0	52.8	52.0	53.6
LACK OF QUALIFIED WORKFORCE	24.3	21.3	26.5	47.6	48.0	47.1
LACK OF DEVELOPED TECHNOLOGY	23.8	18.9	30.0	50.0	52.7	47.1
ADMINISTRATIVE, BUREAUCRATIC REGULATIONS ON TARGET MARKET	21.7	24.3	18.8	44.1	44.6	43.5
REORGANISATION AT BUYER FIRM	11.3	17.8	4.3	44.4	39.7	49.3
EXCHANGE RATE FLUCTUATION	11.2	12.3	10.0	40.6	41.1	40.0

Note: T=total, S=suppliers, NS= non suppliers

Source: own calculations

As we have seen, there are some differences between suppliers and non-suppliers, but not really significant. One possible reason for this is that the firms in our sample are all exporters, even the non-supplier ones can have significant export activity. For those who export, promoting and hindering factors can be similar, foreign market requirements necessitate certain skills and qualities anyway. In the study of Éltető-Udvari in this volume the sample is divided into low and high exporter groups and the differences are larger and more significant between them.

3. Effects of export on the SMEs³

The literature on the correlation between export activity and company-achievement has two streams. One emphasizes the hypothesis of “learning by exporting”, saying that exporting results in improving indicators, competences. Positive effects of exports were proven for example by Kraay (2002), Hallward-Driemeier et al. (2002), Castellani (2002). Baldwin–Gu (2003) demonstrated the positive effects of exports on productivity based on Canadian manufacturing firms’ data. In the case of British manufacturing companies, Crespi et al. (2008) proved the effects of exports on productivity improvement. According to Yang (2008) export activity has more beneficial effects on SMEs than on large firms in China.

The other stream focuses on the hypothesis of “self-selection”, stating that those firms begin to export at all that are more productive than some others and have enough capital. Greenaway–Kneller (2005) summarize more than thirty studies where almost all proves self-selection but only half of them proves learning by exporting. Detecting causality is difficult (see

³ Éltető-Udvari (2018) provides more detailed discussion of this topic.

the problems in Wagner 2005) and in several cases both hypotheses are true (Baldwin - Gu 2003, Girma et al. 2004, Greenaway - Yu 2004, Rehman 2016).

Regarding Central European countries Damijan et al (2005) demonstrates that effects of exports on Slovenian companies depend on the target markets. Higher productivity is characteristic for those who export to developed countries. Also for Slovenian firms, De Loecker (2013) confirms learning by exporting, manifested in productivity gains (he also finds that effect of exporting on productivity differs substantially across producer). Hagemajer - Kolasa (2008) proved self-selection based on Polish medium and large firms' data. At the same time learning effects are also valid because the pace of productivity increase in the case of exporters is higher than in other cases. Regarding the Czech companies, Saxa (2008) examined the effects of export on the firm's performance and emphasized the role of manager and owner in export decisions. Vacek (2010) proves with econometric method and interviews that positive effects of exports took place only if the company exports to developed (EU) markets.

Similar are the results of Ketterer (2017) for Lithuanian firms, positive effects of exports are valid mostly for those companies who export to EU markets. Sinani - Hobdari (2008) analysed panel data of Estonian firms and shows that larger, foreign-owned, more capital-intensive firms are more export-intensive. Putniņš (2013) found that Estonian exporters are larger and more productive, more innovative and pay higher wages than non-exporters. For Estonian and Latvian companies Benkovskis et al (2018) find evidence for self-selection (weakly productive firms do not enter into export) and for learning by exporting too. However, they prove that export entry results in significant productivity gains only when it is related to participation in the high-value added activities in the upstream of global value chains.

Concerning the Iberian economies, based on an econometric analysis of Portuguese firm data Pedro (2018) confirms the existence of both self-selection and learning by exporting effects on productivity. Cassiman and Golovoko (2007) examined the relationship among export, innovation and productivity for Spanish manufacturing firms. They stated that innovation and productivity motivate firms to export because innovative and productive firms can afford the entry costs of international markets. Manez-Castillejo et al. (2009) investigated also the relationship between innovation, productivity and exporting using panel data (1990-2000) on Spanish firms. Their results showed that highly productive firms self-select the international markets for exporting. Therefore, the higher the labour productivity is, the probability to introduce process innovation is higher and the greater is the firm's probability to export. Golovko-Valentini (2014) analysed panel data of Spanish manufacturing firms during 1990–2002. Their results indicate that exporting is positively correlated with firm innovation output. Larger firms show increased process innovation output after the entry into export markets, while smaller firms start product innovation before they enter the export market, with the effect of exporting lasting for about two years after the entry. Eppinger et al. (2017) concentrates on the years before and after the crisis, analysing data of Spanish companies in 2005-2012. They show that firms that entered the crisis as exporters (and continued to export

throughout the crisis years) saved more jobs, stayed more productive, and were more likely to survive. Love-Máñez (2019) uses Spanish company dataset of 1990-2013 and confirms that learning by exporting can be different according to the way of exports in time: continuous export can lead to a deep routine-based learning, while sporadic, infrequent exporters remain less persistent exporters on the long run.

3.1. Hungarian experiences

In Hungary, the survey of Szerb et al. (2013) shows that the revenues and operating profit of significant exporters are larger than that of non-exporters and small exporters. In our Hungarian survey, we divided our sample to two groups based on the criteria of export-intensity used by Szerb et al. (2013). Thus, we have a highly export intensive group, where the export/revenue ratio is above 25% (86 firms) and a low export-intensive group where this ratio is below 25% (62 firms). In our sample the average revenue of the “high” group is 1.7 times higher than that of the low exporters. 77.8% of significant exporters and 61.7% of low-exporters indicated that it is more rentable to sell abroad than in Hungary.

Opinions of our firms reinforce that there is a learning process from export activity. Almost 90% of the companies answered that they gained more knowledge on foreign markets (Table 3). The majority of the sample companies improved the quality of its products and introduced new production technologies.

Table 3. Changes in the company due to its export activity, in percentage of valid answers

	Low	High
KNOWLEDGE ON FOREIGN MARKETS INCREASED	80.0	96.4
PROFITS INCREASED	71.7	74.7
QUALITY OF PRODUCTS IMPROVED	43.3	72.6
NEW PRODUCTION TECHNOLOGY WAS INTRODUCED	33.3	67.9
NUMBER OF EMPLOYMENTS INCREASED	33.3	61.4
COMPANY MANAGEMENT WAS REORGANISED	26.2	49.4

Note: Low means low export-intensity, High means high export-intensity

Source: own calculations

Table 3 shows important differences between the high and low export intensity groups in certain cases. Improvement of product quality, introduction of new technologies, increase of employment and company reorganisation are much more characteristic effects in the case of significant exporters, they have perceived the positive effects of exports stronger. Except profitability, all other effects have significant correlation with high-intensity exporters (based on Chi-test values).

4. Company cases

In order to have a deeper insight into SME internationalization we made personal, semi-structured interviews with CEOs of SMEs. In the followings, we show two cases: Adu Alba that is a family firm supplying several multinational companies and Meditop that has developed since the nineties and also has contracts with pharmaceutical multinationals.

Adu Alba Ltd⁴

Adu Alba Ltd was founded in 2003 in the city of Székesfehérvár as a family firm, by Mr. József Varga and his wife, Tímea Csikós. The ownership and management remained the same since then; no foreign capital was involved. The owners previously worked at a large multinational company during six years and they finally decided to establish an own entrepreneurship. Their experience at the multinational company (management, human resource, negotiating with customers, procurement, marketing) is well utilized for their current business. The main principle was to serve and finding solution to the real needs of multinational affiliates in Hungary. The owners and employees undertook several kind of jobs and auto-trained themselves. New ideas and products have been developed via communication and contact with buyers, a “learning by doing” prevails at the company.

Adu Alba now produces vacuum formatted precision trays, packaging materials, one-way and multi-way wooden or plastic pallets, etc. The products are completely specific according to the buyers’ needs. They implement not only customer-defined products, but fully cover packaging technology from design to implementation. In addition, the company also provides quality services to partners (on site). For around seven years now the company also produces machine-tools with CNC technology. They have ISO and MEBIR certifications and they undertake also on-spot rework. The company supplies around 15-20 multinational affiliates (in food industry, metallurgy, automotive industry etc.), among them some automotive plants.

The crisis years were difficult for the company but the survival strategy was aiming always the higher quality and specialisation on individual needs. Machine tool production began right after the crisis in order to be able to produce such specialised products. In 2015 a new 1800m² packaging technology plant was inaugurated, an old community building in the area of the former Soviet barracks was transformed. In 2016 Adu Alba received the “Factory of the year” prize from a Hungarian Media agency. In the same year they won the “World Star” prize of the World Packaging Organisation with a light packaging polyethylene tray product. The company has not used much state help, but they did receive EU funds for research and development. They do not usually participate in fairs (according to the director it is not worth, because purchasers of multinationals, engineers are not there, internet and direct contacts can be more

⁴ Sources: interview of Andrea Éltető and Gábor Túry with the CEO, József Varga, press information, homepage of the firm.

useful). Profitability of the company has been fluctuating and somewhat increasing in the past five years and profits are mostly reinvested in the firm.

Factors of success

The most important component of success is *managerial attitude*. The main driver of Adu Alba's results is the director in person. His way of thinking (everything can be solved) and ideas of proper functioning are the basis of the company. The aim of the management is to create a unique company culture, production quality and effective process direction. The director thinks that the exact satisfaction of the buyers' needs (in quality, delivery time) is essential. He also finds it very important to have a coherent organisational system, with responsible persons. Speaking foreign languages and having proper contacts, trustable partners are also very important according to the director. There are around 60 employees at the company. There is a fluctuation among workers, because those leave who cannot understand or accept the firm's philosophy (working hard and punctually, not only in one field of activity). It is not easy to find qualified workers, but they can manage. Employees are honoured; there is one-shift work, strict requirements and familiar spirit. The firm participates in dual education programs collaborating with a university. According to the director, labour shortage in the manufacturing sector has a certain positive effect on pricing, because buyers/partners are willing to pay more for quality (quality workers and quality work).

Another essential success factor is *constant innovation, product development*. The main philosophy of the company director is always finding out some new and unique product or idea. This was the case with the prize-winning products and there are also some more future innovation plans. Products are made with precision, reliability and just-in-time delivery is essential.

A third element of success is *good marketing, brand building*. The beneficial effect of certain marketing tools is well detectable in the case of Adu Alba. These are not the usual publicities simply advertising the firm, but specific, targeted media attention. The best way for drawing attention is winning prizes, creating something unique, innovate. After the firm became the "factory of the year" and won world prize, it appeared several times in the media, became more famous, received more orders. In 2018 a short film is also made about them and is transmitted several times on a TV channel. Prizes and media attention helps to build the brand of the company.

Meditop Pharmaceutical Ltd.⁵

The predecessor of the company was founded in 1991 by specialists who left large socialist corporations during the systemic change. Prior to 1990 in Hungary, pharmaceutical companies had been obliged to supply specific products even if this process had generated losses for them but with the systemic change, the obligatory provision immediately ceased. Thus, products that

⁵ Sources: Interview of Katalin Antalóczy with dr David Greskovits CEO, Meditop questionnaire filled, www.meditop.hu, earlier pharmaceutical research

major companies no longer wished to produce were erased from supply or transferred to newly launched pharmaceutical SMEs. This is how Meditop was created. The company was founded by 11 persons with small capital for a definite time horizon. The company's first contract had lasted till 1994, and afterwards Meditop was reorganized (and rebuilt) in 1995 but the new company is not a legal successor of the previous company. So, the official foundation of the present firm is the year 1995 and the number of owners are two: Dávid Greskovits and Zoltán Ács. The both worked in Nigeria previously and gained experiences in purchasing, selling, firm management.

Activities

Medicines produced by Meditop were generally well known among Hungarian pharmaceuticals. As the import of foreign medicines were liberalized after the systemic change, domestic companies faced substantial competition, to this end the government tried to support domestic production through the social insurance system and price subsidy. Therefore, Meditop was approached by Ciba-Geigy pharmaceutical company with a contract to undertake lease-work (mainly packaging) related to specific products of Ciba-Geigy in order to get governmental support system. Initially, Meditop's production targeted the domestic market, then started participating in export activities and functioning as a supplier for other multinational companies as well. Thus, after its foundation, Meditop soon became internationalized, started exporting. By 1995, the mentioned lease-work contracts were terminated and Meditop was re-established and started working in a new business model. Meditop introduced new activities: research and development, purchasing licenses, and new type of lease-work contracts. Meditop contracted with large multinational pharmaceutical companies such as Novartis, Merck, Astra-Zeneca, and Roche.

The R&D activities of the company particularly cover generic medicine development. Their first own developed medicament was introduced in 1999, called 'Memoril', which stimulates brain functioning and now 'Memoril' has become Meditop's most purchased medicine. In 2002, the company introduced a nasal spray ('Nasopax') which was developed jointly with a children's clinic. Another branch of activity involves further development of licensed pharmaceuticals. Medicine development is now often carried out with foreign partners. For instance, a Tolperison-Hydroclorid substance medicine was developed for the German Hexal AG. Meditop has comprehensive cooperation with Hungarian universities clinics. Meditop still carries out lease-work activities related to packaging and manufacturing to both Hungarian and foreign affiliated companies. In September 2018 185 employees worked at the company (in 1995 the company had only 15 employees). Six people deal with research and development. Meditop transports workers by buses from other cities.

Internationalization

After its foundation, Meditop was soon present on foreign markets. Export of own products exists since 2005. There is a "push" factor behind: domestic market is small and price competition is large. "Either you export or you are dead" – says the CEO. It is also an important

factor that the company found such foreign market segments where demand was increasing for the products of the company. Apart from that, they concentrate on development and introduction of such products where there is a foreign need. Export gives 15% of their revenues, but this share is increasing continuously. Meditop is a partner of foreign companies in different forms. Subcontracting is significant and also development or marketing cooperation. Being an SME can be an advantage: Meditop can be more flexible than large firms, adapting to market needs, working with smaller quantities.

The most important export market of Meditop is Germany, with more than 45% of exports. The own export product is a muscle-relaxing product containing Tolperison, and the demand for it is high on the German market. Based on the German success, export of this product began also in Netherlands, Belgium and Luxemburg. The second most important market is Vietnam (30% of exports). This far-away market was brought by a Hungarian mediator living in Vietnam. (A representative office was opened here by this person). Ukraine is a new, increasing market, here Meditop has an outward processing partner, registered in Switzerland but owned by Ukrainians. Uzbekistan is also a new market, that was brought by the “Eastern opening” strategy of the Hungarian government (see more about this in the study of Antalóczy–Éltető in this book). Leaders of Meditop participate regularly in governmental delegation (“buying themselves in”, because such a delegation membership costs several million forints), and in one journey they met their Uzbek partner. Deliveries began only at the end of 2017. Thus, share of exports in total sales will grow further.

State support

The CEO of Meditop highly appreciated the SME support policy of the present government. He thinks that after 2010 SMEs are more important for the government. He thinks that pharmaceutical SMEs are reckoned by the government and it is accepted that there are 18 pharmaceutical factories in Hungary. The CEO of Meditop, Dávid Greskovits became in 2017 the president of Hungarian Pharmaceutical Association. As mentioned, participation in government delegation is very important for them to build contacts, gain markets. Changes in exchange rate is neutral for them, because their products have also significant import content. (Base material stems from China and India, other components from Europe and Far East, only packaging material is Hungarian). The market of medicines is special, where state regulation has a big role, therefore the manager finds it important to have good relations with the government. The most rentable drug of Meditop is the mentioned Memiril, that can be prescribed in public healthcare and it helps domestic sales. This product does not have a subsidized price, but another one, Miderizone receives state subsidy in public healthcare. Government contacts are important in gaining state support. Since the second half of the years 2000 Meditop receives regularly supports from EU funds (via the Hungarian ministries). In 2017 Meditop received HUF 51 million for store house expansion and HUF 450 million for research and development via the Ministry of Economy (from EU funds).

5. Concluding remarks

Small and Medium-sized Enterprises are important economic actors and exporters in the three peripheral regions. Their weight is somewhat smaller in the Visegrád countries in employment and value added than in the Iberian and Baltic countries, but remains above 50%. With increased export activity SMEs contributed to the recovery after the international crisis. In this short study I provided an overview of those factors that contributed to successful exports based on surveys made in the three regions. These factors are both external and internal, but the internal ones seem more important: the qualification of management, workers, product and technology development, innovation. These results were confirmed by the questionnaire survey we conducted among exporting Hungarian SMEs. No significant difference could be detected, however, in this respect between those firms who are suppliers in a kind of network and those who does not supply multinationals. This can stem from the relatively small sample size and from the fact that the influencing factors affect all exporters more or less independently of their supplier status.

Responses to our questionnaire confirmed that exporting has positive effects on the SMEs. This proves the learning by exporting theory that is widely discussed in the relevant literature. Large majority of the firms could widen their knowledge on foreign markets and increase profits. Those firms where export-intensity is high, improved the quality of their products further, introduced new technologies, employed more workers and sometimes reorganised the company management.

Two Hungarian company-cases demonstrated the factors of successful internationalization. Both firms are SMEs, Adu Alba is a family firm delivering to several multinationals and building contacts on its own. The firm has to deliver precisely and fulfil quality requirements. Speaking foreign languages, devoted management and working moral are important factors of success. Apart from that, Adu Alba constantly innovates and creatively finds out new kinds of products meeting the needs of buyers. The firm deliberately builds a brand, wins prizes and looks for media contacts, thus invests strong effort into marketing. They have not used (or only scarcely) national state help or financing but they acquired for EU funds. The other firm Meditop utilized state help and also EU funds for its development and internationalization. They increased the number of employees constantly, extended capacities during the past twenty years. Product quality, research and development are important also in this case. In both companies the managers had previous experiences either abroad or working at a multinational company, which they could utilize in their activity.

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Factors influencing the export of Hungarian SMEs*

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Abstract

For small- and medium-sized enterprises (SMEs) export is the most important way of internationalization. During the global crisis of 2008-2009, world trade decreased dramatically, but since then the economic environment has become more predictable with providing new export opportunities also for the SMEs. This research aims to identify the export promoting factors and barriers that the Hungarian SMEs face, and to analyze how these factors possibly changed to those before the crisis. We conducted a primary research among Hungarian SMEs, resulting in a sample of 148 firms and we present their opinions on internal and external factors influencing export. For the sake of comparison, we describe the results of some similar researches in the Visegrád countries. Our results partly confirm the findings of previous surveys. The importance of managerial behavior and capabilities still stands out, while the financial constraints seem to have decreased in comparison with the previous years. Therefore, we conclude that the development of human resources and education is a key to improve the export performance of SMEs.

Keywords: SMEs, export, internationalization, Hungary

1. Introduction

As a result of the crisis, the global export dramatically decreased: the drop between 2008 and 2009 was 22.25% (UNCTADStat 2017). The crisis hit the small and medium-sized enterprises (SMEs) the most in the European Union (Ecorys 2011, Dallago–Guglielmetti 2012). As a consequence of the diminished domestic demand, export activity of SMEs gained essential importance as a main source of growth and income. The regular SME Performance Reviews of the European Commission² prove that overcoming the negative consequences of the crisis took place differently in the countries, and in some European peripheral regions the negative effects of the crisis could be felt for a longer period. In this article we concentrate on the Central European economies, especially on Hungary.

In the Visegrád countries (the Czech Republic, Hungary, Poland and Slovakia), in average, 99.8 percent of the companies are SMEs, which is similar to other European economies' rate. SMEs in this region accounted for 68-72% of total employment and produced only 52-55% of the total value added in 2016.³ Compared to the Baltic countries for example (where SMEs are

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² https://ec.europa.eu/growth/smes/business-friendly-environment/performance-review-2016_en#annual-report

³ Data from 2017 SBA Fact Sheets.

significant economic actors with 70-80% share in value added and employment), the share of SMEs in value added is very low in the Visegrád countries. The reason is the decisive role of large multinational companies in this region. The Central European SMEs could to some extent increase their exports after the crisis. However, in 2012-2015 the export of large companies grew faster according to the Eurostat Trade by Enterprise Characteristics database.⁴

For today the economic environment is much more favourable, the effects of the crisis have already gone, but SMEs still face a lot of challenges when entering foreign markets. There are some obvious reasons: they are small, simple organizations, they cannot benefit from the economies of scale, they often lack experienced human resources because they do not have enough financial resources to pay for experts. However, they can be more flexible than large firms and can specialize on market niches. Our research aims to identify the factors which either promote or hinder their export activities ten years after the global crisis.

Hungary is a good example of modelling the Visegrád (Central European) countries because it shares several similarities with them (in economic trajectory, integration to global production chains, entrepreneur features.). Global value chain integration and the role of multinationals have been analyzed quite extensively already (eg. Grodzicki 2014, Éltető et al. 2015, Stehrer and Stöllinger 2015), but we have less knowledge on the special export characteristics of the SMEs. Government incentive programs target SMEs, but we know little on their usefulness. Questionnaire surveys can identify individual opinions on that too. Regarding export hindering factors, even if an export barrier is not very significant in general, belief in that can refrain companies from export. In order to assess the problems and strength of Hungarian SMEs, we conducted a questionnaire survey in 2016-17 resulting in a sample of 148 firms. Our survey intended to discover what the perceptions of Hungarian managers are on the parameters of successful export and on its barriers in the consolidated economic environment and what lessons these can offer for the Hungarian economic policy. Our article contributes to the existing general literature on SMEs' export with a comparative focus on the Central European countries.

The structure of the paper is as follows. The following part describes the relevant literature on the export promoting and hindering factors. The third part details the results of the previous surveys conducted in the Visegrád countries. These all serve as a basis of our own primary research among the Hungarian SMEs. The next part details the methodology and the results of our questionnaire survey and the final part concludes.

⁴ <http://ec.europa.eu/eurostat/web/international-trade-in-goods/data/database>

2. Factors influencing export

There are several studies analyzing the factors which positively or negatively influence the export performance of a company. Many of these studies employ different econometric models (e.g. Kadochnikov and Fedyunina 2017, Krammer et al. 2018, Navarro Garcia et al. 2016, Oura et al. 2016), but numerous articles are based on surveys of questionnaires. In the following we shortly overview the export promoting and hindering factors based on the findings of the literature.

The export success of an SME depends on several parameters. According to the industrial organisation theory, external factors which cannot be influenced by a company can determine the strategy, performance and export of a firm (Zou–Stan 1998). These external factors can be grouped as industry characteristics (number of competitors, predictable changes, risk, or seasonal fluctuations), domestic market characteristics and foreign market characteristics (Lages 2000). The features of an industry, its capital, R&D and export intensity may affect the exports of a certain company. Firms entering a highly export-oriented industry are more likely to export than in the case of a less export-oriented industry (Guner 2010, Reis–Forte 2016). State promotion and business environment belong to the domestic market characteristics⁵. Among these, Krammer et al. (2018) emphasizes that political instability or high corruption has negative impact on the firms' export performance. Other domestic institutional attributes (stability, predictability, enforceability and specificity) also affect export (Ngo et al. 2016). Concerning foreign market characteristics, the administrative burdens and regulations on foreign markets (e.g. tariffs, quotas and rules of origin) are the most significant export influencing factors.

However, apart from external parameters there are several internal ones that can be changed and improved by the companies themselves and can help them to export and increase their competitiveness (Nam et al. 2018, Ngo et al. 2016). Internal factors are the basis of the so called “resource based view” of the firm. The resource based view points out that a company consists of tangible and intangible “resources” (assets, capabilities, processes, managerial attributes, information, and knowledge) which are used to implement strategies to improve efficiency and effectiveness. This view states that these internal organisation resources controlled by the firm are the main determinants of export strategy and performance (Zou–Stan 1998, Kaleka 2012, Ferreira–Simões 2016). In this theory, the reasons why a firm becomes international are based on the resources available (Anil et al. 2016).

Internal factors can be grouped according to several aspects. The literature review of Leonidou et al. (2007) refined and merged internal factors into five groups, such as human resources, financial aspects, marketing, production and research & development. The authors conclude that each stimulus may have a different intensity or importance, depending on time, spatial

⁵ For more detailed evidence on export promotion policies in the Visegrad countries see Antalóczy and Éltető (2016).

and industry contexts. In another literature review Francioni et al (2016) applies another grouping introducing purchasing as a distinct category because international sourcing activities might provide new opportunities for market growth through exports.

Crucial internal factors are the product quality, the product development and adjustment, or the reduction in production costs (affecting the product price). The need for innovation is essential to achieve success in export (Oura et al. 2016). As Love et al. (2016) showed, both new-to-the-industry innovations and new-to-the firm innovations contribute to better export performance, however, their geographical impact is different: the former one fosters inter-regional export, while the latter one results in intra-regional export. Krammer et al. (2018) also strengthened the importance of access to technology for better export achievements in the case of their study on the BRIC-firms. Singh (2009) also detailed that research and development expenditures have significantly positive impact on the export sales. Azar and Ciabuschi (2017) raised the attention – based on their study on a sample of 218 Swedish companies – that not only the technological development may result in success in the exports, but also the organizational innovation.

Besides the product characteristics, human resources (managers and employees) also influence the success of export. Managerial behaviour can be one of the most important push factors behind export and its effects were already proved in the eighties (see Leonidou et al. 2010). Not only the managerial behaviour, but the manager's characteristics have important role in the export success. These include skills, experiences abroad and at previous firms (Lages 2000, Mion et al. 2016). The creativity of managers plays a key role in applying a niche strategy in rapid internationalization (Zucchella et al. 2016). Regarding the labour force, the more specialised, qualified employees and expertise are employed in the company, the more positive impact they may have on its export performance, as, for instance, Krammer et al. (2018), Navarro-Garcia et al. (2016) and Stoian et al. (2011) stated in their study. Stoian et al. (2011) and Love et al. (2016) detailed that foreign language skills, international business knowledge and experience, and the commitment of the employees are crucial in achieving success in export activities. Oura et al. (2016) showed in their Brazilian study that the international experience of the employees is more important than the innovation to achieve international successes. Moreover, Navarro-Garcia et al. (2016) highlight that an export department in a company is essential to sustain export success.

As a further group of influencing factors, the foreign market-related internal factors can be mentioned. These include seeking customers, international contacts and network, and the use of marketing. The role of networks in SME internationalization and export is widely discussed in the literature (Johanson and Mattson 1988, Coviello and Munro 1997, Kontinen and Ojala 2011) and also the importance of trust and reliability of exporting firms and distributors, partners are emphasized by researchers (Wu et al. 2007). Madsen (1989) calls the attention to the importance (positive impact) of export marketing on export performance of SMEs. Love et al. (2016) stated that the number of export markets also has impact on the export success. Navarro-Garcia et al. (2016) analysed the role of marketing mix adjusted to the foreign market

needs and they found a direct positive impact on export propensity and international expansion. However, Singh (2009) claimed that the higher advertisement costs would cause losses in exports – the author explains it with the lack of adjustment of the marketing mix to the foreign needs and with the fact that several companies do not have resources to implement marketing campaigns in foreign markets.

Altogether, export success is a result of the interplay of internal and external factors (Robertson and Chetty 2000; Sousa–Bradley 2008). When these factors appear in a company they contribute to better export performance, but if any or more of these are missing, the firm may fail to export. Assessing *export barriers* is important because it may help to understand why some firms fail or are not successful in internationalization. Sometimes overestimated barriers (like competitive pressure in the world market) can even hinder the initiation of export, as the survey of Leonidou (1995) showed. In general, the export barriers include functional (personnel and production capacity problems), informational, and marketing (logistics, distribution, price, promotion) factors (Leonidou 2004), or as Lejárraga et al. (2014) distinguish: human resources constraints, financial barriers and limited information. Certainly, other kind of groupings are also available, like micro and macro problems (beyond the firm's control) or internal and external barriers (Leonidou, 1995, Paul et al. 2017).

Export barriers may differ in the case of large companies and SMEs, and the SMEs may feel them more intensively than the larger companies. For example, for an SME, the manager's role in the export activity is even more vital than for a large company, because an SME may be represented by their owner (manager) only, while in a large company the manager is probably another person. Katsikea et al. (2007), and Crick and Chaudhry (1997) also state this: the entrepreneurs themselves may be the most important factor for the SMEs' international activity, because of their decision-making role concerning commitment to exporting. Also the relative cost of the non-tariff barriers (technical standards, licensing procedures and certifications) as factors of the foreign market regulation can be high for SMEs due to their fixed costs (in comparison with the lower traded value). Complex custom procedures, export controls, and lack of transparency also pose additional difficulties to exporting SMEs. Even the exchange rate fluctuations may have a worse impact on the SME exporters than on the larger exporters (Cernat et al. 2014). Altogether, SMEs are more vulnerable to these factors than larger companies (Fliess–Busquets 2006), since large companies can mitigate internationalisation risks by diversifying operations, intrafirm trade strong lobbying for favourable regulations, etc, but the SMEs usually have limited resources and capabilities to influence policy.

Concerning the barriers to SMEs' export in Europe, the EIM (2010) survey emphasizes the following factors. The greatest internal barrier is generally the price of products, which is followed by high costs of internationalisation and product quality. Human capital and language barriers were ranked afterwards. Finding qualified labour is usually the most difficult for micro-enterprises. However, large companies employ more generally skilled workers but in smaller firms labour skills can often be more aligned to the work tasks.

3. Previous surveys on the factors promoting and hindering export in the Visegrád countries

In the following lines we concentrate on company surveys that detail several aspects enhancing export and competitiveness of SMEs in the Visegrád countries and were conducted after the crisis. In the case of *Polish* born global companies⁶, Danik et al. (2016) found that the major internal drivers behind rapid internationalisation were the founder's personality, the managerial reaction to an opportunity abroad, the own network of relations, and the former cooperation experiences. The main external factors of foreign expansion were business opportunities abroad and possibilities to enter a multinational network. Since 2000, born globals have been on the rise in the *Czech Republic*, too, mostly due to the governmental support of innovation incubators and start-ups (Reková 2016). Danik et al. (2016) compared some features of the Czech and Polish rapidly internationalised SMEs based on surveys. Having an international "vision", strategy of the management proved to be very important in both countries. Czech born globals typically start their expansion in the neighbouring countries within the CEE region. The product innovations were very important for the Czech companies in the internationalisation process. Innovation proved to be essential for the *Slovak* firms too. The survey of Horská and Gálová (2014) proved that two thirds of successfully internationalised firms implemented innovation and mainly product innovation in the last three years. Malega (2017) emphasized the management characteristics and skilled labour force as positive contributors to SME-competitiveness, but also mentioned the membership of the eurozone and exchange rate stability as an external factor.

In *Hungary*, research on internationalisation of SMEs is usually connected to competitiveness studies.⁷ Forms and motivation of internationalisation are examined by S. Gubik (2014) based on a sample of 104 companies, the majority of which are SMEs. The conclusion is that the market entry modes and timing are determined not only by the firm's resources but by the attitude of the owner/manager. Analysing the export, Szerb et al. (2013) prepared an online questionnaire survey with a sample of 973 SMEs, 30% of which being exporters. These exporters are grouped into significant and low-level exporters according to the ratio of export revenue and total revenue (above 25% for the significant ones). The main success factors of significant exporter companies (around 100 firms) are the followings: good quality products, excellent contacts, language knowledge, competitive prices, qualified employees and managers, developed technology, adaptation to international standards, having information on foreign market possibilities. The study of Kazai and Pecze (2014) compared the successfully exporting SMEs (those with high export revenue, high export intensity and high profitability) with the stagnant ones (whose profitability was under industry average, had much smaller export revenue) during and after the crisis. During the crisis, the successful export-oriented companies proved to be better in having adequate strategy, detailed action plans, multiple

⁶ The definition of born globals used in this article: those firms that internationalize within three years of funding and generate at least 25% of total sales abroad (Danik et al. 2016).

⁷ Important publications are those of the Competitiveness Research Centre of the Corvinus University of Budapest, the University of Pecs and University of Miskolc.

visions and quicker reactions than the stagnant firms. Thus, their strategic thinking and implementation was better. The successful exporters rationalized the product range, improved production efficiency, developed new products and looked for new markets. The majority of the successful exporters were also capable of monitoring the surrounding environment and were prepared to give adequate answers to its changes. Successful exporters proved to be better in forecasting the effect of the financial crisis. The role of company management and its influence on organisational innovation, learning, corporate culture was also emphasized in the book of Ábel and Czakó (2013). Their analysis was based on interviews conducted with the directors of ten significant exporter medium-sized firms. The survey of Chikán et al. (2014) analysed the performance of companies above 50 employees during and after the crisis. Here, according to the 140 respondents the most important factors behind successful export are contacts, good product quality and rapid, flexible delivery. Table 1 summarizes the results of these surveys.

Table 1. Export promoting and hindering factors according to the opinions of Visegrád-SMEs

COUNTRIES	PROMOTING FACTORS		HINDERING FACTORS	
	INTERNAL	EXTERNAL	INTERNAL	EXTERNAL
POLAND	managerial attitude and reaction, own network of relations, innovation	high demand abroad, business opportunities in network	management errors, lack of finance, weak brand, lack of information	bureaucracy, legal restrictions
CZECH REPUBLIC	managerial global vision, knowledge, innovation		lack of capacities and skills (language), lack of management knowledge, lack of financial resources,	growing competition, bureaucracy, lack of networks
SLOVAKIA	innovation, mind-set of management, strong engagement, product development	use of euro, exchange rate stability	ignorance on foreign markets, financing difficulties, low innovation	foreign competition, high transport costs
HUNGARY	managerial attitude and strategic partnerships, product development, innovation	new opportunities abroad	financing problems, not enough information, weak management	high transport costs, insufficient infrastructure

Source: own compilation based on the discussed surveys

As for the external barriers, they can affect certain countries differently. The World Economic Forum annually publishes its Enabling Trade Report with an index that measures the factors, policies and services that facilitate and restrict trade in goods across borders. The main areas of the observation are: market access, border administration, transport and communications infrastructure and business environment. According to the results of the WEF (2016) report for the Visegrád countries the most difficult factors are to find a partner, to finance the export and to meet the foreign technical requirements. Additionally, for Hungarian firms meeting requirements of buyers and inappropriate production technology proved to be also very important challenges, while the tariff barriers are more hindering for Czech Republic, Poland than for the others.

Apart from this general picture, we can identify other relevant export barriers perceived in the post-crisis period from company surveys enumerated henceforward.⁸ In *Poland* Danik and Kowalik (2015) analysed the threats of the international expansion of a firm based on interviews. The relatively frequently named threats included the errors in managing the company, the fears concerning political instability and bureaucracy, the lack of financing, the exchange rate fluctuations/currency instability, and the economic crisis. SME managers⁹ consider export as too risky, there is missing knowledge of the market and/or language, product adaptation can be problematic, the Polish brand is weak. Apart from these, SMEs usually do not have long term business strategy, and they are not familiar with export development programs either. According to a study carried out in 2015 on the state and prospects of internationalization, the exporters face the following additional barriers in the development of activities in the international markets: legal and procedural restrictions, bureaucracy, problems with invoicing and foreign partners.¹⁰

Some barriers to the *Czech* exporting SMEs were presented by Pollard and Jemicz (2010). The key external barriers included the lack of international networks and distribution channels, the growing intensity of domestic and foreign competition, insufficient government support, bureaucracy, poor payment discipline, etc. As the main internal barriers, they identified the lack of capacities, suitable competencies and skills, lack of management knowledge and experience, lack of financial resources. According to Toulová et al. (2015), the biggest barriers to the Czech exporters are the lack of foreign language skills and the lack of local environment knowledge. The third biggest barrier was the high cost of market entry. Some other barriers were also mentioned: administrative issues, cultural differences, geographical distance and finding local partners. Reková (2016) conducted a survey among Czech born globals on export barriers. 54% of the respondent firms found that the biggest barrier is the high market entry cost, but the negative state policy expectations (political situation, legislation changes, etc.) were also described as barrier, so was the difficulty to find experienced staff.

According to a survey of 2014 among *Slovak* entrepreneurs and family firms, the biggest obstacles of international business are changing taxes, ignorance on foreign markets, financing difficulties, foreign competition (Krosláková et al. 2014). The survey of Kaputa et al. (2016) enumerates similar major barriers for exporters: foreign competition, financial difficulties to enter foreign market, transportation costs, different legislative environment, standards, certificates, lack of information, low level of innovation in the company, lack of experiences in foreign trade, language barrier, bureaucracy in foreign country, necessity to adjust the product. As Malega (2017) points out, the internal barriers are also important for the Slovak SMEs, mainly the lack of knowledge and experience in the area of management and marketing and backwardness in the area of new technologies.

⁸ The mentioned surveys are generally based on 100-300 answered questionnaires per country.

⁹ <http://aobiznes.pl/aktualnosc/305-7-barier-ktore-zniechecaja-polski-sektor-msp-do-eksportu>

¹⁰ <https://www.arp.gda.pl/plik,4057,znaczenie-internacjonalizacji-w-rozwoju-firm-i-regionu-szanse-wyzwania-i-bariery-prezentacja-pwc-krzysztof-burkot.pdf> p.15.

The *Hungarian* Development Bank conducted a survey on different topics among SMEs each year. Based on the 2012 survey (110 exporting SMEs), Mikesy (2013) showed that SMEs in the manufacturing sector consider too high transport costs as the most important export hindering factors. Apart from this, export financing problems, inadequate knowledge on external markets and language problems proved to be barriers for more than one-fifth of the firms. The 2014 spring survey focused on export activity (see Gém et al. 2014) and according to the results, the main barriers to the export are the costs of launching a product to a foreign market, the high transport costs, and the lack of export support. The human resources within the firm were also mentioned among the most problematic factors for micro-enterprises. The micro and small firms even mentioned the difficulties of financing. Competitiveness problems are apparent if further export expansion is planned. In the survey of Szerb et al. (2013), the low-level exporting companies (100 respondents, whose export per turnover ratio is under 25%) considered export hindering that there are not enough foreign representatives to support expansion, there is no adequate domestic promotion, the transport costs are high, the foreign contacts are missing, the financial resources and the available information are insufficient, while the domestic administration is inadequate, and the managerial activity is weak.

4. Results of our survey

Most of the surveys conducted in the Visegrád countries took place several years ago, just during the recovery from the global crisis, so the question arises whether their results are still valid in the current global trends and circumstances. Sometimes the previous surveys included larger companies too, but - as we explained in the former section - SMEs are more exposed to several factors than the large companies. In order to handle these issues and give a picture of the current situation we conducted a questionnaire survey targeting Hungarian exporting SMEs.¹¹

4.1. Methodology and the characteristics of the sample

We prepared the questionnaire considering the mentioned relevant literature. The first part of the questionnaire included questions on the main features of the company (foundation year, number of employees, foreign ownership, turnover, the share of export income in the total turnover). The second part with closed questions (with ordinary scale) focused on the importance of export promoting factors and barriers.¹²

The submission of the questionnaire and the online filling took place between November 2016 and April 2017. We sent the questionnaire in an electronic form to the SMEs via the county chambers, industrial associations, the Hungarian Foreign Trade Association and the Hungarian

¹¹ We used the EU Commission's definition: a firm is an SME if employs less than 250 persons, it has a turnover of less than EUR 50 million or total balance sheet less than EUR 43 million.

¹² Besides the pre-defined answers, there was the "other" option, too, though the majority of the respondents did not use this option.

National Trading House. The method is similar to snowball (chain) sampling, and because of these mediators we do not know the exact number of reached firms. According to our estimation at least a thousand SMEs were reached in this way, but finally there were only 176 fillings. Thus, the response rate was around at 10% which meets the general experiences of international surveys (see, for instance, Navarro-Garcia et al. 2016). Although we aimed at the SMEs, some large companies also filled the questionnaire. In order to meet our research objective, we excluded these answers from the analysis, and we reduced our sample to 148 SMEs. Our sample is not representative, but its size is similar to the surveys mentioned in the previous chapter, so we consider it an appropriate basis for the research.

The sample can be characterized as follows (Table 2). 71% of the sample SMEs operates in the manufacturing, while the rest in the commercial or service sector. Half of the SMEs (51%) mentioned that they are suppliers of multinational companies. 70% of the SMEs exports final products and 71% imports components, parts for their production. Around 15% of our SMEs was founded after the outbreak of the crisis and 86% of the sample firms is domestically owned. Among those 112 firms who indicated the beginning of their export activity, 65 percent began to export within three years from foundation.

Table 2. Characteristics of the sample

		NO. OF RESPONSES	PERCENT OF TOTAL SAMPLE
FOUNDATION YEAR	before 2008	120	80.4
	after 2009	24	15.5
	missing value	4	2.7
FOREIGN OWNERSHIP	yes	20	13.5
	no	127	85.8
	missing value	1	0.7
NUMBER OF EMPLOYED PERSONS	below 10	43	31.8
	below 50	61	38.5
	below 250	44	29.7
IS THE FIRM A SUPPLIER TO A MULTINATIONAL?	yes	76	51.4
	no	71	48.0
	missing value	1	0.7
TYPE OF EXPORT PRODUCT	end product	93	62.8
	component	39	26.4
	both	9	6.1
	missing value	7	4.7
TOTAL		148	100.0

Source: own calculations

Analyzing the results, we have to consider the limitations of our research. A questionnaire is a good tool, since it collects individual opinions. This enables the researchers to analyze the reasons behind the statistical data, so a more precise export strategy can be defined. However, subjectivity is also the main drawback of this method which we tried to minimize with closed

questions, although, as the questionnaire was anonymous, we do not have information on the person who filled it in.

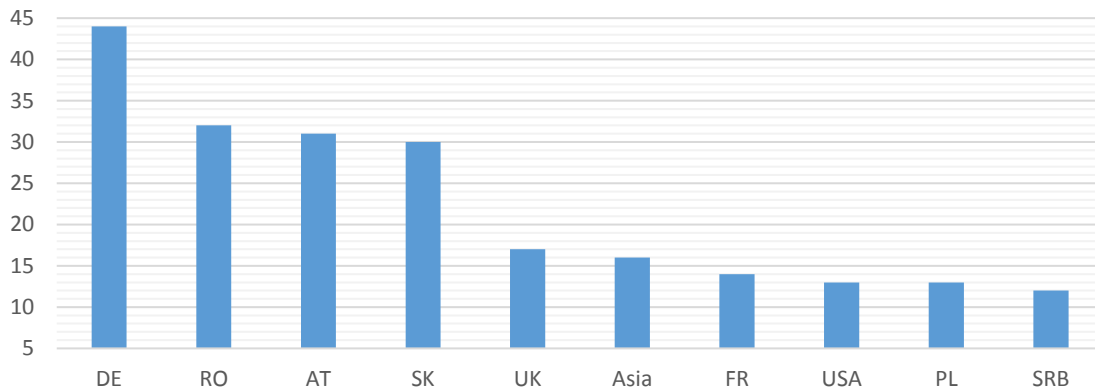
4.2. Export promoting factors

Two-thirds of the sample SMEs expanded their exports after the crisis. 60% of the respondents stated that the number of countries, where they export, increased in the previous 5 years. The main reason for this is that the foreign environment was favorable (67% answered this), but the fall of the national demand, the decisions of the parent company, the reorganization of the production chain, and the fostering tools of the Hungarian economic policy played a minimal role (only 2-5% of the respondents marked these factors significant).

91% of the respondents planned to enter new markets, while 83% planned to introduce some kind of new product on foreign markets. These all refer to the positive attitude of the respondents. However, the export performance did not automatically lead to growth in profits: one-quarter of the respondents did not experience any profit growth. Despite this fact, the vast majority of the respondents (more than 75%) stated that selling abroad is more profitable than to the Hungarian markets. Half of the respondent firms indicated an increase in their number of employees as a consequence of the export.

All SMEs in our sample have export activity and almost all of them export to the European Union, there were only two companies without exports to the EU. Similarly to the geographical structure of the Hungarian aggregate exports on country level, in our sample most of the SMEs (44%) exported to Germany (only, or among others). The following most popular (around 30%) destinations were three neighbouring countries of Hungary: Austria, the Slovak Republic and Romania (Figure 1.) Serbia proved to be a much less significant destination, and less than 10% of the respondents exported to the Czech Republic, Slovenia and Croatia – though they also neighbor Hungary. It is interesting that Asia (mostly China) is as popular as the United Kingdom and the US (15%). It can also be noticed that half of the sample SMEs export to 1-3 countries, but there are several companies with export markets in 8-10 countries. The companies exporting to several (farther) destinations are mostly suppliers of multinational companies, and almost half of the suppliers (47%) exports to more than three countries (in the case of non-suppliers this share is only 28%).

Figure 1. Export market of SMEs in the sample, in % of valid answers



Source: own calculations

We also asked the SMEs to indicate which parameters they find the most important for a successful export. The questionnaire enumerated external and internal factors that can positively influence foreign sales. We assumed that the knowledge of foreign languages can be especially important for Hungarian companies, because the national language is quite unique. The constant development of technology might be also important for improving product quality - as we remember, according to WEF (2016) it was much more important for Hungary than for its neighbours). Since Hungary is not yet a member of the Eurozone, theoretically the devaluation of its currency can enhance exports. Further on, as the target of state export promotion is usually the SME sector, therefore state incentives can also be important.

Our survey partly confirmed the importance of the above-mentioned factors. According to the respondents, the most important export promoting parameter is an external one, namely the permanent, fix customer. It is followed by four company-related (internal) factors: commitment of the own management, knowledge on the market, language skills, and technological development (Table 3.).

Table 3. How important are the following factors for successful export?
In % of the valid answers

FACTOR	VERY IMPORTANT	IMPORTANT	NEUTRAL	NOT IMPORTANT	NO. OF VALID ANSWERS
PERMANENT CUSTOMER ON THE EXTERNAL MARKET	73.6	23.6	2.7	0	148
COMMITTED OWN MANAGEMENT	66.7	29.3	4.1	0	147
MARKET KNOWLEDGE	62.8	34.5	2.7	0	148
KNOWLEDGE OF FOREIGN LANGUAGES	56.8	37.8	5.4	0	148
CONSTANT DEVELOPMENT OF TECHNOLOGIES	49.3	41.9	8.1	0.7	148
STABLE, PREDICTABLE DOMESTIC ENVIRONMENT	48.3	35.4	15.0	1.4	147
STATE HELP, PROMOTION	24.0	32.9	36.3	6.8	146
DEVALUATION OF THE DOMESTIC CURRENCY	11.7	33.1	49.0	6.2	145

Source: own calculations

These results are in line with the mentioned Hungarian surveys conducted during the recovery from the global and European crisis (Kazai–Pecze 2014, Ábel–Czakó 2013), and also with the international literature according to which the attitude and the professional knowledge of the management have decisive role in the successful export performance and internationalization. Table 3 also presents that the predictable domestic rules, business environment is much more important for the companies than the direct state promotion. State promotion tools and the devaluation of the domestic currency are not found essential, moreover, half of the respondents marked these factors as “neutral” or “not important”. The neutral effect of government export promotion confirms the results of other studies (eg. Bernard-Jensen 2001).

Using the same method as Szerb et al. (2013), we constructed two groups of the sample based on the export-intensity of firms, and we also investigated whether there is any difference between the low and high export-intensive SMEs how they rate the export promoting factors (Table 4). Those companies belong to the low export intensity group where the export revenue/total revenue ratio is under 25%. All others belong to the highly export intensive (significant exporter) group.

Table 4. Export promoting factors according to export intensity of the firms

FACTOR	VERY IMPORTANT		IMPORTANT		NEUTRAL		NOT IMPORTANT	
	Low	High	Low	High	Low	High.	Low	High
PERMANENT CUSTOMER ON THE EXTERNAL MARKET	67.7	77.9	30.6	18.6	1.6	3.5	0	0
COMMITTED OWN MANAGEMENT	62.3	70.6	31.1	27.1	6.6	2.4	0	0
MARKET KNOWLEDGE	67.2	60.5	27.9	38.4	4.9	1.2	0	0.0
KNOWLEDGE OF FOREIGN LANGUAGES	47.5	64.0	45.9	31.4	6.6	4.7	0	0.0
CONSTANT DEVELOPMENT OF TECHNOLOGIES	39.3	57.0	50.8	34.9	9.8	7.0	0	1.2
STABLE, PREDICTABLE DOMESTIC ENVIRONMENT	47.5	49.4	32.8	37.6	18	11.8	1.6	1.2
STATE HELP, PROMOTION	30.0	20.0	28.3	36.5	38.3	34.1	3.3	9.4
DEVALUATION OF THE DOMESTIC CURRENCY	8.5	14.3	25.4	38.1	59.3	42.9	6.8	4.8

Note: export intensity is low if export revenue is less than 25% of total revenues, otherwise it is high

Source: own calculation

In general, we cannot see huge differences among the two groups (Table 4), however there are three factors that high exporters found very important in a much larger share than low exporters. The first is the knowledge of foreign languages. Where export is significant, there are more contacts with abroad, there is a bigger need to speak foreign languages. The second factor is the constant development of technologies that is essential for the strong exporters as for their products meet foreign competition. The third factor is the devaluation of the domestic currency that can help massive exporters a bit more than domestic oriented SMEs. The Kruskal-Wallis test proves significant differences between the low and high export intensity groups in the case of the mentioned three parameters (the language knowledge (sig. 0.043), continuous technology development (sig. 0.045) and the devaluation of the domestic currency (sig. 0.031)).

4.3. Export barriers

Considering the export barriers, there are external and internal barriers, too. In our sample, the SMEs find the foreign demand as the most significant export barrier. This is an external factor, and this result is somehow surprising because most of the previous surveys emphasize rather the internal factors as barriers to export. However, the foreign demand depends also on the product features (those are internal factors). Right after the first place we indeed find internal factors in the rank: the lack of information, language knowledge and capital (see Table 5).

Table 5. What factors hinder successful export?
In % of valid answers

FACTOR	STRONG BARRIER	BARRIER	NEUTRAL	NOT A BARRIER	NO. OF VALID ANSWERS
DEMAND ON FOREIGN MARKET	39.9	41.3	12.6	6.3	143
LACK OF INFORMATION	37.9	49.7	9.7	2.8	145
LACK OF FOREIGN LANGUAGE KNOWLEDGE	31.5	47.6	12.6	8.4	143
LACK OF CAPITAL	29.2	52.8	13.2	4.9	144
LACK OF QUALIFIED WORKFORCE	24.3	47.6	21.0	7.7	143
LACK OF DEVELOPED TECHNOLOGY	23.8	50.0	19.4	6.3	144
ADMINISTRATIVE, BUREAUCRATIC REGULATIONS ON TARGET MARKET	21.7	44.1	27.3	7.0	143
REORGANISATION AT BUYER FIRM	11.3	44.4	34.5	9.9	142
EXCHANGE RATE FLUCTUATION	11.2	40.6	41.3	7.0	143

Source: own calculation

Our results are partly different from the surveys we detailed in the previous chapters (Mikesy 2013, Szerb et al. 2013), in which the most dominant barriers to the export – just after the global crisis – were the lack of finance and the high transportation costs. It seems that as time passed, the financial burdens decreased while the role of internal factors increased (besides the foreign demand). In the improving financial situation the state promotional tools hardly could play any role – only 10% of our SMEs stated that they had received any. The respondents marked the exchange rate and the reorganization of the export partner as the least significant barrier.

Now we apply the grouping according to export intensity again. Table 6 shows that lack of information proves to be a much larger barrier for high exporters than for the low-intensity group. Apart from that the lack of qualified workforce and the lack of developed technology hinder significant exporters more strongly. The Kruskal-Wallis test shows the followings concerning the export barriers: there is significant difference between the low and high intensity exporters in relation with the lack of qualified workforce (sig. 0.004) and the lack of developed technology (sig. 0.019). Furthermore, the reorganization at the buyer firm also shows significant difference (sig. 0.041) between the two investigated exporter groups. The high intensity exporters – most of them are more integrated into networks supplying large firms than the low export intensity SMEs - consider this reorganization more threatening.

Table 6. Export hindering factors according to export intensity of the firms

FACTOR	VERY IMPORTANT		IMPORTANT		NEUTRAL		NOT IMPORTANT	
	Low	High	Low	High	Low	High	Low	High
DEMAND ON FOREIGN MARKET	36.2	42.4	37.9	43.5	17.2	9.4	8.6	4.7
LACK OF INFORMATION	28.3	45.2	63.3	39.3	3.3	14.3	5	1.2
LACK OF FOREIGN LANGUAGE KNOWLEDGE	27.1	34.5	42.4	51.2	20.3	7.1	10.2	7.1
LACK OF CAPITAL	27.1	31.0	52.5	53.6	11.9	13.1	8.5	2.4
LACK OF QUALIFIED WORKFORCE	16.9	28.9	42.4	51.8	30.5	14.5	10.2	4.8
LACK OF DEVELOPED TECHNOLOGY	19.0	28.2	44.8	52.9	24.1	16.5	12.1	2.4
ADMINISTRATIVE, BUREAUCRATIC REGULATIONS ON TARGET MARKET	20.7	22.6	48.3	41.7	20.7	31.0	10.3	4.8
REORGANISATION AT BUYER FIRM	8.6	13.3	37.9	49.4	41.4	30.1	12.1	7.2
EXCHANGE RATE FLUCTUATIONS	10.5	11.9	35.1	45.2	49.1	36.9	5.3	6.0

Note: export intensity is low if export revenue is less than 25% of total revenues

4.4. Case study of a successful exporter SME

Although our questionnaire was anonymous, a few companies sent it back by e-mail, thus identifying themselves. We chose a strongly export-intensive, successful small firm and made a semi-structured two-hours interview with the export manager. Based on this discussion and on press information we present here briefly ChocoMe. Behind the creation of the ChocoMe company there is a typical "push factor": the international crisis of 2009. The owner was laid off from a multinational company he previously worked at as a trade marketing leader. After some months of unemployment, he decided to establish a high-quality chocolate manufacturing factory. Production began in 2010 and online web shop was created at the same time. Besides local market, export was directed first towards neighbouring countries (Slovakia, Czech Republic, Austria) and Germany. Production expanded dynamically, in the beginning of 2018 the products are present in already 30 countries. Local distributor companies were established in Russia, Austria, Canada, UK, China. Since 2017 ChocoMe products are available in Heinemann Duty Free shops at 8 international airports and there are prospects of further expansion. As a result of these, the export represents around 80% of total revenues. The firm employs 25-34 workers, depending on the season.

The management believes in constant learning, self-development. The general manager (owner) studied first in Belgium, visited cocoa plantation in Central America, took part in the process of fermentation and roasting. Afterwards he spent two days in a French chocolate laboratory making his own taste, own receipt. He combines creativity with high quality without compromise. Profit has been reinvested into the company, the aim is to stabilize their presence in those markets they already penetrated. The owner employs a similarly devoted export manager, both of them speak well foreign languages.

Differentiation of the products, to create something unique is very important. ChocoMe gained outstanding awards during the past five years. The company uses 80 types of high quality mostly imported ingredients, like frozen-dried fruits, edible gold, salt, nuts, etc. Brand building is essential and because of the excellent quality, ChocoMe is the only company in the world that is allowed to indicate the name of the prestigious Valrhona chocolate producer (from whom the base material is imported) on its products. (That was a major factor for example in the partnership with Heinemann Duty Free shops.) There has been product adaptation to the foreign markets' needs, also in packaging. Competition has grown, ChocoMe products are copied but in a much lower quality. Competition induced the management to invest more in technology, find out new products (like dragées, fruits and nuts in chocolates), which have brought success and international prizes.

Marketing was very successful from the beginning, for example the company employed a professional designer who planned the packaging and outlook of the products. The firm's foreign websites are controlled from Hungary; online direct marketing is important where customer-targeted publicity is applied. Cross-marketing is also dominant and effective, bookshops, gift shops, flower shops also sell ChocoMe products. International and national awards are well communicated in the media and on the product package. The firm usually receives support from the Hungarian government, mainly for participating in international fairs. ChocoMe experienced that the Hungarian embassies and consulates abroad are very helpful and active in promotion. Their export success is also due to the fact that their wholesale partners are carefully selected and ChocoMe controls and coordinates foreign marketing with its foreign partners.

Concerning possible risks and barriers, there are certainly risks in foreign markets for ChocoMe. During the crisis of the Russian rouble for example the firm could not realize its revenues, but they decided to wait and not closing down in Russia. Capacity (space) can be mentioned as an internal barrier, production is at maximum, more than double factory area would be needed.

This case study confirms the results we received in the questionnaires. Behind the export success of ChocoMe we can find three clear factor groups. The first is the completely devoted, responsible management with a clear vision. The second is constant product development, adaptation, outstanding quality and innovation including product, process, marketing and organizational innovation (by delegating certain tasks to outsiders). The third factor group is successful brand marketing, communication and presence in the media. Therefore, this case study proves the high relevance of managerial behaviour and innovation in successful export that was found in other surveys of the Visegrád countries (see Table 1) and in international articles mentioned in the first part of the article.

5. Policy implications and conclusion

Small and medium-sized enterprises in the Visegrád countries have already recovered from the economic crisis. This recovery was mainly led by exporting and putting more emphasis on internationalisation. In spite of that the share of SMEs in the total exports remained relatively low. Statistical data can show the difference between outstanding and less successful exporters but do not give an answer to the reasons. Questionnaire surveys can reveal useful information on these, therefore we presented some in the literature review. However, these surveys were conducted right after the crisis in a completely different environment than the recent one. Thus, in order to be able to formulate any policy implication, a current survey was necessary. In our primary research we have analysed the factors that support and hinder the export activity of the Hungarian SMEs. We conducted a questionnaire survey among Hungarian SMEs and analyzed a sample of 148 firms.

The geographical distribution of the sample firms' export corresponds to the general Hungarian pattern being Germany and some neighbouring countries the main markets. Two-thirds of our companies widened their scale of export products and foreign markets in the past five years and a large majority of the firms plans further increase. This shows that these companies indeed recuperated strength after the crisis and they are quite optimistic regarding future prospects. Responses indicated that the lack of capital (financial problems) is already not among the first three most important export barriers, contrary to the situation during and just after the crisis. Responses showed that having a permanent customer is the most important for successful export and the "human factor" within the company is similarly very important. Currency devaluation and state help are the least important for SMEs. The government incentive programs need to be reshaped to the real needs of the SMEs since our survey pointed out that the firms do not really benefit from them. It can be due to the low effectiveness of these programs, the high bureaucracy (as some respondents mentioned) or the not appropriate communication of these tools.

Our results are in general in accordance with previous survey results of the Visegrád countries that also emphasize the role of human qualities, those of the managers and workforce. The positive role of devoted management in successful exporting was reinforced also by our case study. As the other side of the same coin, the lack of managerial capabilities can be a serious barrier to export successfully.

The creativity and mentality of the managers – just like of other people – are determined by their education and experience. Good basic education (primary school) already can help and train children to develop their innovative abilities. As a policy implication therefore, we can state that developing general education (including learning foreign languages) is essential. Just like other surveys, our questionnaire survey also showed that direct promotion programs targeted to SMEs are only complementary and not really important factors of successful export. Unfortunately, Hungarian education indicators have been worsening for the past half-decade. Decreasing quality of educational and training system together with emigration have led to

serious problems in skilled labour supply. OECD data show that government spending on education has decreased since 2005 both in percentage of the GDP and as a share of total public spending. If these trends continue, the consequences for entrepreneurship and also for SME exports will be negative.

This survey raised numerous other questions, for example: is there a difference between supplier SMEs and non-suppliers? What are the effects of the export on the firms' performance? How direct state promotion can be improved? These can be answered in further research.

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