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## Abstract

In 2008 Europe experienced the hardest recession since the Great Crisis of the '20s. In the southern part, it triggered long-lasting stagnation, but new eastern EU-member states turned out to be resilient. After the first shock, Eastern Europe recovered quickly to pre-crisis growth rates. This research focuses on the role played by Small and Medium-sized Enterprises. The literature suggests they behave countercyclically. It will be assessed whether the high share of SMEs in the industrial structure had a significantly big influence on economic performance during crisis 2007-2013 in countries of Central and Eastern Europe. The individual analysis of regions combined with statistical data supports the view that small firms play a positive role, yet it is greatly dependent on other factors such as access to big markets or agglomeration. The overall economic performance does not seem to be strictly dependent on levels of SMEs share in Gross Value Added, suggesting a different explanation.

# 1. Introduction

The financial crisis of 2008/2009 has had a profound effect on the global economy. It began in the US but quickly spread around the world. Due to strong economic connections, Europe was the next victim of the crisis as all of the states experienced recession or slowdown. Just like in America, the housing bubble burst in Europe too. The results of that triggered a chain reaction that exposed the weaknesses in the economic structure of the European Union. The crisis quickly spread around the continent hitting hardest the member states in eastern and southern peripheries. The economic turmoil was a phenomenon on a continental scale, yet the reaction to the crisis varied greatly. The focus is set on Central Eastern Europe (CEE). These economies turned out to be very resilient. The research contributes to debate on the model of sustainable economic development by exposing the effects of different fiscal policies, monetary regimes and industrial structures of the economy. In this research, the impact of the structure, that is, how the economy is composed, by employment size is investigated with emphasis on the role of Small and Medium-sized Enterprises. With regards to that region, there is already existing rich literature on the influence of currency regime and fiscal tools (Bandasz, 2013) (Darvas, 2010) as well as of a sectoral industrial structure (Ferencikova, 2018). The influence of SMEs as a whole, however, has been somehow overlooked, despite their fundamental importance. In a report by OECD (2016) SMEs are regarded as having “a central role in driving innovation and competitiveness” as well “laying foundations for sustainable development”. By further inquiry on the link of the economy and SMEs sector, it is possible to create an empirical basis for better-calibrated crisis policies of the state.

## a. Research Question and Hypothesis

The literature suggests that small and medium-sized enterprises (SMEs) perform relatively better over recession or slowdown (Bartz and Winkler, 2016) (Varum and Rocha, 2011). The

question remains whether this pattern can be translated into a crisis response at the national level, that is:

- Does a high share of Small and Medium-sized Enterprises protect the economy in times of crisis?

The review of the existing literature suggests that this sector played an essential role in the creation of a market economy in the group of post-soviet EU member states (Farkas, 2011). Their economic model proved adaptive and resilient in the time of the Financial Crisis 2008/2009 in Europe (Aslund, 2010).

That leads to the hypothesis that:

- Importance of small and medium-sized enterprises in the economic structure of Central Europe made this region more crisis-resilient

In other words, the research will answer the question whether a high share of SMEs protects the economy and what are the conditions required for that mechanism to function, based on the example of Central Eastern Europe.

## 2. Theoretical Background

The purpose of this research is to check for the link between crisis resilience at the state level and the behaviour of Small and Medium-sized Enterprises and detect other factors that affect their performance. The research consists of :

- Review of the literature in the fields of governance, business, monetary policy and spatial economics as well as sources related to the subject of Central Eastern Europe
- An empirical analysis of economic performance in the time of the 2008/2009 crisis. the pool of 32 OECD countries is put under scrutiny.
- The interview with the CEO of a Polish, medium-sized enterprise in the furniture industry

This analysis will be supported by a closer investigation of 2 cases:

- The Baltic States of Estonia, Latvia and Lithuania

- Central European countries of Visegrad 4 ( Poland, Czech Republic, Slovakia and Hungary) and Germany

Scientific articles “Flexible or fragile? The growth performance of small and young businesses during the global financial crisis — Evidence from Germany” by Bartz and Winkler, and “Employment and SMEs during crises” of Varum and Rocha provides the groundwork for the economic performance of small and medium-sized firms.

They create a starting point for debate on the role of SMEs in the whole economy. The book “The Last Shall Be the First: The East European Financial Crisis” by Anders Aslund deals with the trajectory of Crisis 2008/2009 in Central Eastern Europe (CEE). It sets the case of CEE in the theoretical framework of that research. This way a comprehensive scheme that captures the environment and behaviour of the SME sector in the selected region is achieved.

In order to verify the research question, two statistical examinations were conducted;

- 1) Whether SMEs behave countercyclically on a macroeconomic level
- 2) Whether countries with a high level of SMEs have performed better

The logistic regressions measure the influence of share of SMEs in Total Value Added (TVA) (1) and what a difference SMEs in Total Value Added level (2) makes on economic performance, in this case, GDP<sup>1</sup> growth.

Due to the complex nature of business activities and heterogeneous government interventions, other variables were being controlled. There have been identified 5 main factors that are considered as defining the business environment and crisis response at the state level:

- Currency exchange regime
- Long-term interest rates on Treasury Bonds
- Trade to GDP Ratio
- Domestic Size Market
- Clusterization Rate

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<sup>1</sup> Gross value added - the value of output less the value of intermediate consumption; it is a measure of the contribution to GDP made by an individual producer, industry or sector; gross value added is the source from which the primary incomes of the SNA are generated and is therefore carried forward into the primary distribution of income account. (source. OECD Definitions)

### 3. Methodology:

The regressions are being constructed as follows:

$$(1) \text{ GDP Growth} = \beta_0 + \beta_1 \text{ Share of SMEs in Gross Value Added} + \beta_2 \text{ Trade to GDP Ratio} + \beta_3 \text{ Long-term interest rates on Treasury Bonds} + \beta_4 \text{ Currency Regime} + \beta_5 \text{ Domestic Size} + \beta_6 \text{ Clustering Rate}$$

$$(2) \text{ GDP Growth} = \beta_0 + \beta_1 \text{ Country by SMEs in Gross Value Added Category} + \beta_2 \text{ Trade to GDP Ratio} + \beta_3 \text{ Long-term interest rates on Treasury Bonds} + \beta_4 \text{ Currency Regime} + \beta_5 \text{ Domestic Size} + \beta_6 \text{ Clustering Rate}$$

The dependent variable is the annual rate of GDP growth. It represents economic performance. Recently, there has been a lot of criticism towards GDP as an adequate economic indicator (van den Bergh, 2007), but according to debate within OECD Statistical Office, it is still the best way to measure economic activity as an indicator for the level of production (Lequiller, 2004). In the regression, a yearly annual rate of change of GDP is used. To see the long-term effects it would be advised to use accumulated or growth averages over the years. This, however, might blur the picture and risks setting together two different economies. One which had just a year of high contraction with the one that has been in a longer period of crawling recession. Using straight annual GDP growth rate allows seeing shifts more clearly, which makes it possible to sort vibrant and stiff structures apart.

On the other side of regression, there are factors reflecting the contribution of SMEs to the economy and conditions they function in.

The key independent variable is a Share of SMEs in Value Added<sup>2</sup>. It is understood as the ratio of the monetary value of value-added created in the sector of Small and Medium-sized Enterprises to Total Value Added<sup>3</sup>. This variable has its limitations (see Limitations) and

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<sup>2</sup> Value added reflects the contribution of labour and capital to production. Total Value Added provides a dollar value for the amount of goods and services that have been produced in a country, minus the cost of all inputs and raw materials that are directly attributable to that production. Value Added by activity breaks down the total value added by sector or region.

<sup>3</sup> That is, value added of both SMEs and Large Enterprises' combined

needs to be always interpreted in relative terms<sup>4</sup>, yet it measures in a very clear way the contribution of the selected sector to the overall production. In this case, it serves as a barometer of the importance of small and medium-sized firms. The coefficient is expected to have negative value to prove countercyclical behaviour.

In the second regression, the country category of SMEs in Value Added is a key independent variable. Countries are sorted into 3 categories and assigned value according to their average level of SMEs share in TVA: low- below 60%-1, medium-60% to 70% - 2, high-above 70% -3 according to 3 roughly equal clusters in the population. Such an approach might be missing the details, but the role of the analysis is to capture general relation which is then applied individually in case. The hypothesis (2) assumes a positive relation of the category level with GDP Growth is expected

Exposition to the external environment was one of the primary factors behind the decline in the continent. At the same time, openness to trade and investment has been a driving force of contraction. Observation of changes in Trade-to-GDP<sup>5</sup> ratio allows seeing the direct effects of economic exchange on GDP growth rates. The other possible measures could be FDI volume or Index of Economic Openness, but there are serious limitations to these. Yearly FDI volumes tend to vary a lot and can be biased by single acquisitions of a large size, while the IEO represents the level of regulations rather than economic structure. While Trade-to-GDP ratio is the indicator for the trade only, it represents well the relation of the state with the outer world and is relatively stable. The benefits of this measure as a representative of economic openness have been well discussed in the literature (Dollar and Kraay, 2001) and thus it was decided to follow that example.

In the macroeconomic theoretical framework, there are two ways the government can shape the economy; fiscal and monetary tools. Access to both of them is expected to play a positive role in crisis response.

The government's ability to stimulate the economy is represented by long-term interest rates on treasury bonds. It refers to the average annual interest rate that the government pays the lenders for bonds maturing in 10 years. Rates are mainly determined by the price charged by the lender, the risk from the borrower and the fall in the capital value (OECD, 2017). The price the government has to pay for loans indicates the access it has to the capital. Low-

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<sup>4</sup> Relative terms, that is, high for a large state, but low as for a small one.

<sup>5</sup> It is calculated by dividing the aggregate value of imports and exports over a period by the gross domestic product for the same period (OECD Definitions)

interest rates mean the ability to use budget tools since the government can easily borrow money to stimulate the economy. It is true, that for years even countries running unsustainable fiscal policy such as Greece was enjoying easy access to credit, but after the crisis 2008/2009, the reality has diametrically changed. Since then, the lenders have shifted towards stricter borrowing standards (Heins and de la Porte, 2014). As a consequence, current rates reflect the actual creditworthiness more accurately.

Indicator for a currency regime stands to represent the ability to use monetary tools. In the regression it is used as a dummy variable, sorting into categories of fixed and floating currency regime. In truth, there are many shades of the two, such as hard pegs, soft pegs, or controlled float, but they represent the same effects only to a stronger or weaker extent. Using 0-1 approach simply sharpens the view (Christopoulos, 2004). Value 0 is assigned to fixed and 1 to floating regimes. Currency union, currency board or hard pegs are considered fixed. The others are deemed floating. Krugman (2013) suggests independent monetary policy supports the national economy, therefore positive relation between economic performance and floating currency regime is expected.

The literature suggests the population size of the country plays an important role in economic performance (Wesley and Peterson, 2017). Direct comparison of population size, however, is unproportionally big to economic effects. To mitigate that, countries are assigned into categories that respond to 3 main clusters in the group of samples. According to the methodology, small countries have fewer than 5.5 mln residents, medium ones between 5.5 mln and 18 mln and the large countries are populated by more than 18 mln people. This might be seen as simplistic but using indicator such as National GDP could contain the coefficient with the influence of development level. The population size category represents well the natural conditions that drive businesses towards the foreign or domestic market.

To indicate the agglomeration economies effect there has been created the indicator that responds to the number of clusters<sup>6</sup> located within a country (European Cluster Observatory, 2017). The clusterization rate equals the square root of that number, which makes it more proportional to changes in GDP growth rates. The limitation of this coefficient is that it sets all the clusters on the same foot, while their class varies. Nevertheless, it conveys rough

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<sup>6</sup> Clusters with at least one-star



information on the clusterization of businesses. It is expected that higher rates of clusterization should have a positive impact on economic performance.

The research uses the data from years 2007-2013, the period including first (2008/2009) and second (2012) recession as measured for the whole European Union.

The pool consists of OECD countries, 29 countries from Europe and 3 outside.

It is natural to question whether the data from the pool beyond the region of interest is relevant, but a dataset limited to the scope to 8 countries does not deliver a sufficient amount of information to be statistically significant. Moreover, all of the selected share the same characteristics: they are at middle or high-income development level, their political systems are based on principles of liberal democracy and their economies are set on capitalist fundamentals, such as private property. The results are used to establish a relation between industrial structure and economic performance. The effects might be stronger or weaker, depending on individual characteristics of the state, but it is considered in the case analysis.

The analysis has a relatively large amount of samples and normal distribution within a population for such type of panel data is assumed. (Breitung and Das, 2005) For these reasons, Z-test is used to test hypotheses. The data analysis is conducted in statistical software STATA. Random-effects model is preferred over fixed-effects. In general, the fixed-effects model isolates the influence of other not-included factors and accounts for that impact as a constant. This greatly reduces the chance that a relationship is driven by an omitted variable. Then again, such a rigid approach is unfit for this research. The sense of uncertainty had far-reaching effects on the behaviour of the agents and economic outcome. At the same time, the public mood has been shifting over the years and among societies. (Bosco and Verney, 2012) The random effects model assumes no correlation between the error term and predictors. This is troublesome, as it is difficult to isolate any economic factors from its influence on people's and firms behaviour. It is accepted as a limitation of the empirical analysis. Despite that, the random-effects model is preferred, because it is essential to factor in the "random" effects that change over time. Furthermore, it allows capturing the effects of time-invariant variables, such as the size of the state, currency regime and clusterization effect.

These regions have been selected as they allow for comparative analysis of above-mentioned factors. For the years after transformation from a socialist to a capitalist system, the GDP of each one of CEE countries have been constantly rising. The outbreak of the crisis 2008/2009 caused greater divergence in the region. The Baltics serve as an example of small open

economies, where SMEs contribution to Value Added has been above 70%. Central Europe is internally more diverse. It consists of countries with their own currency (Poland, Czech Republic and Hungary) and big domestic markets (Poland and Germany), where large enterprises create most of the value. Importantly, all of them are connected to the German industrial base. This allows observing how these economies reacted to the slowdown in Germany, based on individual country characteristics. Finally, it is being set in a broader perspective of the continent, which allows seeing the contrasting effects of different economic models.

The interview with the CEO of Zielony Dąb, the medium manufacturing enterprise in Poland, makes the analysis more comprehensive. It is fair to say that expressed opinions are subjective and individual situation varies a lot. On the other hand, he shares very practical observations of running a business. Due to his work, he can explain how decisions made by the government and other institutions at the top level impact the functioning of small enterprises. The interview serves a complementary role to the statistical information. The empirical analysis allows for broad observation of a whole SMEs sector, while direct interview contributes to the very individual first-hand perspective. Combining these two creates a comprehensive analysis of business mechanisms.

#### 4. Business Performance during crises

It is impossible to understand the state economy without looking at the industrial structure. It can be seen as a sort of “economic DNA of the country”. The industrial structure tells which sectors build up the economy and how much each of them contributes to GDP. It can be defined in various ways. It can be a classification of three basic activities: the services, manufacturing and agricultural sector, but it can also be defined by employment size. Then it consists of small, medium-sized and large enterprises. Combination of these determines how the economy behaves in various situations. In this research, the matter of interest is the behaviour at the time of crisis. An essential role in that period can be assigned to Small and Medium-sized Enterprises (SMEs). According to definition European Commission that category contains enterprises “*having less than 250 persons employed. They should also have an annual turnover of up to EUR 50 million or a balance sheet total of no more than EUR 43 million*”.( European Commission, 2017) In addition, there are subcategories for micro-, small and medium-sized businesses which employ 1-9, 10-49 and 50-249 workers, respectively. They are being commonly referred to as “the backbone of an economy”. They constitute 99% of businesses and hire almost 70% of employees in the private sector. This sector contributed as much as 85% of newly created jobs over the last 5 years in the

continent. According to the European Commission, they play a key role “as drivers of economic growth, innovation, job creation and social integration in the EU”. (European Commission, 2017)

Bartz and Winkler (2015) investigated the effects of the recession on business performance. They checked whether an economic crisis stimulates or holds back entrepreneurial activity. In their research, the authors use the pool of 29,374 firms in Germany over the years 2003-2012. They took into consideration the age, size and market orientation of enterprises. On the outcome side, they checked the turnover growths, FTE<sup>7</sup> growth. They analysed as well, the rates of bankruptcies and new businesses opened.

They conclude that the recession has rather a detrimental effect on the entrepreneurship and business conditions in general. The effects, however, vary across sectors. As it is being explained, at the time of prosperity Large Enterprises perform the role of an economic flywheel. They are generally more labour-productive, invest more in research and development (R&D) and are responsible for most of the export value. Time data further confirms these assumptions about big businesses. They tend to have a relatively higher pace of growth during a general upswing, but, in the time of turmoil, they suffer more due to lack of flexibility. (Varum and Rocha, 2012) It can be primarily observed in the shifts within industrial structure over business cycles. Large Enterprises share in Value Added falls simultaneously with the economic decline. Endogeneity could be potentially seen as a weakness of this paper, as the research is being conducted only in conditions of German market which might reflect on local conditions only.

Varum and Rocha (2011) offer a more direct analysis of SMEs behaviour. They claim that although the more limited financial resources of SMEs may cause them to suffer strongly from crises, small businesses at large are more resilient. They investigated the pool of around 100,000 firms in the Portuguese manufacturing sector. As an indicator of economic performance, they use changes in employment on an individual level. They provide information on factors influencing such behaviour. Among other groups, they point out export-oriented SMEs to be more capable of adjusting, as they present more innovative attitude. Another group that stands out contains small firms located in urban space and clusters understood as the area of high industry agglomeration. This suggests that the spatial aspect of business determines to a great extent the performance. The findings confirm the results of Bartz and Winkler’s research and go a step further as they explain the mechanism. Essentially, it all boils down to flexibility. Due to the small size, SMEs can switch a client easier, propose a more customized product or service, change its profile or offer closer relation. They are more capable of exploiting market niches and adapt better to new

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<sup>7</sup> Full-Time Equivalent - a unit that indicates the workload of an employed person, that is, one full-time worker does 1 FTE, but 2 part-time too.

conditions. The markets they need are smaller too. Many SMEs are present abroad, but they can function well on relatively low-scale too, within industrial clusters, agglomerations or domestically. SMEs at large, benefit from agglomeration economies effect, while large, globally-oriented corporations take advantage of economies of scale. The latter model requires more than the domestic market to prosper. The trade-off between these two strategies is very apparent, as production cannot be both massive and individual at once. (Pflüger and Tabuchi, 2016).

## 5. The spatial aspect of business models

### a. Agglomeration Economies

According to Edward L. Glaeser (2009) “*Agglomeration economies are the benefits that come when firms and people locate near one another together in cities and industrial clusters*”. Essentially, the key benefits relate to transport costs. In the end, the quality of product offered by firm based far-away and the local one can be exactly the same. If manufactured in low labour costs country it is actually economically more efficient to prefer the goods produced internationally. This situation is especially relevant when modern technology and globally wide, free trade agreements have minimized the transport costs. Then again, trading goods is still a relatively time-consuming process. (Kahiya and Dean, 2015) Time-saving is then the key advantage in the hands of local firms. With regards to services, the geographical distance might even make it impossible or economically suboptimal. Furthermore, Glaeser claims that nearby location allows many firms for closer business cooperation. He noticed the same pattern in the transfer of knowledge, where the proximity of research centres has a positive effect on the innovativeness of businesses around. (Glaser and Gottlieb, 2009) The transfer occurs then either through direct partnership with educational units or by access to highly skilled labour, more available in urban areas. The lack of qualified labour is a big concern for the interviewee too, as his firm is based in the countryside. At the same time he denies a need to localize closer to urban areas and claims that “when you export, good road infrastructure is more important, you don’t need cities” He complains, however, about the access to the range of customized services “ they are either available in the agglomerations or you need to make a large order”. (See Appendix) The importance of agglomerations for firms depends on the selected business strategy, yet more and more small enterprises migrate to the cities to take that advantage. (Hacklin, Björkdahl and Wallin, 2018) In the context of crisis resilience, the clusters play an important role due to

their local, domestic character. Access to a local base of customers is a great asset when the foreign demand is falling. It allows small exporting firms to supplement for a decline in foreign demand. SMEs located in clusters can do it by finding both suppliers and clients locally.

## b. Economies of Scale

Large Enterprises benefit from cooperation with local firms, many of its suppliers are usually found locally, but especially in case of big Multinational Companies (MNCs) economies of scale play a fundamental role. The term '*economies of scale*' relates to economic benefits that are achieved by increasing the scale of production. The more is produced the lower is the cost of a single output unit. Through automatization of manufacturing and standardization of products and procedure, a business can deliver the goods and services at a lower price. At the same time, this model is efficient only when the critical volume of clients is reached. To achieve that businesses make their way to consumers beyond the borders of the domestic market. Falling transportation costs, technological progress and spread of free trade areas further enhanced international trade. (Danyluk, 2017) The positive outcomes of globalization strategy encouraged many enterprises to make yet another step. Driven by a further quest to optimize costs of production MNCs<sup>8</sup> moved supply chains abroad. This led to the creation of global value chains which allow enterprises to make the best out of different locations combining access to technology with low-wage labour. This business model has become popular among big firms since the 1990s. (Milberg and Winkler, 2017) It is important to notice that however large enterprises are responsible for gross of export, SMEs are among exporters too, as in the case of Zielony Dąb. Higher profit margins, but above all, a bigger market is the main motivation to export. It compensates the disadvantages of location outside the main agglomerations (See Appendix). This model is especially common in small open economies such as the Baltics where SMEs share in export<sup>9</sup> has been as high as 70%. Then again, exposition to externalities and complexity of business activities is significantly higher than domestically. On one hand, the export can shield from domestic turmoil, but on the other, a crisis in one of the foreign markets can be contagious for a whole business and bring it down.

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<sup>8</sup> Multinational Corporations

<sup>9</sup> The fraction of total export turnover that has been created in the SMEs sector

Behind economies of scale and agglomeration economies, there are forces driving business in opposite directions. Cost optimization incentivizes firms to spread business activities across different locations, while the proximity of potential partners and clients encourages companies to cluster, despite higher costs of running a business in agglomerations. Both of them can be successful, yet each one requires different capacities. To operate on a large scale, firms need to be able to absorb the risks and coordinate the complex processes. It is mostly Large Enterprises that can manage these challenges. Due to their size, they have better access to financing to avoid liquidity trap<sup>10</sup>, but also hire enough staff or possess the technology to run multiple highly complicated business operations at once (Sinkovics et al.2018). Alternatively, firms can scale down to their own niche. By limiting the scope of business activities enterprises can focus on customized services or products with higher profit margins<sup>11</sup>. Usually, such these firms operate locally, but there is an increasing number of SMEs running a business on a small scale yet reaching clients all around the country and beyond the borders (OECD, 2017)

## 6. Role of trade and economic openness

One of the main intakes from the book by Anders Aslund is that economic openness is the single most important determinant of economic performance in Europe. Interestingly, even among EU member states, the importance of trade in economic structure varies greatly. It is ranging from around 30% to above 230% trade-to-GDP ratio, and so does the influence on businesses (See Fig.2). The direct effects, however, do not reflect well the whole picture. In fact, the creation of a Single European Market allowed for so much more than a simple customs union; it facilitated the mobility of labour but foremost allowed the capital to flow around all of EU countries. After the EU enlargement of 2004 companies from the western part of the continent poured billions into economies of newly admitted countries of Eastern Europe. Annual Foreign Direct Investment to Poland tripled from \$5,37 bln in 2003 to \$18,32 bln in 2016 ( Mrozowski, 2016). At the same time entering the world of free trade and capital, exchange posed new challenges ahead of the countries that were functioning in reality of capital control. In years after liberalization the states that experienced massive current account deficits that had to be financed through loans taken on western financial markets. <sup>12</sup>

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<sup>10</sup> Situation when a firm has receivables but no cash to keep running business activities

<sup>11</sup> The cost of good minus labour and raw materials

<sup>12</sup> Balance of Payments- summarizes all transactions that a country's individuals, companies and government bodies complete with individuals, companies and government bodies outside the country. These transactions

Opening countries for economic exchange brought not only financial resources but also the knowledge that linked the CEE with the industrial heartland of the continent. For many small firms joining the EU meant new markets abroad. The interviewee's company exclusive export destinations are EU markets. It is said that foreign customers have higher expectations with regards to quality and service, but despite difficulties, many small enterprises follow this path and through cooperation with foreign partners improve their competitiveness. (see Appendix) For many others, there were even greater possibilities for growing at home. To take advantage of new business opportunities and a vast supply of cheap labour many multinational companies, especially from Germany, invested in manufacturing plants and takeovers, thus plugging new economies into its network of Global Value Chains. These newly-built establishments created demand for products and services to be provided by local companies. The mushrooming network of small firms cooperating with global giants led to the creation of clusters and specialization. Joining these international lines of production has greatly contributed to the growth of small and medium-sized firms. In fact, many small domestic firms indirectly reached clients around the world through cooperation with MNCs. (Cieřlik, Kaciak and Thongpapanl, 2015)

These global economic chains, however, work both ways. On one hand, this collaboration allows local SMEs to benefit from globalization, but on the other, the same channel spread the global decline down to small domestic firms. The same principle applied to countries during the crisis, when small open economies were most fragile, while lower engagement, as in the case of big countries, limited the negative consequences.

### a) Comparative Advantage

The economic exchange should be seen as a powerful force driving the direction of the economy based on its pre-existing conditions. The principle of comparative advantage explains that mechanism. This law states that "under free trade, an agent will produce more of and consume less of a good for which they have a comparative advantage" (Dixit et al. 1980). In other words, this leads businesses and countries to concentrate on economic activities that they are relatively best at. Instead of competing for a lower price, small firms should take advantage of a low volume of clients and focus on customization of products or individual approach. Meanwhile, due to a bigger scale of production large enterprises can offer a lower price and bigger quantities of products. Likewise, small countries can develop

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consist of imports and exports of goods, services and capital, as well as transfer payments, such as foreign aid and remittances.

by specializing in a particular industry while more populous ones can take advantage of large pool labour. Free trade stimulates the effects of comparative advantage. Reducing trade barriers, however, means less protection of domestic firms. The key assumption is that firms exposed to rivalry will become more competitive, which in turn will bring benefits to the state. The market mechanism will bring less adaptive businesses down, leaving space for the efficient ones. Critics say that certain protection mechanisms should be allowed to support local businesses, but protectionist policies tend to distort the market and often play into the hands of big corporations rather than small local firms. (Sinkovics et al.2018) In the protectionist narrative, business competition is a destructive force. However, the experience of CEE countries shows that if the government safeguards the level playing field for everybody, healthy competition stimulates both large and small enterprises. (Cieślík, Kaciak and Thongpapanl, 2015)

## 7. Influence of the currency regime

Currency regime is the institutional arrangement that regulates the system of currency exchange. It is being led and monitored by the state or international authorities, usually a central bank. It is in their competences to control the inflation rate<sup>13</sup>, foreign currency exchange and address business cycles <sup>14</sup>. The situation depends on the currency exchange regime. The division is certainly not that clear-cut, yet two main types could be distinguished; the fixed and floating regime.

### a) Fixed Currency Regime

In the first model, the exchange of currencies is based on a certain international agreement or institution. The movement of the currency's value is then settled against the value of another currency. In this case, monetary competences are no longer in the sole responsibility of national authorities. The main benefit of a fixed exchange rate is the stability in the value of money. Sudden appreciation makes exports less competitive, while depreciation increases the cost of imports. This can have dire consequences for many firms. Especially, small exporting firms are vulnerable for such changes, which forces them to purchase pricy currency insurances. (Cetiner and Eke,2018) Under fixed exchange rate arrangement

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<sup>13</sup> the rate at which prices change over time, resulting in a fall or rise in the purchasing value of money (OECD Definitions)

<sup>14</sup> expansions and contractions



monetary authorities cannot intervene in the market, but currency risk for businesses is eliminated.

## b) Floating Currency Regime

Floating currency regime assumes that the market, where the central bank plays an important role, in setting a currency exchange rate. Usually, the currency follows the domestic business cycle. The currency fluctuation allows adjusting to external shocks through devaluation, which serves as a powerful monetary measure to counteract the slowdown. It makes export goods more price competitive. This possibility is especially valued by businesses. The better cost structure is mentioned by the interviewee as the biggest advantage of having a national currency, saying it gives the advantage above foreign competitors. (See Appendix) The general view on currency might be different among businesses in smaller economies where currency fluctuations are much higher and actually undermines business confidence (Aslund, 2010), but the interviewee opposes adopting the Euro in Poland. He says it is “simply more manageable” and better for business to have own currency, especially as the course of Złoty<sup>15</sup> is relatively stable. (See Appendix)

Currency fluctuations affect more directly large enterprises because usually, they are more involved in international trade. At the same time the competitiveness of firms, in general, has a huge influence on domestic business opportunities for SMEs. Literature suggests that the lack of independent monetary policy exacerbated the effects of the crisis in Europe. (Krugman, 2013) The situation was especially difficult in Southern Europe and the Baltics. When the demand for local products fell, the local policymakers couldn't devalue their currencies due to fixed exchange arrangement. To restore international competitiveness they had to conduct “the internal devaluation”, that is cut the labour costs and keep prices low. In reality, that means rising unemployment rates and drastic wage cuts. As the purchasing power of the local consumer declined, many small domestic firms suffered in consequence too. In 2012<sup>16</sup> the number of bankruptcies hit the highest value in Spain's history (Trading Economics, 2019). This example illustrates the importance of currency regime in the economic system.

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<sup>15</sup> Polish New Złoty- The official currency in Poland

<sup>16</sup> The year of second recession wave

## 8. Role of fiscal policy

Fiscal policy is one of the main competencies of the government. Through taxation or subsidies, it can steer the economy by stimulating consumption or investment. Through different budget tools, the government can support particular industry sectors. In 2009 Germany introduced “abwrackprämie”, a scheme that paid 2500€ for the wreckage of an old polluting car. This might seem like an environmental initiative, but from an economic perspective, it’s a classical fiscal stimulus. Consumers were encouraged this way to buy a new car. As the automotive market is dominated by large enterprises, they were effectively subsidized by stimulating the demand for products they sell (Kickert, 2013). The very different type of fiscal stimulus was implemented in Poland. In 2015 the government introduced monthly allowance to all parents, no matter the income. The effects have been widespread, but most apparent in the lower quartile of society. This handout policy boosted domestic consumption in general, but tourism and education, where SMEs are more present, were the biggest beneficiaries. (Gromada, 2017) Alternatively, the government can cut taxes or conduct fiscal consolidation<sup>17</sup>.

It can influence the wages too. Since the state is one of the biggest employers in the economy, cutting wages in administration sets the downward pressure on labour in both the public and private sector. When in 2009 the Latvian government cut wages by 20% private businesses followed suit (Zasova, 2015).

Access to capital determines whether budget tools can be used to counteract the recession. During the crisis, many governments could not borrow money at an affordable rate. In consequence austerity measures were imposed. Reductions in public spending all together with falling purchasing power limited domestic business opportunities. This left many small firms stranded in the situation when they couldn’t find customers, neither at home or abroad. To make matters worse, under reactionary regulations financial institutions could not provide demanded credit action. The governments, in turn, could not supplement for that by opening its own credit line for businesses. It can be observed that, where the long

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<sup>17</sup> Fiscal consolidation describes government policy intended to reduce deficits and the accumulation of debt. ( Eurostat)

term interest rate on treasury bonds was low, the government was more active in stimulating the economy, which limited the effects of the turmoil.

## 9. Empirical Results

### a) Descriptive Statistics

Over the course of the crisis, there has been observed great amplitude of change in the value of selected variables. It appears to be natural for the period of economic distress. In figure 3. There could be observed the growth rates over the years of crisis. The maximum observed value of GDP Growth rate is as high as 12,4%, while the lowest equal -14,5 %. This reflects well the nature of crises that are usually preceded by the time of prosperity, which in several cases leads to overheating of the economy. Both the minimum and the maximum value were noted in smaller economies. Standard deviation among small economies is as high as 5.36, while for large countries it's significantly lower, 3,55. This suggests they are less stable than large states, despite a higher share of SMEs in TVA. This is also observed in changes in rates of this variable. The standard deviation within a country in the lowest population category was 6.5 while the rate for large states was much lower, 4,4. The average share of SMEs in TVA for big countries was 53 %, while in the lower size category 66%. ( See Fig. 4 and Fig. 5)

## b) Data Analysis

Table.1 Parameter Estimator for Logistics Model of GDP Growth as a function of SMEs Share in Total Value Added

Random Effects ( Intercept, Slopes)	Estimate ( $\beta$ )	Standard Error	z	P-value <sup>1</sup>	CI95 Lower	CI95 Upper
Intercept	12.74686	3.460813	3.68	0.000	5.963788	19.52992
SMEs Share in Total Value Added	-.0848882	.036016	-2.36	0.018	-.1554783	-.014298
Trade/GDP Ratio	-.0045015	.006445	-0.70	0.485	-.0171334	.0081305
Long Term Interest Rates	-.4667795	.1218372	-3.83	0.000	-.705576	-.227983
Currency Regime	-.3694549	.7784293	-0.47	0.635	-1.895148	1.156239
Population Size	.2529015	1.326305	0.19	0.849	-2.346609	2.852412
Clusterization Rate	-.1823484	.2428513	-0.75	0.453	-.6583282	.2936314
2008	-3.31495	.6415331	-5.17	0.000	-4.572332	-2.057569
2009	-9.916049	1.603778	-6.18	0.000	-13.0594	-6.772702
2010	-2.331155	.7346171	-3.17	0.002	-3.770978	-.891332
2011	-1.931527	.5647604	-3.42	0.001	-3.038437	-.8246167
2012	-4.327304	.5114544	-8.46	0.000	-5.329736	-3.324871
2013	-3.97993	.649329	-6.13	0.000	-5.252592	-2.707269

<sup>1</sup> All p-values are two tailed

*H<sub>0</sub>:  $\beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = 0$*

*H<sub>a</sub>: The Share of Small and Medium-sized Enterprises in Total Value Added rises when the economic growth is in decline (  $\beta_1 < 0; \beta_2 > 0; \beta_3 < 0; \beta_4 < 0; \beta_5 \neq 0; \beta_6 < 0$  ).*

In order to confirm the possible rejection of the Null Hypothesis, the random effects model in Table.1 needs to be examined.

First of all, the estimate for SMEs share in TVA is negative, and significant ( $p=0.018$ ) at 95% Significance Level. This confirms the hypothesis that SMEs behave countercyclically. The results suggest that during the years of recession their contribution to TVA was rising.

Another variable that has a statistically significant influence on economic performance is long term interest rate ( $p=0.00$ ) The negative value of coefficient reflects that possible access to capital allows the government to act in the critical situations. Interestingly, including dummy variables for years allows seeing changing situation over the turn of the crisis. Such a strong impact is attributed to the psychological effects of the economic downturn. Interestingly, the trade variable turned out to be insignificant. ( $p=0.485$ ) That is against the expectation. It could be speculated that such big effects of year dummy, particularly, the year 2009, could be explained by the investors' panic that led to the market collapse and widespread pessimism among businesses. The model predicts a high coefficient of currency regime that would suggest a big advantage on the side of countries with floating exchange rate, yet due to p-value ( $p=0.405$ ), the no-effect condition that the countries did not vary along the currency regime lines cannot be rejected. Influence of both population size and cluster indicator cannot be confirmed too. The reasons for the lack of significance of the coefficient of Population Size and clusters might be their ambiguous role. The big size may act in an economy like a cushion limiting the losses but also holding back contraction. (Wesley and Peterson, 2017)

Table. 2 Parameter Estimator for Logistics Model of GDP Growth as a function of Country-SME Level Category

Random Effects ( Intercept, Slopes)	Estimate ( $\beta$ )	Standard Error	z	P-value <sup>1</sup>	CI95 Lower	CI95 Upper
Intercept	8.932798	2.883655	3.10	0.002	3.280937	14.58466
Country-SME Level Category	-.7668962	.4854479	-1.58	0.114	-1.718357	.1845643
Trade/GDP Ratio	-.004781	.006505	-0.73	0.462	-.0175306	.0079687
Long Term Interest Rates	-.5035841	.1438043	-3.50	0.000	-.7854353	-.2217329
Currency Regime	-.3693807	.7728655	-0.48	0.633	-1.884169	1.145408
Population Size	.5009818	1.235132	0.41	0.685	-1.919833	2.921796
Clusterization Rate	-.2079924	.2330223	-0.89	0.372	-.6647078	.2487229
2008	-3.573564	.5973451	-5.98	0.000	-4.744339	-2.402789
2009	-9.290514	1.019867	-9.11	0.000	-11.28942	-7.291611
2010	-2.530099	.6615623	-3.82	0.000	-3.826737	-1.23346
2011	-2.666455	.605966	-4.40	0.000	-3.854127	-1.478784
2012	-4.51362	.5167688	-8.73	0.000	-5.526469	-3.500772
2013	-4.239347	.649765	-6.52	0.000	-5.512863	-2.965831

<sup>1</sup> All p-values are two tailed

$$H_0: \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = 0$$

$H_{1_1}$ : Countries with higher level of SMEs in its structure have performed better

$$(\beta_1 > 0; \beta_2 > 0; \beta_3 < 0; \beta_4 < 0; \beta_5 \neq 0; \beta_6 < 0).$$

$H_{2_2}$ : Countries with lower level of SMEs in its structure have performed better

$$(\beta_1 < 0; \beta_2 > 0; \beta_3 < 0; \beta_4 < 0; \beta_5 \neq 0; \beta_6 < 0).$$

The statistical analysis suggests that the null hypothesis cannot be rejected at 95% Confidence Level (p= 0.114), but borders with significance at 90% Confidence level. The negative coefficient suggests that the countries where SME contribute less to TVA performed better over the years of crisis. The possible explanation is that despite the countercyclical behaviour of SMEs, the industrial structure where the contribution to TVA is roughly equal ( level category 1) is the most optimal. At the same time in such level of confidence, any interpretation should be made with scepticism. The other coefficients behave in the same way to the previous model.

## 10. Regional Cases

### a) Baltic States

The small size of the domestic market makes SMEs behave in a very different way than in large economies. Over the last 20 years, Estonia despite a small population and a rather modest GDP of 30 bln \$, has made its name as an innovative economy and a home for many start-ups. Tõnu Roolaht points out for openness of local firms as a source of this success (Roolaht, 2016). These “born-global” small enterprises often skip a domestic phase of business development. Instead, they try to make their way abroad from the very begin. Since such an environment is usually more challenging than the local one, they have to present high-quality products and inventive approach. However, this positive message hinders the other side of the coin. Firms in the countries that possess neither a big domestic market nor an industrial cluster simply have no choice but to go abroad from the very start. From the perspective of last 30 years, which is from the proclamation of independence and foundation of the free market in post-soviet republics of Lithuania, Latvia and Estonia, the economic model based on small exporting enterprises turned out to be extremely successful. If measured by local purchasing power parity, product Brutto per capita more than quadrupled (World Bank, 2019). For a decade before the crisis, these small economies experienced average growth rates above 6%. Fuelled by foreign investments and rising trade volume, they earned the reputation of “Baltic Tigers”. The economic boom reached a peak in 2008. All three countries, countries experienced double-digit falls caused by reduced liquidity from western banks, high inflation and decline in demand among their trade partners. As all of them maintained a fixed exchange rate to euro, no monetary tools were possible to help out the businesses. This worsened the situation further. In a blink of an eye, Baltic Tigers turned from role models of economic cooperation to negative examples of economic exposition.

This case illustrates that openness cuts both ways. On one hand, this economic exchange allows firms to achieve higher growth rates and stimulates knowledge-based business model. On the other, in the crisis of 2008 many SMEs in the Baltic States fell into the trap. The demand among the export markets fell hitting both small and large enterprises. Tightened liquidity exacerbated the negative effects. Due to lack of financial capabilities, small firms could not shield themselves from the consequences of external shock, nor could they switch to the local market. This one was too small. Olivier Blanchard<sup>18</sup>( Blanchard et al.

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<sup>18</sup> The chief economist of the International Monetary Fund in the years 2008 -2015, when the IMF- and EU-supported program was designed and implemented.

2013), analyses the case of the crisis in Latvia, yet a similar diagnosis applies to its Baltic neighbours. (Aslund, 2010) In the face of challenges, they decided to reach out to the IMF<sup>19</sup> and induce painful reforms. Despite temptations, they all decided to stick the currency board<sup>20</sup>, which meant internal devaluation. The wages in Latvian administration were cut by 20%, the average unemployment rate in the region rose from 6,5% to 18%. At the same time, the government conducted consolidation but lowered the taxes. This gave a positive impulse to consumers and businesses, especially small firms. Improvement in liquidity due IMF program allowed many of them to grow again. Interestingly, in Latvia, this happened also due to the recapitalization of foreign subsidiaries. In contrary to local banks, in the eye of crisis, they could turn to parental banks from Scandinavia. As a consequence, the domestic conditions for business improved, as observed in the rise of both GDP and SMEs share in Value Added. Generally speaking, compared with the South they recovered relatively quickly. Estonia and Lithuania noted economic growth just a year after, while Latvia needed 2 years. Then again, after the hike in 2009, it took 8 more years to bring unemployment to pre-crisis levels. Massive emigration was another negative consequence, which was possible due to the open borders.

It might seem opening up too much caused the turmoil in these economies. In reality, without helping hand from outside they would not recover that soon. In all three, this was possible due to loans from IMF, painful internal devaluation and liquidity restored by foreign banks. Fixed rate regime has been blamed for many of the problems, but the literature suggests that small open economies are sensible for capital flows, therefore cannot absorb large exchange rate movements and the peg is the only sensible option (Bandasz,2012). While the limited size of the domestic market does not allow SMEs to find its harbour during the recession, stronger integration within a direct neighbourhood could imitate bigger domestic markets. Another way might be encouraging migration to urban areas to strengthen the effects of agglomeration economies.

## b) Central Europe

The conditions for running a business are significantly different for firms in large countries. When the demand for products abroad falls, the domestic market offers an alternative sales market. Certainly, domestic reorientation requires adjustments, especially if profit margins are lower locally. Despite the smaller size, a local market is a feasible option for SMEs. This sort of “economic depth” allows big countries to accommodate the negative influence of the

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<sup>19</sup> International Monetary Fund - an international agency providing financial assistance to states

<sup>20</sup> A form of fixed currency exchange agreement



external environment. The local market, however, should not be treated as a safe spot for uncompetitive firms. In fact, economic hardship encourages many clients to look for cheaper substitutes abroad. Over years of Financial Crisis, export from Poland to Germany has been steadily rising and declined just once in 2009 when the German economy experienced 5.29% slump. (Ziółkowski, 2012) This proves a crisis is a threat for some, but an opportunity for the others.

According to the interviewee, the firm he runs has not experienced any export problems during the recession in Europe, despite being heavily involved in the western markets. ( See Appendix ) He admits that reorientation towards foreign markets was a gradual process and the company grew on local clients first. Access to a large number of customers from the very start makes the business environment significantly easier. Big markets, however, attract global players with deep pockets, as well as local giants that simply want more space for themselves. This can explain the relatively low share of SMEs in Value Added in Poland and Germany. SMEs make up there around 50%, while in the Baltics it can be high as 82%. Many small businesses then, need to compete with large corporations. They contend not only for customers but for labour too. Big enterprises can offer higher wages which sets the pressure on small businesses. Access to financing as a major problem of SMEs too. Their struggle is harder in big states, where they do not have as personalized relation as in small markets. (Mandl, 2013) Nevertheless, understanding local clients and familiarity of local business culture are always on the side domestic firms. Such an advantage cannot be overestimated. This was proved in the early 2000s when eBay was competing in the polish retail market with home-grown Allegro.pl. A better understanding of local customers led the latter to dominate the market, while currently, eBay is barely present. ( Romaniuk and Kosmalski,2009) The same applies to an even smaller scale. Especially in the case of agglomerations, small firms can build a strong position at a local market and out-compete big players.

The experience of crisis in Central Europe demonstrates that size matters. In the course of disturbance, it plays a stabilizing role. While growth rates in Poland were on average lower than in the Baltics, this country experienced no recession, proving rather slow but steady development. Despite difficulties in 2009, when all countries but Poland, experienced at least 5% drops in GDP, the region has not fallen into long-lasting stagnation. Even though SMEs share in domestic industrial structure is low, it is this sector that should be credited for rebalancing economy. Then again, business conditions in the regions have been relatively good for SMEs.

First, all these countries are economically open. As presented in the previous case, this can be rather negative amid crisis. In fact, the decline in trade could be blamed for the slowdown, but in contrary to the Baltics, entrepreneurs in Central Europe could to switch domestic

market and start exporting again when the demand abroad increased. Even smallest of all, Slovakia has 5,5 mln residents, almost as much as all Lithuania, Latvia, Estonia combined. This allowed to wait out the storm. The mechanism is more visible in significantly bigger economies such as Poland or Germany, where amplitude in the change of economic coefficients was lower.

The currency regime played an important role too. In this region, only Germany and Slovakia operate under fixed exchange arrangement. Bandasz (2013) argues that, while the wider influence on the economic development of the state is far more complex, it turned out to be the key factor that allowed Poland to stay competitive and avoid recession during the crisis. On the other side, the depreciation that happened in Poland, the Czech Republic and Hungary, was so high that it seriously disrupted these economies. Within half year Złoty lost 48% value towards Euro. The reductions in two other countries were around 24%. Many businesses, mostly financed by loans in foreign currency, paid a high price for, but it took a bigger toll on individual loan owners whose liabilities suddenly skyrocketed. A sudden increase in the real value of credits caused a great deal of concern whether foreign-denominated loan segment will bring the whole financial sector down or not. On the government side, debt levels rose significantly, as these countries borrowed a lot in other currencies. The situation was considered by IMF so serious Poland was granted open credit line. It was far worse in Hungary, where the government had to ask the IMF for financial assistance (Aslund, 2010). Due adoption of Euro, Slovakia avoided the fate of its neighbours since the common currency provided the stability, but lost price edge over its competitors. In Poland, this drastic depreciation gave a positive boost to the economy. The direct result was a significant decline in import. As a result, the local industrial base was strengthened to fulfil domestic demand. The free-floating currency also let the country keep inflation levels in check. This triggered a rise in export that has become the motor of growth since then. In other words, the currency movement absorbed most of the shock that happened as a result of the crisis. This is also the reason why support for Euro adoption has been relatively low in Poland, despite generally high levels of support for European integration. (Rosati, 2013) Better cost structure, due to own currency, was mentioned in the interview as the fundamental advantage over competitors from other countries. (See appendix) Despite fluctuations and costly financial services, this means own currency has been valued by small entrepreneurs for the flexibility and accommodation it provides. At the same time, the turbulence caused by depreciation led to a far worse outcome and a rather slow rebalancing in Hungary. It is fair to say then, that significantly better economic performance of Poland was due to the unique set of conditions, yet the modesty should be seen as a common feature in Central Europe. Over the years, all the states did their best to keep the economy growing at a lower, but a sustainable rate. They ran countercyclical monetary

policy. Despite budget deficits, the debt levels remained relatively low and wages were pushed to follow labour productivity gains only. Apart from Hungary, none of the states fell out of liquidity, as the current account deficits have been modest over the years. Finally, in this case, Poland and Germany were able to offer big domestic markets. In these conditions, small firms could make the best out of their opportunities. Then again, while the domestic market might be good enough for SMEs, it might fall short of Large Enterprises' needs. During crisis years share of large enterprises in the structure of German Total Value Added sunk as low as 43% from 48%. (See Fig.6 )This proves how important role SMEs played during these years.

### c) The Continent

The analysis of Central Europe would not be complete if it wasn't placed in the continental context. It is quite often portrayed as if the crisis was actually not a pan European phenomenon, but rather local problem somewhere in peripheries. (Katsimi and Moutos, 2010) This image is especially common due to the economic tragedy of Greece. In reality, the crisis began among in most advanced EU countries and spread all around the continent. They all experienced a period of economic decline. In fact, it took 6 years from 2008, for Eurozone to restore GDP per Capita to the pre-crisis level. (Tervala and Engler,2010) Nevertheless, Southern Europe and the Baltics indeed experienced the greatest pain. The unemployment rates in the South are still the highest in the EU, while nowhere GDP growth rate fell as low in Estonia, Latvia and Lithuania. The recession was transmitted by connected financial markets. Many countries were financing their current account deficits<sup>21</sup> through loans in Western banks. After several bankruptcies in the banking sector, the costs of this operation became unbearable for many countries, which undermined investors' confidence and led to the sovereign debt crisis. (Heins and de la Porte, 2014) On the other hand, risky practices in the banking sector in core European countries should be also credited for this turmoil. The volume of bad loans, that had accumulated after 2000's undermined the financial fundamentals of states. When the housing bubble burst there were no reserves to cover the losses. At the same time banks were too important, "too big to fail", and state authorities rushed to help. The financial markets disruption stemmed the liquidity, which led to a general decline. The effects of the crisis spared no country. All of the states experienced negative consequences, high unemployment, years of stagnation and debt accumulation. The business conditions significantly deteriorated, which led to waves of bankruptcies and troubles among top European corporations. The most drastic form of the crisis was observed

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<sup>21</sup> Current Account Balance- Sum of capital flowing in and out of the country. It is a sum of net export and net investment

among so-called “PIIGS<sup>22</sup>” countries and in the Baltics, yet there’s a key difference between crisis case in new EU-member states and old EU-15<sup>23</sup>. In the whole EU-15, the turmoil was triggered externally, but it was due to internal causes. In the case of newer EU-members, it was transmitted from wealthier states. The fall in demand on western markets and harder access to the capital led to a decline among CEE states. For this reason businesses in the East restored fairly soon, while enterprises in the rest of the EU experienced almost a decade of stagnation. (De La Porte and Heins, 2016)

## 11. Limitations

Among other variables that have a significant impact on the situation of SMEs, yet have not been included is the geopolitical structure of the state. In centralized states, economic activity focused more on the cities rather than regions. It can be observed in access to financing. The very strong regionalization in Germany causes financial institutions to be more present locally and create a close connection with small firms. The history matters too. In Italy or Germany, these links are passed over generations, while in Eastern Europe many banks established only 20 years ago. They are still more present in big cities and need more time to build long-lasting relations.

Another crucial aspect is the political culture of the state. The commitment to hard reforms, including significant wage cuts, has been high among societies of the Baltics, while in Greece voters rejected them and elected the populist government of SYRIZA. The social emotions were among the key elements behind the resurrection of economies in Central Eastern Europe.

Share in Value Added is troublesome due to the mobility of businesses within.

For example, a large company that was forced to reduce labour can be classified in new conditions as a medium-size. This happens however not as proof of successful performance, but rather the symbol of struggles. On the other hand, the successful medium-sized firm might be promoted to “Large Enterprises” label, which technically reduces the SMEs contribution to Value Added. This problem could be solved by following up companies over the years. Bartz and Winkler (2015) eliminated the effect of mobility this way, but such a method requires access to high loads of data to be used on an adequate scale. Unfortunately, this was beyond the capabilities of this research.

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<sup>22</sup> Portugal, Ireland, Italy Greece, Spain

<sup>23</sup> Group of EU member states before enlargement in 2004

Finally, according to the literature, the size of the national GDP matters a lot for the share of SMEs. Small economies tend to have a higher value than large markets. Controlled for the trade-to-GDP ratio, that means SMEs participates in the bigger transregional economic areas. For this reason, it needs to be considered in relative terms.

## 12. Conclusions

This paper addresses the issue of small and medium-sized enterprises' influence on the economic performance of a country in the time of recession. It was tested whether the high share of SMEs protects or limits the negative impact of the crisis on the economy. The studies contribute to debate on the optimal state development model and sustainable growth over all phases of the business cycle. The study relied on data also from countries beyond the selected area of interest due to the scarcity of information. Focusing on the influence of the SMEs sector is relevant in the context of crisis resilience, due to its big role in the economic structure of Central Eastern Europe. The results might have an application beyond the selected region as it's a common feature of the business structure of many European countries. Although there are benefits to the chosen approach, there are certain endogenous conditions of Central Europe that limit generalizations of the findings.

The results of regression do not provide evidence that countries with high SMEs share in Value Added performed better over crisis than those with lower. It might seem like an argument undermining the importance of SMEs, but the reality is that there might be another explanation in regards to the nature of small countries. They tend to have higher SMEs share in Value Added, but for other reasons, their economies are more vulnerable. Homogeneity of samples in the database is to blame too. With regards to the selected control variables, all of the small countries under observation present the same characteristics. The long term interest rates variable is the only one where variations are noticeable. In other words, the high level of SMEs in the industrial structure was associated with the group of the most vulnerable states.

More troublesome, however, is the causal relationship between economic growth and business activity in general. In fact, it is quite unsolvable which one of them sets the reaction in motion. On one hand, GDP growth is at large the outcome of business activity, but on the other business, decisions are made in anticipation of the economic situation. Essentially, this relation reflects a mechanism of human psychology and behaviour, which require a different type of analysis.

The hypothesis of countercyclical behaviour of SMEs on the macroeconomic scale finds confirmation in the data. That suggests they play the role of an economic buffer according to expectations.

The lesson of crisis from countries of Central Eastern Europe contributes to the understanding of mechanisms in the modern globalized economy. It exposes not only positives but also weaknesses of economic openness. After all, the region as a whole has done relatively well, recovering within just a year or two, due to its strongly export-oriented model. The sector of Small and Medium-sized Enterprises should be perceived as a positive force in fighting recession. In fact, over the crisis, their contribution to employment rose, proving their role as the economic anchor of the country. In light of this evidence, it is essential to ask what the government could and should do to support this sector. There is empirical evidence that direct interventions usually have limited effects (Storey 1998; Storey and Potter, 2008), and therefore the focus should be placed on creating better business conditions. This could be achieved by improving access to financing, through government guarantees or support in finding investors. (Erixon, 2009) Another aspect that requires more attention is SMEs participation in international trade. Currently, they have to take full exposition risk. Promoting schemes allowing for risk-sharing would not only limit harming effects to currently exporting SMEs but also encourage others to join. Finally, the authorities should promote diversity of export directions. This would allow mitigating the negative effects of regional business cycles. In order to do so, the authorities could act as intermediaries between foreign clients and domestic firms through the network of trade agencies. (Erixon, 2009) .

To conclude, the good, healthy economy is not the homogenous one. It needs both large and small enterprises, both manufacturing and services, and both export and domestically-oriented firms. The diversified industrial structure serves itself as an element mitigating the negative effect of economic shocks (Kirkpatrick et al., 2012). This naturally, conflicts with specialization (Kirkpatrick et al., 2012), but striking the right balance explains the success of Poland and other countries better than anything else.

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# Appendix

Fig.1

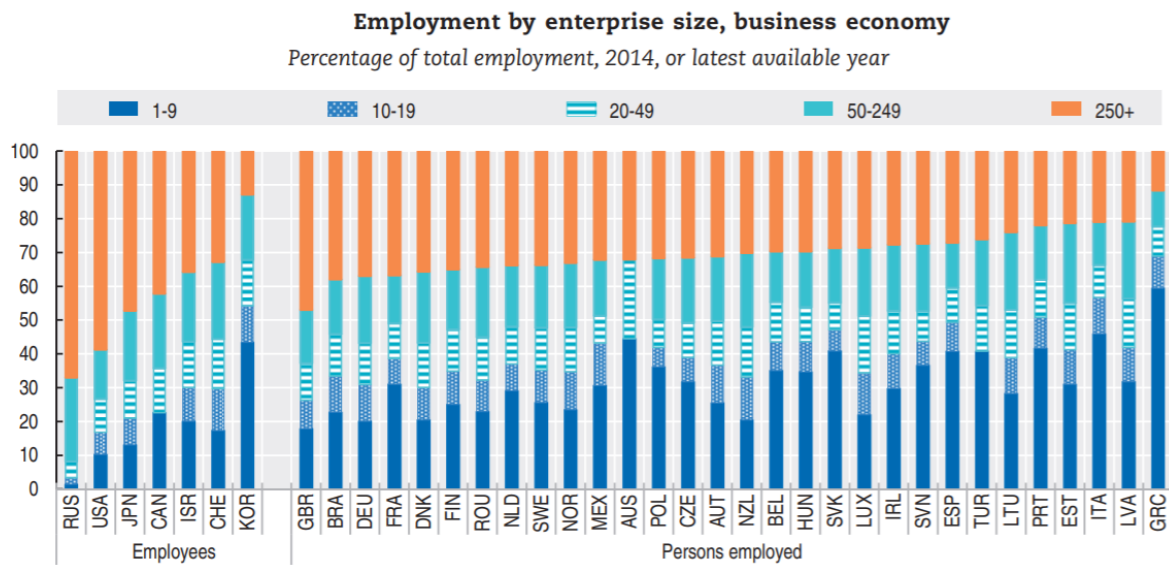


Fig. 2

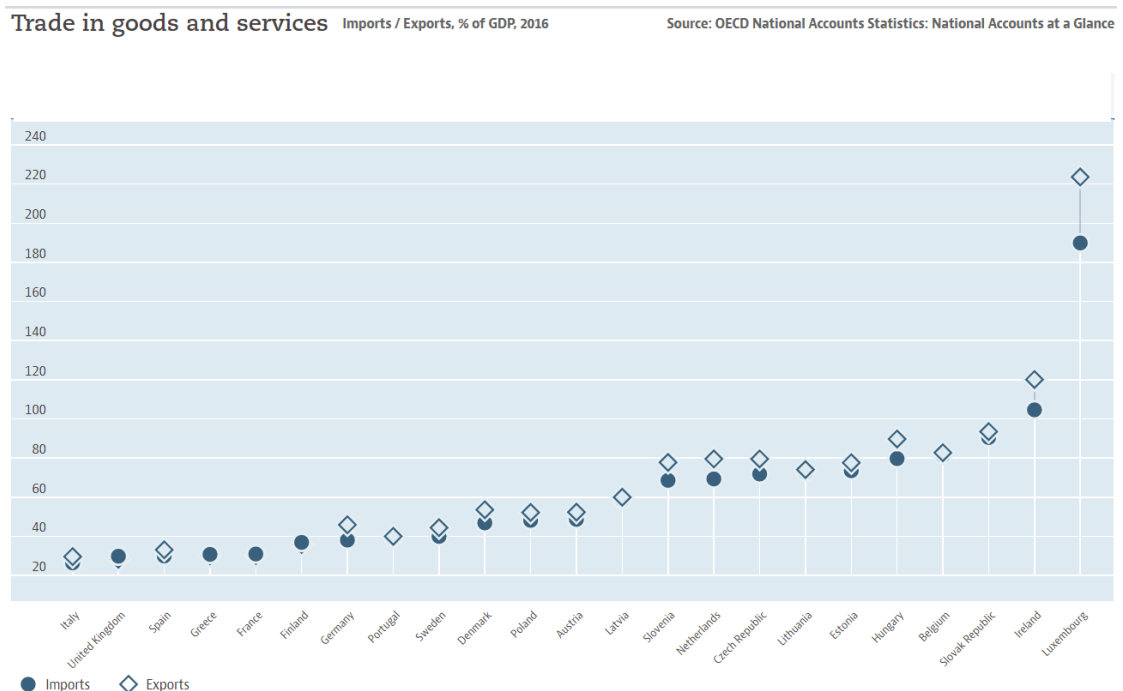
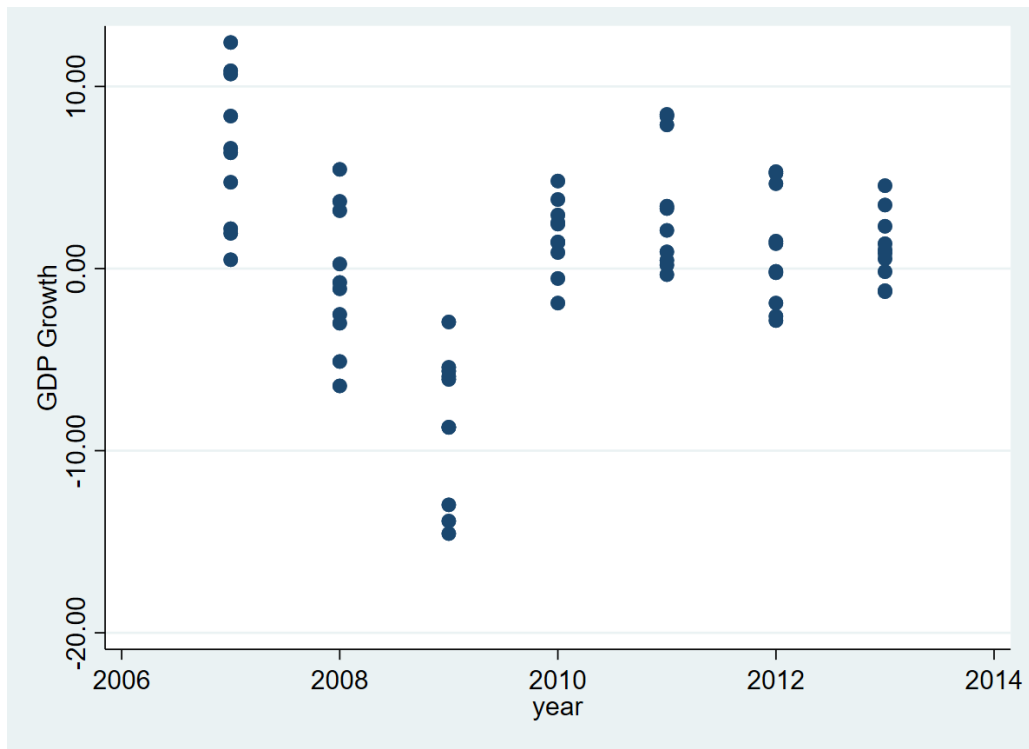


Fig. 3



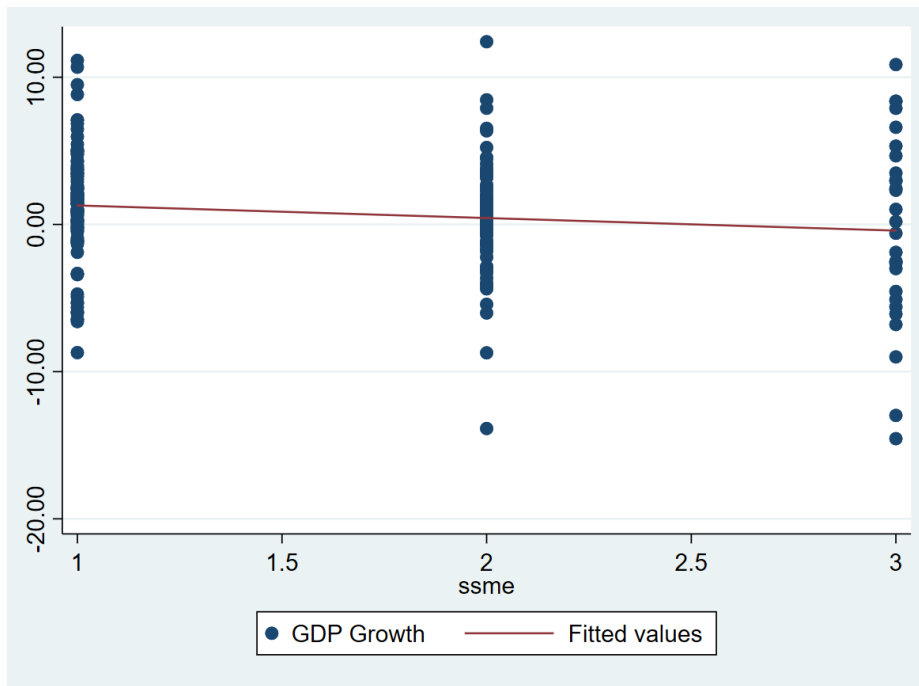
GDP Growth rates over the years

Fig.4



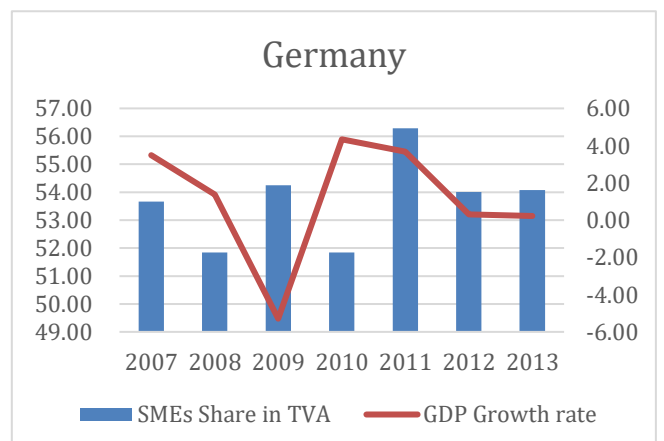
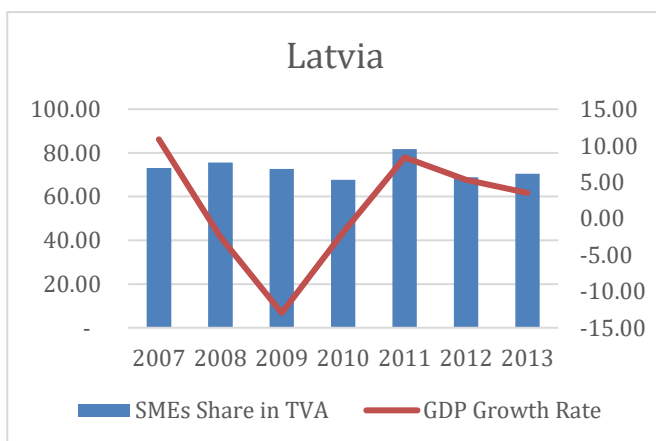
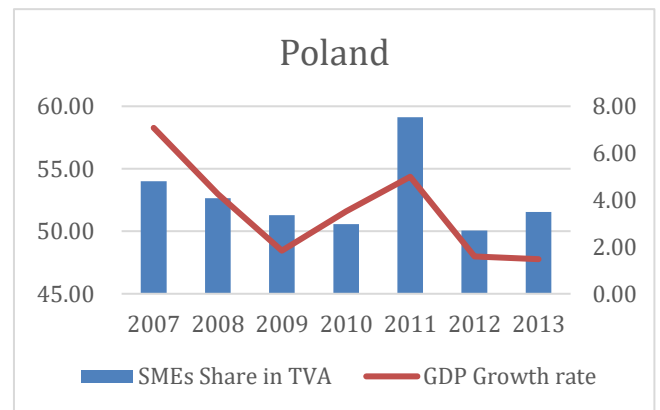
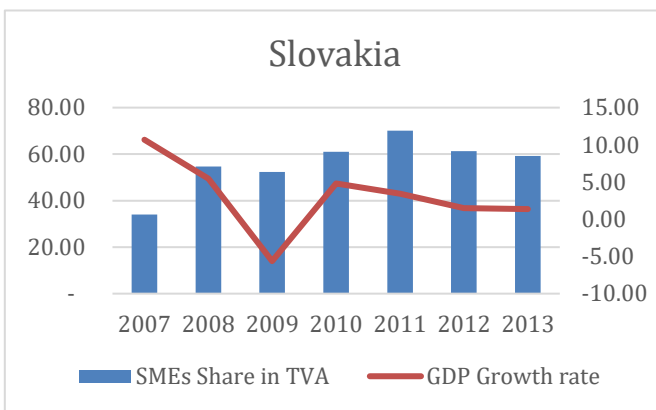
Share of SMEs in TVA over the years

Fig. 5



Relation between GDP Groth and Country-SME Level category

Fig.6



The Evolution of SMEs Share in TVA in relation to GDP Growth rate

# The Interview

1. What is the size of the firm you work in?
  - *It's a medium size company*
2. What are the advantages of that size?
  - *I wouldn't really say that there are any particular benefits. It is simply natural level when you develop the company. It's not any sort of big corporation*
3. What are the biggest challenges due to that size?
  - *I never worked in any big corporation, but I think for firms like ours it is harder to access credits, but you can make it. It just requires more effort. Naturally your bargaining power is not as big as these corporations, but it does not matter that much to me. You do what you can with your company*
4. What is the profile of that firm, is manufacturing firm or retail?
  - *We sell our own products*
5. What is it the profile of an average customer?
  - *Among our customers there are mostly other small and medium-size firms. We don't deal with individual clients and rather rarely with large enterprises*
6. Is the company engaged in the international trade?
  - *We produce mostly for export. We create our own products and use mostly local partners with other things like transport and so. But we started locally and have been selling in Poland too. At the begin mostly in Poland, but gradually more and more abroad, and now almost everything goes for export*
  - a. What is the main reason to export?
    - *Much bigger market*
  - b. What are the main markets?
    - *The west, Germany Netherlands, sometimes Austria or France*
  - c. What are the benefits of exporting?
    - *Simply much bigger market, but also the clients there are better situated financially*
  - d. And what about the challenges?
    - *Currency risk, the markets are far away, it's harder to contact with these partners then, but also higher costs of running this business, domestically it's cheaper, closer, little easier*
  - e. Do you think this model if optimal for your company?
    - *Yes, I think so, it gives more possibilities to grow and higher profit margins*
  - f. What are the main challenges of cooperation with foreign partners? What are the difference as compared with domestic partners?
    - *It is very different, you have to learn to do it. Their expectations are much higher, especially with regards to quality of products, being on time, quality of service*
7. Does location have a big influence on functioning of the firm?
  - *It does, but it is really not that big*

- a. Is there any reason to be located in this place?
    - *Wouldn't say so*
  - b. What are the main benefits and disadvantages?
    - *We are basically located in the countryside, pretty far from the cities, if you need to access some services you either have to go to the city or make larger orders. Over here there's a problem with finding people to work. Infrastructure is also not that good, but there are benefits. We are close to western border and there's good access to raw material. That's very important*
  - c. Do you think that changing location would bring any positive effects
    - *No, I don't think so. When you export, good road infrastructure is more important, you don't need cities*
8. Do you think that having a national currency has positive influence on functioning of your company?
- *Absolutely*
  - a. Why?
    - *Thanks to Zloty we have much better cost structure. Otherwise, we would be so much more expensive and the competitiveness of our products would be much lower on the western markets*
  - b. Would you be in favour adopting Euro in Poland?
    - *Definitely not. It is very good having our currency.*
9. Did you experience any effects of Financial Crisis in years 2007-2013?
- *No*
  - a. Even at foreign markets?
    - *No, I can't say that we actually experienced the crisis.*