Monetary Union and Floating Exchange Rate as Factors Affecting Economic Processes in an External Economic Crisis: A Comparative Study of Poland and Slovakia

By
Krzysztof Bandasz

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Abstract

This thesis examines the impact of different exchange rate regimes on economic conditions during an external economic shock. It focuses on the recent global recession of 2009 and analyses its impact on two emerging market economies: Poland and Slovakia. These countries share many similarities, such as location, main trade partners and the general level of development. However, they adopted radically different currency arrangements, which determined the way their economies were influenced by the economic turmoil. The thesis presents how the exchange rate regimes diverged in both countries during the pre-crisis years. It examines the role of the foreign loans and the export structure as potential factors influencing the Slovak and Polish economies. Several economic indicators are analysed and compared, including trade balance, inflation, conditions in the tourism sector and credibility with the investor community. The analyses are based on the exchange rate regime theories, which are briefly presented in the paper. The thesis argues that Poland substantially benefited from its monetary autonomy and the depreciation of the Polish Zloty. The weaker currency triggered a significant expenditure switching effect and improved balance of trade. The membership in the eurozone had a blurred impact on Slovakia, it increased stability and credibility, however, it did not allow nominal adjustments to cushion the real economy.

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Introduction

The financial and economic crisis of 2008-2009 strongly influenced countries in the whole world, however, Central and Eastern Europe (CEE) was particularly severely affected. CEE countries are highly dependent on the economic situation of their western partners and the two regions are highly interconnected, that is why the external shock could have such a sweeping impact on the economic condition in the CEE. The crisis came to the region mostly through two channels: via financial markets and international trade. Western Europe is the most important trade partner for CEE countries and receives more than a half of regional export, while export accounts for the majority of regional GDP. The abrupt drop in export to the Western Europe and the frozen financial market pushed the region into a severe recession.

In the modern world the exchange rates largely influence all international transactions conducted between two different currency areas. According to Article IV of the Amendment to the Articles of Agreement of the IMF, states can freely decide on the currency regime they want to adopt. The most common classification of exchange rate regimes distinguishes between flexible, intermediate and rigid exchange rates arrangements, which are subsequently divided to subcategories. The CEE countries adopted diverse exchange rate regimes, which provides a valuable opportunity for comparative research.

The theoretical literature thoroughly presents the advantages and disadvantages of particular exchange rate regimes, however, it is mostly focussed on static, stable environment, which is far from crisis conditions. The ongoing debate about the Euro and the economic crisis is mostly concentrated on the southern Member States and Ireland, which were hardly hit by the recession. However, research on the impact of the Euro on the economies of the New Member States such as Slovakia or Slovenia is much more rare. A future membership in the eurozone is a highly debated issue in Central and Eastern Europe. The recent crisis is a clear example that both

having the Euro and staying outside the eurozone can influence countries in a positive and negative way. R. Mundell, the Nobel Prize winner known for the Optimum Currency Area Theory, supports the further expansion of the eurozone and declares that this process is profitable for the newcomers.[1] However, numerous studies show that maintaining its own currency during the financial crisis was beneficiary for the Polish economy, which can constitute an important argument for the supporters of national currency. The opinion about the positive impact of monetary independence was supported by S. Skrzypek, the Governor of the National Bank of Poland[2] and many academics.[3] At the same time Slovak monetary authorities claim that the Euro sheltered financial institutions from the turmoil, increased the credibility of the country and brought stability.[4] The better understanding of the consequences of different exchange rate policies conducted under external economic shocks is necessary to comprehensively assess the Euro currency and its role in stabilizing and destabilizing or stimulating and weakening an economy in crisis circumstances.

In the thesis, I analyze the impact of different exchange rate regimes in the specific, above briefly explained crisis conditions. The main aim of this thesis is to answer the question whether having the euro during an external economic shock was beneficiary for a country from CEE. To address this problem, I examine and compare the different patterns of economic processes in Slovakia and Poland. I argue that in spite of the popular belief in the benefits of the Euro, in a short term it can be more advantageous for a CEE country to maintain its own currency, especially during an external economic shock.

[1] Robert Mundell presented his opinion on this topic during the Global Finance Conference in Poznan, Poland, in Jun 2010.
[2] Sławomir Skrzypek, "A case for rapid euro adoption?" in *The Euro and Economic Stability. Focus on Central, Eastern and South-Eastern Europe*, ed. Ewald Nowotny, Peter Mooslechter and Doris Ritzberger-Grünewald (Cheltenham, UK, Northampton, MA: Edward Elgar Pub, 2010), 37.
[3] See for instance: Tomasz G. Grosse, "Euro w kryzysie: wnioski dla Polski," *Polski Przegląd Dyplomatyczny* 10, no. 2 (March-April 2010): 81.
[4] Ivan Sramko, "Slovakia's Experience with the Euro," in *The Euro and Economic Stability. Focus on Central, Eastern and South-Eastern Europe*, ed. Ewald Nowotny, Peter Mooslechter and Doris Ritzberger-Grünewald (Cheltenham, UK, Northampton, MA: Edward Elgar Pub, 2010), 86-88. Martin Suster, interview by author, Bratislava, 09 May 2011.

The choice of these countries was motivated by several reasons. Poland and Slovakia adopted radically different regimes, respectively flexible and rigid ones. Both countries belong to the Visegrad Group and border each other, which means that their geographical location does not constitute a significant difference between them. Moreover, their level of development is very similar, as well as main trade partners and both countries experienced high economic growth during immediate pre-crisis years. These factors constitute a reason why the comparison of these countries is particularly noteworthy. The important factors which differentiate these two countries are their size and economic openness, and therefore the they will have to be closely monitored. The cases were selected on the independent variable.

The thesis follows the post-positivist approach and examines whether economic processes determined by different exchange rate regimes were in line with the predictions derived from existing theories and concepts of international economic relations. The thesis has a deductive, empirical character and applies hypothetico-deductive method. Because of the small number of cases and numerous variables, the comparative analysis follows the pattern of comparative method.[5] I utilize a case-oriented approach and the economic processes in Poland and Slovakia are thoroughly examined and described in details.

In my work I use four types of sources, starting with economic literature devoted to the topic of exchange rate regimes. *International Currency Arrangements and Policies* by J. Horvath and *Exchange Rate Regimes in the Modern Era* by M. Klein and J. Shambaugh, together with numerous working and occasional papers provide a sound theoretical background of this thesis. The second type of sources constitute of reports, publications, and recent analyses, published in the years 2008-2011 and focused on the economic situation in Poland, Slovakia or the broader CEE region. There are several institutions, which offer many relevant and current publications about

[5] I follow the division of comparative analysis into three methods presented by D. della Porta. See: Donatella della Porta, "Comparative analysis: case-oriented versus variable oriented research," in *Approaches and Methodologies in the Social Sciences: A Pluralist Perspective*, ed. Donatella della Porta and Michael Keating (Cambridge: Cambridge University Press, 2008), 200.

the economic processes in Poland and Slovakia, including the central banks of both countries, policy institutes, the IMF, or the European Central Bank. The third type of sources is the statistical data published mostly by Eurostat, but I also utilize other databases, provided, for instance, by the Osterreichische Nationalbank. The statistical examination and comparison of the economic situation in Poland and Slovakia focuses on such dependent variables as exchange rate fluctuation, value of import and export, inflation or GDP growth. The final sources are interviews conducted with Slovak officials, which importantly contributed to this thesis.

The first chapter of the thesis is devoted to the advantages and disadvantages of different exchange rate regimes. The particular emphasis is laid on the floating exchange rate and the monetary union. The second chapter will contain a short description of the development of currency arrangements in Poland and Slovakia in recent years, which led to the existence of completely different regimes in these two countries. The following chapter go deeper into the similarities and differences between Slovak and Polish economies, particularly when it comes to credit market and export structure. Chapter number four introduces the reader to the economic reality of the crisis in CEE. The final, fifth chapter examines and compares the impact of economic crisis on both countries. It identifies the role played by the different currency regimes in diverse reaction to the crisis.

Chapter 1. Exchange rates theory

Over a century long studies on exchange rates resulted in many theories explaining the role and importance of the different formulas determining the price at which one currency is exchanged for another. Exchange rate regimes are traditionally divided into two opposite groups – flexible and fixed ones. This dichotomous division provides a clear and useful framework, however, it does not address the problem of the so called 'intermediate regimes, which are also widely used. Nevertheless, most of the theories of exchange rates are based on this division due to its simplicity and explanatory character. Analogously, there are many scholars advocating the advantages of fixed or flexible arrangements, however, intermediate regimes seems to have less devoted supporters. This chapter introduces the main theoretical arguments present in the literature explaining the benefits, costs and risks associated with different exchange rates. It focuses mostly, but not exclusively, on the role of currency arrangements on absorbing and generating economic shocks. Moreover, it provides some fundamental information on the nature of modern currency policies and the development of exchange rates. The final section of this chapter introduces the theory of the optimal currency area and their most important consequences.

Before bringing main arguments present in the debate over exchange rate regimes, it is necessary to stress that there is no consensus in the theory over one preferable regime which would be profitable for all countries. According to popular belief, the appropriate exchange rate depends on the particular character of the given country and its current situation. The complex and multifaceted character of currency arrangements causes that the existing theories often suggest the implementation of opposite policies even in the case of a specific country.

Furthermore, the decision to adopt a given currency policy usually has an important political dimension, which sometimes equals or even surpasses its economic consequences.

It is worth mentioning that the diversity of currency arrangements was not a permanent feature of international economics. During the gold standard and the Bretton Woods systems there was one dominating model adopted by most states. As M. Klein and J. Shambaugh note, "the hallmark of modern era has been a wide heterogeneity in exchange rate experiences, even among countries at similar levels of economic development."[6] We can perfectly observe this phenomenon in CEE. One of the basic models explaining tradeoffs between fixed and flexible regimes is called the Impossible Trinity or the Open Economy Trilemma (the possibility to choose two out of three objectives). According to this concept, a state can never conduct a policy which allows achieving all three goals:[7]

1. Stable exchange rate
2. Free international capital mobility
3. Monetary policy oriented towards domestic objectives (monetary autonomy)

Because of the liberalisation pressure, the controls in capital flows were gradually reduced in most of countries. It is particularly true for the EU member states, where free movement of capital constitutes one of the four fundamental freedoms of the European Single Market. According to the trilemma, opting for the free international capital mobility leaves a country with the daunting task of choosing between monetary autonomy (flexible exchange rate) and the stability of exchange rate (fixed arrangement). This mean that central bank cannot wholly control inflation and exchange rate volatility at the same time.

In reality, perfectly fixed or flexible regimes represents idealized theoretical concepts, which rarely exist in reality. There are two main methods of categorizing exchange rate regimes: *de facto* and *de jure* classifications. The *de jure* classification prepared by the IMF constituted the

[6] Michael W. Klein and Jay C. Shambaugh, *Exchange Rate Regimes in the Modern Era* (London, UK, Cambridge, MA: The MIT Press, 2009), 74.
[7] Maurice Obstfeld, Jay C. Shambaugh and Alan M. Taylor, "The Trilemma in History: Tradeoffs Among Exchange Rates, Monetary Policies and Capital Mobility," *The Review of Economics and Statistics* 87, no. 3 (August 2005): 423.

"standard" database for several decades, until in the 90. the growing awareness that official exchange rate regimes reported by national governments to the IMF often do not correspond to reality triggered the IMF to improve its *de jure* classification and popularized *de facto* systems.

The existence of diverging classifications is not the only factor blurring the clarity of dichotomy to between fixed and flexible arrangements. Equally important are intermediate regimes laying in between of these two opposite poles, such as pegged regimes in horizontal bands or crawling pegs. Intermediate regimes were widely used by the emerging economies in the 90s, however their popularity substantially decreased. That led to the bipolar hypothesis, according to which the intermediate regimes will gradually disappear among developed and emerging economies with high capital openness.[8] Both old and new EU member states are perfect evidence supporting this hypothesis.

It is argued that intermediate regimes which try to reconcile half exchange rate stability with half monetary independence are crisis prone and unstable[9]. This leads to a question what kind of advantages offer hard pegs and floats (the extreme options) and why some countries opt for stability adopting currency boards or even wholly resigning from their own currency, when another decide on monetary independence and adopt managed or completely free float. The following section will offer some theoretical explanation.

1.1 Hard peg and float – costs, benefits and risks

J. Horvath systematises the extensive literature on positive and negative consequences of flexible and fixed exchange rates regimes and distinguishes six approaches to the question how to select an appropriate currency arrangement:[10]

[8] Stanley Fischer, "Mundell-Fleming Lecture: Exchange Rate Systems, Surveillance, and Advice," *IMF Staff Papers* 55, no. 3 (September 2008): 369-70.
[9] Ibid., 376.
[10] Julius Horvath, *International Currency Arrangements And Policies* (New York: Nova Science Pub Inc, 2006), 17-18.

1. The first approach presented by the author focuses on the diverse impact of fixed and flexible arrangements on economic shocks. These differences have a crucial importance for the thesis, therefore, they will be analysed in-depth in a separate section.
2. Flexible and fixed regimes differently influence inflation and play the vital role in stabilisation policies.
3. The third approach represents the trade-off between credibility caused by pegs and flexibility provided by floats.
4. According to the subsequent framework, big countries with the relatively low degree of foreign trade, diversified trade partners, the large degree of financial integration and independent inflation behaviour tend to choose floating exchange rates. Countries characterised by opposite features lean towards fixed arrangements.
5. The open currency area provides an alternative explanation why some countries opt for pegging while other prefer flexible regimes. It focuses on structural features of an economy such as labour mobility, fiscal solidarity between regions or the real heterogeneity conducive to asymmetric shocks.
6. The last approach focuses on ex post macroeconomic performance and attempts to identify what kind of arrangements most efficiently fostered economic growth in the past.

This list accurately reflects the multifaceted character of trade-offs between fixed and floating arrangements. Proving that one regime brings positive results in one specific study area does not solve the riddle of how it influences other economic dimensions. The last approach, concentrated on long-run economic growth is the most general and therefore comprehensive, however, it is unable to convincingly answer the fundamental question: which arrangement is more conducive to long-term growth.[11] Nevertheless, some authors claim that they manage to distinguish compelling regularity concerning growth in a longer perspective. For instance, C. Reinhart and K. Rogoff state that after the creation of a separate category called by the authors

[11] Klein and Shambaugh, 199-200.

freely falling (countries with inflation over 40%) and singling out dual and multiple exchange rates, it is possible to empirically prove that annual GDP growth is the highest for free floaters and limited flexibility.[12] Countries stricken by high inflation registered negative GDP growth, on average – 2,5% per annum.

It is easier to envisage the impact of currency arrangements on more specific issues than economic growth, such as inflation or trade. Pegs are often perceived as efficient mechanisms of stabilisation policies, because they can be used as a nominal anchor. Fixing currency to more stable, prudent economic partners can truly lead to lower inflation, however, as the example of the CFA franc zone shows, it can have negative consequences in the form of protracted deflation and output contraction.[13] Pegs as an element of anti-inflationary policy were effectively used by CEE countries in the 90s, however in the pre-crisis years they led to opposite development and inflated some economies, among others, Ukraine[14] and the Baltic states. Empirical analyses seem to prove that hard pegging has anti-inflationary consequences, however, softer pegs and intermediary regimes can bring worse results than floating.[15]

When it comes to trade, there seems to be a consensus in the literature that pegs have a positive, dynamizing impact. They stabilize prices of foreign goods and services, therefore, create more predictable environment and reduce risks related with international transactions. According to Reinhart and Rogoff the percentage of import and export to GDP is substantially lower for free floaters than in case of pegs and limited flexibility.[16] The assumption that international trade leads to higher growth constituted the fundament of the gold standard and the Bretton Wood systems, as well as of the idea of a monetary union in Europe.

12 Carmen M. Reinhart and Kenneth S. Rogoff, *The Modern History of Exchange Rate Arrangements: A Reinterpretation*, NBER Working Paper no. 8963, May 2002, 28-32, 53. The authors analysed the economic performance of 153 countries during over fife decades using the *de facto* exchange rates classification.
13 Ibid., 27-28.
14 Anders Aslund, "Ukraine's Financial Crisis, 2009," *Eurasian Geography and Economics* 50, no. 4 (July-August 2009): 383-384.
15 Maryla Maliszewska and Wojciech Maliszewski, "The Exchange Rate: Shock Generator or Shock Absorber?" in *The Eastern Enlargement of the Eurozone*, ed. Marek Dabrowski and Jacek Rostowski, (Dordrecht: Springer, 2006), 24. The free foaling regimes were grouped to a separate category.
16 Reinhart and Rogoff, 31.

The trade-off between credibility and flexibility is associated with the reputation of a government and a central bank. Pegs increase the credibility of institutions which otherwise would not be trusted so much. The fixed regime does not allow so much discretion in monetary policy and provides a solid monetary anchor, therefore, creates a more stable and reliable environment.[17] However, it is important to note that countries with solid institutions, especially with a central bank committed to keep inflation low, can perfectly achieve this goal while having flexible arrangements and inflation targeting as the goal of monetary policy. Moreover, they gain more flexibility to cope with shocks affecting domestic economy.

1.2 Exchange rate regimes and economic shocks

One of the main arguments supporting flexible exchange rates refers to the social perception of economic processes. Horvath observes that people are "unlikely to accept variation in their real income or variation in the money wage or price level, yet readily accept variations in real income through changes in the rate of exchange."[18] This statement reflects well the natural psychological tendency to seek stability and predictability in the closest environment. This attitude is equally visible when it comes to the broader discussion over crisis-related issues, including the aim of an anti-crisis policy. People tend to support anti-cyclical policy, even if it can lead to a slower growth in the later term because they often appreciate more the sense of security and stability than the long-term gains.[19] This reflects the fundamental trade-off between stability and other economic goals. According to R. Mundell, if stability were the only priority, than every single area should have its own currency, because it would allow most efficient adjustments to asymmetric shocks.[20] Obviously, this recommendation has purely theoretical character and the

[17] Maliszewska and Maliszewski, 17.
[18] Horvath, 29.
[19] Ryszard Barczyk and Marek Lubiński, *Dylematy Stabilizowania Koniunktury*, (Poznań: Wydawnictwo Uniwersytetu Ekonomicznego w Poznaniu, 2009), 86.
[20] Robert A. Mundell, "A Theory of Optimum Currency Areas," *American Economic Review 51*, no. 4 (September 1961): 662. Cited in Horvath, 30.

implications of its enforcement would have detrimental impact on trade and broader economic cooperation.

The dissimilar reactions of pegs and floats to economic shocks is probably the most important difference between these two arrangements. However, Horvath argues that it seems impractical to choose the exchange rate regime based only on this division, because all countries are affected by diverse economic shocks: real, nominal, external and domestic.[21] The author justifies his claim by the fact that flexible arrangements are advantageous when an economy is stricken by real and external nominal shocks, however, in case of domestic nominal shocks the fixed regimes can be more useful. The scale of capital mobility have a substantial impact on the consequences of different shocks. It is said that higher capital flows increase the insulting mechanism of flexible regimes against shocks to aggregate demand.[22] Other authors also focus on the problem of different behaviour of pegs and floats during different economic shocks. Z. Tuma, the governor of the Czech National Bank, together with J. Hurnik and D. Vavra ask the question whether "the removal of exchange rate–specific shocks under euro area membership will be enough to offset the effect of missing exchange and eventually interest rate stabilisation channels in their effects on macroeconomic volatility."[23] They do not perceive exchange rate-specific shocks as dangerous enough to resign from monetary autonomy.

Flexible arrangements give more leeway for anti-crisis measures in the case of real shocks, particularly shocks in demand. Firstly, they provide a country with an independent monetary policy. Furthermore, often it is not 'just' a matter of monetary policy but a fiscal policy as well. In a crisis reality, currencies usually fall under strong pressure, and therefore both fiscal and monetary policy need to be subordinated to maintain a peg, therefore, countries in fact lose an

[21] Horvath, 17.
[22] Maliszewska and Maliszewski, 16-17.
[23] Jaromir Hurnik, Zdenek Tuma and David Vavra, "The Czech Republic on its way to the euro: a stabilisation role of the monetary Policy revisited," in *The Euro and Economic Stability. Focus on Central, Eastern and South-Eastern Europe*, ed. Ewald Nowotny, Peter Mooslechter and Doris Ritzberger-Grünewald (Cheltenham, UK, Northampton, MA: Edward Elgar Pub, 2010), 49.

independent macroeconomic policy.[24] An independent monetary provides a country with two significant mechanisms which can cushion a real shock: interest rates and exchange rate. Therefore, countries with flexible exchange rates are traditionally reported as performing better during financial crises.[25]

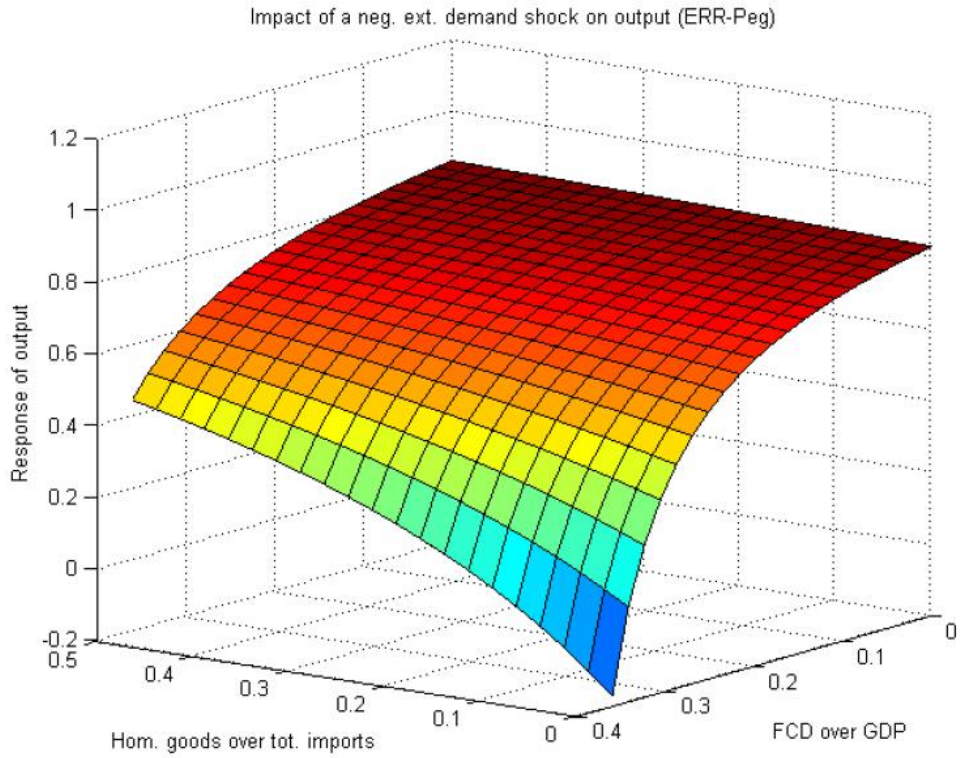
An independent monetary policy in case of asymmetric economic shock allows a national central bank to increase the amount of money in economy through reducing short-term interest rates and open market operations. In case of the more severe economic downturn a central bank can use more unconventional methods such us quantitative easing, which can lead to montization of the debt. Monetary policy is broadly perceived as a less controversial anti-crisis instrument than fiscal interventionism, therefore, it usually constitutes the major tool used for combating economic downturns.

Exchange rate flexibility constitutes the mechanism which can effectively smooth the business cycle. Instead of real adjustments in output, it enables nominal adjustments which are much less painful for economy and society. The depreciation of exchange rate usually improves the current account balance in countries with a deficit, relatively strengthens export and stimulates the substitution of imported goods by a local production. The general positive impact of depreciation has, however, some important limitations. The depreciation of nominal exchange rate cannot have its positive impact on economy, if it does not translate into a significantly weaker real exchange rate. It is possible to identify several reasons why it may happen, such as: real wage rigidity, the lack of exchange rate illusion or high flexibility of nominal wages and prices.[26] Moreover, the depreciation does not lead to the improvement of economic conditions if a country is highly indebted in foreign currencies and when it imports goods which are

[24] Fisher, 374.
[25] Olga Arratibel, et al., *The Effect of Nominal Exchange Rate Volatility on Real Macroeconomic Performance in the CEE Countries*, Groupe D'Analyse Et De Théorie Economique Working paper no. 34., December 2009. <ftp://ftp.gate.cnrs.fr/RePEc/2009/0934.pdf> (accessed May 24, 2011), 8.
[26] Agnieszka Strążka-Gawrysiak, "The Shock Absorbing Capacity of the Flexible Exchange Rate in Poland," in *Focus on European Economic Integration Q4/09*, ed. Peter Mooslechner and Doris Ritzberger-Grünwald, (Vienna: Österreichische Nationalbank, 2009), 57.

characterised by low *exchange rate pass through* (ERPT),[27] which is presented on the Figure 1. According to IMF analyses, homogenous goods on average have higher ERPT, therefore, their higher share in import increases the possibility that float will stabilize output during external shock.[28]

Figure 1 Output response to a negative external demand shock. Difference between float and peg.



Source: Limits of Floating Rates: the Role of Foreign Currency Debt and Import Structure.

Depreciation in countries highly indebted in foreign currencies increases the debt to GDP ratio and debt servicing costs, therefore, It can strongly deteriorate the conditions of public and private finance. It can lead to numerous bankruptcies if private companies had significantly high loans denominated in foreign currencies. In this case, depreciation will have a contractionary

[27] Exchange rate pass through is defined as "the percentage change in local currency import prices resulting from a one percent change in the exchange rate between the exporting and importing countries". See: Pinelopi K. Goldberg and Michael M. Knetter, *Goods Prices and Exchange Rates: What Have We Learned?*, NBER Working Paper no. 5862, December 1996, 9.

[28] Pascal Towbin and Sebastian Weber, *Limits of Floating Exchange Rates: the Role of Foreign Currency Debt and Import Structure*, IMF Working Paper no. 42, February 2011, 11.

character instead of expected expansionary one. Empirical analyses suggest that in countries with high foreign debt "fear from floating" is usually higher, which is line with the above mentioned mechanism.[29] Therefore, countries, which cannot borrow internationally in their own currencies usually have more reserves and more extensively stabilize the exchange rate.

Foreign debt is not the only problem associated with foreign currencies, when it comes to the advantages of flexible arrangements, particularly for emerging and developing countries. For instance, in CEE, many countries strongly depend on the Euro also in a broader economic context. Not only loans, but also a significant part of deposits are denominated in euro, because they are usually perceived as more reliable and safe. Moreover, companies carry their finance in euro, as well as financial markets. All these factors considerably diminish the real autonomy of the formally independent monetary policy. Furthermore, the situation when financial markets in the EU are largely merged, but controlled by different monetary authorities is perceived as unstable.[30]

High ERPT together with high depreciation in open economies can certainly increase inflation, however, during a deep economic downturn inflation usually remains a less severe problem than the drop in output. It is particularly true when decreasing consumption causes a risk of deflation. Nevertheless, it is worth mentioning that recent empirical studies on the economic crisis of 2008-09 in emerging economies did not prove the hypothesis that floats suffered lower losses than pegs, however, they suggest that floats should on average recover faster in years 2010-11.[31]

[29] Ricardo Hausmann, Ugo Panizza and Ernesto Stein, "Why Do Countries Float the Way They Float?" *Journal of Development Economics* 66, no. 2 (December 2001): 399.
[30] Roumen Avramov, *Economic and Political Challenges of Acceding to the Euro area in the post-Lehman Brothers' World. Summary Report*, Open Society Institute-Sofia, October 2009, <http://eupi.osi.bg/fce/001/0066/files/SummaryReport.pdf> (accessed May 24, 2011), 16.
[31] Charalambos, G. Tsangarides, *Crisis and Recovery: Role of the Exchange Rate Regime in Emerging Market Countries*, IMF Working Paper 242, October 2010, 3.

1.3 Optimal currency area theory

Joining the monetary union does not necessarily require relinquishing national currency and can mean only hard pegging and unrestricted capital flows, however, in the current European context it usually refers to adopting the Euro currency. Therefore, the Baltic states and Bulgaria are not perceived as members of the monetary union, even though they *de facto* joined it already a few years ago (not in the institutional sense). Joining a monetary union and adopting one, common currency implies all the changes characteristic for pegging, however, it brings further, more significant consequences. Firstly, leaving such a monetary union is much more difficult than simply moving from peg to float. Therefore, common currency increases perception of stability and credibility, which enables to borrow money cheaper due to the lower risk premium. Furthermore, it reduces transaction costs, because there is no need to exchange currencies and calculate prices of foreign goods, which should further increase trade in a union. Common currency also eliminates the risk of a competitive devaluation and speculations, which constitute a serious threat for fixed regimes.[32]

The optimum currency area theory (OCA) brings noteworthy argument why a country should or should not join a monetary union, depending on the structural features of its economy. The OCA theory does not constitute an unambiguous framework, therefore, it is often impossible to clearly decide whether a country meets its criteria, nevertheless it focuses on most important structural elements which should be considered while joining the monetary union. The theory lays much emphasis on the possible adjustability to external shocks when an economy lacks exchange rate mechanism. It focuses on the following factors: labour market flexibility, labour mobility, degree of openness and degree of product diversification. The foundation of the theory was laid by R. Mundell in 1961, in his pivotal paper entitles "A Theory of Optimal Area Theory". His work was further continued and complemented by R. McKinnon, P. Kenen, and

[32] George Ciobanu and Andreaa Ciobanu, CEE Countries and Euro Adoption: A Costs-Benefits Analysis, Working Paper Series, 2008, <http://ssrn.com/abstract=1133511> (accessed May 24, 2011), 4.

others. This thesis presents only the most essential elements of the OCA theory. Next paragraphs draw mostly from the work of Horvath, who presents the debate over the OCA in a synthetic and more in-depth way.[33]

Labour market flexibility plays a crucial role in the OCA theory because it can substitute exchange rate mobility, In the case of asymmetric shock, when wages are flexible, an economy can adjust to new, unfavourable conditions through lower wages, which diminishes the risk of growing unemployment. Furthermore, economy can adjust more efficiently if labour mobility is high. Workers from regions (countries) stricken by economic slowdown move to other parts of monetary union, which further adjusts labour market to an economic situation. Both above described processes are difficult to carry out, particularly the second one, due to the high social costs often associated with mass migration.

McKinnon argues that more open economies are inclined to use fixed exchange rates.[34] Because small economies are usually more open and rely to a greater extend on foreign trade, they benefit more from joining monetary unions, than countries with large internal market, which are on average more self-sufficient. If a country rely heavily on trade, than the importance of exchange rate's stability is also larger.

The subsequent issue concerns the degree of product diversification. Kenen argues that the more economy is diversified, the less it is susceptible to asymmetric shock, because it is highly unlikely that a shock will severely affect the large selection of goods simultaneously.[35] This concept can lead to a misleading conviction that larger economies, which are usually more diversified, should be more inclined to peg their currencies. However, having in mind this caveat, Kenen's observation can provide a noteworthy argument for more diversified export structure.

[33] Horvath, 28-40. See also: Julius Horvath, *Optimum currency area theory: A selective review*, BOFIT Discussion Paper no. 15, 2003.
[34] Ronald I, McKinnon, "*Optimum Currency Area*," *American Economic Review 53*, no. 4 (September 1963): 719. Cited in Horvath, 2006, 33.
[35] Peter Kenen, "The Theory of Optimum Currency Area: An Eclectic View," in *Monetary Problems in the International Economy*, ed. Robert A. Mundel and Aleksander K. Swoboda, (Chicago: University of Chicago Press, 1969) 49. Cited in Horvath, 2006, 34-35.

Trade-offs associated with the accession to a monetary union can also be described as microeconomic gains and macroeconomic losses.[36] In this perspective the increased transparency of prices, the elimination of exchange rate risk and the reduction of transaction coasts lead to a greater competition and stand for microeconomic gains. The end of monetary autonomy reflected mostly by the renounced right to individually set interest rates constitutes a fundamental macroeconomic loss, which should be juxtaposed with the above mentioned microeconomic gains to calculate the benefits of accession.

Mussa and others prepared nine indicators which can be used to verify whether a country should peg its currency. The list can be perceived as a summary of what was discussed in this chapter. The authors suggest that pegging is most beneficial for a country which satisfies all following criteria:[37] (1) low capital flows, (2) share of trade is high with a country to which it pegs, (3) high similarity of shocks with a country to which it pegs, (4) willingness to give up monetary autonomy in exchange for partner's credibility, (5) high reliance of economy and financial system on the partner's currency, (6) exchange rate-based stabilisation is beneficial due to high inflation, (7) fiscal policy is flexible and sustainable, (8) labour market is flexible, (9) high level of international reserves. The next chapter moves from the theoretical discussions to their applications in Poland and Slovakia. The main topic remains unchanged and concerns exchange rate regimes.

[36] Agnes Benassy-Quere, Antoine Berthou and Lionel Fontagne, "Economic Divergence Within the Euro Area: Lessons From EMU Enlargement," in *The Euro and Economic Stability. Focus on Central, Eastern and South-Eastern Europe*, ed. Ewald Nowotny, Peter Mooslechter and Doris Ritzberger-Grünewald (Cheltenham, UK, Northampton, MA: Edward Elgar Pub, 2010), 131.
[37] Michael Moussa, et al., *Exchange Rate Regimes in an Increasingly Integrated World Economy*, IMF Occasional Paper no. 193, August 2000, 23.

Chapter 2. Exchange rate regimes in Poland and Slovakia

When the crisis strongly hit CEE, Slovakia and Poland had completely opposite exchange rate regimes, however, it would be incorrect to suppose that this difference lasted for long. Slovakia as well as Poland for the most of the last decade maintained the floating exchange rate and de facto fixed it only in 2008, therefore, Slovakia is an interesting example of a country, which belonged to the ERM II mechanism and simultaneously tended to behave more as a floater, which implements inflation targeting policy.[38] Subsequent paragraphs shortly describe the development of exchange rate regimes in Poland and Slovakia, and present why when the crisis hit, Slovakia was almost in the eurozone while Poland so far from it.

Currency arrangements in all countries belonging to the Visegrad Group (V4) indicated significant convergence during the last 20 years. In the first decade of transformation all countries adopted fixed exchange rate regimes and treated them as nominal anchors useful to achieve lower inflation.[39] Poland and Czechoslovakia adopted rigid pegs in respectively 1990 and 1991. In the following years they maintained fixed regimes, however, gradually introducing some level of flexibility. Eventually, the Czech Republic introduced floating exchange rate as the first country among the V4 countries in 1997, followed by Slovakia in 1998 and Poland in the year 2000.[40] Whereas the Czech Republic and Slovakia maintained managed float, Poland moved further towards flexibility and adopted a free floating regime. During 2000s the Polish Zloty was the most flexible currency in the whole region, therefore, it used to be qualified as the only free

[38] For instance in the Breugel Working Paper Slovakia's exchange rate was described as: ERM +/-15, de facto float with revaluations. See: Zsolt Darvas and Valentina Kostyleva, *The Fiscal and Monatry Institutions of CESEE Countries*, Breugel Working Paper no. 2, February 2011, 24.

[39] Opposite development could be observed in the most countries from the Balkans and post-Soviet space, which decide to adopt flexible arrangements. See: Horvath, 2006, 55.

[40] These data refers to *de jure* exchange rates, which according to some studies substantially differed from *de facto* regimes. For instance Reinhart and Rogoff described the regime in Poland between 1990 and 1995 as freely foaling and/or dual market. See: Reinhart and Rogoff, 92.

floating currency in CEE. Nevertheless, even the Zloty did not float completely freely.[41] The next paragraph explains why Poland maintained its floating exchange rate regime. The following sections are devoted to Slovakia, which is a more interesting case when it comes to the development of currency arrangements.

Poland for a long time did not take any serious steps towards the eurozone accession. Differently from the majority of CEE countries, the most challenging convergence criteria for Poland was not inflation but deficit, which is well reflected by the fact that from the EU accession until July 2008 Poland was under the excessive deficit procedure.[42] The subsequent governments either decided to concentrate on more urgent problems and did not initiate serious measures towards the Euro, as it happened in 2004-2005, or were reluctant towards the very idea of the Euro adoption, which was the case of the right-wing governments in years 2005-2007. During this period of time Poland lost its best moment to instigate the Euro adoption procedure. The situation changed with the new centre-right government of the Civic Platform (PO) established in the late 2007. In September 2008 the Polish Prime Minister announced the plan to adopt the Euro by 2011. This ambitious goal soon turned out to be impossible to meet because of the deteriorating economic conditions. Furthermore, the political environment in Poland remained a serious obstacle on the road to the Euro. The opposition Law and Justice party could effectively stop the process due to the necessary changes of the constitution, which would require the qualified majority of 2/3 in the parliament. Therefore, regardless of the economic crisis, Poland was unlikely to undertake decisive steps towards the Euro. The idea of joining the ERM II without securing the political support for the necessary constitutional changes did not seem to be a right solution, which was stressed by the Monetary Policy Council in 2009.[43]

[41] Avramov, 16.
[42] Przemyslaw Wozniak, *Economic and Political Challenges of Acceding to the Euro Area in the post-Lehman Brothers' World. Country Report Poland*, Open Society Institute-Sofia, October 2009, <http://eupi.osi.bg/fce/001/0066/files/PolandReport.pdf> (accessed May 24, 2011), 15.
[43] Wozniak, 24.

The development in Slovakia had a completely different character. The broad political consensus and the strong approval of the Euro in the Slovak society played a crucial role.[44] Both factors were missing in Poland. I. Sramko, the Governor of the National Bank of Slovakia (Národná Banka Slovenska), mentions four major challenges on the road to the Euro, which Slovakia needed to deal with: "so called impossible trinity, the problem of 'shooting a moving target, the so called Balassa-Samuelson effect and the exchange rate pass-through."[45] It is not surprising that most of the problems noted by the author refer to inflation. Not only for Slovakia but in the broader sense, inflation turned out to be the major obstacle and the most elusive convergence criteria,[46] the Baltic states can serve as a good example.[47]

Slovakia joined the ERM II with +/- 15% bands in November 2005 and maintained relative flexibility of its currency until mid 2008. According to Z. Darvas, "inflation targeting with floating rates is better suited than hard pegs to manage the economic catching-up process."[48] Following this statement, it can be argued that Slovakia chose the right way, which enabled low inflation and price level convergence through exchange rate appreciation. From 2005 the Slovak Koruna was under strong pressure to appreciate, therefore the central rate of ERM II was revaluated two times. Initially, in March 2007 by 8,5% and secondly in May 2008 by 17,6%. The Slovak path to the eurozone was much different from other Euro-adopting countries.[49] Two

[44] Sramko, 84, 88.
[45] The impossible trinity in this context refers to the impossibility of controlling effectively at the same time inflation and exchange rate regime. 'Shooting a moving target' refers to the difficulty of unstable environment and aims which constantly change, therefore, demand high adaptability to the altering conditions. The Balassa-Samuelson effects stands for the process of increasing prices in non-tradable sectors, where salaries follow the increasing trend in tradable sectors, however, the productivity is lagging behind. The ERPT in Slovak context referred to anxiety that the appreciating exchange rate can have too little impact on inflation, because ERPT is too law (according to the estimations of the central bank it accounted to less than 0,2 percentage point: Sramko, 85-86. M. Suster questions the low rate of long-term EXPT and argues that in reality the rate was higher than estimated, therefore, it could contributed to the lower inflation: Martin Suster, interview by author, Bratislava, 09 May 2011.
[46] Avramov, 13.
[47] The case of Lithuania is particularly telling: The country's application was rejected in 2006 due to slightly to high inflation.
[48] Zsolt Darvas, *Facts and Lessons From Euro Area Divergence For Enlargement,* in *The Euro and Economic Stability. Focus on Central, Eastern and South-Eastern Europe*, ed. Ewald Nowotny, Peter Mooslechter and Doris Ritzberger-Grünewald (Cheltenham, UK, Northampton, MA: Edward Elgar Pub, 2010), 168.
[49] Junko Shimizu, *Financial Crisis and the Choice of Currency Regime in CEE Countries*, Senshu University, February 2009, <http://www.euij-tc.org/news/events_2007/20090223/shimizu.pdf> (accessed May 24, 2011), 10-11.

issues require deeper explanation: the huge scale of the revaluation just before the Euro adoption and why the Slovak case is perceived as a different one.

According to M. Suster, the director of the Research Department at the National Bank of Slovakia, there were two main reasons behind the unprecedented revaluation in 2008: political and economic.[50] The role of the conversion rate was not well understood by the general public. The common belief was that the more Euros people will get as their pensions and salaries, the better for them. This approach is obviously misleading, because it focuses exclusively on the nominal value and not on the real one. Nevertheless, this argument was used in a political debate and created pressure for the revaluation of the conversion rate.

The economic reason is more important from the viewpoint of this thesis. The rate was set at the stronger level than indicated by a momentary equilibrium rate because it was expected that the economy would catch up with the higher rate within about one year.[51] The conversion rate was also intentionally set up at the high value to diminish the risk of growing inflation. Because of the high economic growth, accounting to 9,1% during the first quarter of 2008, it was broadly believed that economy can easily cope with the stronger rate. This shows that even in such an open economy as Slovakia, in 2008, the danger of the approaching crisis was seriously downplayed. This well reflects the shared opinion that the region is a safe place and should not be affected by financial problems in highly developed countries. If the decision makers could predict the forthcoming crisis, they would probably opt for smaller revaluation. Too strong currency and the hard peg, later replaced by the Euro, did not allow the currency to depreciate in the crisis conditions, as it happen in the neighbouring countries, which deteriorated the competitive position of Slovak economy. This process will be discussed in details in the fief chapter of this thesis.

The distinctiveness of the Slovak way towards the Euro relies on the flexibility of its currency during the ERM II period. The National Bank of Slovakia intervened to stabilise the

[50] Martin Suster, interview by author, Bratislava, 09 May 2011.
[51] Ibid.

currency, however, it did not attempt to maintain one, unchanged, central rate or to completely eliminate exchange rate volatility. Therefore, Slovak way differed from the one adopted by the Baltic states, Slovenia, Cyprus or Malta. Moreover, the Slovak Koruna appreciated strongly during the immediate years before the introduction of the Euro, which were to diminish the risk of high inflation and overheating. This strategy was in line with the suggestions recently contained in a publication of the ECB. According to these suggestions significant revaluation of conversation rate can be the best measure from the broader set of policies to decrease the risk of the boom-bust cycle.[52] The following chapter continues the comparison of Slovakia and Poland, however, it abandons the subject of the exchange rates and moves towards other features, which played important role in the crisis.

[52] Michal Brzoza-Brzezina, Pascal Jacquinot and Marcin Kolasa, *Can We Prevent Boom-Bust Cycles During the Euro Area Accession?* ECB Working Paper no 1280, December 2010.

Chapter 3. Poland and Slovakia – similarities and differences

Poland and Slovakia are main study areas of this thesis. Both countries share many similarities, however, there are a few important differences between them as well. Main common features are the geographical position and the level of development. Both countries belong to the Visegrad Group, are located in Central Europe in a similar proximity to their western trade partners. The nominal GDP per capita in Purchasing Power Standard (PPS) in a crisis year 2008 in Slovakia and Poland was also relatively similar, respectively 18,1 and 14,1 thousand.[53] Both countries experienced periods of high growth after the EU-accession, average GDP growth in years 2004 – 2008 amounted to 5,4% in Poland and 7,32% in Slovakia (among EU members only Latvia grew faster).[54]

Considering the differences between the two selected countries, two appear to be particularly important for the subject of this thesis. The first one, obviously, refers to different exchange rate regimes when the crisis hit. The second fundamental difference concerns the size of economy. Depending on the different methods of measurement, the Polish economy is about six to seven times bigger than the Slovak one. The size difference have a natural impact on the disparity in economic openness, which played a crucial role during the imported economic crisis.

Both Poland and Slovakia can be described as small open economies (SOE), which means that because of their size, they cannot influence global markets and need to adjust to global trends. The economic openness calculated as a share of trade in goods and services in GDP was gradually increasing in both countries from the mid 90s, however, it always remained at least twofold bigger in Slovakia than in Poland. In 2008 it accounted to respectively 84% and 42%, which places Slovakia among the most open economies and Poland almost at the EU

[53] Source: Eurostat.
[54] Source: Eurostat.

average (41%).[55] In this case Poland and Slovakia are a clear example of the general rule that smaller economies are usually more open. However, it is important to note that there are noteworthy exceptions from this principle among the EU member states, for instance, Polish economy is more open than Greek or Portuguese but less than German.

3.1 Credit market

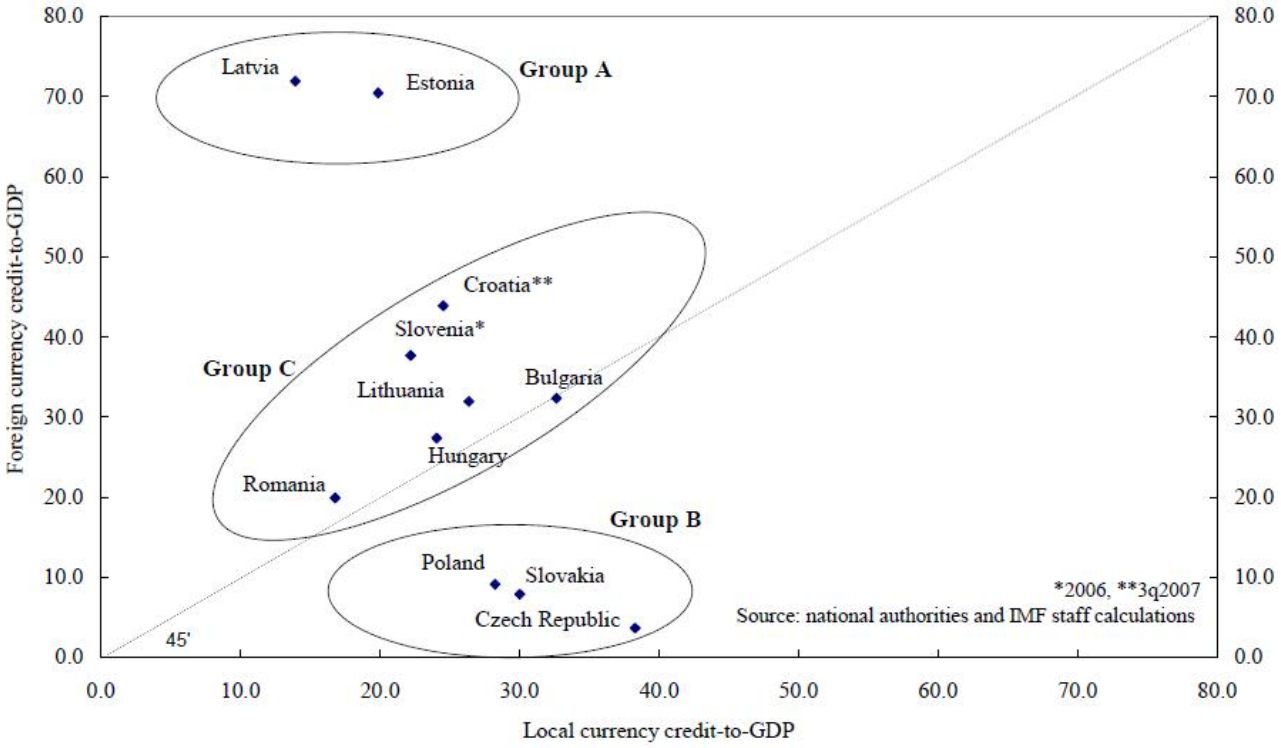
As it was discussed in the first chapter, the considerable presence of foreign currencies in domestic economic operations can significantly decrease the capacity of a national central bank and its power to effectively influence economy. A particularly important role is played by loans and deposits denominated in foreign currencies.[56] For instance, in 2008 national monetary policy in Poland substantially eroded and lost its effectiveness due to the massive inflow of loans denominated in foreign currencies.[57] A high level of foreign indebtedness can reverse positive impact of depreciation due to the inflating liabilities (balance sheet effect). Therefore, R. Abramov argues that "[c]ommon sense suggests that there is no point to leaving currencies floating in countries were most deposits and credits are denominated in the Euro and therefore any exchange rate movement may be detrimental to banking or corporate stability".[58]

Figure 2 on the next page presents the role of foreign denominated loans in Poland and Slovakia in relation to other countries from the region. Poland, Slovakia and the Czech Republic were classified as countries with the lowest amount of such loans relative to their GDP. It is clearly visible that these countries tended to rely on loans in their national currencies. Moreover,

[55] Source: OECD statistical database, <http://stats.oecd.org>.
[56] Because the role of foreign currency deposits is not so much related to the economic crisis, it will not be further examined in the thesis. For more information see: Thomas Scheiber and Helmut Stix, *Euroization in Central, Eastern and Southeastern Europe – New Evidence On Its Extend and Some Evidence On Its Causes*, Oesterreichische National Bank, Working Paper 159, November 2009.
[57] Marek Belka, *Monetary Policy and Capital Flows: Challenges for Banking Supervision*, presentation held at the "Anchor" conference on monetary policy and financial stability in Budapest on 17th December 2010. Received via e-mail on 10 February 2010 from the Assistant to the President of the National Bank of Poland. More about this problem see: Michał Brzoza-Brzezina, Tomasz Chmielewski and Joanna Niedźwiedzińska, *Substitution Between Domestic and Foreign Currency Loans in Central Europe. So Central Banks matter?,* ECB Working Paper 1187, May 2010.
[58] Avramov, 27.

the private sector in these countries were relatively less indebted. In Slovakia the amount of foreign currency loans did not even increase after the adoption of ERM II, which was a common phenomenon for other countries envisaged to access the eurozone in the near, predictable future.[59] Based on these data, it can be assumed that the depreciation of currencies from group B would not have a significant negative impact on the private sector resulting from the foreign debt. The opposite development can be envisaged in countries such as Latvia or Estonia where the private sector would suffer greatly from the depreciation due to the expanding liabilities.

Figure 2 Local currency and foreign currency credit in percentage of GDP in 2007.



Source: Determinants of Foreign Currency Borrowings in the New Member States of the EU.

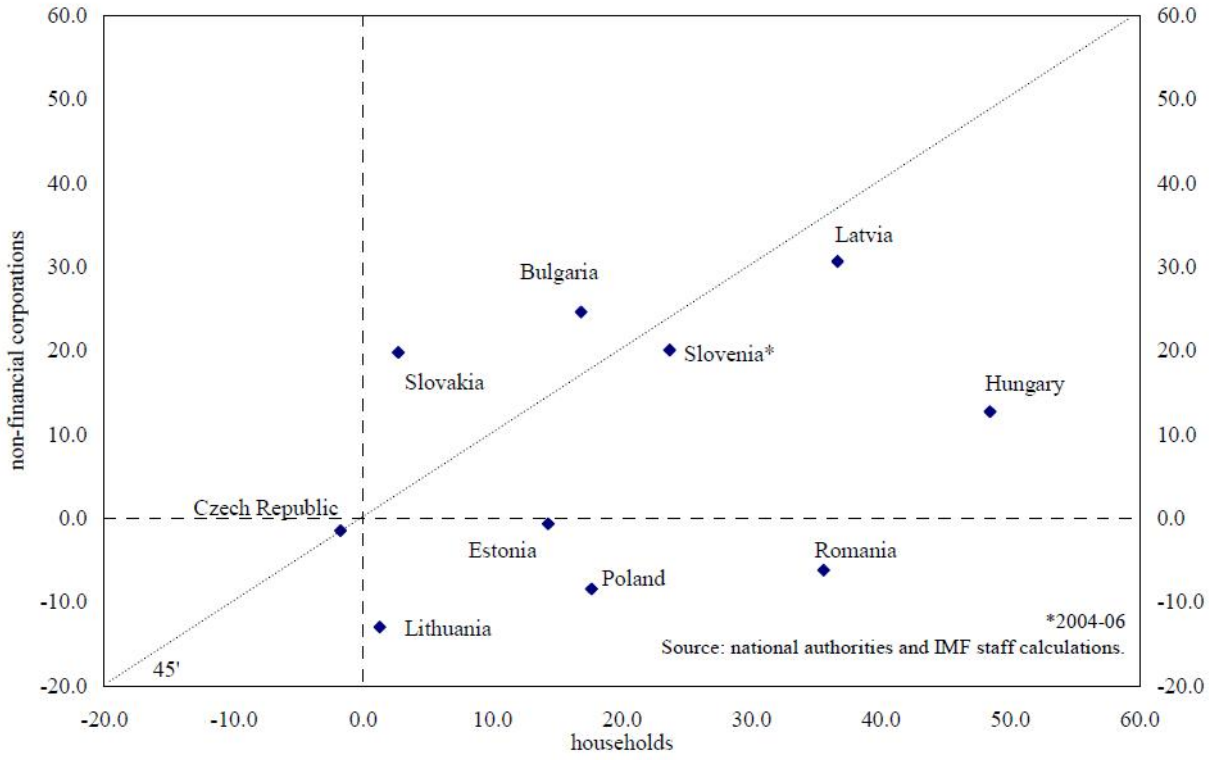
Even though according to the graph above the foreign indebtedness of the Polish and Slovak private sector seems almost identical, a deeper analysis reveals some discrepancies, which is visible on the Figure 3. In Poland, it were mostly households which tended to borrow in

[59] Christoph B. Rosenberg and Marcel Tirpak, *Determinants of Foreign Currency Borrowing in the New Member States of the EU*, IMF Working Paper 173, July 2008, 10.

foreign currencies and the mortgages played important part of these loans. From 2000 to 2007 non-financial institutions in Poland decreased crediting through the foreign currency loans, which reflects their more cautious approach to the exchange rate risk. Unlike in Poland, in Slovakia it were rather private companies which took FX loans. The following graph presents these differences.

Figure 3 Foreign exchange loans as a share of total loans by sector.

Percentage change between 2000 and 2007.



Source: Determinants of Foreign Currency Borrowings in the New Member States of the EU.

The second difference concerns the currency used. In Slovakia, as in most of the countries in the region, loans were denominated in the Euro. In Poland, however, similarly to Hungary, the Swiss Franc played an important role as well. The detailed data about foreign currency loans in Poland are provided by the Polish Financial Supervision Authority (KNF). The Authority in its 2008 report presents in-depth the importance of FX lending in the pre-crisis

period:[60] Above 50% of gross receivables from mortgages were denominated in foreign currencies. At the same time 26% of gross receivables from the whole non-financial sector were denominated in foreign currencies and mortgages constituted the majority of these receivables.[61]

3.2 Export structure

Because of its larger size, the Polish economy is more diversified then the Slovak. The same applies to the export structure. Slovakia during the recent decade became a major car manufacturer, moreover, electrical machinery and equipment constituted a growing part of the GDP.

The automotive industry is very significant for all countries of the Visegrad Group. Its role is particularly important in Slovakia and the Czech Republic, and relatively less pronounced in Poland. In Slovakia from 2005 to 2007 the amount of produced motor vehicles almost tripled and reached 570 thousands cars per year.[62] Therefore, Slovakia started to be named as 'the Detroit of the east',[63] and became in 2008 the largest per-capita car manufacturer in the world. Cars constituted 24% of Slovak export in 2007 and the first half of 2008.[64] In the analogous time, electrical machinery and equipment accounted to 19-20% of export. These two sectors were responsible for almost the half of export in a very open, export-oriented economy, which meant that the country grew dependent on the global demand for these specific products. Even though

[60] *Finansowanie nieruchomości przez banki w Polsce - stan na czerwiec 2008*, Komisja Nadzoru Finansowego, December 2008, <http://www.knf.gov.pl/Images/nieruchomosci_06_2008_tcm75-9460.pdf> (accessed May 24, 2011), 20.
[61] Mortgages amounted to about 38% of gross receivables of banks from the non-financial sector. Ibid.
[62] AutoNet – Transnational Automotive Network in Central Europe, *Notes on the Automotive Industry in Central Europe: Slovakia, Slovenia, Italy, Czech Republic, Poland, Germany, Hungary*, AutoNet Framework Policy Document, 6-7.
[63] Katka Krosnar, "The Auto Industry: Welcome to the Detroit of the East," *Financial Times*, February 20, 2007. <http://www.ft.com/cms/s/0/da179fd2-c01c-11db-995a-000b5df10621.html#axzz1NGyJnRdO> (accessed May 24, 2011).
[64] All date concerning Slovak export are available at the website of the Ministry of Economy of the Slovak Republic: <http://www.economy.gov.sk/trade-statistics-4734/126419s> (accessed May 24, 2011).

such a situation can be perceived as a potential risk, it is generally approved and accepted as the best available economic strategy for catching-up with Western Europe.[65]

Polish economy is more diversified and less export-oriented, therefore, many companies produce just for the domestic market. Polish export is also less concentrated: in 2007 cars constituted 13,5%, and electrical machinery and equipment accounted to 12,6% of export.[66] Similarly to Slovakia, these two groups of products constituted the biggest share in total export. However, in Poland it meant 26%, whereas in Slovakia 45% of total export.

The territorial structure of export in both countries is very similar. The common European market clearly dominates as the receiver of goods and services. In 2007 79% of the Polish export and 86% of the Slovak export were directed to the other member states.[67] This dependence on the demand from the one particular geographic area can be perceived as a potential weakness, particularly because European markets are less dynamic than other regions, for instance East Asia.[68] Clearly disadvantageous character has a very small share of export to the fastest growing economies such as China or India. These two countries taken together did not receive even 1% of neither Slovak nor Polish export in 2007.[69]

So far this thesis focused on presenting the relevant theories and analysing the situation of Poland and Slovakia in the moment when the crisis hit. The following two chapters focus exclusively on the crisis and its consequences.

[65] Martin Suster, interview by author, Bratislava, 09 May 2011. And Jan Marusiniec, interview by author, Bratislava, 16 May 2011.

[66] *Syntetyczna informacja o eksporcie i imporcie Polski za 2007 – dane ostateczne*, Ministerstwo Gospodarki Rzeczypospolitej Polskiej, July 2008, <http://www.mg.gov.pl/NR/rdonlyres/2556BC8A-2D6D-473D-AFF6-7E1A6ABE7798/46802/infhz2007do.pdf> (accessed May 24, 2011). See: Table no. 7.

[67] Source: Eurostat.

[68] Jolanta Adamiec, „Konkurencyjność Polskiego Eksportu," in *Kryzys finansowy a handel zagraniczny*, (Warsaw: Wydawnictwo Sejmowe, 2010), 26.

[69] Data for Slovakia: the Ministry of Economy of the Slovak Republic. Data for Poland: *Syntetyczna informacja o eksporcie i imporcie Polski za 2007 – dane ostateczne*. See Table no. 5.

Chapter 4. Economic crisis in Central and Eastern Europe

The economic crisis came to CEE in 2008, a year later than it severely affected the economy of the USA. It was transmitted to the region indirectly, through the developed countries of Western Europe. The crisis had a mostly exogenous character, however, in the Baltic States it overlapped with significant domestic imbalances. Even though the external character of the crisis is commonly admitted, R. Avramov politicises with this statement by arguing that "the martyrologic common assertion that CEE countries ... suffer from an *imported* crisis is a half-truth."[70] The author argues that countries in the region for years benefited from 'an imported growth', therefore they should not blame external factors for the economic downturn. Nevertheless, regardless of the unquestionable role of the external forces in stimulating economic growth in CEE, it must be clearly stated that the crisis definitely had an imported character.

The economic downturn influenced the region through two main channels: financial markets and international trade. The crisis in CEE evolved differently than in the highly-developed countries, and its financial component was not as important as in the West. Financial institutions were generally in a better condition than their western counterparts and did not constituted the major danger for economies because they were not heavily exposed to subprime toxic assets.[71] Nevertheless, the indirect financial channel of transmission played an important role when financial markets in CEE plunged into a general mistrust and increasing anxiety. The indirect channel manifested itself via asset prices, stock markets, foreign exchange, money and debt markets and capital flows.[72] The freeze of the financial market and the suspension of the

[70] Avramov, 12.
[71] Sandor Gardo and Reiner Martin, *The Impact of the Global Economic and Financial Crisis on Central, Eastern and South-Eastern Europe*, ECB Occasional Paper no. 114, June 2010, 22-23. See also: Ewald Nowotny, "The Euro's Contribution to Economic Stability in CESEE," in *The Euro and Economic Stability. Focus on Central, Eastern and South-Eastern Europe*, ed. Ewald Nowotny, Peter Mooslechter and Doris Ritzberger-Grünewald (Cheltenham, UK, Northampton, MA: Edward Elgar Pub, 2010), 15.
[72] Gardo and Martin, 21.

lending activity played a particularly important, negative role. L. Csaba argues that the "credit squeeze, which was by no means warranted by local conditions, nor by lack of prospective returns, created an immediate spillover to the Hungarian economy."[73] Hungary was obviously not the only victim and the similar processes could be observed in other countries. In Poland access to credit was also sharply limited and according to the questionnaire surveys conducted by entrepreneurs in 2009, financial factors constituted equally important constrains for production as low demand.[74]

The international trade constituted the second, more important transmitting channel of the crisis. Because the real economy channel influenced economies with a certain time lag in comparison with the financial market channel, its impact was felt not until autumn 2008. Foreign economic partners, mostly from the EU, were immersed in the recession, therefore, drastically reduced import from their eastern suppliers, which strongly hit regional companies, initially only exporters but later whole economies.

The region was hit by the global recession disproportionately severely – much stronger then the USA, where the recession originated from or other developing and emerging regions such as the Latin America or the South-East Asia (with exception of the CIS countries, which suffered even greater losses in output). The scale of economic contraction in 2009 is particularly shocking when it is compared with the economic growth in year 2007 or estimations for 2009. These juxtapositions reveal the real impact of the global recession and shows that the relative losses in CEE were even higher than in Western Europe, although the old member states experienced a deeper recession. The crisis stopped and in many cases even substantially reversed the real and nominal convergence, which occurred in CEE countries after the EU accession.

Countries in the region were affected by the crisis with a diverse strength, however, this thesis will not go into in-depth studies of separate cases other than Poland and Slovakia.

[73] László Csaba, "Financial Institutions in Transition: the Long View," *Post-Communist Economies 23*, no. 1 (March 2011): 6.
[74] Tibor Lalinsky, *Business Competitiveness After Euro Adoption in Slovakia, National Bank of Slovakia*, National Bank of Slovakia Occasional Paper no. 3, April 2010, 27.

Nevertheless, it is important to realise that even though there are significant general patterns which can be distinguished, there are also noteworthy differences between countries in the region. Current account deficits, excessive crediting, boom in housing market, growing inflation and overoptimistic sentiments are often mentioned as common features leading to the crisis in the region. Most of them were clearly visible in the Baltic states, however, tracing them in countries such as Poland, the Czech Republic or Slovakia is already less obvious, even though not impossible.

Economic situation in neighbouring countries, or broadly speaking in the whole region, played a very important role. CEE is often perceived by external investors and creditors as a more or less homogeneous region. They tend to downplay and oversimplify regional differences. Therefore, the worsening of economic sentiments in some countries indirectly influences other countries, even though the direct economic links between them could be negligible. These processes are incomprehensible for the rational choice theory, however, well explained by psychology. Many countries in the region suffered from herd behaviour, including Poland and Estonia. In the latter case, sound fiscal policies and strong banking sector did not help to avoid the skyrocketing mistrust of financial markets causing sudden sale of assets.[75] In this context, it is worth to add that fixed exchange rate regimes, particularly the currency boards for many years increased the credibility and international reputation. The stability resulting from the elimination of exchange rate risk was rewarded with a higher inflow of FDIs.[76] This confidence, however, evaporated at the inception of the crisis and previous overshooting was replaced by undershooting, as it was visible in Estonia. Moreover, leaving the once adopted peg could ruin the credibility of the country for the longer run.[77]

[75] Marten Ross, "A euro area: a shelter? Estonia's perspective," in *The Euro and Economic Stability. Focus on Central, Eastern and South-Eastern Europe*, ed. Ewald Nowotny, Peter Mooslechter and Doris Ritzberger-Grünewald (Cheltenham, UK, Northampton, MA: Edward Elgar Pub, 2010), 81.
[76] Arratibel et al., 16.
[77] Csaba, 6.

Interestingly, the significant part of the region, including the V4 members, which to a large extent avoided serious overheating, was initially perceived as a stable and safe area. Because the first phase of the crisis had mostly a financial character and financial institutions in these countries were perceived as solid, the general conviction was that the region, or at least its significant part, have nothing to fear. This approach was well reflected by the behaviour of foreign investors and resulting from it exchange rate fluctuation. Through 2007 and two first quarters of 2008, practically until the collapse of the Lehman Brothers in September, the currencies of V4 countries were under constant pressure to appreciate. This can be partially explained by speculative investment strategies, however, according to the more comprehensive, albeit still partially questionable explanation, the region was perceived at that time as a 'safe haven' in the turbulent times[78] The processes and threats briefly described above are deeper analysed in the next chapter, which has a narrowed focus and concentrates exclusively on Poland and Slovakia.

[78] Jesus C. Cuaresma, Adam Gersl and Tomas Slacik, *Global Financial Crisis and the Puzzling Exchange Rate Path in CEE Countries*, Charles University, IES Working Paper 24, September 2010, 3.

Chapter 5. Economic crisis in Poland and Slovakia

The economic crisis had a diverse impact on Poland and Slovakia. Whereas Poland was the only country in the EU, which managed to avoid recession during the crisis, Slovakia suffered from severe losses in output along with other countries in the region. This chapter provides data and analysis on the impact of different exchange rate regimes on this diverse economic reaction to external shock. The first section is devoted to the behaviour of the exchange rates in Poland and Slovakia. The following paragraphs present how these behaviours influenced the real economy and the financial markets. The comparison of changes in trade balance and GDP constitutes the crucial part of this chapter. It is followed by sections devoted to foreign indebtedness, tourism, inflation, bond markets and the short passage about the impact of the Euro on countries outside the eurozone.

5.1 The behaviour of exchange rates

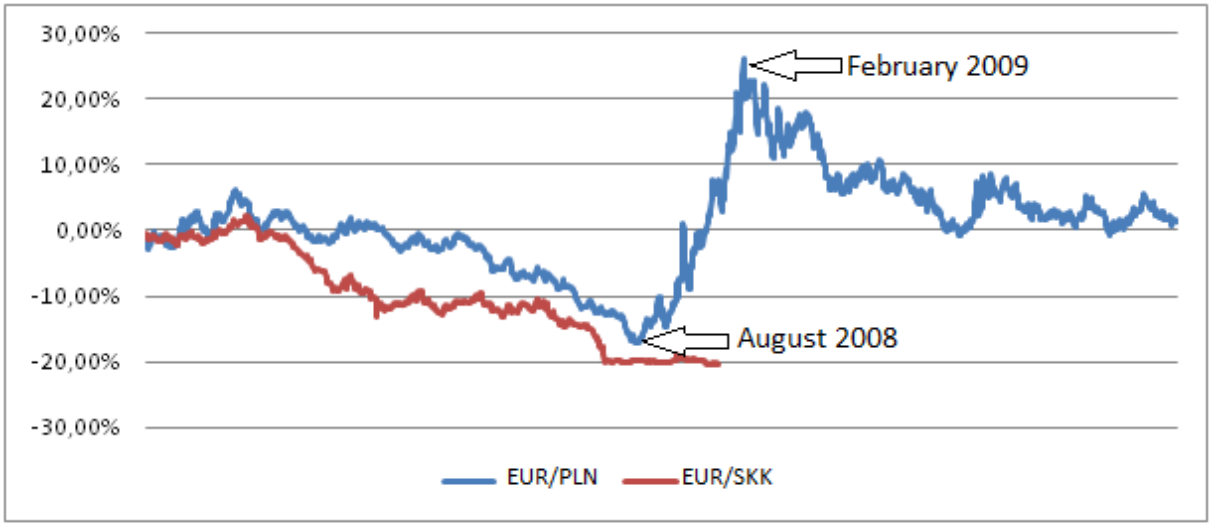
In June 2008, two months after the revaluation of the central rate by 17,6%, the definitive value of the conversion rate was set for Slovakia by the Council of EU for 30,1260 SKK/EUR. Since May 2008 the Slovak Koruna was stabilised by the central bank, which was preparing the country for the Euro adoption. The exchange rate was kept at a relatively unchanged level until the first of June 2009, when the Euro was introduced.

In Poland the behaviour of the exchange rate was completely different. As it was mentioned in the seconded chapter, the Zloty strengthened until the end of July, just to start falling with a dramatic pace. Between September 22 and February 17, in only five months, it lost almost 48% of its value against the Euro. This drop was higher than in the case of the Czech

Koruna (22.5%) or the Hungarian Forint (31,9%),[79] despite the fact that the Polish economy was much more resilient than the other ones. Such a significant and sudden depreciation had to have a significant impact on the economy, which will be presented in the following paragraphs.

From February 2009 until the end of the year the Zloty was regaining losses from the previous period. It strengthened considerably, however, was still far from its level achieved during the previous summer. In 2010 and at the beginning of 2011 the value of the Zloty was volatile but the Zloty was generally weaker than in 2006. It shows that the depreciation had a longer lasting impact than it is often argued. It is true that its most significant depreciation lasted less than a year, however, after this period the Polish currency remained weak vis-a-vis the Euro, which is well visible on the following graph. This led to a situation that during a relatively short time, nominal exchange rates in Poland and Slovakia bifurcated significantly.

Figure 4 The movement of nominal exchange rate vis-a-vis the Euro. PLN vs.EUR and SKK vs. EUR from January 2006 to May 2011.



Author's calculations. Data source: ECB.

The fall of the Zloty was accompanied by a comparably fast drop in stock prices at the Polish stock exchange.[80] Therefore, it can be argued that the impact of the economic crisis on

[79] Wozniak, 12.

Poland was particularly visible in exchange rate and stock exchange. R. Avramov argues that in crisis conditions "a floating exchange rate ... turned into a major risk, whereas the supposed benefits disappeared."[81] The author focuses on nominal indicators and assigns depreciation a negative impact on economy, which is very questionable, particularly in the case of Poland. In Poland the depreciation undoubtedly had a positive impact on real economy. Furthermore, empirical analyses show that during the last decade, beginning from the year 2000 until the recent economic crisis, flexible exchange rate in Poland had mostly the shock absorbing character.[82] Simultaneously, it constituted a challenge for the financial market, especially because it happened after many years of constant appreciation, which was expected to continue.[83]

Slovakia joined the eurozone in the middle of the economic crisis, which had far-reaching consequences, including the lack of depreciation. According to S. Skrzypek, the Euro provided a protecting umbrella during the first phase of the crisis, however, in the latter stages its impact was more unambiguous, because it did not allow currencies to depreciate, which in many cases could be beneficial for a given country.[84] Because of this, J. Marusiniec notes that if economists had envisaged the crisis coming in Slovakia, they would probably have decided not to adopt the Euro so soon and would have opted for postponing this decision.[85]

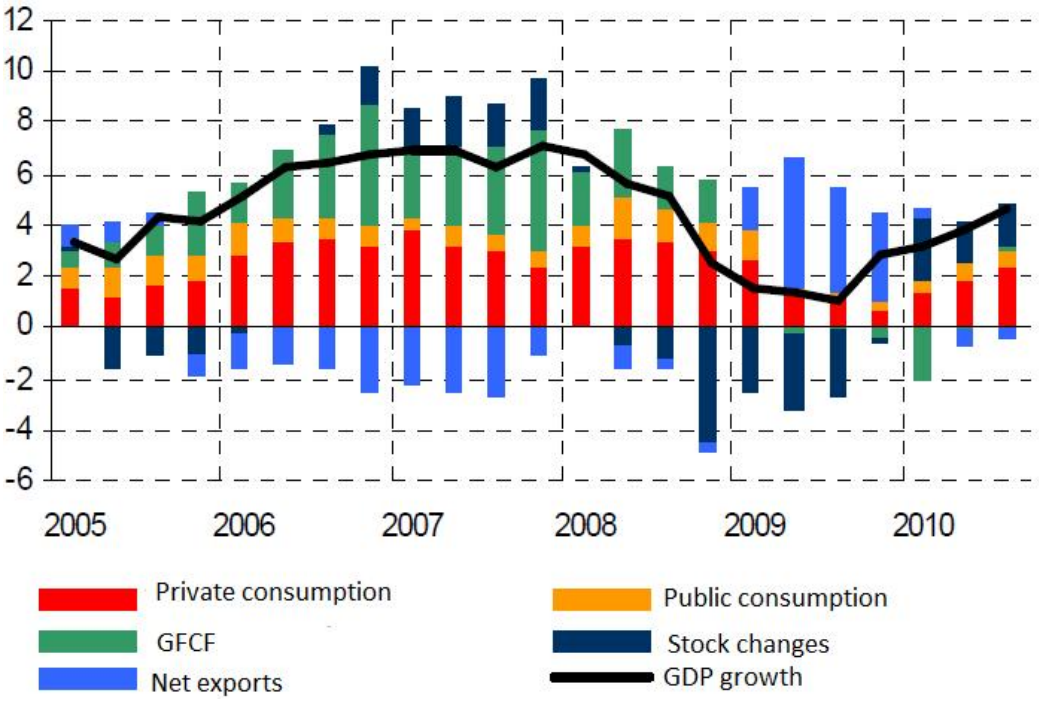
5.2 GDP growth and the trade balance in Poland and Slovakia during the crisis

The diverse dynamics of the GDP growth in Poland and Slovakia are presented on Figures 5 and 6 on the following pages. Two main differences are visible. Firstly, the economic growth in Slovakia in pre-crisis years was usually a few percentage points higher than in Poland.

[80] The Warsaw Stock Exchange Index (WIG) lost 54% from May 2008 until February 2009. Interestingly the SAX at Bratislava Stock Exchange suffered much smaller losses.
[81] Avramov, 20.
[82] Strążka-Gawrysiak, 67.
[83] *Polski rynek finansowy w obliczu kryzysu finansowego w latach 2008-2009*, Komisja Nadzoru Finansowego, May 2010, <http://www.bs.net.pl/upload/File/KNF%20nowe/raport_pokryzysowy_tcm75-22870.pdf> (accessed May 24, 2011), 11.
[84] Skrzypek, 36-37.
[85] Jan Marusiniec, interview by author, Bratislava, 16 May 2011.

Secondly, in Slovakia the drop in output caused by the crisis was incomparably more severe. During the first three quarters of 2008, economic growth in both countries was driven by similar factors: by private consumption, which played the most important role, public consumption and gross fixed capital formation (GFCF).[86] Moreover, in Poland growth stock changes and net export played a minor negative role and slowed the growth. The components of GDP growth in 2009 in both countries were importantly modified. From the viewpoint of this thesis, the changes in foreign trade play essential role, because this factor is the most influenced by exchange rate changes.

Figure 5 GDP growth and its components in Poland.



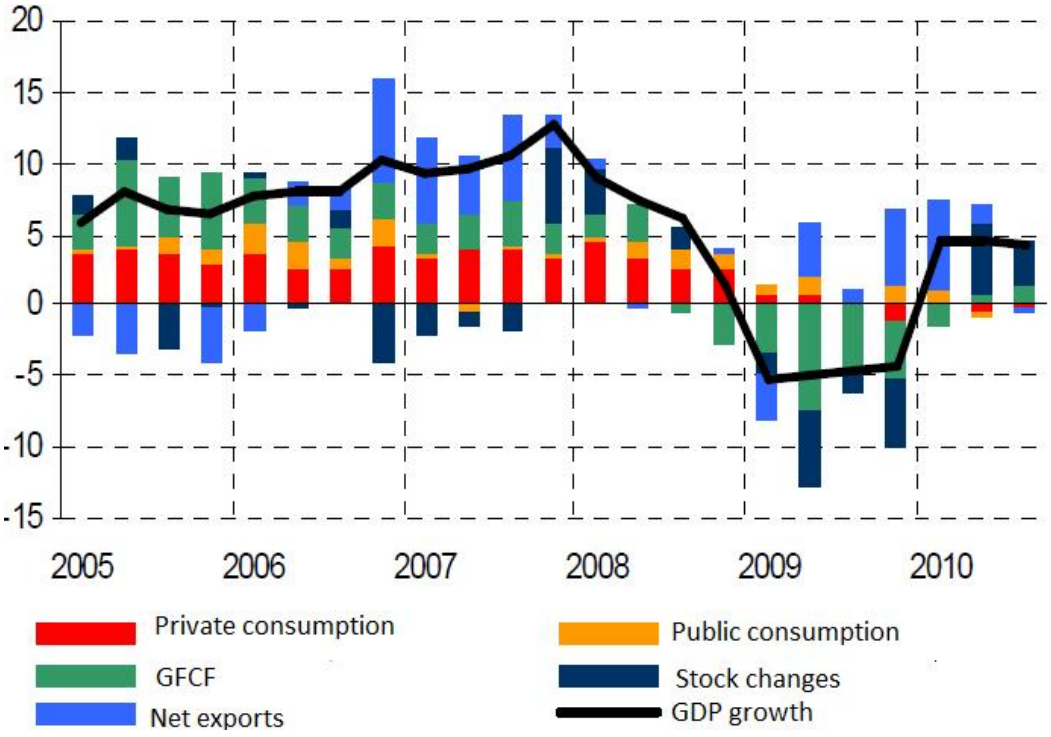
Source: Analiza sytuacji gospodarczej w krajach Europy Środkowej i Wschodniej.

In Figure 5 it is clearly visible that Poland avoided recession due to the unprecedented, positive influence of net exports. This factor successfully counterweighted the negative impact of stock changes and together with the slow increase of private and public consumption contributed

[86] Eurostat defines gross fixed capital formation (GFCF) as resident producers´ acquisitions, less disposals, of fixed tangible or intangible assets. This covers in particular machinery and equipment, vehicles, dwellings and other buildings.

to the positive GDP growth. The positive role of net exports can be perceived as particularly noteworthy because from the mid-2005 until the end of 2008 the deficit in foreign trade was growing in Poland. In Slovakia the main forces pulling the economy into recession were the drop in investments and negative stock changes. Net exports contributed positively to the GDP growth, however, it was too weak to counterbalance decreasing GFCF.

Figure 6 GDP growth and its components in Slovakia.



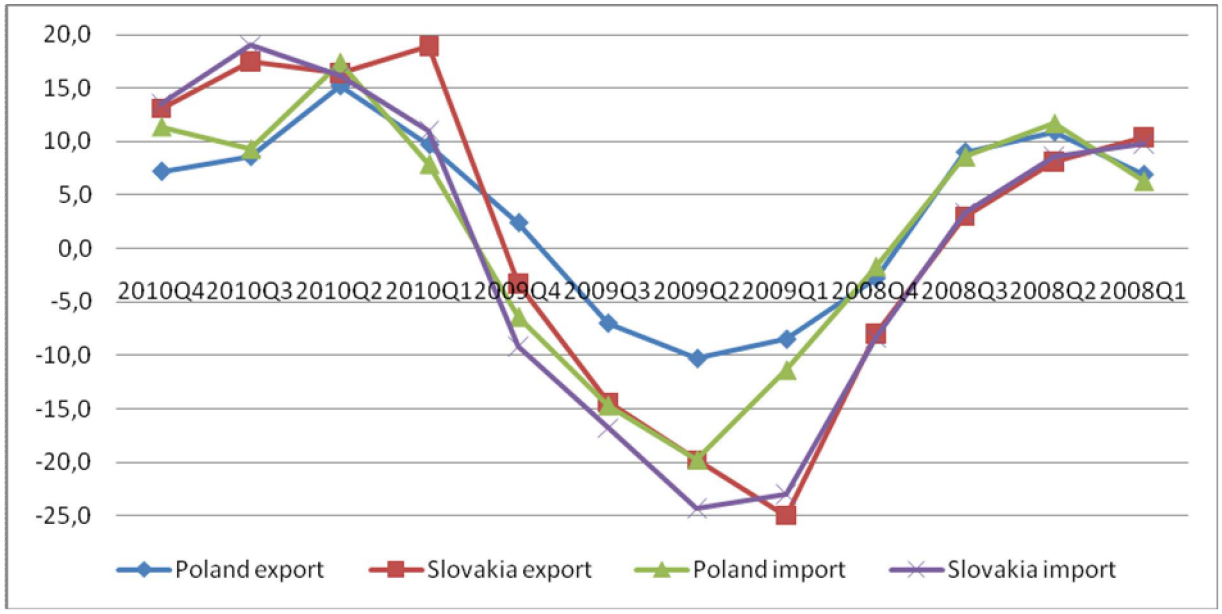
Source: Analiza sytuacji gospodarczej w krajach Europy Środkowej i Wschodniej.

In the second chapter, it was mentioned that the crisis hit the Central Europe mostly through the trade channel. It is true for Slovakia and Poland as well, however, as it is presented on the graphs, it does not mean that net exports directly contributed to the recession. This paradox is explained by the Figure 7. In 2008, in Slovakia and Poland export and import had similar dynamics, which means that export and import changed in an almost identical way: when export grew by several percent, so did import. Therefore, the balance of trade played a rather unimportant role and did not contribute significantly, neither in a positive nor in a negative way

to the GDP growth (as it was mentioned before, it slightly decreased the growth of Polish economy).

In 2009 export and import stopped developing in an analogous way. Because of the economic crisis and the worldwide slump in international trade, volumes of import and export fell rapidly, however, the drop in import was higher than in export. Because of this disproportionally larger cut in import, foreign trade could support economic growth in Poland and reduce the depth of the recession in Slovakia.

Figure 7 Export and import of goods and services in Poland and Slovakia.



Percentage change compared to corresponding period of the previous year. Data in volumes. Seasonally adjusted. Author's calculations. Data source: Eurostat.

Foreign trade reinforced the Polish economy much more than the Slovak one because the import was reduced in Poland much more than export. In Slovakia these differences were less pronounced. In Poland export fell by 6,8% and import decreased almost twice as much – by 12,4%. In Slovakia import shrank by even more, namely by 18,6%, however, export decreased by 15,9%. Among the EU member states only Ireland experienced a smaller drop in export than

Poland.[87] Figure 7 shows that during the first quarter of 2009 export fell in Slovakia even more than import. In 2010 the situation stabilised again and the dynamics were comparable with 2008 – changes in export and import in both countries converged and did not have such an important impact on the GDP growth (with the exception of the first quarter in Slovakia). As a side effect of the crisis, the current account balance improved in both countries.

The economic crisis changed also the structure and directions of foreign trade. It influenced most significantly capital goods, half-finished products and durable goods. It was well visible in the changes of the Slovak export, where export of iron and steel, and automotives decreased the most.[88]

In 2009, motor vehicle production decreased in Slovakia much more than in Poland or the Czech Republic. In the first three quarters production in the automotive sector fell by 33%, revenues by 44% and export by 36%.[89] During the first months situation was even worse, with export declining by almost 60%, year to year. The European Automobile Manufacturers Association expected Slovakia to produce more than 800 thousands vehicles in 2009.[90] However, because of the economic crisis, the amount of cars produced shrank to about 465 thousands.[91] As the result of the withheld production, the employment in the sector decreased by 3,7%.[92] The government attempted to support the automotive industry by a domestic scrappage program, which turned out to be a major failure.[93]

[87] Data provided by Eurostat. Export and import were calculated in volumes.
[88] Among export products which constituted at least 1% of total export.
[89] Lalinsky, 26. Data on export: the Ministry of Economy of the Slovak Republic.
[90] *Slovak Republic – Largest per capita car producer*, European Automobile Manufacturers Association, 2008, <http://www.acea.be/images/uploads/files/20081104_Slovakia_country_profile.pdf> (accessed May 24, 2011).
[91] Notes on the Automotive Industry, 7.
[92] Ibid.
[93] About 90% of cars produced in Slovakia are exported, furthermore, Slovaks usually buy imported cars. Therefore, only about 10% of cars covered by the scappage scheme where produced in Slovakia. See: Silvia Rucinska, Dusan Urge and Rastislav Rucinsky, "Competitiveness of Slovakia and the Economic Crisis," *Central European Journal of Public Policy 3*, no. 2, (December 2009): 70-71. Nevertheless, it must be admitted that the program increased private consumption, because the number of car registration soared. Jozef Schreiner et al., "Developments in Selected CESEE Countries: Gradual Recovery in the Offing – Moderating External Imbalances, but Vulnerabilities Remain an Issu," in *Focus on European Economic Integration Q4/09*, ed. Peter Mooslechner and Doris Ritzberger-Grünwald, (Vienna: Österreichische Nationalbank, 2009), 32.

In Poland the export of passenger cars in 2009 did not decrease substantially contrary to expectations due to the scrapagge schemes in Western Europe, mostly in Germany. These programs also helped Slovak manufacturers, however to a lesser extent. For instance cars produced in Bratislava by Volkswagen belong to the upmarket segment, which did not benefit so much from governmental subsidies.[94] Beyond passenger cars, products such as food, beverages a consumer goods, especially non-durable ones, also turned out to be rather resilient to the crisis.[95]

The depreciation of the Polish Zloty probably had a stronger impact on decreasing import than supporting export.[96] Because of the depreciation, imported goods and services were more expensive, therefore, demand for domestically produced cheaper substitutes increased substantially, so these goods could displace previously imported products.[97] Therefore, it can be argued that in the Polish case the expenditure switching effect worked in a very pronounced way. It is important to notice that import fell sharply in all countries in the region, however, in most cases it happened as a result of the sharp decline of domestic demand. In Poland total domestic demand shrank slightly but private and public consumption were growing during the whole period.

This poses the question whether the similar depreciation could trigger an analogous effect in Slovakia. It seems that this would not be the case, because in Slovakia in many sectors there are hardly any domestic companies which could displace imported products.[98] The Slovak economy is smaller and more specialised. New companies would have had to be established in order to substantially increase the significance of the expenditure switching effect on the economy, which obviously would have required much time and would not have happened during the relatively short recession. The high level of specialisation and emphasis on the two main

[94] Martin Suster, interview by author, Bratislava, 09 May 2011.
[95] Zdzislaw Wołodkiewicz-Donimirski, "Zarys sytuacji w polskim handle zagranicznym w pierwszej połowie 2009 r.," in *Kryzys finansowy a handel zagraniczny*, (Warsaw: Wydawnictwo Sejmowe, 2010), 16.
[96] Schreiner et al., 42.
[97] Wołodkiewicz-Donimirski, 8.
[98] Jan Marusiniec, interview by author, Bratislava, 16 May 2011.

sectors – automotives and electronics, both durable goods – in this particular case would have been an obstacle for the Slovak economy.

The argument that depreciation would have a positive impact on the Slovak economy is questioned in the publication of the National Bank of Slovakia.[99] It argues that the comparison with the Czech Republic or Hungary shows that the Euro adoption and the following relative appreciation should not be blamed for a dramatic decline in export and production. The supporters of the Euro adoption emphasise that even if the effective appreciation had a negative impact on the economy, this did not last for long, because the currencies of the neighbouring countries rebound in 2009.[100] For instance the hourly labour costs in industry became higher in Slovakia at the beginning of 2009than the contemporary V4 average, but remained at this higher level only for a few months and already in the third quarter they came back below this average.[101]

The crisis substantially deteriorated the conditions at the Slovak labour market. According to Marusiniec, the Euro adoption influenced the labour market in a slightly negative way and contributed to the hike in unemployment in Slovakia.[102] It is a particularly unfavourable development because high and long-term unemployment used to be a severe problem of the Slovak economy for a longer period of time, and the crisis substantially deteriorated the situation. Simultaneously, the crisis proved that the labour market in Slovakia was very flexible. Self-employed and temporary workers were particularly severely influenced and most often lost their jobs. As it was presented in the first chapter, labour market flexibility is usually perceived as an important factor enabling adjustment processes in the absence of an exchange rate. Therefore, the surprisingly high flexibility of the labour market can be perceived as a positive aspect in the case of an asymmetric shock in the future. However, it must be stressed that in the situation of high flexibility, the state should more actively support the employees during the turbulent times.

[99] Lalinsky, 11-13, 16.
[100] Martin Suster, interview by author, Bratislava, 09 May 2011.
[101] Lalinsky, 28.
[102] Jan Marusiniec, interview by author, Bratislava, 16 May 2011.

5.3 Depreciation and foreign debt

As it was explained in previous chapters, the depreciation has a negative impact on economy through the balance sheet effect if domestic actors are heavily indebted in foreign currencies. It refers to both public and private bodies. In 2007 the debt denominated in foreign currencies amounted in Poland and Slovakia to about 23-27% of public debt.[103] Because the overall debt in percentage of the GDP was 45% and 29,6% respectively, it means that public debt denominated in foreign currencies did not exceed 11% of GDP in Poland and remained even lower in Slovakia. Both countries opted for avoiding higher risk associated with foreign currencies and preferred to borrow in their national currencies. Their debts denominated in foreign currencies were almost completely issued in Euro (a small part of Polish debt was denominated also in other currencies).

The general situation in the private sector was also relatively good, especially in comparison with other countries in the region. The conservative, cautious attitude towards borrowing in foreign currencies dominated among private actors in Poland and Slovakia, which was discussed in the previous chapter. The Euro certainly contributed to the financial stability in Slovakia, however, even without the Euro the country would probably not experience very difficult financial problems due to the generally good conditions of the financial institutions.

The boom in mortgages in the Swiss Francs and the Euro in Poland in the pre-crisis years caused some social and economic problems. The value of foreign currency loans to households expressed in the Polish Zloty grew by 71% between September and February, mostly due to currency fluctuations.[104] The report of the Polish Financial Supervision Authority from December 2008 warned that in the contemporary situation, if depreciation were to be deep and prolonged, it could push the banking sector into serious problems.[105] Eventually, even though

[103] Ismael A. Zarco, *Structure of Government Debt in Europe*, Eurostat, Statistics in Focus 110, December 2008, 3-4.
[104] Wozniak, 12.
[105] Finansowanie nieruchomości przez banki w Polsce, 15-16.

the condition of loan-owners deteriorated sharply, it did not destabilise the financial sector. The share of non-performing loans increased by several percentage points, from below 5% to almost 8% in 2009,[106] which meant a clear deterioration, however, the situation remained largely under control. The government also implemented a new law to support people who lost their jobs and therefore were not able to pay back their mortgages. It is also suggested that the concentration of foreign currency loans in upper middle-income households moderated the negative consequences of the inflated debt for domestic demand.[107]

The Polish non-financial sector reduced the share of foreign exchange loans in total loans in the years 2000-2007, therefore, high indebtedness did not constitute an important problem. Unexpectedly, currency options turned out to substantially deteriorate the financial conditions of some Polish companies. Due to the popular conviction that the Zloty would appreciate in a longer run, companies engaged in option trading without collateral in the form of export profits. Despite initial sinister estimations, in the end the share of unsecured firms did not exceed 15% of all involved in option transactions.[108] Nevertheless, speculative practices contributed to the bankruptcies of several major companies.[109]

5.4 Tourism

The introduction of the Euro in Slovakia is believed to have a significant impact on tourism. According to popular belief, the Euro increases the inflow of tourists because it is easier to travel to a country with a single currency, moreover, the currency conversion cost is eliminated. However, in the case of Slovakia, the Euro adoption overlapped with the significant

[106] In Latvia and Lithuania the share of non-performing loans more than tripled and reached above 15%, in Romania it was almost 25%. See: Gardo and Martin, 32.
[107] Schreiner et al., 42.
[108] Polski rynek finansowy w obliczu kryzysu, 40-44.
[109] Among others following companies went bankrupt: a foundry Odlewnie Polskie, Elwo and Krośnieńska Huta Szkła (Krosno glassworks), one of the first companies listed on the Warsaw Stock Exchange. See: Zdzisław Wołodkiewicz-Donimirski, "Kondycja finansowa eksporterów" in *Kryzys finansowy a handel zagraniczny*, (Warsaw: Wydawnictwo Sejmowe, 2010), 47.

depreciation of the neighbouring countries' currencies except Austria, which undermined the competitiveness of the Slovak touristic sector. In Poland and Slovakia tourism did not play a highly important role, however, its share of GDP is higher in Slovakia. Nevertheless, tourism is a sector sensitive for exchange rate changes, therefore, it is relatively easy to observe the consequences of the effective appreciation of Slovak currency. Table 1 below shows that Slovakia suffered from a very high drop in total night spends in 2009 (according to the Eurostat bigger drop where observed only in Latvia and Lithuania, comparable in Romania). However, it must be admitted that during the pre-crisis years in Slovakia, the number of tourists increased the most significanty. Poland experienced the lowest drop in nights spent in tourist accommodation establishments, which can be partially explained by the significant depreciation of the Polish Zloty, which effectively demotivated many Poles from foreign trips and enticed foreigners to visit Poland.

Table 1 Nights spent in tourist accommodation establishments in the V4 countries and the EU. Changes from 2005 to 2009.

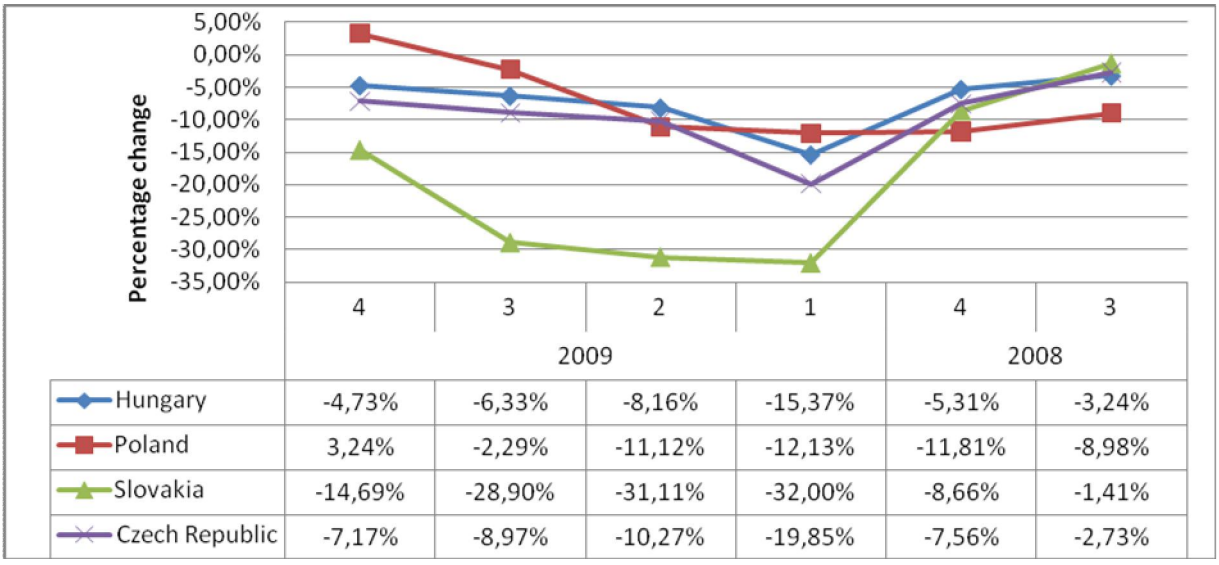
GEO/TIME	2009	2008	2007	2006	2005
European Union	-2,8	-0,6	0,4	2,5	4,6
Czech Republic	-6,7	-3,8	-1,5	2,8	-1,1
Hungary	-6,3	-0,8	2,4	-0,4	4,4
Poland	-2,9	3,1	7,3	5,4	4,2
Slovakia	-16,4	7,3	3,7	3,7	-0,1

Source: Eurostat

The analysis of the detailed data on tourist flows provides other noteworthy information about the impact of depreciation in Poland, Hungary and the Czech Republic and relative appreciation in Slovakia. The number of nights spent by both residents (Figure 8) and non-residents (Figure 9) decreased the most in Slovakia. The drop in residents was more in line with other V4 countries, whereas the number of nights spent by non-residents fell dramatically

reflecting the impact of the euro adoption. Foreigners decidedly resigned from staying in Slovakia. Data suggest that many Slovak citizens also opted for cheaper destination than their own country.

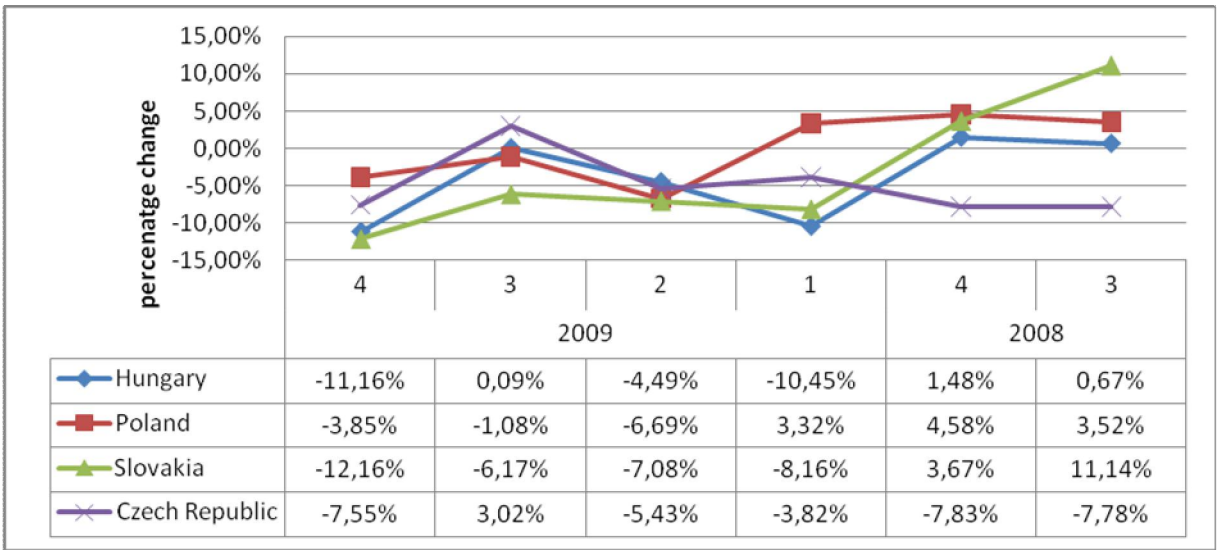
Figure 8 Nights spent in tourist accommodation establishments by non-residents in the V4 countries.



	4	3	2	1	4	3
	2009				2008	
Hungary	-4,73%	-6,33%	-8,16%	-15,37%	-5,31%	-3,24%
Poland	3,24%	-2,29%	-11,12%	-12,13%	-11,81%	-8,98%
Slovakia	-14,69%	-28,90%	-31,11%	-32,00%	-8,66%	-1,41%
Czech Republic	-7,17%	-8,97%	-10,27%	-19,85%	-7,56%	-2,73%

Change over the same quarter of previous year. Author's calculations. Data source: Eurostat.

Figure 9 Nights spent in tourist accommodation establishments by residents in the V4 countries.

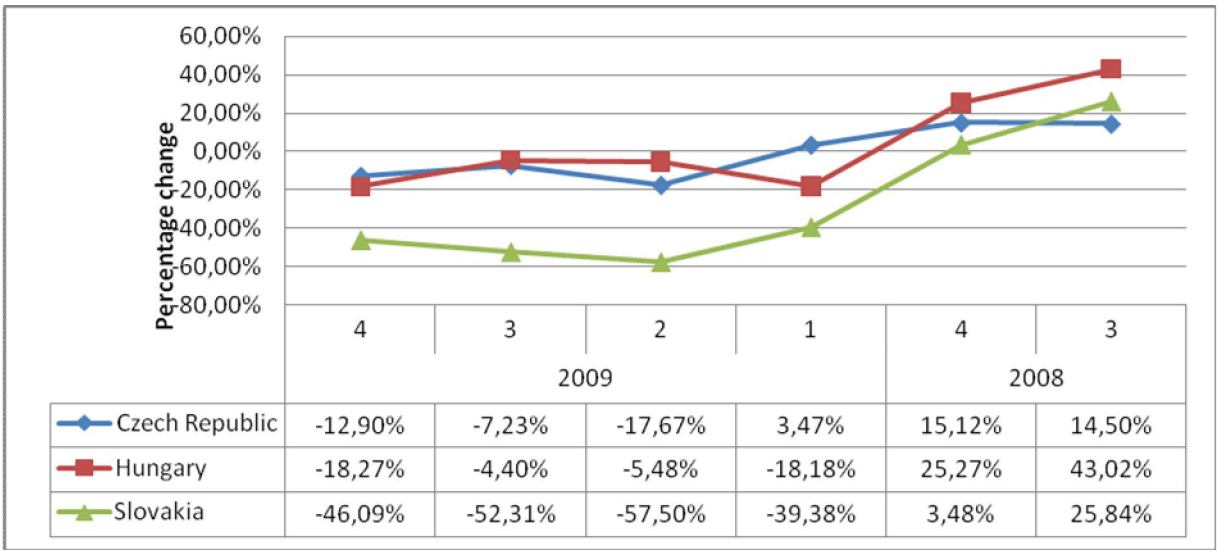


	4	3	2	1	4	3
	2009				2008	
Hungary	-11,16%	0,09%	-4,49%	-10,45%	1,48%	0,67%
Poland	-3,85%	-1,08%	-6,69%	3,32%	4,58%	3,52%
Slovakia	-12,16%	-6,17%	-7,08%	-8,16%	3,67%	11,14%
Czech Republic	-7,55%	3,02%	-5,43%	-3,82%	-7,83%	-7,78%

Change over the same quarter of previous year. Author's calculations. Data source: Eurostat.

The role of depreciation is even more striking when tourist flows between V4 countries are examined, especially flows between Poland and Slovakia. Figure 10 presents how Poles reduced their tourist activity in all three countries analysed here: Slovakia, the Czech Republic and Hungary, however, the scale of this reduction was very diverse. The drop in Polish tourism in Slovakia in 2009 was disproportionally high and ranged from 40% to almost 60%, depending on the quarter. At the same time Poles cut their stays in Hungary and the Czech Republic in no more than 20%. It is important to realize that Poles accounted for 7,6% of all tourists visiting Slovakia in 2007, which makes them the second nationality after Czechs and before Germans in terms of the number of touristic visits (domestic tourists accounted for more than 55% of visitors).[110]

Figure 10 Nights spent in tourist accommodation establishments by Polish residents in other V4 countries.



	4	3	2	1	4	3
	2009				2008	
Czech Republic	-12,90%	-7,23%	-17,67%	3,47%	15,12%	14,50%
Hungary	-18,27%	-4,40%	-5,48%	-18,18%	25,27%	43,02%
Slovakia	-46,09%	-52,31%	-57,50%	-39,38%	3,48%	25,84%

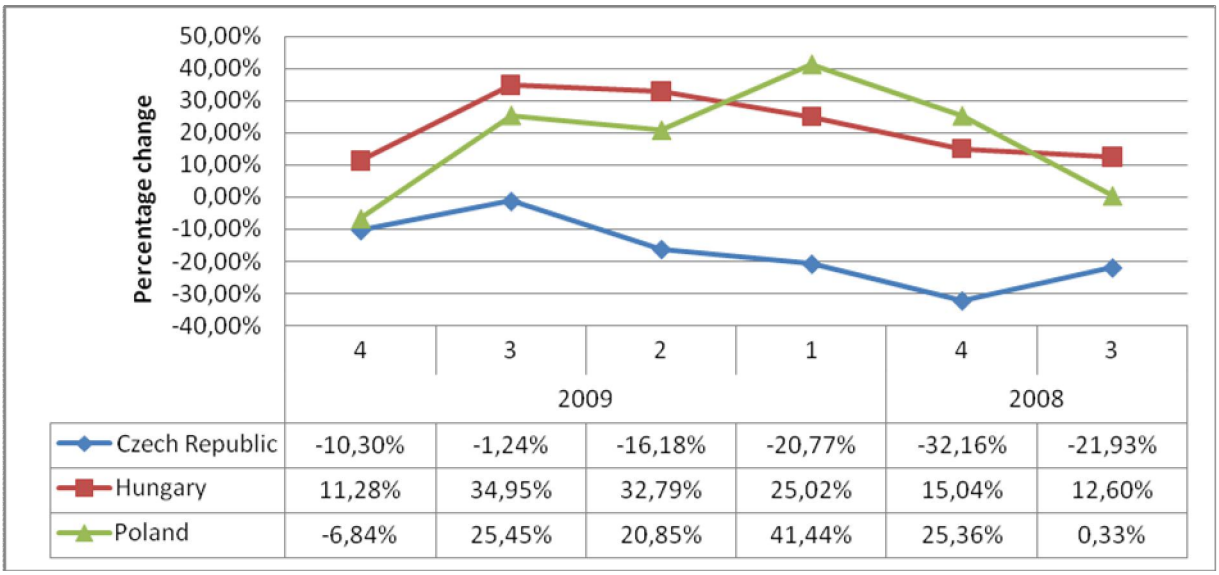
Change over the same quarter of previous year. Author's calculations. Data source: Eurostat.

The assumption that the currency movements played a vital role for tourism in Central Europe also can be supported by the data on foreign trips of Slovak citizens. At the time of the economic crisis, they reduced their domestic touristic activity, however, simultaneously

[110] Lalinsky, 15.

substantially increased their trips to Poland and Hungary, which is presented in Figure 11 below. During the first three quarters of 2009, Slovak residents spent from 20% to 40% more nights in Polish tourist accommodation establishments.

Figure 11 Nights spent in tourist accommodation establishments Slovak residents in other V4 countries.



	4	3	2	1	4	3
	2009				2008	
Czech Republic	-10,30%	-1,24%	-16,18%	-20,77%	-32,16%	-21,93%
Hungary	11,28%	34,95%	32,79%	25,02%	15,04%	12,60%
Poland	-6,84%	25,45%	20,85%	41,44%	25,36%	0,33%

Change over the same quarter of previous year. Author's calculations. Data source: Eurostat.

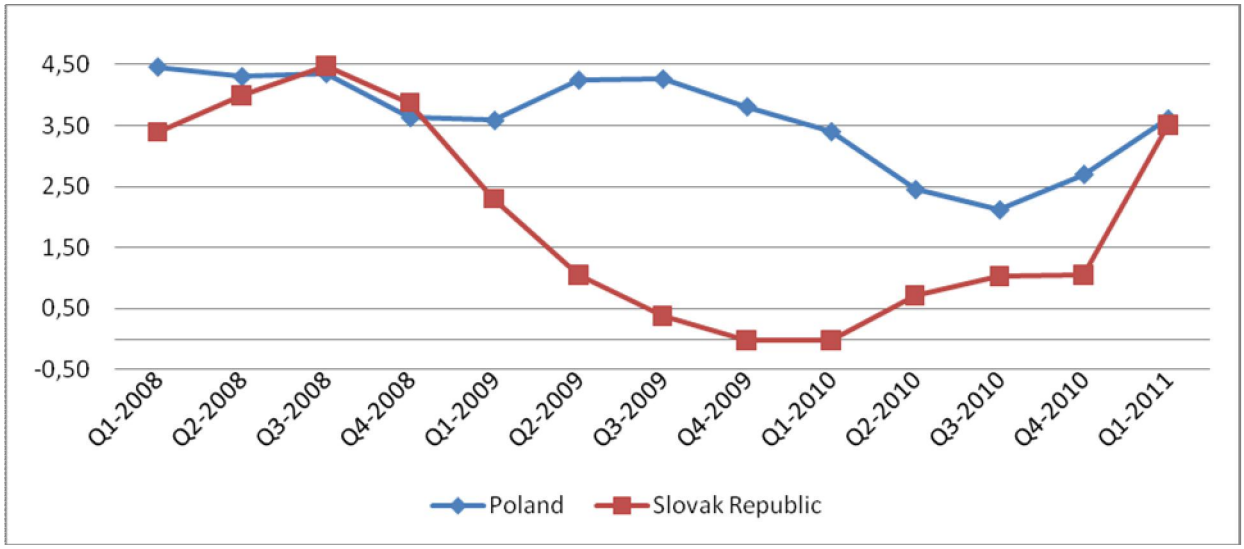
Even though the tourist sector in Slovakia, as in the EU, rebounded in 2010, the scale of this improvement was not large enough to cover the losses from 2009. Moreover, the increase in foreign visitors was weaker than in all other V4 countries and amounted to 5%, while in Poland it was about 2 percentage points more.[111] The difference between Poland and Slovakia in nights spent by residents is even bigger. In Poland, the increase in 2010 was the highest in the whole EU and amounted to 12%, while in Slovakia to 5%, which was still significantly above EU average (1%).[112]

[111] Christophe Demuntar and Chrysanthi Dimitrakopoulou, *Slow Recovery in the Tourist Accommodation Sector in 2010. Tourism in Europe: First Results for 2010*, Eurostat, Statistics in Focus 6, February 2011, 3.
[112] Ibid.

5.5 Inflation

The depreciation of the Polish Zloty had a negative impact on inflation, because it increased the price of imported products. The opposite development could be observed in Slovakia, which was the first country where inflation decreased after the Euro adoption. In 2009 Slovakia experienced the lowest levels of inflation in its history.[113] Furthermore, the *changeover effect* after the Euro adoption had a very limited impact on the overall level of prices and reached only 0,15%, similarly to old member states and less than in Malta, Cyprus or Slovenia.[114] The drop in domestic and foreign demand certainly significantly contributed to the lower inflation, which during two quarters turned into deflation, however, the appreciation of the nominal effective exchange rate had its impact as well.

Figure 12 Inflation (HICP) in Poland and Slovakia.



Change over the same quarter of previous year. Author's calculations. Data source: OECD statistical database (http://stats.oecd.org).

It can be suggested that if the Slovak currency depreciated as much as the Polish Zloty, it would have a stronger influence on the general level of prices. According to empirical analyses, the average prices in the Czech Republic and Poland are least influenced by exchange rates

[113] Sramko, 86-87.
[114] Ibid.

changes among countries in CEE.[115] Figure 12 presents how the level of inflation in Poland and Slovakia diverged sharply starting from the beginning of 2009, were converging in 2010 to achieve the same level at the beginning of 2011. It is important to note that if higher inflation remains for a longer time, it can undermine gains in the competitiveness acquired due to depreciation.

5.6 Bond markets

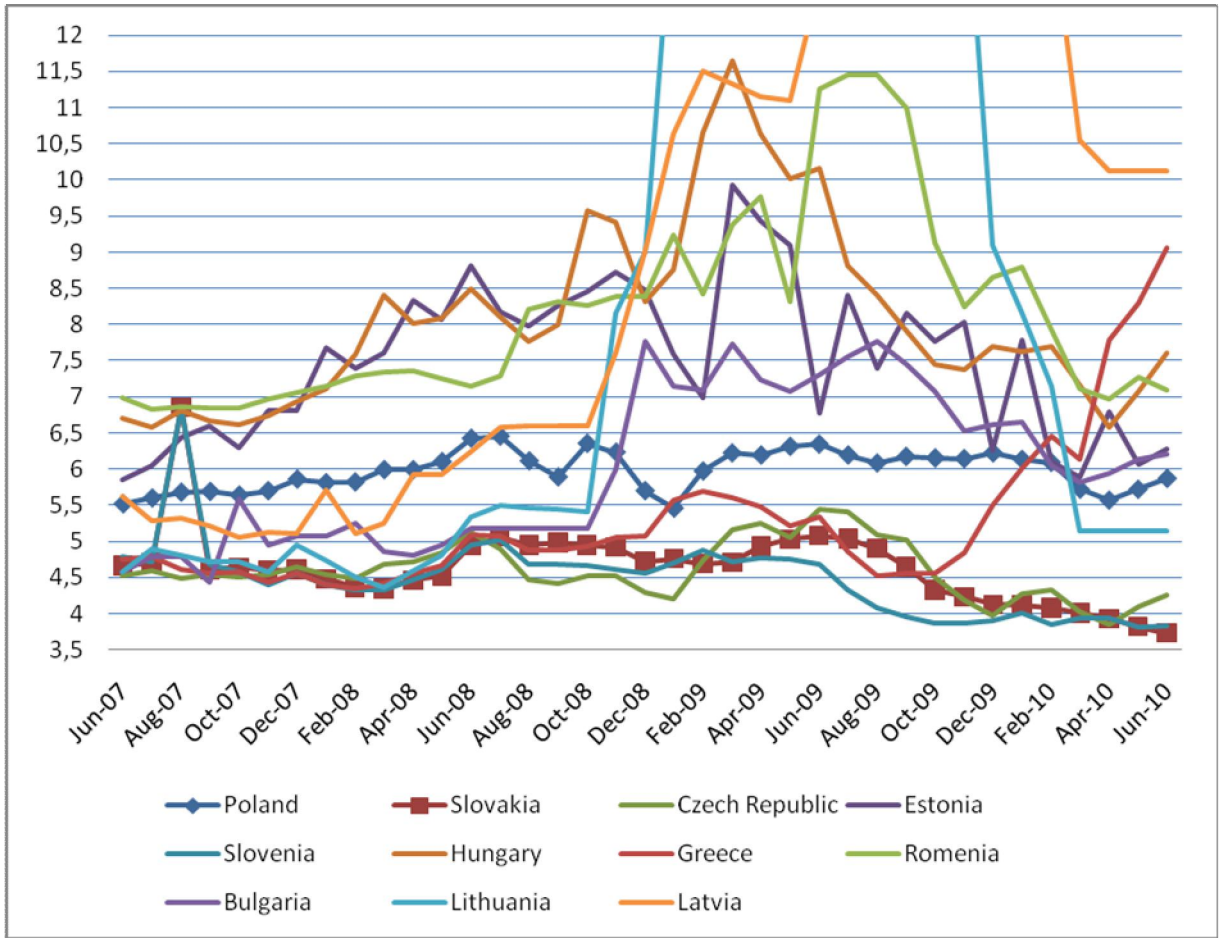
As it is presented in Figure 13, the yields of long-term government bond rose sharply in most of the countries in the region after October 2008. They skyrocketed particularly in the Baltic states. The graph also presents Greece, which is a good example of how in 2008-2009 the Euro helped to maintained stability and low yields in a highly indebted country. Until the end of 2009 Greece was perceived as a more credible borrower than most of the countries form CEE, including Poland or Estonia. The comparison with Hungary, which also had deep fiscal problems, can be particularly noteworthy.[116] Due to the growing uncertainty, the yields of Hungarian bonds increased sharply at the end of 2008, while yields of Greek bonds after a short increase were falling substantially in 2009.

The graph below shows that three countries in the CEE were in much better position than the others: the Czech Republic, known for its long tradition of low inflation, and two eurozone members – Slovakia and Slovenia. The Euro adoption in Slovakia significantly improved the credibility of the country, which was reflected in the yields of government bonds and international ratings. According to Sramko, "thanks to the euro adoption, rating agencies recognized Slovakia as the most reliable country in the region."[117] After a slight increase in yields

[115] Ramon, Maria-Dolores, "Exchange Rate Pass-Through in New Member States and Candidate Countries of the EU," *International Review of Economics and Finance 19*, issue 2, (April 2010): 30-34.
[116] Zsolt Darvas, The EU's Role in Supporting Crisis-Hit Countries in Central and Eastern Europe, Breugel Policy Contribution Issue 17, December 2009, 11.
[117] Sramko, 87.

at the beginning of 2009, they started to fall for consecutive months and in 2010 Slovak government could borrow cheaper than before the crisis.

Figure 13 Yields of Long-Term Government Bonds.



Author's calculations. Data source: OeNB. Yields in percentage points.

In Poland the situation evolved in a different way. Polish bonds were relatively resilient to the crisis and there was no rapid increase in yields, which could be observed in other countries.[118] However, the cost of borrowing remained rather high and did not start to decrease when the worst phase of the crisis was over, as it happened in the neighbouring countries. These can be partially explained by the high deficit and growing public debt.

[118] Gardo and Martin, 26.

5.7 Euro's impact on Poland

Poland maintained its own national currency, however the existence of the eurozone and the ECB activity also had an impact on the Polish economy. Firstly, the Euro area improved the economic stability in Europe, which positively influenced all countries in the region, including those which did not adopt single currency. Skrzpek described the eurozone as "a stability exporter".[119] Secondly, in late 2008 the ECB agreed to provide liquidity not only to the eurozone countries, but also to other EU member states: Poland and Hungary.[120] The National Bank of Poland was supplied with euro liquidity, which strengthened the stability of the Polish financial market. Therefore, even remaining beyond the Euro area Poland could benefited from the existence of a single European currency.

[119] Skrzypek, 35.
[120] Gardo and Martin, 38. See also: Skrzypek, 39.

Conclusion

Poland and Slovakia are two central European countries which adopted diametrically different exchange rate regimes. Slovakia for a longer time was determined to join the eurozone and finally achieved its goal amid the crisis. Polish authorities remained rather reluctant towards the Euro, therefore, Poland maintained its almost feely floating exchange rate and did not even attempt to join the ERM II. This difference greatly influenced the way these countries reacted to the economic crisis which hit them in the second part of 2008.

Using the examples of Poland and Slovakia, this thesis analysed the costs, benefits and risks associated with a given currency arrangement. It examined the theoretical arguments and checked if the real development was in line with theoretical assumptions. Moreover, it asked the question what was more beneficial for a country from CEE – to be a part of the monetary union or maintain its monetary independence.

The thesis concluded that taking into account indebtedness in foreign currencies both Slovakia and Poland could benefit from depreciation. The countries could benefit from the relatively low level of public and private debt in foreign currencies. Nevertheless, the mortgages in the Swiss Francs and the Euro constituted a social and economic problem in Poland. However, its scale was not large enough to destabilise the financial market. These problems indicate how risky depreciation can be in countries with much bigger foreign liabilities both in the public and private sectors.

The theory in general was very useful in explaining the economic processes occurring in external economic shock. The Polish Zloty lost much of its value as a result of growing risk-aversion and intensified flight to safety and liquidity. Although the depreciation was to be expected in these circumstances, its scale was unprecedented and requires further investigation. Exchange rate successfully served in the Polish case as the shock absorber. The weaker currency

strengthened the competitive position of Polish exporters and what is even more important led to a sharply drop in import. Due to the expenditure switching effect, domestic companies could efficiently displace import and maintain the high level of production.

The short-term consequences of the Euro adoption are more ambiguous. The Euro did not allow the Slovak currency to depreciate, moreover, the conversion rate set in 2008 was above current economic equilibrium, because it was based on the projections of high growth, which did not materialise. When the currencies of the neighbouring countries significantly weakened, Slovak companies had to face an effective appreciation. The exchange rate regime could not act as a buffer and partially absorb the economic shock through nominal adjustments as it happened in Poland, therefore, the crisis had a strong impact on the real economy.

On the positive side the Euro provided Slovakia with stability and credibility. The financial institutions were not endangered by exchange rate volatility and negative balance sheet effects. Exporters and importers profited from lower transaction costs and lack of exchange rate volatility. The government could sell its bonds at the record low interest. Although, there was an increase of non-performing loans, it could be even higher if the foreign exchange loans ballooned as it happened in other countries due to a depreciation.

These thesis focused also on country-specific aspects such as the openness of an economy and a trade structure, and it must be admitted that these features played a decisive role and largely determined the reaction to the crisis. Slovak economy could not benefit from the deprecation in such an extent as the Polish one. The highly concentrated export structure and the high share of durable goods in export would in any case deteriorate the position of Slovak exporters. Moreover, the expenditure switching effect cannot have an equally strong impact on Slovak economy as it happened in Poland, because Slovakia lacks sufficiently large domestic producers in many sectors. In the end, even though the currency regime played an important role, the structural features such as an economic openness or the size of an economy seem to be at least equally important.

The impact of the euro on Slovakia during the economic crisis remains blurred, however, even if a national currency protected Slovakia from the crisis, the hypothetical gains would be rather limited. Therefore, it can be argued that Slovak authorities made a good decision and in the medium to long run Slovakia should benefit from its membership in the eurozone.

Poland in the crisis clearly benefited from the independence of its monetary policy. This lesson should be carefully considered before taking any hasty decision concerning the future of the exchange rate regime. E. Nowotny, the Governor of the Oesterreichische Nationalbank, emphasises the importance of the right timing for the Euro adoption and argues that it differs from country to country.[121] He states that giving up the exchange rate mechanism too early can be risky for a country. The structural features do not make Poland such an obvious beneficiary of the eurozone accession as it was the case with Slovakia, and the recent crisis is just another proof of that. However, it must be emphasised that along with the growing trade openness and the convergence of the business cycles, the benefits from the Euro will become more obvious and relevant. Moreover, it should not be forgetten that the autonomous monetary policy may lose its effectiveness in a highly interdependent environment, as it happened in the pre-crises months.

[121] Andreas Breitenfellner, et al., "The Euro's Contribution to Economic Stability in CESEE. Conference on European Economic Integration," in *Focus on European Economic Integration Q4/09*, ed. Peter Mooslechner and Doris Ritzberger-Grünwald, (Vienna: Österreichische Nationalbank, 2009), 98.

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