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# Joining the European Monetary Union

Institutional considerations and economic impact on new Member States

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## Riga Graduate School of Law

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## SUMMARY

This paper provides a multifaceted approach to examination of the problem of introducing a single European currency in those European Union Member States that are striving for it. The author focuses especially on eight European Union members, including Latvia, Lithuania, Estonia, the Czech Republic, Hungary, Poland, Slovakia and Slovenia.

These young and in many ways immature open market economies and democracies each in its own way have to ensure conformity with the five Maastricht criteria to be granted admission to the euro area, where they should converge towards the older and more advanced members, and together create a stable and prosperous optimal currency area. This is the reality to be accomplished by European society. Such an optimal currency area is not necessarily a utopian myth: it is a heavy feasible scenario, but still a realistic one.

The benefits of euro area accession – such as transaction cost and interest rate reduction, as well as financial integration and convergence, intensification of inter-country trade relations – contribute to strengthening the economies of acceding countries, which then become members of the single monetary area, which has to be governed in such a way as to secure its optimality. These benefits can already be estimated as a percentage of gross domestic product increase.

On the other side, however, stand disadvantages and costs. Asymmetric shocks, micro- and macroeconomic distortions, agflation, changeover costs, as well as sovereign currency loss and the threat of inadequate liquidity supply - all are obstacles to the European optimal currency area, which would maintain both internal (optimal inflation – unemployment ratio) and external (balance of payments) balances.

Yet, countries that refuse to join the eurozone are obliged to bear the risk of high volatility of exchange rates, their remoteness from equilibrium level, as well as the risk of decreased autonomy of national monetary policy in the global financial environment (which is also perceived as the cost of euro area membership).

The analysis in this paper, also based on extensive statistical data, shows that the European Union itself has largely contributed to the prosperity of its new members. Within the global financial crisis, however, the successes of the early years of Union participation have been seriously neutralized, and in some countries (Latvia to the foremost) irrationality,

immaturity and failure to dispose of new sources of growth and development have led to serious deterioration in the national economy.

Being a reasonable optimist, however, the author believes that such a painful rousing could be a good shock therapy and the impetus for structural reforms which could help countries become stronger and more stable, and would contribute to the coherent and full-rate integration of the Member States with confidence for long term growth and sustainable development of a united Europe. Countries should come out of the crisis stronger than before with a clear vision and considered measures for further enhancement. This enhancement will itself bring countries closer to the Maastricht criteria, which should be complemented and expanded.

Fulfilling Maastricht criteria should not become a goal in and of itself: real qualitative compliance will be possible only when growth and development targets are set and the country moves towards achieving its internal and external balance. The euro area can become optimal when its Member States, ensuring their optimality and long-term balance, converge towards each other.

Discipline and respect for European authorities, including a single monetary authority, a single European legal framework with the supremacy of the European Court of Justice, the EC Treaty, statutes and binding regulations issued by European regulators, are absolutely indispensable.

Forcing admission of new members will result in negative economic consequences and disintegration. Urgency and lack of consideration can destroy everything that was so carefully built for many years, starting with Napoleon III's imperial aspirations and post World War II developments.

## INTRODUCTION

““First of all, you should never do a brush stroke not seeing the whole and not keeping coherence with it”, a notable painter said to his students one day. The same can be said about economic policy: one should not take any action without making sure it complies with the totality of the desired order. In order to destroy bourgeois society, one needs to overwhelm its financial system. This recital by Lenin contains the substance of the matter hidden under the demagogy disguise...”  
W. Eucken<sup>1</sup>

At the beginning of the 1990s eight countries from Central and Eastern Europe – Latvia, Lithuania, Estonia, the Czech Republic, Hungary, Poland, Slovakia and Slovenia – stepped onto a brand new path of political and economic development. Dissolution of the communist coalition and economic systems with central planning opened the door to political and economic freedom and democracy. From the beginning of the reforms, the new democracies started moving closer to western-European countries to join the European Union. They succeeded in May 2004. Since then some countries have been embodied in ERM II and in 2007 Slovenia was the first of the twelve new Member States to join the euro area as its thirteenth member. Slovenia complied with all five Maastricht stability criteria: inflation 2.3% (ceiling 2.6%), budget deficit 1.8% (upper limit 3 %), government debt 29.1% of GDP (maximum – 60% of GDP), the tolar-euro exchange rate remained stable for 22 months (though the requirements require 2 years of stability), long-term interest rate at 3.8% (maximum 5.9%).

In 2008 Slovenia was followed by Malta and Cyprus that also joined the EU in 2004. In 2009 Slovakia became the sixteenth eurozone member. Remaining EU “newcomers” are meanwhile awaiting their turn. This will come as soon as they comply with all five Maastricht criteria. These events and facts represent sufficient cause for reviewing the advantages and disadvantages of euro area membership.

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<sup>1</sup> Eucken Walter (1891-1950) – German economist who played a major role in the formation of neo-liberal concept and German economic thought.

Debates on the issue, relevant before, have not dwindled to the present day due to the high value of the matter both for the European Union, the paramount world centre, and for third countries. A great distance has been travelled on the road to integration thanks to common efforts by EU governments; but many unresolved and under-researched questions remain open. These issues require detailed and continuous analysis and obtaining new results and estimates, which end in conflict with previous ones. This is made possible thanks to the growing number of data becoming available with respect to the latest world economic and political trends.

It was previously considered that asymmetrical shocks to the economy represent a massive threat to monetary unions<sup>2</sup>. Nowadays there is another coin in the scientific community. In May 2007 during the Brussels Economic Forum, W. Buiters and E. Nielsen presented the results of their case study to the wider public. They argued that asymmetrical shocks positively impact prosperity with the assumption of effective risk sharing among countries. This situation is now observed in the euro area where an ever-increasing number of households and companies prefer a euro-oriented portfolio (portfolio of assets issued by euro area Member States).

This is decisively good in terms of finance, when returns on particular assets have a negative correlation since it helps diversify risks and achieve better risk trade off. Therefore, if asymmetric shocks hit monetary union, this will affect only negatively correlating returns of euro assets portfolio, so the level of prosperity of euro-based portfolio holders in the case of an asymmetric shock will be higher than in the case of a negative symmetric shock. The authors can be criticized for a narrow oriented approach, ignoring other important aspects, such as the labour market and asymmetric shock effects on this market segment. Nevertheless, this example serves as perfect proof that analysis of the advantages and disadvantages of the EU and euro area membership alter with the appearance of new ideas in economic and academic circles.

In this paper the author seeks to assess and compare the costs and benefits of euro area membership, to determine the effects on the economies, to furnish an answer to the question of optimality of the European currency zone and to assess to the extent possible the practicality and feasibility of Member State accession: Latvia, Lithuania, Estonia, the Czech

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<sup>2</sup> Mundell's monetary theory 1961. (Mundell R. (1961, Vol. 51, No 4.) A Theory of Optimum Currency Areas. *American Economic Review*, pp. 657-665.).

Republic, Hungary, Poland, Slovakia and Slovenia. In certain aspects Romania and Bulgaria are also referred to.

The responsibility for passing the so-called “stability test” lies on every candidate country. These countries are also responsible for taking steps oriented towards potential euro zone accession cost minimization, for example, related to transmission of rights to build monetary policy at the supranational level. As far as the author is aware, up to this moment only papers on separate countries have appeared and these did not take into account many relevant advantages and disadvantages; or the analysis embraced several countries but was not integral as well; or it employed over-simplified mathematical models. Some researchers have been over-optimistic in estimating the consequences of euro area accession<sup>3</sup>, or over-assessed the benefits<sup>4</sup>.

Therefore the author of this paper seeks to present a comprehensive analysis of the subject, give a broad overview of the problems, analysing them from different aspects, taking into account previous elaborations and shortcomings as well.

This work was carried out on the basis of European Union and European Central Bank legal documentation, materials and briefing papers issued by the EU and the ECB authorities, monographs and periodical publications; using and based on statistical data from the European Statistical Agency (Eurostat), the International Monetary Fund, the European Bank for Reconstruction and Development and the European Central Bank. The paper consists of six chapters, where the stated issues (problematics) are analysed in detail. A brief history of European monetary integration is presented in the first chapter “The euro as a world currency”. The structure of the ESCB, the Eurosystem, their basic goals, decision-making schemes and ways of their enforcement are covered in the second chapter.

The direct benefits of euro area membership, including reduction of transaction costs, bank interest rates, financial integration of countries, as well as intensification of inter-country trade relations are considered in the third chapter.

The costs of membership in the European Monetary Union are considered in the fourth chapter. The disadvantages for the “old” euro zone Member States are also covered in

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<sup>3</sup> Bitāns and Kaužēns (Bitāns M., Kaužēns E. *Eiro ieviešanas ietekme uz Latvijas tautsaimniecību* (2004). Latvijas Banka.) saw occurrence of asymmetric shocks as the only threat.

<sup>4</sup> Rose’s assessment of trade growth resulting from monetary union accession amounted to 200% (Rose A.K. One Money, One Market? The Effect of Common Currencies on International Trade (2000, No 30). *Economic Policy*, pp. 449-461; Rose A.K., van Wincoop E. National Money as a Barrier to International Trade: the Real Case for Currency Union (2001, Vol. 91, No 2). *American Economic Review*, pp. 386-390.).



this chapter, as alignment of functioning of an enlarged union is put under threat with an increasing number of euro area Member States. The basic membership costs include: risk of asymmetric shocks, risk of micro- and macroeconomic imbalances, risk of monetary crisis, agflation, loss of sovereign currency, risk of money starvation or plethora.

The fifth chapter briefly reviews the effects of refusal to participate in the euro area assuming that countries are given the choice whether or not to join the currency union. The risks of non-membership include: risk of high volatility of exchange rates, their remoteness from the equilibrium level and the risk of decreased autonomy of national monetary policy.

The sixth chapter contains extensive statistical data on the eight “new” EU Member States: the three Baltic States (Latvia, Lithuania and Estonia), the Czech Republic, Poland, Hungary, Slovakia and Slovenia, upon which conclusions regarding positive and negative aspects of EU membership and the impact on these countries’ economies are drawn.

# 1 THE EURO AS A WORLD CURRENCY

The original idea of a single European currency is associated with Napoleon III's imperial aspirations to unite Europe. But historical events (the lost war against Prussia, World War I, the contradictions caused by the Versailles Treaty, World War II, postwar problems) postponed the idea until the moment when a united Europe is becoming stronger.

In 1944 the foundations of a new monetary system were laid in the American resort town of Bretton Woods. This system relied on the gold dollar standard, in reality the hegemony of the dollar in international settlements. Anchoring national currencies to gold was supposed to be done through the dollar, and its gold content was fixed: 1 U.S. dollar was equal to 0.89 grams of pure gold. Gold, in turn, also had a fixed price in dollars: 1 ounce of gold (31.1 grams) equalled 35 U.S. dollars.

With the aim of promoting international monetary cooperation, as well as facilitating expansion and balanced growth of international trade, low unemployment rates and high real income maintenance<sup>5</sup>, the foundations of the International Monetary Fund were laid during the Bretton Woods United Nations Monetary and Financial Conference with the participation of representatives from 45 countries.

Together with the International Monetary Fund, the International Bank for Reconstruction and Development (IBRD) was established. The IBRD is now one of the World Bank Group institutions, working "with middle-income and creditworthy poorer countries to promote sustainable, equitable and job-creating growth, reduce poverty and address issues of regional and global importance"<sup>6</sup>.

The Bretton Woods system functioned smoothly until there was a shortage of dollars in the post-war world. Saturation with the U.S. currency came gradually and the eclipse of Bretton Woods began against a background of vast currency speculation. After two dollar devaluations in the early 70's the post-war system collapsed as exchange rates and the price of gold began to change depending on demand and supply for specific national currencies and gold.

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<sup>5</sup> Articles of Agreement of the International Monetary Fund, Article I Purposes. Available on the internet at <http://www.imf.org/external/pubs/ft/aa/aa01.htm> Last visited 09.09.2009.

<sup>6</sup> From the International Bank for Reconstruction and Development homepage: <http://web.worldbank.org/WBSITE/EXTERNAL/EXTABOUTUS/EXTIBRD/0,,contentMDK:21130269~menuPK:3168298~pagePK:64168445~piPK:64168309~theSitePK:3046012,00.html> Last visited 09.09.2009.

For more than thirty years a floating exchange rate system, deriving from the Jamaica Agreement (Jamaica Accord) has operated in the majority of countries. The main distinguishing feature of the system is the demonetization of gold; that is, gold deprivation of financial resources status. Gold ceased to be the most reliable world currency, having become a mere commodity forbidden to use in international settlements. Since exchange rates were now determined by market conditions with correlation of supply and demand in the currency exchange and the interbank market, fixed exchange rates of national currencies versus gold were also abolished.

The Bretton Woods system provided stability and predictability in the European Economic Community, while floating exchange rates under the Jamaica Agreement reduced them. Therefore, EEC Members began to consider the possibility of establishing special exchange relations to enable the desired stability. This decision was connected with establishment of the European Monetary System.

Establishing the “snake in the tunnel” in 1972 was the second (after foundation of the European Council in 1949) attempt to unify European countries by means of economic and financial measures – all EEC currencies were now pegged one to the other. The Basle Agreement became effective on 24 April 1972 and introduced a new mechanism that narrowed the room for currency exchange rate fluctuations to 2.25% around the central rate.

This meant that the new system “allowed central banks to buy and sell European currencies provided that the exchange rate fluctuation margin of 2.25 %, corresponding to the authorised margins between the dollar and the currencies of the Six<sup>7</sup>, was not overstepped”<sup>8</sup>. However, the “monetary snake” collapsed in 1973 due to the oil crisis and with the US dollar starting to float freely.

The European Fund for Monetary Cooperation was established on 3 April 1973. Stabilization of exchange rates between European currencies and development of a common policy for foreign reserves were proclaimed as its chief goals. Four years later, R.H. Jenkins, President of the EC, presented a project which envisaged formation of a joint European body for the issue of a single European currency and establishment of partial control over Member State economies. This was done within the framework of the European Monetary System,

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<sup>7</sup> Italy: Italian lira; Germany: German mark; the Netherlands: Dutch guilder; Belgium: Belgian franc; France: French franc; Great Britain: pound sterling.

<sup>8</sup> Source: European Navigator “*The European currency snake*” <http://www.ena.lu/> Last visited 28.11.2009.

which followed the “snake” as another milestone in European economic and financial development, and emerged along with the Jamaican reform of the international monetary environment.

Since 1979 the monetary systems of most EEC Member States have operated within the Jamaica Accord. Founded in the same year, the EMU had to provide stability in relations between Member States by means of establishing fixed but adjustable currency exchange rates between nine EMU Member Countries. The principles of the currency system under the Jamaica Accord are still effective in relations between Member States and third countries.

EMU was supposed to shield against dollar expansion into European economies. The ECU (European Currency Unit) – the non-material monetary unit, established by the Single European Act of 1986 – was taken as a basis for EMU. The ECU preceded the euro and became a real control leverage for integrating the European economy. ECU emission was partially ensured by gold. ECU relative value was measured using the currency basket method, with the share of the national currency of each of the twelve countries depending on its national GDP share in the total GDP of all 12 Member States.

In 1989 negotiations for establishing the European Union were initiated. In line with the proposed Treaty, the European Union was established and the Treaty of Rome amended<sup>9</sup>. The new Treaty stipulated conditions for the launch of EMU and established the European Central Bank. Elaboration of the EMU establishment plan was entrusted to a Committee chaired by European Commission President Jacques Delors. The 1989 Delors Report, which accomplished the work of the Committee, proposed to divide EMU into three stages.

The first stage of Economic and Monetary Union began in 1990. The Committee of the EU Member State NCB Heads received new credentials: provision of advisory services, strengthening of cooperation in conduct of monetary policy to achieve price stability. Preparation for transmission to stage III of EMU was also under the responsibility of the Committee of NCB Heads.

The Maastricht Treaty signed on 7 February 1992 establishing the EU became effective on 1 November 1993. The Treaty also introduced the Protocol on the Statute of the

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<sup>9</sup> The Treaty of Rome – signed on 25 March 1957 by Germany, France, Italy, Belgium, the Netherlands and Luxemburg, establishing the European Atomic Energy Community and the European Economic Community. Purpose: erosion of barriers on the way to free trade between EEC members, and single market creation.

European System of Central Banks and the European Central Bank, as well as the Protocol on the Charter of the European Monetary Institute.

The Maastricht Treaty formulated the five Maastricht criteria that have to be fulfilled by countries to allow them become plenipotentiary members of the economic and monetary union and join the euro area. Candidates should for at least two years prior to eurozone accession participate in the ERM II exchange rate mechanism. ERM II represents a period during which each euro area candidate should prove conformity of its economic indicators with the Maastricht criteria. Sustainability of the state's financial system, price level equalization and exchange rate stability are assessed. The purpose of the criteria is to assure and maintain balanced economic growth within the framework of Economic and Monetary Union.

<b>ECONOMIC AND MONETARY UNION</b>	<u>STAGE I</u> <i>Start: 1 July, 1990</i>
	<ul style="list-style-type: none"> <li>• freedom of movement of capital;</li> <li>• strengthening of co-operation between central banks;</li> <li>• free use of ECU;</li> <li>• increase in economic convergence.</li> </ul>
<b>ECONOMIC AND MONETARY UNION</b>	<u>STAGE II</u> <i>Start: 1 January 1994</i>
	<ul style="list-style-type: none"> <li>• establishment of the European Monetary Institute;</li> <li>• intercession on distribution of loans to the private sector by central banks;</li> <li>• intensification of Member State monetary policy coordination;</li> <li>• growth of economic convergence;</li> <li>• initiation of the process of establishing NCB independence; to be accomplished by the time of ESCB establishment;</li> <li>• preparation for transition to Stage III of EMU.</li> </ul>

### STAGE III

*Start: 1 January 1999*

- final anchoring of exchange rates of 11 (later 12) national currencies to the euro;
- euro introduction;
- conduct of a single monetary policy of the ESCB;
- effectiveness of the Stability and Growth Pact;
- effectiveness of the new exchange rate mechanism ERM II.

Chart 1. The stages of Economic and Monetary Union.

The following Maastricht criteria became effective on 1 November 1993:

1. Financial sphere of state activity. The state budget deficit has to be below 3% of GDP. Public sector debt should be below 60% of GDP, or slowly approaching this level.
2. Price stability. Inflation in the candidate should not exceed the average level in the three Member States with the lowest inflation in the euro area by more than 1.5% points.
3. Nominal exchange rate. The state should at least for two years participate in ERM II and maintain the stability of its exchange rate towards the euro.
4. Nominal interest rates. Long-term interest rates in the country-candidate should not exceed the average level in the three Member States with the lowest interest rates in the euro area by more than 2 % points<sup>10</sup>.

Apart from these criteria, the European Commission and European Central Bank can also assess the level of market integration, the condition and development of payment balance, as well as labour market conditions and other price indices of candidate performance. The criteria of financial sector stability (budget deficit and debt) have also to be complied with after full Economic and Monetary Union accession.

Establishing the European Monetary Institute marked the start of stage II of EMU on 1 January 1994. Simultaneously the Committee of Heads of NCBs ceased to exist. The EMI did not have the powers necessary to conduct monetary policy. Its main objectives were:

- strengthening cooperation and coordination between NCBs in monetary policy conduct;
- preparing for establishment of the ESCB, conduct of monetary policy common to all EU Member States and the changeover to a single currency – the euro;

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<sup>10</sup> The Maastricht Treaty Article 109j (1). Available on the internet at <http://www.eurotreaties.com/maastrichtec.pdf> Last visited 28.11.2009.

- run-up of new mechanisms for non-euro EU Member State national currencies converting to the euro. For these purposes the ERM II exchange rate mechanism was adopted in June 1997.

The Commission was dissolved in 2002, along with introduction of euro banknotes and euro coins.

The name of the new European currency unit – the euro – was adopted by European Council Decision in Madrid on 15-16 December 1995. The Commission for Euro adoption was established in Belgium on 22 March 1996 to encourage the private and public sectors to convert to the European single currency euro, and monitor the smoothness of changeover.

In December 1996 the EMI presented the new types of euro banknote worth 5, 10, 20, 50, 100, 200, 500 euro and euro coins worth 1, 2, 5, 10, 20, 50 cents and 1 and 2 euro coins to the European Council and the public. The new euronotes and eurocoins were introduced into circulation in 12 EU countries on 1 January 2002 (until the end of 2001 the euro existed only in clearing settlements in the form of cheques, on bank accounts and for non-cash transactions). In June 1997 the European Council adopted the Stability and Growth Pact supervising observance of Maastricht Treaty provisions during the stage of euro changeover.

In accordance with the EU Council Decision on 2 May 1998, eleven EU Member States (Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal) were recognized as prepared for the changeover to the single currency within Stage III of EMU. At the same time the final exchange rate of the national currencies of these eleven EU Member States was fixed.

On 1 June 1998, the EMI was reformed into the European Central Bank, whose chief goal is euro area price stability maintenance. The ECB is located in Frankfurt, Germany. Within the Eurosystem framework the ECB interacts with the national central banks of fifteen euro zone countries. The ECB and the twenty seven NCBs of the Member Countries form the so-called European System of Central Banks.

The five year-long Action Plan for the Development of Financial Services comprising 42 measures was presented at the meeting of Ministers of Economy and Finance in Vienna in December 1998. The plan, approved in April 2000, focused on foundation of a single financial services market by 2005.

The Stability and Growth Pact, effective since 1 January 1999, obliged all EU Member States to seek to ensure zero balance or budget surpluses. Penal sanctions might be imposed

on an EU Member State inobservant of the terms and conditions (a budget deficit exceeding 3%). Under the Pact a euro zone Member is obliged to regularly prepare and publish a mid-term economic stabilization programme. Non euro zone Members should also develop and publish these programmes. The Stability and Growth Pact is important since it sets minimal requirements and criteria for harmonization of economic policy during regional integration. If the Pact cannot be complied with, or it does not suit separate Member States, then further extension of integration becomes meaningless.

The Pact, as one of the most important pillars in Economic and Monetary Union, stipulates convergence of the main macroeconomic indicators for public finance, inflation and interest rates. It has also become a disciplinary instrument for the governments of EMU countries in the course of fiscal policy conduct (the main criteria are a state budget deficit restriction to 3% of GDP, and public debt to 60% of GDP). Foundation of the EMU, considering introduction of the euro as a means of single currency unit and transmission of functions to conduct monetary and currency policies to a pan-European body – the European Central Bank - originated in circumstances of differences in monetary and financial situation among the participating states. This would not allow the euro area to be seen as an optimal currency area, ripe for single currency introduction. However, with the political decision made, it was presumed that the “optimality level” would increase in the course of project realisation.

The first proposals to deviate from Pact principles were announced in 2001 for the sake of economic growth stimulation: it was proposed to increase public expenditure to conduct countercyclical policy despite the budget deficit increase. Unsurprisingly, even the German left-of-centre government (including the social democrats devoted to neo-Keynesian prescriptions and pushed by trade unions to their use) abandoned publicly fulfilling this proposal. However, in practice Germany and Portugal soon exceeded the allowed deficit ceiling, while France and Italy came very close to it.

The Stability and Growth Pact is often criticized for its inflexibility and ultimatism. Nevertheless, in this case the search for flexibility could mean erosion of the basis under the single monetary policy: maintaining euro stability. For this reason the ECB acted against alleviations of the Pact, since preserving euro value for the European monetary body is more important than the impact on conjunctural development (which fully corresponds to the ideology perceived by the German Bundesbank). Notwithstanding resistance, in March 2005



the Pact was amended. The two criteria regarding budget deficit and public debt remained unchanged, with amendments made to cover the reasoning for considering a Member State to have run in “excessive deficit”<sup>11</sup>. “Improving the implementation of the Stability and Growth Pact”<sup>12</sup> introduced the ““exceptional and temporary” excess of the deficit over a reference value”<sup>13</sup>, as well as “all other relevant factors”<sup>14</sup> that could now be taken into consideration in the “excessive deficit” judgment. Now the “deadlines for correcting the excessive deficit could be revised and extended if unexpected adverse economic events with major unfavourable budgetary effects occur during the excessive deficit procedure”<sup>15</sup>.

As European governments have recently been massively investing in bank rescue programmes and surmounting economic crisis, thus increasing national budget deficits, the European Commission softened the 3 per cent rule in its economy stabilization programme, adopted on 26 November 2008. The EC allowed Member States to slightly exceed the budget deficit threshold, but only marginally and for a short term (less than one year). Clearly, complying with the Pact and maintaining a policy aiming to revive the European economy, are two almost incompatible tasks.

Glyn Davies, historian and author of the book “A History of Money: From Ancient Times to the Present Day”<sup>16</sup>, notes that for most of human history currencies had an international character and circulated simultaneously in many countries. This role was fulfilled, for example, by the Roman denarius, which can be traced in the names of modern monetary units. The descendants of the Roman denarius are the Serbian, Croatian, Jordan, Tunisian, Algerian, Iraqi and Kuwaiti dinar; the dinar is also the potential name for the new Persian Gulf currency. Heirs of the Ancient Greek drachma are the Moroccan and United Arab Emirates dirham (as well as the modern Greek drachma, which disappeared with transition to the euro).

Starting with the XIX century, a national currency became an indispensable symbol of each independent state. Nevertheless, in recent decades a reverse process could be seen: the

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<sup>11</sup> Council Regulation (EC) No 1467/97 of 7 July 1997 on speeding up and clarifying the implementation of the excessive deficit procedure. Available on the internet at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31997R1467:EN:HTML> Last visited 28.11.2009.

<sup>12</sup> [http://www.banque-france.fr/fr/eurosys/telechar/europe/ECOFIN\\_210305a.pdf](http://www.banque-france.fr/fr/eurosys/telechar/europe/ECOFIN_210305a.pdf) Last visited 28.11.2009.

<sup>13</sup> Improving the implementation of the Stability and Growth Pact Article 3.2 Available on the internet at [http://www.banque-france.fr/fr/eurosys/telechar/europe/ECOFIN\\_210305a.pdf](http://www.banque-france.fr/fr/eurosys/telechar/europe/ECOFIN_210305a.pdf) Last visited 28.11.2009.

<sup>14</sup> *Ibid.*, Article 3.3.

<sup>15</sup> *Ibid.*, Article 3.8.

<sup>16</sup> Davies G. *A History of Money: From Ancient Times to the Present Day*, 3<sup>rd</sup> ed., Cardiff, University of Wales Press, 2002.

number of national currencies is reducing. In 1996 the International Organization for Standardization<sup>17</sup> reckoned 174 monetary units at a time when the political map of the world listed 191 countries. In 2008, the number of currencies decreased to 157 and the number of states increased to 194. The main reason for this was the unification of European currencies, caused by transition to the euro.

In 2002, with introduction of the new single European currency by twelve Member States, stage III of EMU was now completed. The euro buried such famous and reliable currencies as the franc (in France and Belgium), the mark (in Germany and Finland), the lira (in Italy) and the guilder (in the Netherlands). Today the euro is officially used in 16 eurozone States; with the addition of Montenegro, Kosovo, Andorra, Monaco, San Marino and the Vatican, this makes 22 countries together.

exchange rate effective since 1 January 1999		
Belgium	(BEF) Belgian franc	40.3399
Germany	(DEM) Deutsche mark	1.95583
Spain	(ESP) Spanish pesetas	166.386
France	(FRF) French franc	6.55957
Ireland	(IEP) Irish pound	0.787564
Italy	(ITL) Italian lira	1936.27
Luxembourg	(LUF) Luxembourg franc	40.3399
Netherlands	(NLG) Netherlands guilder	2.20371
Austria	(ATS) Austrian schilling	13.7603
Portugal	(PTS) Portuguese escudo	200.482
Finland	(FIM) Finnish markka	5.94573
Exchange rate effective since 1 January 2001		
Greece	(GRD) Greek Drachma	340.75
exchange rate effective since 1 January 2007		
Slovenia	(SIT) Slovenian tolar	239.640
exchange rate effective since 1 January 2008		
Cyprus	(CYP) Cyprus pound	0.585274

<sup>17</sup> International Organization for Standardization homepage: <http://www.iso.org/>.

Malta	(MTL) Maltese lira	0.429300
exchange rate effective since 1 January 2009		
Slovakia	(SKK) Slovak koruna	30.1260

Chart 2. Exchange rates of national currencies against the euro at the final stage of euro adoption (ECB data<sup>18</sup>)

More or less intensive currency unifications are taking place in other regions of the world. Since 1945 a franc of the African colonies has existed – this is a monetary unit originally created in 12 former French colonies. Since 1965 the Caribbean dollar circulates in eight countries of the Caribbean Sea. In 1991 over 50 African States agreed to establish a common currency for the continent by 2028. The four Arabian Gulf States (Saudi Arabia, Kuwait, Qatar and Bahrain) plan to introduce a single currency in the nearest future.

It is very unlikely that the U.S. would ever give up its dollar. The dollar is more than just the national currency of the United States. It is generally accepted that thanks to the dollar the American state itself was created, and later on the world financial system. Historian Stephen Mihm described the story in his book<sup>19</sup>. People inhabiting the North American colonies of Great Britain experienced a vital need for money, that is, gold and silver coins. These were minted in Europe and were therefore a rarity in colonial America. The silver and gold did not linger around, and swam to England. As a result, the local economy was based on barter, business therefore suffered, and the authorities were unable to meet their financial obligations (maintain armed forces and efficiently collect taxes). As a result, a novel solution was found in 1690 in the Massachusetts colony: its government began to print assignats, which, as it was indicated, equalled “real money” (silver and gold coins) at par. The implication was that the authorities had enough precious metals to guarantee the paper notes. But in reality such a monetary fund did not exist either in Massachusetts or in other colonies and private banks issuing dollars, which followed the example. Nevertheless, the new money was in demand: it brought a new philosophy of finance which implied that the money could be issued today, expecting that in the future it would become possible to guarantee it (through taxes, future harvests and others).

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<sup>18</sup> Source: <http://www.ecb.int/stats/exchange/eurofxref/html/index.en.html> Last visited 01.11.2009.

<sup>19</sup> Mihm S. *A Nation of Counterfeiters: Capitalists, Con Men, and the Making of the United States*, Harvard, Harvard University Press, 2007.

With time this ideology started dominating in other societies and states. Money, once tied to gold and silver, is now in most cases produced virtually free – authorities only monitor successful operation of the economy. In this regard, states periodically produce massive money infusions into the economy or, conversely, reduce the amount of money in circulation. Most important is to ensure that a currency is not rejected – that is, to enable it to maintain economic processes.

The financial history of mankind has also demonstrated that there has never been a single world currency. Various monetary units have always competed for popularity. An indicator here is the history of the British pound sterling, which was the king of currencies during most of the XIX and early XX centuries. However, it began to lose its value in 1918, after the First World War. Around 1950 the U.S. dollar took first place in the world and in 1977 the German mark also overtook the British pound. However, these dates are often subject to doubt, since judgements are made based on vague criteria.

According to IMF estimates, in 2008 64% of world reserves were kept in U.S. dollars, 26.5% in euro, 4% in British pounds, 3% in Japanese yen and 0.5% in Swiss francs<sup>20</sup>. The share of the U.S. dollar has been decreasing since 1999, whereas the euro has strengthened its position. The share of the U.S. economy in the world economy, budgetary problems, erosion of purchasing power - all play against the dollar. The euro, however, is, according to George Soros, inflexibly controlled due to the amorphous power structure in the European Union.

Euro introduction has accelerated shrinkage of the dollar. At the end of the XIX century German merchant Johann Silvio Gesell<sup>21</sup> proposed using money with a negative interest rate. He insisted that this would lead to fast money circulation and prosperity of the economy. A successful experiment took place in 1932 in the little Austrian town of Woergl with three thousand residents. Rates in all the banks in the world (excluding the non-interest bearing Islamic banks) are positive and the value of deposited money grows *ceteris paribus*. Except for the United States, the dollar exported from the U.S. represents, in fact, the debt of the U.S. With dollar depreciation, the United States actually made its debt depreciate over time in full accordance with Gesell's concept. Dollar depreciation is carried out

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<sup>20</sup> <http://www.imf.org/external/np/sta/cofer/eng/cofer.pdf> Last visited 19.11.2009.

<sup>21</sup> Johann Silvio Gesell (1862 – 1930) – German merchant, economist, founder of the “free economy” (“Freiwirtschaft”), author of “Currency Reform as a Bridge to the Social State” (“Die Reformation des Münzwesens als Brücke zum sozialen Staat”, 1891) and “The Natural Economic Order” (“Die natürliche Wirtschaftsordnung durch Freiland und Freigeld”, 1916).

systematically by issuing dollars to ensure the deficit of the U.S. balance of payments. As already mentioned, this process was speeded up with the emergence of a common European currency.

Having become one of the two leading world currencies, the euro possessed a stable position “despite the global financial crisis”<sup>22</sup>. The share of the euro in the stock of international debt securities at the end of 2008 amounted to 32.2% versus 31.1% in 2007; the upswing was also visible for cross-border loans: to 22.2% against 20.7% respectively; and cross-border deposits: 22.4% in the fourth quarter of 2008 against 20.5% in the fourth quarter of 2007. The euro share in global foreign reserves, as already mentioned, amounted to 26.5% at the end of 2008, whereas at the end of 2007 it was 1.2% less, totalling 25.3%<sup>23</sup>.

The single currency has also become more important in daily foreign exchange trading: the average percentage in 2008 equalled 41.2%, whereas in 2007 it was lower, totalling 37.8%. The euro has also become a more popular currency in international trade: a significant increase was demonstrated in 2007 versus 2006, when settlement/invoicing of goods exports from selected euro area countries to non-euro area countries equalled 40% to 79% versus 39% to 68%. The same trend was visible in the case of settlement/invoicing of goods imports from selected euro area countries to non-euro area countries: in 2007 – 35% to 73%, in 2006 – 34% to 59%<sup>24</sup>. Dollars, however, remain a traditional means of exchange in primary commodities and trade in energy products.

Cumulative net shipments of euro banknotes to destinations outside the euro area grew by 24.3 billion euro from December 2007 (71.1 billion euro) to December 2008 (95.4 billion euro)<sup>25</sup>. However, “significant declines in total outstanding amounts or transaction volumes across most financial market segments”<sup>26</sup> were observed against a background of the excellent results of the Eurocurrency.

The euro enjoys a strong regional role, being for obvious reasons a preferred currency not only inside the eurozone but also outside it, within the European Union (in most of the Member States that will at some stage join the euro area), and countries wishing to join the

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<sup>22</sup> *The International Role of The Euro* (July 2009), ECB Press Release, p. 12. Available on the internet at <http://www.ecb.int/pub/pdf/other/euro-international-role200907en.pdf> Last visited 29.11.2009.

<sup>23</sup> *Ibid.*

<sup>24</sup> *Ibid.*

<sup>25</sup> *Ibid.*

<sup>26</sup> *Ibid.*, p. 13.

EU in the future. As already mentioned, six non-EU countries (Montenegro, Kosovo, Andorra, Monaco, San Marino and the Vatican) have made the euro their national currency.

The strong position of the euro within the EU also has negative implications, since the free movement of capital (one of the three main EU legal concepts) was clearly demonstrated by the inflow of cheap euro money into the economies of less advanced EU Member States. This, as is very well known, contributed to disappointing developments in their economies. Not every state is ready to bear a cheap but strong and stable currency.

It could be misleading to suppose that the current euro versus dollar exchange rate growth evidences a soon-to-be euro victory over the dollar. This is, first of all, due to the fact that prompt euro appreciation is very disadvantageous for Europeans, since it lowers Europe's export potential, opening broad gates for American imports. Probably therefore, as well as for other reasons, Mr Trichet said "it is extremely important that the U.S. authorities, including the Treasury, the Secretary of the Treasury and the chairman of the Fed, would pursue policies that take into account the fact that a strong dollar is in the interest of the U.S."<sup>27</sup>.

Mr Trichet also declared not to ever have "a grand plan to promote the international role of the euro"<sup>28</sup> and make the euro the "world's primary reserve currency"<sup>29</sup>, although admitting that "the euro has helped Europe weather the financial crisis"<sup>30</sup>. The last was also made possible by the global popularity of the euro (demand for Eurocurrency), which helped and supported it.

The EU produces one third of global goods output, being at the same time the generally recognized leader in goods and services trade. The eurozone has a 28.8% share in world exports, whereas the USA has just 8.1% (see chart 3). This, in particular, is the difference between the EU and the U.S. The United States produces only 20% of world goods. At the same time it possesses a currency which is used in 40% of global currency operations.

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<sup>27</sup> Robinson F., Randow J. (15.10.2009) *Trichet Says U.S. Must Pursue 'Strong Dollar' Policy*. Available on the internet at <http://www.bloomberg.com/apps/news?pid=20601085&sid=aKbx09aO9wpM> Last visited 28.11.2009.

<sup>28</sup> *Ibid.*

<sup>29</sup> *Ibid.*

<sup>30</sup> *Ibid.*

	EURO AREA	USA
Share of world GDP	15.7%	20.7%
Share of world exports	28.8% (incl. intra-euro area trade)	8.1%
	16.8% (excl. intra-euro area trade)	
Share of the public sector (% of GDP)	21.9%	12.9%
Refinance rate	1.00% (effective from 13.05.2009)	0.25% (effective from 16.12.2008)
Bank deposits (% of GDP)*	80%	55%
Bank loans (% of GDP)**	145%	63%
Loans to general government (from the total loan volume)*	24%	14%

\* - 2006 data

\*\* - 2007 data

Chart 3. Comparative analysis of the euro area and USA in 2008<sup>31</sup>.

If the euro becomes a primary world currency, then the currency market will no longer be fully dependent on dollar dynamics and a bipolar international financial system can become more stable than it is now.

In the controversy that has raged around the primacy of the euro, one can also hear pessimistic voices that euro introduction led to serious economic disruption and even social cataclysms. These negative trends can be attributed to many factors: possible speculative attacks on the euro, mass unemployment and economic decline on a pan-European scale; country-offender resentment towards penalties, potential mutual agreement to dissolve the EMU. In this regard, examples of the collapse of monetary unions, including the collapse of a single monetary system as a result of the collapse of the Soviet Union, are recalled.

The rivalry between the euro and the dollar represents one of the elements of the acute geopolitical competition between Europe and the USA. Europe seems to have partially revived the “catch up and surpass America” slogan<sup>32</sup> and strives to create a new powerful

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<sup>31</sup> Source: Based on data provided on the European Central Bank homepage: <http://www.ecb.int/mopo/eaec/html/index.en.html>, <http://www.ecb.int/press/key/date/2009/html/sp090622.en.html>, in the IMF Report in August 2006 at <http://www.imf.org/external/pubs/ft/scr/2006/cr06287.pdf>, and also on data from the US Federal Reserve home page: <http://www.federalreserve.gov/>.

<sup>32</sup> A phrase once pronounced by Nikita Khrushchev (1894-1971), First Secretary of the Communist Party of the Soviet Union in 1953-1964 during the Cold War.

empire on the continent in opposition to the United States. As the saying goes, history teaches people that it never teaches them anything. Europeans should not repeat the bitter experience of the Roman Empire or Napoleonic France.

The euro will be one of the world currencies for an obvious reason – the euro area is a big territory consisting of advanced countries that possess a considerable share of world GDP, production, exports, imports and others. As the euro area will be enlarging, the role of the Eurocurrency will continue to increase. Therefore it is very important that the euro area develops harmoniously and in a balanced way, which means the eurozone develops so as to become the optimal currency area. By becoming stronger internally, it is possible for the euro to gain a strong position externally, on the global market.

With replacement of fifteen national currencies for the euro, the process of European financial integration did not finish. The degree of integration of European financial systems varies across market segments and depends largely on development of the underlying infrastructure. One can speak of complete financial integration only in the context of euro introduction.

The repo market with a merged payment systems market for large payments (TARGET and TARGET2) belongs to the highly integrated markets. Markets in government and corporate bonds and the security markets have become more integrated after euro introduction, but there is still room for further integration. With euro adoption and elimination of the risk associated with exchange rate volatility, government bond yields converged in all euro area Member States. Moreover, the change in the cost of bonds became conditional upon the same factors but the impact of private (national) factors is still visible. These include differences in liquidity supply and existence or absence of a developed derivatives market. At the same time, evidence of considerable integration of the bond market can be obtained from the increasing share of cross-border transactions on the long-term debt instruments market.

The interbank market remains insufficiently integrated, and if inter-bank transactions increasingly give evidence of the enhancement of integration processes, then in retail banking strong inter-country contrasts remain. The Single Euro Payments Area (SEPA) is designed to iron these contrasts out.



## 2 THE EUROPEAN SYSTEM OF CENTRAL BANKS: INSTITUTIONAL SET-UP AND MAIN FUNCTIONS

The Bank of Amsterdam, founded in 1609, was the first bank to perform many of the duties similar to those of modern central banks. The Bank issued its own money and ensured its supply via operations in the open market. It conducted RTGS-operations on large settlements, although no doubt four centuries ago this system functioned in a different way. The Bank of Amsterdam carried out payments equal to the GDP of the Netherlands in three weeks; today, such operations require less than a week.

There has been a Central Bank in every country in the world for many years now. In the European Union the 27 National Central Banks of the Member States and the European Central Bank form the European System of Central Banks. Fifteen NCBs of Member States of the euro zone and the ECB form the Euro system (see chart 4).

The ESCB performs in accordance with the principles of open market economy with its free competition accentuating effective resource allocation in accordance with Community monetary policy.

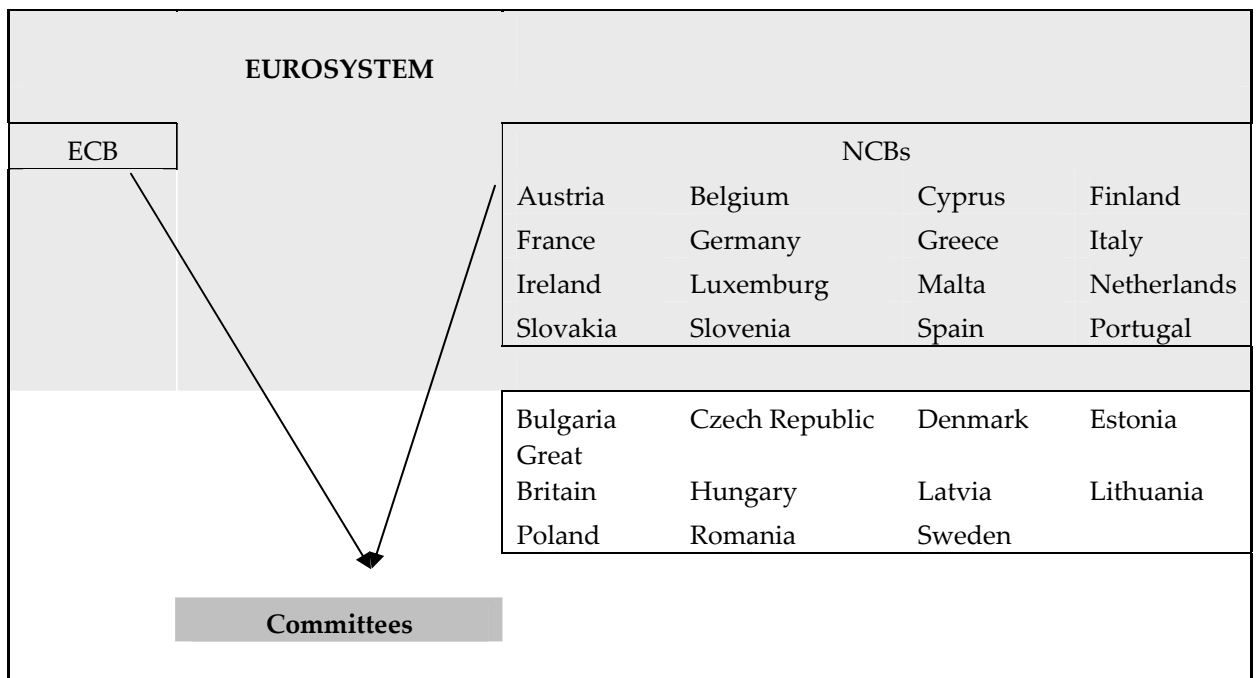


Chart 4. The European System of Central Banks.

The main goal of the ESCB (see chart 5) declared in the Protocol to the Charter of the European System of Central Banks and European Central Bank is to maintain price stability.

Apart from that, the ESCB:

- promotes the defined goals of Community economic policy;
- transacts foreign currency exchange operations;
- supervises the foreign reserves of the Member States;
- controls the smoothness of operations in payment systems.

On 1 January 1999, eleven National Central Banks of the EU Member States (Austria, Belgium, Ireland, Spain, Italy, Luxemburg, Netherlands, Portugal, Germany, Finland and France) handed over the responsibility for conducting their monetary policies all over their territories to the European Central Bank. This resulted in the second largest world economy after the United States (see chart 3). From the political point of view this allowed European countries to have a strong currency competitive with the American dollar.

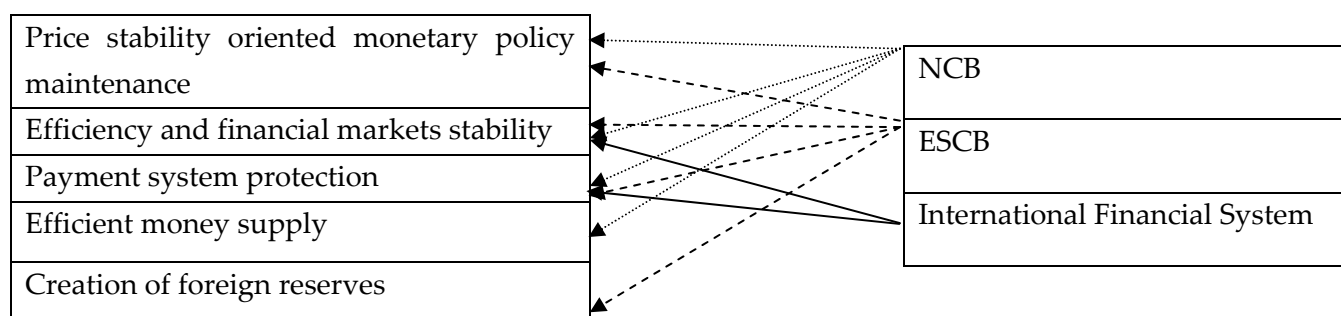


Chart 5. Primary objectives of NCB, ESCB and the International Financial System.

The ECB has at its disposal all the necessary tools to conduct efficient monetary policy and maintain price stability in the euro zone: interest rate as the main tool and bank loan volume as the minor.

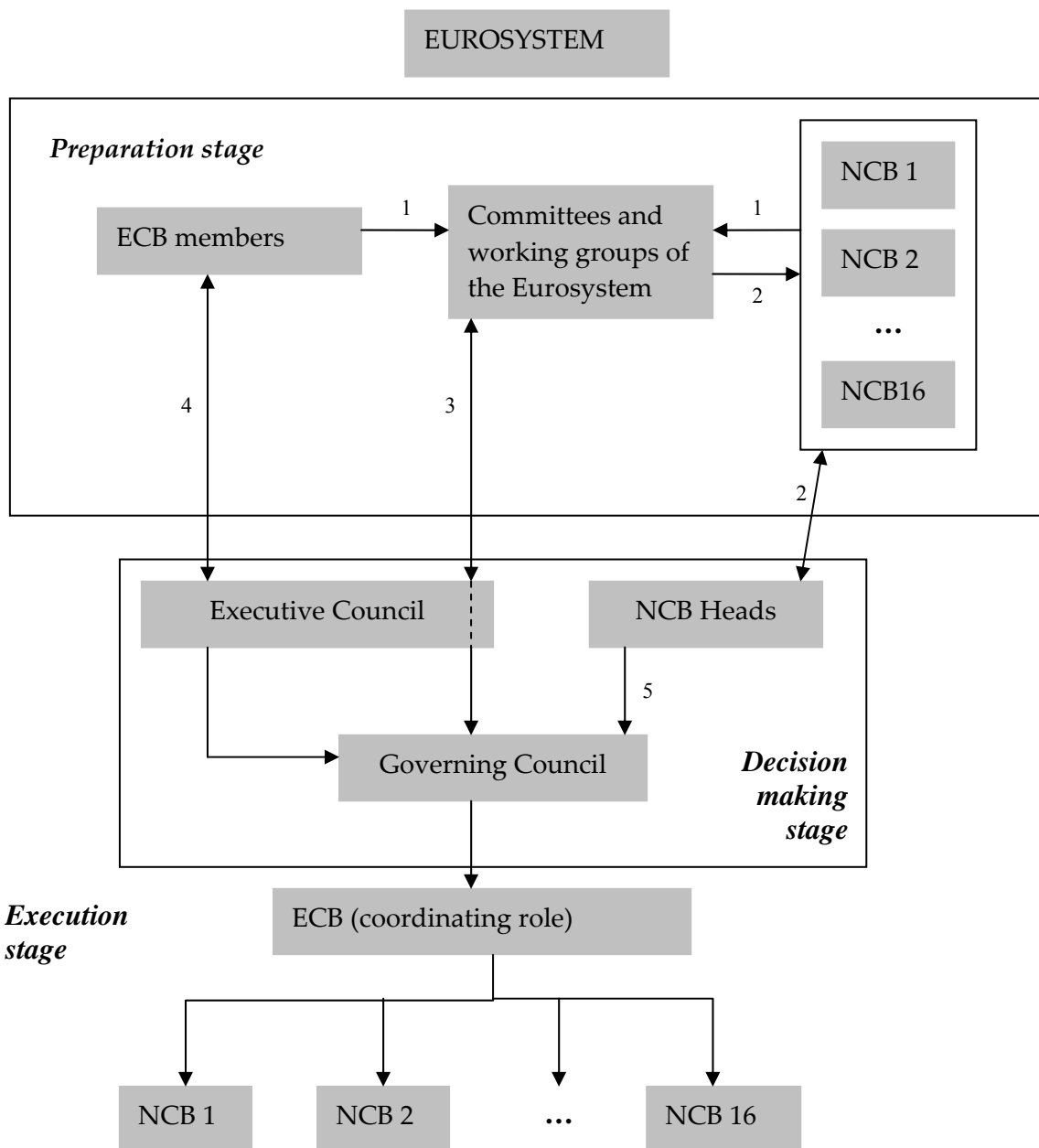
The Treaty Establishing the European Community and the Statute of the ESCB and of the ECB represent the legal basis for conducting common monetary policy. The ECB and the ESCB were established on 1 June 1998, in accordance with the Statute. The ECB was established as the Euro system and ESCB main body.

ECB financial commitments are separated from financial commitments of the European Union. The ECB has its own budget, approved and paid for by the NCBs of the Euro system.

The following operations stand among ECB competences:

1. Issue of the European currency (euro).
2. Control of general economic policy maintenance.

3. Supervision of financial institution activity and of overall financial system stability.
4. Aggregation of statistical data (with the help of NCBs).
5. Initiation of foreign relations with European and International organizations.
6. Levelling the common exchange rate.
7. Control over interest rates.



- 1 – Preparatory work for committees and working groups.
- 2 – NCBs report to their Heads (Presidents). Heads give instructions.

- 3 – Reports are transferred to the Executive Council for further handing over to the Heads of Secretariats. The Executive Council issues instructions.
- 4 - Board of Governors documentation prepared by ECB staff members and transferred by the Executive Council through the Secretariat. The Board of Governors gives instructions.
- 5 – Transfer of letters and documentation via the President.

Chart 6. Monetary policy decision-making procedure in the European Central Bank.

The ECB consists of the Board of Governors and the General Council. In its turn the Board of Governors consists of the Executive Board and Heads of NCBs of the Euro system. The Board of Governors consists of the President and the Vice President of the ECB and Heads of NCBs of the ESCB.

The Executive Board represented by the President, the Vice President and four other members take decisions relative to conducting monetary policy in the euro area in compliance with the Board of Governors' directives and decisions. They give obligatory instructions to the NCBs of euro area countries, rule over ECB proceedings and control currency and interest rates.

The General Council comprises 29 Members: the President of the ECB, the Vice President of the ECB and 27 Heads of the NCBs of the EU Member States (16 euro area countries and 11 countries outside the euro zone). The General Council is accepted as the third legal entity holding rights to take decisions in the ECB.

The General Council performs an advisory function for the ECB. It facilitates:

- statistical information accumulation;
- annual report preparation;
- definition of rules for Financial Accounting and Reporting standardization for conduct of NCB operations;
- support of decent working conditions for ECB staff;
- arrangements required for final fixing of Member State currencies to the euro.

According to the Statute the General Council will be dismissed as soon as the euro is adopted.

Decisions taken regarding the structure of the Committees of the Eurosystem lie within the scope of competences of the Board of Governors; just as the Executive Council (Board) is responsible for the internal structure of the whole ECB (e.g. responsible for a

number of functional units and organizational principles). National Central Banks are autonomous in qualifying their internal structure.

Chart 6 illustrates the decision-making process in respect of monetary policy. The procedure consists of three stages: preparatory, decision-making, and roll-out. The first stage is mostly technical for the purpose of selecting required data and making decisions on technical aspects. For example, the Board of Governors employs a special strategy in arriving at interest rate definition (see chart 7). The Board of Governors carries out two kinds of analyses on a regular basis: economic in order to spot short and medium term risks that might challenge price stability in the euro area, and monetary analysis for the purpose of highlighting medium and long term inflationary trends.

At the second stage the Executive Council and the Board of Governors are involved in the decision-making process. The Executive Council prepares sessions for the Board of Governors. Decisions concerning actions accepted for the purpose of conducting monetary policy are taken during these sessions. Monetary policy decisions are taken by the Board of Governors under the auspices of the President after comprehensive discussion on risks threatening price stability in the euro zone.

The third stage is where National Central Banks are finally actively engaged in the process. NCBs put into effect adopted decisions under the direction of one of the Committees of the Eurosystem (according to the decision taken).

The decision-making strategy of the ECB pursues price stability assurance as its chief goal, to ensure that a number of economic and monetary indicators are monitored on a regular basis: monthly (prices and costs, investor sentiments, money aggregates, M3 equivalents), quarterly (demand and supply, labour market performance) and annually (fiscal policy). The collected data is thereafter processed with implementation of different econometric models (DSGE-models, time-series models and others). This allows subsequently to determine short-term and mid-term factors that cause inflation, as well as to prepare long-term analysis of financial trends. Based on the results the Governing Council possesses the right to prepare a decision and a plan for further action if something is threatening or could threaten price stability in the euro area.

A flexible exchange rate regime was adopted in the eurozone towards countries not participating in ERM II. Exchange rate policy in the euro area is maintained on a pan-European level; decisions can no longer be taken on national levels as a single currency also

means a single exchange rate policy. The ECB regularly monitors the exchange rate markets and outlines main trends in them. After that the results of observations are shared with eurozone finance ministers and the Commission of the Eurogroup, so that relevant decisions can be made regarding the necessity to intervene in the foreign exchange market. However, prior to final decision-making, discussions with other major partners are held: the G7, the IMF and other countries within the framework of bilateral relations.

If in the end and as a result of market dynamics analysis and connected discussions a decision is made to intervene in the foreign exchange market, then the ECB (represented by the Executive Board), having the necessary instruments in its possession, performs the required adjustments.<sup>33</sup>

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<sup>33</sup> Smaghi L.B. *The Euro Area's Exchange Rate Policy and the Experience with International Monetary Coordination during the Crisis*. Speech at a Conference in Brussels. 06.04.2009. Available on the internet at <http://www.ecb.int/press/key/date/2009/html/sp090406.en.html> Last visited 11.10.2009.

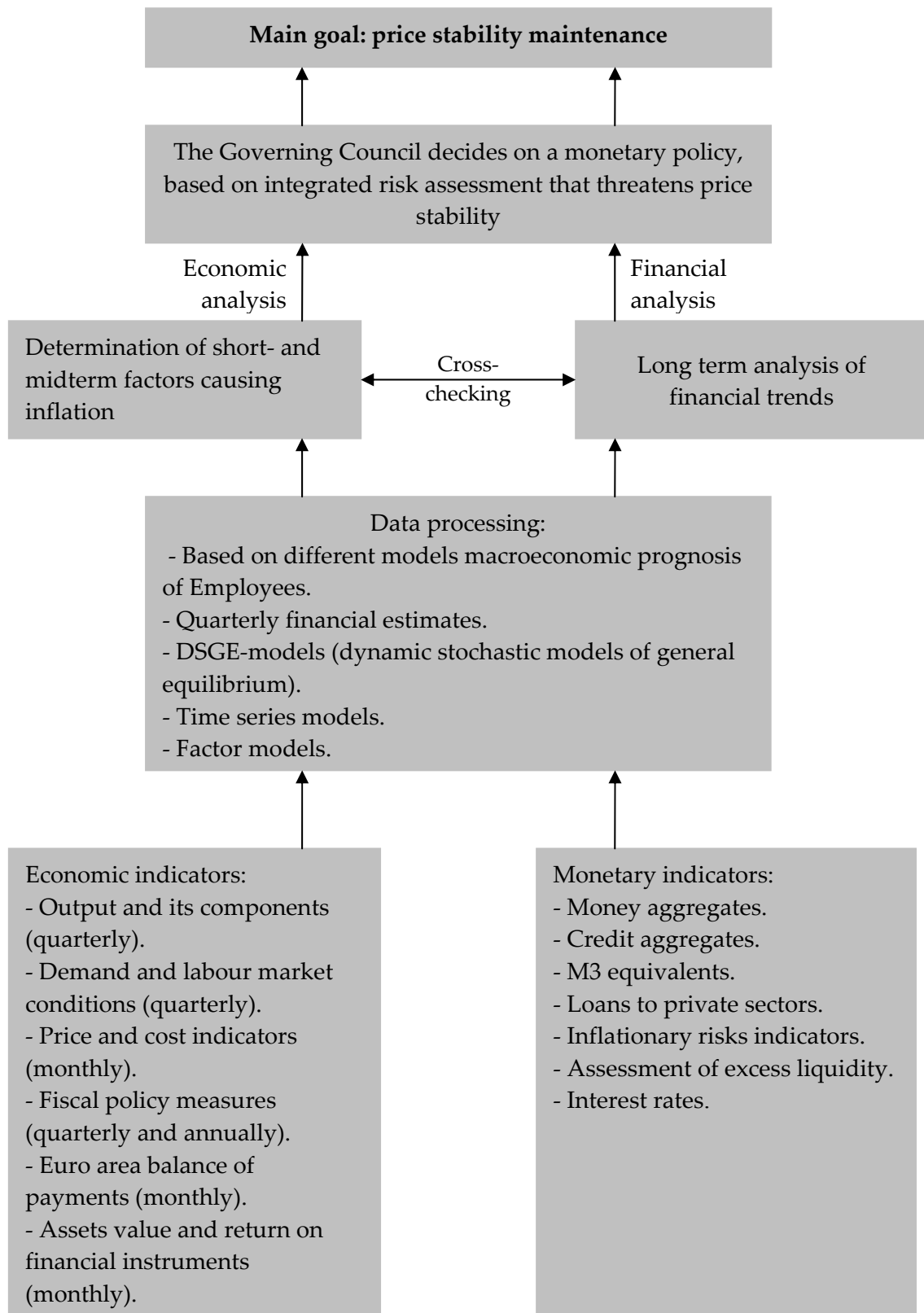


Chart 7. Decision-making strategy of ECB monetary policy.

### 3 EURO AREA MEMBERSHIP ADVANTAGES FOR NEW EUROPEAN MEMBER STATES

Even in 1999, when the euro was introduced in non-cash transactions, the eurozone population was able to experience the early benefits, but later, in 2001, it became possible to fully experience the benefits of introducing a single European currency. Transaction costs attributable to the exchange of European currencies disappeared, the internal financial market focus flagged in each country, risk premiums decreased and the euro became the currency in which securities are issued in the international financial market. Under the auspices of the ECB, the NCBs quickly implemented the TARGET<sup>34</sup> system for gross settlements on a real time basis for large-scale operations in euro.

Euro adoption not only eliminated the risk associated with exchange rate fluctuations but also reduced the technical, legal and psychological stress which led to market segmentation within national borders. Intensification and extension of cross-border cooperation (including the financial market) emanated from new diversification opportunities of financing strategies for borrowers and lenders. Borrowers were allowed a great investor base, while investors in turn gained opportunities for efficient allocation of funds in different corners of the euro zone.

The interbank market plays an integral role in liquidity redistribution within the eurozone, as is clear from chart 8, which demonstrates interbank activity dynamics within the euro area: the volume of interbank claims increased from 650 billion U.S. dollars in 1995-1997 to more than 900 billion U.S. dollars in 1999. At the same time, the gross share of international cross-border interbank claims not crossing the eurozone borders increased from 35% to 50% during the same period. This clearly shows how the single European currency promotes integration and strengthening of inter-country relations, but at the same time there is a risk that in case of a heavy increase in interest rates and the onset of global financial crisis or a serious recession in the eurozone, such an internal focus and excessive circularity can create difficulties in attracting funds from outside and faster negotiation of economic

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<sup>34</sup> Trans-European Automated Real-Time Gross Settlement Express Transfer System.



difficulties. Therefore against this background it is indispensable to maintain openness and support inter-bank relations with third countries.

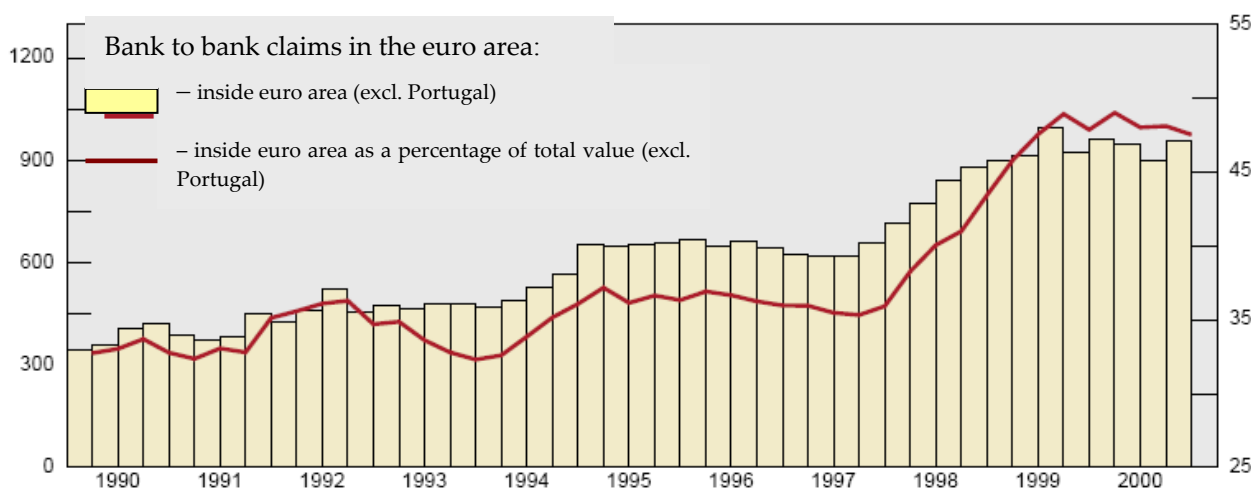


Chart 8. Interbank cross-border activity (within the euro zone) in billions of U.S. dollars<sup>35</sup>.

The main benefits of euro area membership include:

1. reduction of transaction costs;
2. reduction of bank interest rates;
3. financial integration;
4. intensification of trade relations.

But at the same time for entry-candidate states these advantages have to be qualitatively obtained. This means that a country needs to perform structural reforms that would enable changing the quality of the economy and thus ease conformity with the Maastricht criteria and help stop being a weak link in the European family.

Increase in labour market mobility is often given as another membership advantage. However, it is simultaneously not specified what is specifically meant by mobility. Labour mobility is the degree to which a labour force as a production factor is able to migrate within different spheres of its application. Migration can be internal (within one country) and external (between countries). Internal migration might either be within different national regions or cities, but labour resources can also migrate from one production sphere to

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<sup>35</sup> Source: Galati G., Tsatsaronis K. The impact of the euro on Europe's financial markets (07.2001). *Bank for International Settlements Working Papers*. Basel, Switzerland.

another. Increased internal labour mobility can represent an advantage for a state, since it helps improve the structure of the economy.

Geographical (between countries) mobility on a large scale does not benefit a country. The Latvian example would serve as perfect proof of that. Labour force migration to Great Britain and Ireland resulted in scarcity of builders; to attract people back employers had to raise salaries to be competitive with those proposed in Ireland. The wage increase trend spilled over to other sectors of the Latvian economy, where wages were also raised. This contributed to overheating of the Latvian economy, the repercussions of which are now being painfully felt.

As to attracting new workers to a country, euro area membership is absolutely not needed to ease the process. Several legislative initiatives would allow unhampered labour force access to destitute sectors. Structural reforms, on the other hand, would help develop and balance the economy, bringing it into harmony with its real performance indicators.

Upgrade of a country's financial ratings could be another advantage since that would attract investment and allow the state, banks and business to borrow at lower rates. But these improvements will have a short-term effect if not accompanied by economic and political reforms. The risk of booming and overheating of new Members' economies, which persisted several years ago, justified expectations more recently. Additionally, if European monetary union will not be the optimal currency area, it will in the end fade.

The concept of optimal currency areas refers to the "optimum" in a geographical sense: the territory within which a commonly used means of payment is either a single currency or multiple currencies, firmly tied one to another with unlimited possibilities of conversion for both current and capital operations, while the exchange rates of all these currencies fluctuate synchronously in relation to other world currencies. The word "optimal" in this case refers to achieving the macroeconomic objective of maintaining both external and internal balances. Internal balance is achieved at the optimal inflation–unemployment ratio (if such a point exists), while achieving external balance implies balance of payments within the territory under consideration, and also related to the outside world.

The concept of optimal currency areas was developed in the context of debates regarding the relative advantages and disadvantages of fixed and floating exchange rates.

Floating exchange rate supporters, such as Milton Friedman<sup>36</sup>, argued that for countries bound by strict price and wage restrictions, floating rates are essential to maintain both internal and external balances. If under such restrictions the exchange rate is fixed, then any political activities aimed at adjusting the international balance of payments will lead to rising unemployment or inflation, while under floating exchange rates an imbalance resulting from terms of trade and real wages will disappear without significant pathological changes. This kind of argumentation implies a point of view that each country should move to a floating exchange rate policy, regardless of its economic characteristics. However, differences across countries are sufficiently big and diverse. The theory of optimal currency areas states that if the degree of integration of a country into the world system of financial transactions, movements of production factors and trade flows is sufficiently large, then a fixed exchange rate is a more efficient means of achieving internal and external balances as compared to a flexible exchange rate.

The first studies in this area (Mundell<sup>37</sup>, McKinnon<sup>38</sup>, Ingram<sup>39</sup>) attempted to identify the most important economic characteristics that define an optimal currency area. Later, the attention of other researchers (Grubel<sup>40</sup>, Corden<sup>41</sup>, Tower and Willet<sup>42</sup>) appealed to evaluation of costs and benefits arising from participation in the optimal zone. Hamada<sup>43</sup> examined the impact of optimal currency area accession on the welfare of individual states.

The question of price and wage flexibility was central to the debate on the pros and cons of fixed and floating exchange rates. In fact, the assumption of the inflexibility of prices and wages was the basis for Friedman's argument in favour of floating rates and for

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<sup>36</sup> Milton Friedman (1912 – 2006) – American economist, Nobel prize winner, author of “A Theory of Consumption Function” (1957), “Capitalism and Freedom” (1962), “The Role of Monetary Policy” (1967), “Money and economic development” (1973), “Money Mischief: Episodes in Monetary History” (1994) and others.

<sup>37</sup> Mundell R. (1961, Vol. 51, No 4.) A Theory of Optimum Currency Areas. *American Economic Review*.

<sup>38</sup> McKinnon R.I. Optimum currency areas (September 1963). *American Economic Review* 53.

<sup>39</sup> Ingram J.C. *Regional Payment Mechanisms: The Case of Puerto Rico*, Chapel Hill, University of North Carolina Press, 1962.

<sup>40</sup> Grubel H.G. The theory of optimum currency areas (03.05.1970). *Canadian Journal of Economics*.

<sup>41</sup> Corden W.M. Monetary Integration. *Essays in International Finance*, No. 93, Princeton, International Finance Section, Princeton University, April 1972.

<sup>42</sup> Tower E., Willet T.D. The Theory of Optimum Currency Areas and Exchange-Rate Flexibility. *Special Studies in International Economics*, No. 11, Princeton, International Finance Section, Princeton University, 1976.

<sup>43</sup> Hamada K. *The Political Economy of International Monetary Interdependence*, Cambridge, MIT Press, 1985.

subsequent development of the theory of optimal currency areas<sup>44</sup>. Consider a group of countries or regions that make up a certain area where the assumption is true that if neither prices nor real wages in this zone are not fixed and depend on supply and demand, then all countries (regions) should be connected through a fixed exchange rate. Full flexibility of wages and prices will achieve a clearing of markets and facilitate the process of adaptation to the instantaneous real shocks affecting interregional payments without causing an increase in unemployment. Real adaptation, according to Friedman, means a change in allocation of productive resources and the structure of goods available for consumption and investment.

The necessary changes in relative prices and real wages provide adaptation so that the flexibility of inter-regional exchange rates within the zone ceases to be a prerequisite. Binding regions by fixed rates means a benefit for the currency area as a whole, as the utility of money increases. External balance is held by joint fluctuations in the currency zone against the outside world and the flexibility of wages and prices within the zone.

If prices and real wages are inflexible, the required adaptation may lead to increased unemployment in some regions and inflation in others. In such an economic system of flexible exchange rates between regions or factors, replacing it may partially play the role of flexible prices and wages in the process of real adaptation to external changes. As an alternative to a flexible exchange rate, which would support the creation of a single currency area, measures of internal market integration described below were proposed.

**Firstly, integration of financial markets.** Ingram noted that within the United States, as well as between the U.S. and Puerto Rico, a persistent high degree of internal financial integration has provided a sufficiently soft process of disequilibrium of smoothing interregional balances of payments and facilitated the process of adaptation. This led him to the conjecture that an optimal currency area can be a tightly integrated financial market.

In cases where an interregional balance of payments deficit is caused by temporary and reversible phenomena, capital flows can serve as a buffer to reduce or even eliminate the need for real adjustment. If the deficit is caused by permanent factors, although the flows of financial capital (excluding emerging from differences in the long-term real rate of return) cannot keep the deficit within an arbitrarily long time, the actual process of adaptation can

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<sup>44</sup> In this case, however, it should be noted that Friedman never completely rejected the idea that a group of countries, such as the sterling zone, can tie their exchange rates together, keeping them at the same time floating to the outside world.

be stretched for a sufficiently long period. The related costs are reduced thanks to the flexibility of prices and wages, as well as the internal mobility of production factors – and both of these increase over time. In addition, financial transactions increase the process of adaptation and by other means, namely through the wealth effect. A surplus region accumulates the sum of net financial claims, increases costs, while a scarce region decreases them, thereby contributing to the process of real adaptation. Thus, integration of financial markets reduces the need for changes in terms of trade between regions (within the zone) due to exchange rate fluctuations, at least in the short run. Given the adverse effects of exchange rate flexibility and the associated risk of exchange transactions (for example, separation of “local” and “general” financial claims and, consequently, division of regional financial markets), we can arrive at the conclusion of a preference for fixed rates in an area with an integrated financial market.

**Secondly, integration of production factors markets.** Mundell argued that the optimal currency area is defined by internal mobility of production factors, including cross-sectoral and inter-regional mobility. The internal mobility of production factors can reduce the need for changes in real prices, which otherwise would have occurred as a reaction to changes in demand and supply. Thus the need for exchange rate fluctuations disappears as a means of changes in real prices. From this perspective, mobility of factors is partly a substitute for flexibility of prices and wages – “partly” because during a short period mobility cannot be high enough. Consequently, it is more effective for reducing the costs of real long-term adaptation to constant non-equilibrium balance of payments than for short-term adaptation to temporary imbalance, which is facilitated by mobility of financial capital.

Thus, integration of production factors markets allows avoidance of the impact of a system of fixed exchange rates on inter-regional balance of payments, increasing the usefulness of money within the currency area. Internal balance (the optimal ratio of inflation and unemployment) can be maintained by means of fiscal and monetary policy, and external (relative to the rest of the world) – through joint float.

**Thirdly, integration of commodity markets.** The apparent relative smoothness of the process of inter-regional long-term adaptation observed in the United States is often attributed to the internal openness of the economy. This leads to the idea that an optimal currency area should have a high degree of internal openness, which means intensive internal trade exchange. The “openness” of a certain area is measured by indicators such as

the ratio of tradable and non-tradable goods in production and consumption, the ratio of the total value of exports and imports to gross output, as well as a marginal propensity to import.

McKinnon raised the question as to whether a territory in the presence of some degree of external openness should introduce a floating exchange rate in relation to other areas or join them to create a larger currency area. If it is assumed that the openness of the area relative to the outside world is high enough so that goods participating in foreign trade comprise the biggest part of manufactured and marketed products, then exchange rate flexibility in relation to other zones is not an effective mechanism to redress the imbalance of payments, as any exchange rate fluctuations will be paid for by price changes, without causing any significant impact in terms of trade or real wages. That is, the zone is too small and open for a policy of cost switch to be effective, although the wealth effect works towards restoring balance of payments. The side effect of this instability is the general price level. Instead, the zone will find it beneficial to pursue a policy of reducing costs to achieve external balance and to establish a fixed exchange rate to ensure price stability, provided that the price of participating in foreign trade goods in foreign currencies is stable. Secondly, if the zone is relatively closed to the outside world, it must tie its currency to a basket of goods not engaged in foreign trade in order to stabilize the value of money, as well as a policy of a flexible exchange rate to control the external balance. A floating exchange rate is effective because it leads to desired changes in the relative price of traded goods and real wages.

Thus, the optimal monetary policy of an internally open, and an externally relatively closed economy is in tying its currency (or currencies together) to a set of internal goods that are not engaged in foreign trade with the rest of the world – to ensure price stability and adopting a flexible exchange rate to control external balance. Separation of the economy into a number of smaller clusters with independent floating rates is undesirable as well as its accession to the outside world to participate in a larger currency area.

**Fourthly, political integration.** The analysis above demonstrates the benefit of a currency area when the country has a high degree of integration of domestic markets for financial assets, productive resources, or products. Other features, such as product

diversification<sup>45</sup>, or a similar attitude towards the choice between inflation and unemployment are also offered as criteria for an optimal currency area. Clearly, the successful functioning of a currency area is based on absolute confidence in the consistency of a fixed exchange rate policy and unrestricted convertibility of member currencies inside the zone. This requires close coordination by national monetary authorities and creation of a supranational central bank. Transfer of sovereignty over conduct of monetary policy to a supranational body is both an economic and a political process. The example of the European Monetary System shows that without efforts to achieve some form of political integration, management of a free monetary zone like the European one will not be easy.

Complete analysis of optimal currency areas requires investigation of how the world economy can be divided into independent currency areas in order to maximize global welfare. However, construction of a common analytical framework for resolving this issue is almost impossible. So some researchers involved in analysis of benefits and costs<sup>46</sup> have focused on a more limited question, namely: whether individual countries should unite and form a currency area. It is assumed that each country assesses the benefits and costs of monetary area participation from a purely nationalistic point of view. The price for this limited approach is that the national optimal area may not correspond to the global optimal currency area.

According to Mundell<sup>47</sup> the most significant benefit that a country can obtain from participation in a monetary area is that it increases the usefulness of money. Money is a social device, necessary to facilitate economic calculation and accounting, savings in the acquisition and use of information for transactions and market integration. Use of a single common currency (or currencies rigidly pegged to each other with full convertibility) will eliminate the risk of future currency fluctuations, maximizes the benefits from trade and specialization and thus enhances allocation efficiency. Value for money mainly increases within the territory in which it is used. Money is a public good in its nature.

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<sup>45</sup> Proposed by Kenen: Kenen P.B. *The theory of optimum currency areas: an elective view*. In *Monetary Problems of the International Economy*, ed. Mundell and Swoboda. Chicago, University of Chicago Press, 1969.

<sup>46</sup> Such as Ishiyama (Ishiyama Y. *The theory of optimum currency areas: a survey* (22.07.1975). *IMF Staff Papers*) and Tower and Willet (*supra* 43).

<sup>47</sup> As well as other researchers: McKinnon (*supra* 39); McKinnon R.I. *An International Standard for Monetary Stabilization*. (08.03.1984) *Policy Analyses in International Economics*. Washington D.C., Institute for International Economics), Tower and Willet.

The external effects are reflected in several forms. Firstly, participation in the currency area means that participating countries tie their currencies to the class of representative products of the zone. Thus, a financially unstable country could increase the value of money by joining a more financially stable currency area. Secondly, a financially well-integrated currency area offers opportunities for the territorial division of risk. Inter-regional payment imbalances are immediately absorbed by the flow of financial transactions, which allows the deficit country to rely on the resources of a country with a surplus until the moment when the costs of adaptation over time will not be efficiently distributed. Other monetary area participation benefits are decline in official foreign exchange reserves and removal of speculative capital flows.

In principle, a system of flexible exchange rates allows each country to maintain monetary independence. A system of fixed exchange rates requires a unified or closely coordinated monetary policy, restricting the freedom of participating countries to conduct an independent monetary policy. This loss of monetary independence is seen as the major cost of participating in a monetary area, since this could cause a country to move away from compliance with internal balance in order to maintain external balance. These costs are particularly high when a country has a low threshold of sensitivity to changes in the level of unemployment and under intense pressure of prices and wages by monopolistic enterprises, trade unions and long-term contracts. On the other hand, costs may be lower if there is some vertical Phillips curve (as in the case of small economies with a high degree of openness), as in this case the country would have more freedom to choose the best situation for trade-offs between inflation and unemployment.

Formation of a currency area is a dynamic process. In the process of movement towards greater monetary integration, public confidence in the system grows, new benefits arise, and existing costs reduce. Therefore balancing of benefits and costs over time is necessary. Consequently, it can be argued that an individual country decides to participate in a monetary area if the expected (discounted over time) benefits exceed the expected (discounted over time) costs. Regarding calculation of the profitability of such participation, two observations can be made. First of all, it is assumed that the country compares two opposing foreign exchange regimes, namely a completely fixed exchange rate and a free floating exchange rate. However, in terms of maximizing national welfare (the value of benefits less the value of costs) there will always be an optimal strategy for foreign exchange



market management, which allows for some flexibility in exchange rates and some changes in foreign exchange reserves, and the polar cases of fixed and floating exchange rates are unlikely to be optimal.

Secondly, each country chooses the best exchange rate mechanism for itself based on the assumption that its choice and the policy will not affect the rest of the world, although it may determine its action depending on the policies of other countries. As a result, an optimal currency area thus defined may not be globally optimal. As pointed out by Hamada<sup>48</sup>, when the benefits of a currency area are in the nature of public goods and externalities and costs accrue to the share of individual countries, the rational theory of collective action suggests that a decision on participation of individual countries usually leads to creation of a currency area smaller in size than the public optimal. However, if costs are perceived as public anti-wealth and exceed the public benefits derived from formation of currency rates, a currency area based on individual calculations can be more than globally optimal. It is clear that the proposed calculations ignore the possible strategic interaction between countries: leadership or cooperation. An approach to optimal exchange rate arrangements from the standpoint of game theory has recently attracted the attention of economists<sup>49</sup>.

Reference to the literature on optimal currency areas in the analysis of benefits and costs reveals a number of problems. Firstly, the choice of flexible or fixed exchange rate for economies with larger frictions – a selection of suboptimal solutions on the basis of the second-best principle. If markets of finished goods, production factors and financial assets are fully integrated into the global economy, relative prices and real wages would be totally flexible and economic nationalism (which tries to separate national economies from the rest of the world by creating artificial barriers to trade, capital flows and transactions) would not exist, then the currency area would be the whole world. In this case, real adjustment to eliminate payment imbalances would be very easy, productive resources would be fully employed, and the usefulness of money would be maximal. However, so far as the mechanism of payments adaptation is disturbed by fragmentation of markets and weak mobility of prices and wage rates, a country can adopt a flexible exchange rate as a “second

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<sup>48</sup> Hamada: Hamada K. *The Political Economy of International Monetary Interdependence*. Cambridge, MIT Press, 1985.

<sup>49</sup> E.g. Canzoneri and Gray (Canzoneri M.B. and Gray J. Monetary policy games and the consequences of non-cooperative behaviour (October 1985). *International Economic Review* 36(3)), Buitier and Marston (Buitier W.H. and Marston R.C. (eds). *International Economic Policy Coordination*. Cambridge, Cambridge University Press, 1985.).

best” solution to maintain internal and external balance. Literature on optimal monetary zones of control shows that measures of integration of markets for financial assets, factors and goods may partially and more efficiently perform the function of parity of wages-prices flexibility than a flexible exchange rate.

Secondly, the approach from the standpoint of benefits and costs to optimal currency areas based only on the national interest has limited applicability to creation of the best international monetary system. Taking into account the spill-over effects and the economic relationship between countries that are closely integrated, strategic behaviour of national policies should be to deepen our understanding of the nature of global optimal currency areas and the best international monetary and financial arrangements.

Mundell and McKinnon, who have greatly advanced the theory of optimal currency areas, support the establishment of fixed exchange rates. Mundell advocated a worldwide system of the gold standard, while McKinnon<sup>50</sup> was for fixing exchange rates between the three major industrial countries (the USA, West Germany and Japan). Thus, they believed that the world in general, or the industrial core of Western society, is able to create a monetary zone.

### **3.1 Transaction cost reduction**

With euro introduction not only transaction costs in the form of exchanging from one currency to another disappear, but also inefficiencies of the existing payment system decrease, thus decreasing transaction costs.

Any company can rather precisely assess the savings on transaction costs by elimination of exchange rates. This assessment is also possible for the economy as a whole. For example, in 2004 transaction costs calculated by the National Bank of Poland amounted to 0.2% of GDP. Calculations of the National Bank of Hungary showed that the disappearance of transaction costs would bring to single use GDP growth of 0.18-0.30 percentage points. At the same time, countries will sustain a loss of 0.17-0.23 percentage points of GDP due to the transfer of seigniorage rights to the ECB.

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<sup>50</sup> *Supra* 48.

In 2005 McKinsey suggested a change in the basket of payment instruments, replacing cash and cheque payments to reduce transaction costs. According to analysts, considerable potential exists for further consolidation of payment transaction processing. For example, improved circulation and cash collection would put the value of cash down by a quarter in some European countries.

In 2004 the development started, and since mid 2006 gradual introduction of the new SEPA payment system, advantageously differing from TARGET (first tested in June 1997 and introduced in 1999 with euro introduction) and TARGET2 (launched in November 2007), has been initiated. Besides, SEPA compared favourably since it serves smaller transactions, not only large-scale ones, than the TARGET systems.

TARGET (Trans-European Automated Real-time Gross Settlement Express Transfer System) is the real-time gross settlement system (RTGS system) of the ECB, consisting of 16 national RTGS systems and the European Payment Mechanism (provided by the ECB), which were “interconnected via an interlinking or a bilateral link to provide a common platform for processing cross-border payments”<sup>51</sup>.

TARGET services around 25% of all trans-border payments in the EU. It allows real-time payment processing under the condition of sufficient coverage on the payer’s bank account. The main TARGET system task was announced as decrease of transaction processing time between euro area financial institutions, simultaneously guaranteeing their security.

It is a decentralised payment system, with the ECB handling only the most general functions. A single system was built from the telecommunications network related to the national system in each EU country, which allowed national credit institutions access to the TARGET system for euro payments in real time. A real time regime supported by all EMU Member States guaranteed the possibility of instant settlements in any country in the euro zone.

National RTGS systems (ELS / Eil-ZV in Germany, TBF in France, BL-REL in Italy, TOP in the Netherlands and others) had structural differences. For example, the German electronic ELS / Eil-ZV system was governed by the Central Bank of the federal land and processed significant payments in euros and German marks. The French TBF system was a

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<sup>51</sup> [http://www.bundesbank.de/zahlungsverkehr/zahlungsverkehr\\_target\\_merkmale.en.php](http://www.bundesbank.de/zahlungsverkehr/zahlungsverkehr_target_merkmale.en.php) Last visited 22.10.2009.

centralized system controlled by the Bank of France and included interbank payments, settlements on Central Bank operations, local system of net-settlements, system of gross settlements, payments on securities. Great Britain created its own CHAPS system, which carried out calculations in euro within the country and created conditions for the movement of capital throughout the EU in real time, working in parallel with the RTGS system in pounds sterling.

TARGET2 replaced TARGET in November 2007. This is a gross clearing system, uniting technical infrastructures of 26 (Bulgaria is to join in 2010) Member State Central Banks. The main difference between TARGET and TARGET2 is that the latter is based on a direct payment platform (SSP – single shared platform), so that local RTGS systems are not utilized. TARGET2 brought simplification and standardization of transactions.

The second important system was the Euro Banking Association, representing a euro clearing system for net settlements for which information is exchanged during the day and the final settlement is processed at the end of settlement day. It was founded in 1985 in Paris to promote commercial use of the ecu, and united 56 clearing banks from 16 countries, being a rather efficient system, meeting all the requirements of bilateral and multilateral netting. About a third of all cross-border payments in the EU passed through it.

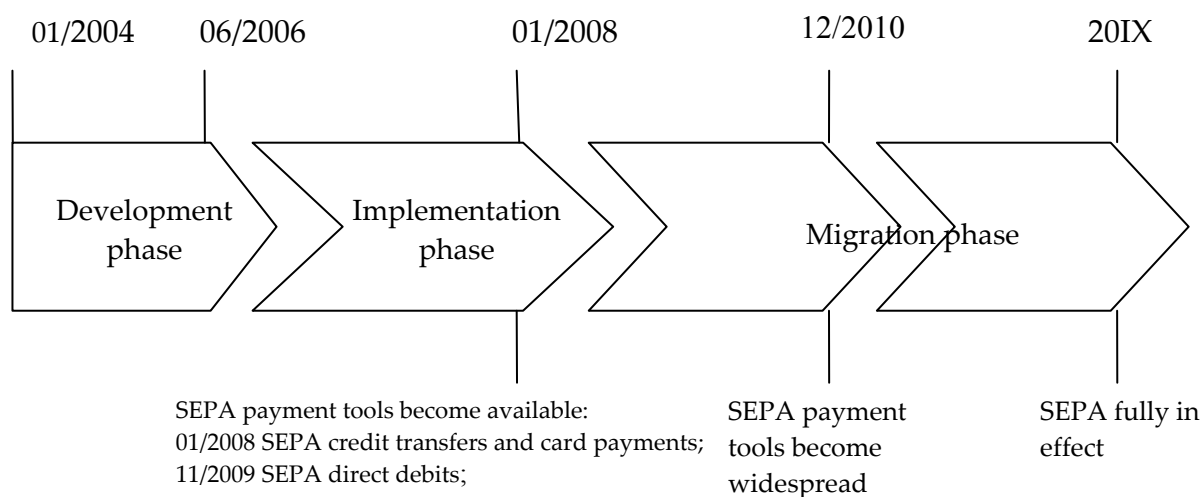


Chart 9. SEPA implementation phases<sup>52</sup>.

<sup>52</sup> Source: The Single Euro Payment Area (SEPA): An integrated retail payment market (July 2009). ECB. Available on the internet at [http://www.ecb.int/pub/pdf/other/sepa\\_brochure\\_2009en.pdf](http://www.ecb.int/pub/pdf/other/sepa_brochure_2009en.pdf) Last visited 22.10.2009.

SEPA is now the environment to unite everybody: citizens, businesses and other market participants are able to make euro payments within a united Europe: both within a country and between countries, based on simple rules and standards. SEPA is not, however, a latest version or an extension of TARGET2; the single payment area will utilize TARGET2 for settlements. It is developed by the European Commission and European Parliament that issued directives and regulatory acts. The ECB is also an active project participant, carrying out the observation function.

The European authorities insist that SEPA is not perceived as a one-time action, but rather consider it as a project in continuous development, facilitating European integration, constantly improving and refining the settlement segment on a small scale. SEPA must also contribute to the Lisbon Strategy, which is directed towards promoting competitiveness and implementing long-term and sustainable national economic development. The Single Payment System is part of a project of establishing a single integrated European market and it is therefore necessary that all components of the system (banks, clearing and settlement centres, large enterprises, small and medium-sized enterprises, government agencies and supranational European institutions, EU citizens as consumers) are actively involved in the process of SEPA introduction.

The main objective is to apply tools for computations in euro-currency within the EU and establishing the euro area national market, where boundaries would be effaced. The time of the transaction and its value will not differ depending on the geographicality of the transaction: whether it will take place within one Member State or between several eurozone participating countries. From the central banks' perspective, SEPA should be primarily beneficial for the citizens of a United Europe, but at the same time, the system is expected to contribute to development of the settlements market.

The main integrated SEPA parts include:

- single currency;
- united area of the means of payment: credit transfers, direct debit payments and card payments;
- effective euro-payments processing infrastructure;
- common technical standards;
- single economic activity practice;

- concurrent juridical base; continuous development of new products and services for the benefit of clients.

The main tasks and capacities of participants in the system include:

1. The European banking sector is responsible for reorganizing the payment system in the eurozone, for eliminating all technical, legal and commercial barriers for SEPA. In the short term perspective, this will require considerable expense, but in the medium-term it will bring early benefits in the form of cost of payments reduction within the euro area due to the nascence of new sources of income. The European Payments Council (EPC) was founded to coordinate the European banking sector. It consists of sixty five banks, three European Associations from the credit sector, the European Banking Association (EBA), representatives from the EU, Iceland, Liechtenstein, Norway and Switzerland. EPC activities affect all euro denominated payments in these countries. EPC construes the terms and conditions under which banks can develop three products:

- SEPA credit transfers;
- SEPA direct debit payments;
- SEPA payment cards.

Financial institutions have the right to offer improved or new SEPA products to clients if these products comply with developed unified schemes and directives.

2. The European clearing and settlement sector aims at ensuring the availability of payment tools under SEPA for all users. The Centres for processing cards, the European Association of Automated clearing centres (EACHA) and the European Banking Association (EBA) participate in this process. EACHA develops procedures to ensure the entirety of the infrastructure (automated clearing house). EBA has developed STEP2 – the First Pan-European Automated Clearing House (PEACH) – for small euro payment processing carried out within one country and between two or more eurozone countries.
3. Euro area enterprises (corporations, trading companies, small and medium businesses) also participate in standards development to minimize manual processing of the payment component (for account creation or accounting data

reconciliation services). Finance managers of European enterprises have formed a European Association of Corporate Treasurers. Most of their attention is paid to the process of automation, which will reduce payment processing related costs.

4. State institutions are also involved in the project. These include the ECB, National Central Banks of eurozone Member States (Eurosystem); the European Commission, which developed a strategy for eliminating internal market limitations, its simplification by means of introducing certain Directives (e.g., Payment Services Directive); national authorities, which so far do not seem to be involved actively enough.
5. Final consumers.

Below are described the advantages for the parties involved.

With introduction of the new payment system its consumers will need only one bank account for all the necessary transactions. Payment cards will be more efficiently used, since one and the same card will be eligible for all euro settlements, decreasing the need for cash on hand. Therefore, further growth of pay card popularity is expected. Previously, enterprises had to conclude an agreement with the recipient bank, which processed the transactions of an undertaking and then corresponded with the sending bank. With SEPA introduced, companies will be able to choose any recipient within the euro area to process its payments on settlement cards. This will promote competition, quality of banking services, and will also decrease costs. Apart from that, standardization of terminals receiving payment cards is to be performed. Consequently, proposals for terminals will considerably increase, and trade enterprises will be able to accept the growing number of different cards in the same terminal. The expected growth of competition in the field of card operation schemes should lower costs. Banks will have to fight for the client not only with each other, but also with an array of non-bank financial institutions.

Removal of national borders will enable consumers to use advanced services in accounts handling. Less time to make a payment will be required e.g. if electronic settlement of accounts (manual or automatic), mobile phone payment is used, or tickets are bought electronically. Moreover the banking sector has to make all SEPA payments electronic in the long run.

For the banking industry this will have the three following advantages:

- 1) Banks will be able to diversify their activity and compete all around the euro area.
- 2) Banks will be able to negotiate better conditions with counteragents.
- 3) Differences between intra-national and pan-European settlements will be abolished and costs preserved at domestic level<sup>53</sup>.

Many surveys, researches and studies have recently been carried out to determine and assess the effect of SEPA introduction on the entire European economy and the economies of individual countries, specific sectors and markets. A 2006 study by Accenture / PSE Consulting concludes that SEPA introduction will cost European banks much more than was originally estimated. Company specialists estimate that most European large and medium-sized banks will have to invest from 3 to 8 billion euro, and possibly up to 10 billion within 5 years from 2006 to 2011. In addition, the complexity and scope of innovative activities require the use of significant IT resources, which could be directed towards development of individual business lines or products. The outflow of information technology resources from other areas will continue until 2010.

Another study conducted in the same year, made by Boston Consulting Group (BSG) states that the cost of SEPA in the last two stages in 2008 and 2010 and benefits are separated by a considerable time lag. The size of investment required in the second phase is estimated at 500 million euros and in the final phase up to 5 billion euros.

In 2006 CapGemini, ABN Amro and the European Financial Management and Marketing Association, having studied the international payments market, particularly emphasising developments related to SEPA introduction, provided the following results: by 2010 revenue from payments is estimated to increase from 31 billion euro to 47 billion euro, in percentage terms, growth of 52%. After 2010, revenue will drop to 18-29 billion euro and the main factor of annual growth in revenue from payments of 7.2% will be an increase of cashless transaction volumes by 6.9% per annum. Other factors, whose influence will be less, but still significant, include, among others, commissions for cards, annual fees and charges.

I-flex solutions / Financial Insights (2006) base their study on the results of interviewing banks in the EU-25. As the study revealed, 79% of respondents positively evaluated the implementation of SEPA. Most banks (74%) believe that SEPA will create new business opportunities through business expansion, due to complete geographic coverage,

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<sup>53</sup> Entrenched in Regulative Act No 2560/2001 of 01.07.2001.



improved product supply chain management for corporate clients and additional services provision (internet banking); and with time will significantly reduce operational costs.

Research	Minimal estimated investment, bln euro	Maximal estimated investment, bln euro
Accenture/PSE Consulting (2006)	3	>8
Boston Consulting Group (2006)	0.5	5
Eurogroup/FBF (2007)	9.1	12
I-flex solutions/Financial Insights (2006)	5.4	5.4
TowerGroup (2005)	8	8
Average	5.2	>7.7

Chart 10. Surveys assessing the investment necessary for SEPA implementation.

Thus, the potential benefits of euro area membership in the form of savings on transaction costs that exist today should be supplemented by the savings associated with SEPA introduction, the more so since introduction of SEPA rules and principles in States entering the eurozone will be less painful than for the old Members, since old Member States are forced to take the brunt on themselves (invest massively, test the new system). Firstly, countries that join the euro area after 2010 (and this is the majority of the new EU Member States; see chart 24) will take the “pioneers” experience into account, and based on that track record correct errors and “install” a better version.

Secondly, banks and other institutions will mainly simply copy and apply existing best practice, which is less costly than initial introduction of new standards. This is especially true in the case of foreign banks, which play a significant and often leading role in the banking systems of new Member States (see appendix 3). Foreign banks operating in new Member States will not have to invest in the SEPA project for each country entering the eurozone. Furthermore, the banking system of the new countries will be already prepared, since banks will be ready with SEPA implementation by the time new States fulfil the Maastricht criteria.

With respect to national banks (operating only within one country), SEPA may become an unsupportable burden for them, and the binding requirement for its introduction and the practical impossibility of its implementation will lead to the insolvency, merger or acquisition of local banks. But that will not reduce competition in the domestic banking market, as in fact national borders in the banking sector will be erased and using the new SEPA banking heavyweights will enter already conventionally national markets.

### **3.2 Intensification of trading relations**

The first benefits of trade volume growth and deepening of trade relations could be experienced since 1951, when France, Germany, Italy, Belgium, the Netherlands and Luxemburg signed the Agreement on European Coal and Steel Community foundation. Under the Agreement, centralized control over national coal and steel industries was introduced, which meant coordinated actions for these countries in respect of third countries, and special conditions for interaction between themselves.

Later, with introduction of the European Economic Community, special trading regimes were further developed. In July 1968 creation of the customs union removed all customs tariffs for Member States; a single system of customs duties collection on EEC external borders was created. Four years later the monetary snake, establishing exchange rate fluctuation limits, provided for more certainty and predictability, thus promoting trade within the EEC.

Finally, the agreement reached with the signature of the Single European Act at the end of 1985 in Luxemburg implied formation of the single internal market, freedom of movement for goods, capital, services and persons<sup>54</sup>. These developments very much contributed to trade volume growth between Member States, since customs duties and certain transaction costs ceased to exist, more transparency regarding product cost formation and pricing appeared, single European policies developed, competition between producers and sellers increased. Later, with euro introduction, the uncertainty and risks related to exchange rate fluctuations were no longer in effect. All this simplified and facilitated the process of trade, made European markets for goods more stable and transparent; promoted competition and as a result increased productivity: this was now a big single European

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<sup>54</sup> The Four Freedoms: free movement of goods – Article 23 EC, free movement of capital – Article 56 EC, free movement of services – Article 49 EC, free movement of persons – Article 39 EC.

market, not a sum of national European markets (indisputably, there is still huge potential for further integration).

The impact on trade relations is so far the least studied of the benefits. In an early study in 2000 Rose<sup>55</sup> argued that participation in monetary union can increase cross-country trade by 200%. The results of this work, adjusted for the percentage of increase, were accepted by many economists as the single currency eliminates the uncertainty factor due to changes in exchange rates, thereby reducing foreign trade risks. Subsequent studies<sup>56</sup> attempted to adjust Rose's results: according to various estimates, from 50% to 150% growth in bilateral trade.

Analysts from the Central Bank of Hungary insist in their research in 2000<sup>57</sup> that the transition from zloty to euro would lead to a 40-60% increase in trade between Poland and other euro area Member States in the long run. The transition from forint to euro would add 0.55-0.76 percentage points to annual GDP growth in the long term<sup>58</sup>.

Benefits for foreign trade are primarily reflected in the fact that, as soon as countries are moving towards a single currency, the risks associated with uncertainty in exchange rate behaviour disappear. The ambiguity lies in the fact that the rate may change during the passage of transactions from the beginning and until completion. Of course, in such cases contracts clearly set out the conditions, the basic obligations and rights of the parties, but with a change in the exchange rate one of the contractors still stands to lose and bear costs which would be absent in the case of a single currency for both sides. In addition, uncertainty about future values of national currency exchange rates of the interacting parties leads to a decrease in imports and exports on each price level.

According to the new theory, the trade intensification influence on economic growth exceeds the limits of traditional benefits in the form of competitive advantage and scale

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<sup>55</sup> Rose A.K. One Money, One Market? The Effect of Common Currencies on International Trade (2000, No 30). *Economic Policy*, pp. 449-461.

<sup>56</sup> E.g.: Rose A.K., van Wincoop E. National Money as a Barrier to International Trade: the Real Case for Currency Union (2001, Vol. 91, No 2). *American Economic Review*, pp. 386-390.

Kenen P.B. Currency Unions and Trade: Variations on Themes by Rose and Persson. *Reserve Bank of New Zealand Discussion Paper* 2002/08.; Persson T. Currency Unions and Trade: How Large is the Treatment Effect? (2001, No 33) *Economic Policy*, pp. 435-448.

<sup>57</sup> Jakab Z.M., Kovacs M.A., Oszlay A. How Far Has Trade Integration Advanced? An Analysis of Actual and Potential Trade of Three Central and Eastern European Countries (2000, No 1). *NBH Working Paper*. Budapest.

<sup>58</sup> Csajbok A., Csermely A. Adopting the euro in Hungary: Expected Costs, Benefits and Timing (2006, No 24). *NBH Occasional Papers*.

effect. Edwards<sup>59</sup> and Grossman and Helpman<sup>60</sup>, who used models with endogenous technological variables, concluded that so-called knowledge spill-over helps countries with lower development levels to introduce the results of scientific-technical progress and further contribute to its development. In this sense, international trade facilitates these spill-overs. At the same time, the more open the economy, the more it is receptive to innovations received from outside and the faster will be the process of integration.

Monetary union membership, according to ECB estimates<sup>61</sup>, positively influences growth of competitiveness of companies from Member States. The European Central Bank provides the following figures for France: if in 2002 France was not a member of the euro area, then French companies would earn on average 7 percentage points less, and France itself would step two positions back in the European competitiveness ranking. Euro introduction in Great Britain in 2002 would have increased the productivity of British companies by 0.5-3 percentage points, which would not however improve its rating positions.

Estimates by the Hungarian Central Bank using econometric models and on the basis of statistical data on countries suggest the advantages of euro adoption in value terms would amount to 0.6-0.9 percentage points as a long-term (20 year perspective) annual mark-up to a country's GDP thanks to elimination of transaction costs (plus 0.18-0.30 percentage points), lower real interest rates (plus 0.08-0.13 percentage points), foreign trade expansion (plus 0.55-0.76 percentage points) and taking into account losses from transfer of rights issue to the European Central Bank (less 0.17-0.23 percentage points)<sup>62</sup>. The numbers will obviously vary from country to country, depending on how the behaviour of economic agents in the new Member States is similar to the eurozone Member Countries. Generally, the estimates of the Hungarian regulator can provide a real understanding of the benefits in value terms.

Such a factor as similarity between the old and the new Members has to be accounted for as well. Thus, according to *The Economist* Intelligence Unit analysts<sup>63</sup> estimates in 2003,

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<sup>59</sup> Edwards S. Openness, Productivity and Growth: What Do We Really Know? (1997, No 59) *NBER Working Paper*.

<sup>60</sup> Grossman G.M., Helpman E. *Growth and Welfare in a Small Open Economy*. Boston, MIT Press, 1991. Grossman G.M., Helpman E. Trade, Knowledge Spillovers, and Growth (1991, No 35). *European Economic Review*, pp. 517-526.

<sup>61</sup> Ottaviano G., Taglioni D., Di Mauro F. Deeper, Wider and More Competitive? Monetary Integration, Eastern Enlargement and Competitiveness in the European Union (12.2007, No 847). *ECB Working Paper Series*.

<sup>62</sup> Csajbok A., Csermely A. Adopting the euro in Hungary: Expected Costs, Benefits and Timing (2006, No 24). *NBH Occasional Papers*.

<sup>63</sup> Akule D. *The Europeanization of Latvia: Becoming good Europeans?* PROVIDUS, Riga, 2007.

Latvia will need 58 years to reach average EU living standards. In 2009 the number of years would be even larger. The only possible counterargument supporting Latvia in this case would be criticism regarding the data used in the assessment: the assumption behind the result was that economic growth will not exceed 7% in any of the years at the time, as it already peaked in previous years: in 2003 the increase was 7.2%, in 2004 – 8.7%, in 2005 – 10.6%, in 2006 – 12.2%, in 2007 – 10.0% (see Appendix 3), but 2008 was already -4.6%, and expectations regarding future years do not seem to be very optimistic, with 7% annual growth being an over-optimistic scenario (2009 Eurostat forecasts estimate -13.1%, 2010 – -3.2%).

Country	Expected changeover date
Slovenia	Introduced euro on 1 January 2007
Cyprus	Introduced euro on 1 January 2008
Malta	Introduced euro on 1 January 2008
Slovakia	Introduced euro on 1 January 2009
Estonia	1 January 2011 <sup>64</sup>
Bulgaria	2012-2013 <sup>65</sup>
Czech Republic	2013-2014
Lithuania	2013-2015 <sup>66</sup>
Romania	2014 <sup>67</sup>
Poland	2014-2015
Hungary	2014-2015
Latvia	not earlier than 2014 <sup>68</sup>

Chart 11. Expected timelines for single European currency adoption.

<sup>64</sup> *Report on the adoption of the euro* // Bank of Estonia. July 2009. Available on the internet at [http://www.eestipank.info/pub/en/dokumendid/publikatsioonid/seeriad/euroyle/euro\\_709.pdf?ok=1](http://www.eestipank.info/pub/en/dokumendid/publikatsioonid/seeriad/euroyle/euro_709.pdf?ok=1) Last visited 11.11.2009

<sup>65</sup> <http://visitbulgaria.info/10908-bulgaria-plans-adopt-euro-2012-2013-sofia-says> Last visited 11.11.2009.

<sup>66</sup> <http://www.euro.lt/en/news/lithuanias-membership-in-the-eu/news/6085/> Last visited 11.11.2009.

<sup>67</sup> Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee, the Committee of the Regions and the European Central Bank - Fifth Report on the practical preparations for the future enlargement of the euro area. Commission of the European Communities. Brussels. 16.07.2007.

<sup>68</sup> *On Euro introduction.* Bank of Latvia Press Release. 9 July 2009. <http://www.bank.lv/eng/main/all/sapinfo/commentary/2009/euro-introduction/index.php?101329> Last visited 11.11.2009.

Many other estimates evidence non-integrity between the financial markets of the eurozone and the new Member States. In particular, estimates are based on banking assets to GDP ratio (see Appendix 9). But it is also worth mentioning that active measures have been taken in recent years, especially beginning with 1 May 2004, which indicates remarkable progress in the integration process. Nevertheless, the decision regarding acceptance of new members in the euro area should be more than very deliberately assessed.

### **Main conclusions of the chapter**

The optimal currency area theory observes the territories within which the commonly used means of payment is either a single currency or multiple currencies. It was developed in the context of debates regarding the relative advantages and disadvantages of fixed and floating exchange rates, with the question of price and wage flexibility playing an important role. There have been and still are supporters for both sides, both with reasonable and relevant argumentation. The following factors are defined as necessary for creation of a single currency area: integration of financial and production factors and commodity markets, as well as political integration. Researchers and supporters of the theory of optimal currency areas advocate establishment of fixed exchange rates and believe that the industrial core of Western society is able to create a monetary zone.

Reduction of transaction costs, bank interest rates, intensification of trade cooperation and financial integration – these are the main benefits of eurozone membership.

- Transaction cost reduction through exchange rate elimination will additionally provide according to various estimates from 0.18 to 0.3% of GDP, whereas seigniorage right transferral amounts to 0.17-0.23 percentage points of GDP loss.
- Lower real interest rates will add 0.08-0.13 percentage points to GDP.
- Trade interaction strengthening by 40-150% will result in a 0.55-0.76 percentage points mark-up to national GDP.
- Introduction of a Europe-wide payment platform, SEPA, coordinating the activities of European banks, clearing and settlement centres, companies, European and supra-national government structures, and EU citizens will generally run an effective mechanism for low-cost settlements in Eurocurrency and, most importantly, establish a national Euromarket. The numbers look quite impressive: 52% increase in revenues (from 31 billion euro to 47 billion euro) from payment processing with simultaneous

payment price reduction until 2010, and its later decline to 18-29 billion euro, with an increase of cashless transactions volume by 6.9% per annum (or 7.2% in value terms). Comparison of growth in quantity and value terms demonstrates the effectiveness of the payment system.

Nevertheless failure to gain an advantage from euro area membership is a disadvantage (and a membership cost) for an entering country. Its government, actively agitating for monetary union accession, usually stresses that it will be better “then”, than “now”, so it might drag all the necessary indicators to keep them in line with the values required by Maastricht criteria.

If eurozone accession is combined with the obligation to introduce structural reforms that would allow a new Member qualitatively (and not quantitatively) to conform with the more advanced area members, then that would contribute not only to the quality of one European economy, but to the quality of the European economy as a whole.

Further increase of labour market mobility can represent an advantage only under conditions of structural reformation of an economy, so that the notoriously famous Latvian scenario with labour resource migration and consequent local market overheating does not eventually recur. Improvement of a country’s financial ratings will have a short-term effect if no economic and political reforms are made in conjunction with or prior to euro area accession.

## 4 EURO AREA MEMBERSHIP DISADVANTAGES FOR NEW EUROPEAN UNION MEMBER STATES

It would be wrong not to mention not only the costs of eurozone participation, but also costs of European Union participation for the old Member States at the beginning of this chapter. The figures reflect a simple trend (see appendix 4): with the increase of members and due to their lower levels of development compared to old members, GDP per capita decreases, which can especially be seen in recent years. For example, GDP per capita for the EU-27 in 2007 amounted to 24,900 euro, for the EU-25 – 25,800 euro, for the EU-15 – 27,800 euro; in 2008: the EU-27 – 25,100 euro, the EU-25 – 25,900, the EU-15 – 27,800 (see appendix 2).

Apart from that, many delicate moments arise which can lead to disputes and conflicts both in political and social spheres. For example, donor countries (direct<sup>69</sup> or indirect<sup>70</sup>) do not support redistribution of funds in favour of less economically developed territories on their account, trying to counteract this and lobbying their own interests. This situation has arisen within one European country – Germany. And if the question is such a heated issue within one country and nation, then solving the problem within the EU, constantly equalizing participating countries' claims, is much more complicated.

Both the European Union and euro area enlargement for the account of much less developed European countries leads to weakening of the aforementioned alliances. American scientists' prognosis is that even by 2015 American GDP will twice exceed the GDP of the European Union. According to another more optimistic prognosis<sup>71</sup>, that does not seem trustworthy today, in current economic conditions high growth rates (of 5.5% in 2010, 4.5% annually until 2015 and 3.2% until 2020) would obtain in all new Member States, which will not allow Europe to lose its positions both economically and politically on the international stage. According to Eurostat forecasts demonstrated in appendix 3, real GDP growth in 2009 and 2010 will be as follows: the EU-27 (as well as the EU-25, EU-15) -4% and -0.1% respectively; Estonia -10.3% and -0.8%; Lithuania -11% and -4.7%; Latvia -13.1% and -

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<sup>69</sup> If less developed regions are financed by more developed ones.

<sup>70</sup> When some regions do not receive the necessary volumes of finance since funds are directed towards less developed regions to finance their needs and solve their problems.

<sup>71</sup> Brezinschek P., Demel W., Loacker H., Schiller A. Szenario 2020 Mittel and Sued-Osteuropa: die Erfolgsstory – Fortsetzung folgt (11.2006). *Raiffeisen Research*. Vienna.



3.2%; Poland -1.4% and 0.8%; Cyprus being the only EU Member State with an expected GDP increase of 0.3% in 2009 and 0.7% in 2010.

Euro introduction is undoubtedly a great success within the framework of European integration. But together with that currency union might face many difficulties related to new members' accession. The current sixteen members will have to answer the question of eurozone optimality with 27 members in it. And even if the answer were positive, then another important question would be if the eurozone would remain the "optimal currency area" in the long run, even without introduction of new members (e.g. Turkey or Croatia).

With the growing number of euro area members the probability of smooth functioning of the enlarged union decreases. One of the reasons is that the probability of asymmetric shocks increases, which means that at the time when some countries will be experiencing inflationary pressure and booming, other countries will be characterized by deflationary recession. In the event of simultaneous nascence of too many asymmetric shocks the ECB will be paralyzed, not knowing what measures to undertake: to increase or to decrease interest rates? This, with time, can lead to growing discontent of Eurosystem members with the ECB.

With euro introduction the risk of national currency devaluation vanishes, but together with that all monetary union Member States become exposed to the risk of single euro currency devaluation.

Let us now examine the situation on a micro-level, from the point of view of separate states qualifying for full-bodied currency union membership.

Some membership costs have a more conditional character, since countries might not experience them, but if they do the consequences will be serious.

#### **4.1 Asymmetric shocks as a threat to stability of euro area Member State economies**

Shocks, by definition, are what one cannot foresee. Asymmetric shocks are shocks which affect only some members of a currency union. According to the optimal currency areas theory<sup>72</sup>, the following factors affect their occurrence:

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<sup>72</sup> *Supra* 2.

- 1) Structural similarities or differences (similarities or differences of economic structures): with labour productivity growth the level of employment shifts towards the average in the euro area.
- 2) The degree of trade integration: similarity of trade structures can be assessed with the Balassa index (index of revealed comparative advantages<sup>73</sup>). Calculations by Widgren<sup>74</sup> show that comparative advantages of:
  1. Estonia, the Czech Republic and Hungary converge towards those goods that actively employ human capital in production, and to a lesser extent physical capital.
  2. Lithuania and Romania are mainly characterized by production of capital intensive goods without considerable capital employment.
  3. Poland, Slovakia, Slovenia and Latvia, the same as the previous group, do not converge and are mainly based on intensive employment of low qualified or non-qualified labour forces without intensive capital application.

This means that structural differences exist between the New Member States.

The comparative advantages of the EU-15 are based, first of all, on output of goods, requiring high qualification for their production. This can especially be seen in Great Britain, Ireland, the Netherlands, Belgium and Finland. Therefore, the first group of countries stands closer to the western European countries. And this represents grounds for sustainable development for these countries, the same as for countries from the second and third groups since eurozone export specialization leans towards the mid- and high-tech sectors, where productivity growth is especially visible, and demand grows constantly (e.g., pharmaceuticals).

- 3) Business cycle synchrony.

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<sup>73</sup> The index is calculated based on the following formula:

$$RCA_i = \frac{X_i^U / \sum X_i^U}{X_i / \sum X_i},$$

, where  $X_i^U$  – export volumes of  $i$  goods group from country  $U$ , and  $X_i$  – total export volumes of  $i$  goods group from the whole world. If the index exceeds 1, then the country is competitive in specific good (or group of goods) production, if less than 1, then it does not dispose of a competitive advantage.

<sup>74</sup> Widgren M. Revealed Comparative Advantage in the Internal Market (2004). *Turku School of Economics, Research Institute of the Finnish Economy ELTA, CEPR and CESifo*. Available on the internet at [http://www.euroframe.org/fileadmin/user\\_upload/euroframe/efn/spring2005/appendix6\\_widgren.pdf](http://www.euroframe.org/fileadmin/user_upload/euroframe/efn/spring2005/appendix6_widgren.pdf) Last visited 14.10.2009.

Probability of occurrence of asymmetric shocks is lower when cycles are coherent and the share of cross-country intra-industry trade<sup>75</sup> is sufficient (certain type of goods produced in one country find their consumers beyond national borders) such as structural similarities in demand, supply and consumption.

The fact that asymmetric shocks affect only some countries participating in a monetary union is treated as the greatest threat to the whole union<sup>76</sup>, since monetary union membership reduces the number of political tools available for the government to deploy as a means of coping with the consequences of shock. This is, first of all, the absence of an independent national monetary policy whose measures could lower interest rates. This will not be done by the pan-European regulator since its goals do not include reacting to local shocks. Apart from that, after monetary union accession together with replacement of the national currency unit with the single European currency, the feasibility of regulating national exchange rates also disappears.

Correspondingly, only fiscal policy measures can be used as a means of manipulation. Therefore it is vital to maintain a balanced budget in the medium term, as in case of negative shocks the government is able to increase the state budget deficit, thereby cushioning the consequences. Apart from that, other economic measures exist which can help return the economy to equilibrium. Among others these include wage regulation: decreasing wages will entail production cost reduction and, as a consequence, price level decreases, which will increase demand and return the economy to equilibrium. The only material condition for this is a flexible labour market, which would promptly react to the change of remuneration level, without unemployment increase and economic development slowdown. Unfortunately, as practice shows, in real life such flexibility is a rare finding. Bitāns and Kaužēns<sup>77</sup> assessed in their study that the Latvian labour market is elastic enough to adjust to a changing environment, and thus surmount potential negative economic development. However, no more proof is needed to reject this than the current economic turmoil.

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<sup>75</sup> For a definition of intra-industry trade intensity the Grubel-Lloyd index is used. This is calculated as follows:  $I = [(X_i + M_i) - |X_i - M_i|]100 / (X_i + M_i)$ , where  $i$  – industry,  $X_i$  and  $M_i$  – export and import volumes in the given industry.

<sup>76</sup> *Supra* 2.

<sup>77</sup> *Supra* 4.

Italy is a country that had an asymmetric turn, provoked by the growth of Asian exports to Europe. The shock was even strengthened by the euro-dollar rate increase. The effect was so painful that the Italian government started seriously considering quitting the eurozone, but withdrawal costs turned out to be too high<sup>78</sup>. As a result, the Italian economy has probably entered a long period of low growth rates and structural reforms, as not long ago happened with Germany. Moreover, the mentioned reforms represent an indispensable measure, since decrease of Italy's share in international export flows began in the middle of the 90s, which is before euro area accession<sup>79</sup>.

New Member States have to take the Italian experience into account, but in the case of, for instance, Poland this example cannot be so demonstrative. The Polish economy has already survived a shock caused by the growth of Asian, mostly Chinese, exports, which appeared in the background of real national currency exchange rate appreciation.

Production clusterization (for example, Slovakian specialization in car production) is a factor which may in the future increase the risk of asymmetric shocks occurring, the same as global warming. A report published at the beginning of 2007<sup>80</sup> shows that changes in climate will positively affect euro area northern members' economies and, consequently, the southern members negatively. But, depending on the probability of the shock, maintaining a balanced budget and a flexible labour market capable of absorbing a shock remains an important goal.

In any case, the probability of asymmetric shock occurrence decreases together with European economic convergence and introduction of a single European currency (this was the conclusion by R. Mundell after the collapse of the Bretton Woods system, when exchange rates were far from equilibrium<sup>81</sup>), and proper policy maintenance reduces potential future eurozone costs and, consequently, simultaneously increases the future benefits.

Moreover, contemporary economic works offer specific measures for protection against asymmetric shocks. De Grauwe<sup>82</sup> indicates the necessity to create insurance mechanisms, which allow income redistribution, directing part of the income of countries in

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<sup>78</sup> Roubini N. *What Happens if Italy Dumps EMU and the Euro? Devaluation, Default and Liralization of Euro Debts!* 2005. Available on the internet at <http://www.regmonitor.com/blog/archive/2005-07/> Last visited 15.10.2009.

<sup>79</sup> Macroeconomic Adjustment in the Euro Area: The Cases of Ireland and Italy (2007). *EEAG (European Economic Advisory Group) on European Economy 2007*, p. 67.

<sup>80</sup> EU's grim climate change (06.01.2007). *Financial Times*.

<sup>81</sup> Mundell R. *Uncommon Arguments for Common Currencies*. 1973.

<sup>82</sup> De Grauwe P. *The Enlarged Eurozone: Can it Survive?* (11.2003) *NIAS*.

a phase of active growth to countries experiencing decline in production. Creation of such mechanisms can help prevent eurozone disintegration.

Two types of insurance mechanisms, differentiated by the source of their origin, are available. One is organized on the state level, the other on the private markets level.

The first – a system of public insurance – can be loaded under the condition of centralization of a considerable part of Member State budgets on a pan-European level. If one assumes that a pan-European government exists that directly levies taxes from all citizens and afterwards directly transfers them in the form of pensions and benefits, then in the case of a negative shock in one country the single government will be able to direct funds to this country on the account of a country experiencing heavy production growth. Thus, budget centralization will allow smoothing of consumption fluctuations in both countries: in the country experiencing a shock it will increase the level of consumption, and in the booming country to some extent decrease it. As a result of this performance, the costs of currency union will be flattened, since citizens will be able to balance their expenditure in time, notwithstanding asymmetric shocks in production.

But implementation of this mechanism is linked to certain political and psychological difficulties. In the majority of countries (Germany, Belgium, Italy) the above described mechanism operates on a national level: facilities originating from more developed regions after accumulation in the federal budget are automatically transferred to regions requiring support in their development. With time such transfer operations become constant, which will obviously be problematic on the European level, but the probability of European budget centralization in the nearest future is relatively low. In this context, as a pro-centralization argument, it is necessary to imagine a situation which could form in the eurozone in the event of decentralized state budgets of Member States.

If a negative shock occurs in one country, this will inevitably lead to tax income reduction in that country. At the same time, expenses related to insuring social guarantees (pensions and benefits) will increase, since working pensioners will most probably be the first to leave their jobs. This will lead to budget deficit and public debt growth. An absolutely different situation in terms of tax income and public spending and debt will happen in the other country. Such a chain of automatic alterations represents automatic stabilizers in effect, which allow to absorb the shock at least partially, minimizing the costs of currency union membership. In the given case the transfer mechanism bears not only an inter-regional but

also an inter-generational character: this is consumption increase or reduction, probably, on the account of reduction or increase in the future, for future generations.

The advantage of automatic stabilizers over centralization of the European budget lies in subjective (political and psychological) risk reduction. But in this case the problem is that it is not always possible to create such a mechanism on the state level: a country with a high budget deficit will not be able in case of a negative shock to freely further increase its budget deficit. Therefore the described mechanism might fail to perform at the required moment.

The second type of insurance mechanism is a system of private insurance, which functions by virtue of the financial markets, where, which is absolutely realistic, financial markets are fully integrated in the whole euro area.

In the case of a negative shock the situation will look as follows: companies working in the country facing a negative shock will suffer losses, which will negatively affect their share quotations. Thanks to absolute market integrity, all companies' shareholders will sustain losses, including those residents outside the country experiencing a shock. Thus, part of the costs of the country experiencing a shock will be transferred to other countries.

The reverse situation is also true: in the case of a production boom in one country, the price of its companies' shares will grow and the income from the increased quotes is distributed between the shareholders, which may be citizens of countries surviving a negative shock. With the help of such a mechanism they receive some compensation for the shock consequences in their home country<sup>83</sup>. Thus, "capital is the central link in the system of sustainment of any economy. Each family, each individual stand in need of acquisition of a reasonable part of this sustainment system, and of its possession in the capacity of an owner, so that his welfare corresponds to the prevailing condition of machines and resources, and that economical science principles of free market function that Adam Smith predicted"<sup>84</sup>.

This private insurance mechanism automatically appears with creation of a single unified European financial market, but its successful functioning is conditional upon several factors. One of them is that each country's nationals will hold a transnational portfolio. The

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<sup>83</sup> Buitter W.H., Nielsen E. *Mundell on His Head: Asymmetric shocks are good for you, thanks to Economic and Monetary Union in Europe*. Presented during the Economic Forum in Brussels. 31.05.2007.

<sup>84</sup> Patricia Hatter Kelso, wife and companion of Louis O. Kelso, a well-known American lawyer and economist, founder of the system of enterprise corporatisation by its workers, known as the Employee Stock Ownership Plan.

other is financial market efficiency, non-deviation from their equilibrium position, which would prevent bubbles originating and economic collapses, which already in their nature contribute to the instability of monetary union.

#### **4.2 Micro- and macroeconomic distortions as a threat to euro area Member State economic stability**

The ECB may have a pro-cyclical influence on Monetary Union Member State economies (this is the so-called “Walters critique”, named after Margaret Thatcher’s advisor on economic questions<sup>85</sup>). If business cycles within the Union are not synchronized, then discrepancies between expected inflation rates might create differences between interest rate levels among countries. This way the pro-cyclical influence of a single monetary policy on the economies of separate Member States develops.

ECB policy already has a pro-cyclical character in some Member States<sup>86</sup>. According to Blanchard (Blanchard, 2006), excessive expansion led to a considerable increase of labour unit costs, real effective exchange rate appreciation and, finally, to economic growth slowdown. A serious problem lies in the fact that the time lag necessary to restore a country’s competitiveness might be long enough due to slow productivity growth and low elasticity of wages in case of their decrease. In such conditions the process of restoring competitiveness will drag on, accompanied by low rates of economic growth, since efficient reduction of labour unit costs is possible in such conditions. This situation was characteristic first for the German economy, and later for the Italian.

Differences in real effective exchange rate dynamics are often treated as an important factor describing the differences in economic situation in each of the countries<sup>87</sup>. In this sense the question of the potentiality of the pro-cyclical influence of the policy conducted by the main Bank of United Europe is vital for every Member State, and especially for new Members.

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<sup>85</sup> Walters A. *Walters Critique*. Matthews K. (ed.) *The Economics and Politics of Money: The Selected Essays of Alan Walters*, U.K. Elgar, 1994.

<sup>86</sup> Blanchard O. *Portugal, Italy, Spain and Germany. The implications of a suboptimal currency area*. Presented during the WEL-MIT meeting in New-York in 2006. Available on the internet at [http://econ-www.mit.edu/faculty/download\\_pdf?id=1344](http://econ-www.mit.edu/faculty/download_pdf?id=1344) Last visited 02.09.2009.

<sup>87</sup> De Grauwe P. What have we Learnt about Monetary Integration since the Maastricht Treaty? (2006, Vol. 44, No 4) *Journal of Common Market Studies*.

Factors capable of risk reduction exist. High labour productivity growth rates (especially in the recent past in the new Member States, see appendixes 1 and 2), as well as capital productivity growth rates, facilitate productivity recovery after a real effective exchange rate increase. In order to avoid the consequences that Portugal, Greece, Italy and Spain have already faced<sup>88</sup>, it is necessary to take into account the interrelation of interest rates within and outside the euro area, in candidate countries for the eurozone. Otherwise, these distortions might take the form of lending booms, current account deficits, or increasing inflationary pressure.

In all cases, a too low interest rate level serves as a reason for that. Therefore the real problem is inconsistency between the real interest rate in the union and the natural percentage norm, which, in many economists opinion<sup>89</sup>, differs for each country and bears a long-term character. During rapid development in lending banks might (and this is what they do) start issuing loans without sufficiently assuring themselves of the client's solvency, which leads to originating the "bad debts" problem. In this context, strict and vigilant regulatory supervision with the purpose of protection against such a scenario developing is absolutely indispensable. And although the ECB from the beginning gave a relatively optimistic prognosis<sup>90</sup> regarding euro adoption in Poland, Hungary and the Czech Republic, the first two States would be, according to ECB expert estimates, very much exposed to serious lending booms after introduction of the euro and establishment of new lower interest rates. But at the same time the scale of increase will not be as in Ireland and Portugal due to the fact that the convergence process between the euro area and Poland and Hungary in the analyzed section is going rather actively (especially after the pre-crisis boom). In the case of the Czech Republic an almost absolute convergence of interest rates could be seen; therefore there should not be a serious lending increase after eurozone accession. In any case, new Member States have to take the experience of their predecessors into account. Greece, for example, restricted reserve requirements to protect against uncollectable loans and loans with limited collateral. The National Bank of Ireland obliged commercial banks to regularly conduct independent assessments of their activity correspondence to international standards

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<sup>88</sup> Blanchard O. *Adjustment within the euro. The difficult case of Portugal*. 2006. Available on the internet at [http://econ-www.mit.edu/faculty/download\\_pdf?id=1295](http://econ-www.mit.edu/faculty/download_pdf?id=1295) Last visited 02.09.2009

<sup>89</sup> For example: Wicksell K. *Interest and Prices (1898)*. (translation into Russian: Kahn R.F.) New York, «MacMillan», 1936.

<sup>90</sup> Brzoza-Brzezina M. Lending Booms in the New EU Member States. Will Euro Adoption Matter? (11.2005, No 543) *ECB Working Paper Series*.



in risk management and control, as well strengthening borrower analysis procedures. The Portuguese monetary authorities introduced different restrictions on loans, particularly increasing the capital requirements for mortgage loans with a loan-estimated value ratio of more than 75%, as well as establishing a National Financial Institutions Supervisory Council.

Growing internal demand can spur inflation and increase imports, which will lead to origination or increase of current account deficit. At the same time it is worth mentioning that investors are mainly worried about the negative current account balance in those countries which do not participate in different sorts of monetary union, since this in some cases might initiate a crisis. The example of the three Baltic States, which have concluded monetary agreements in between representing an equivalent close to monetary union, demonstrates that significant current account deficits (in 2006: 10.8% in Lithuania, 15.5% in Estonia and 22.3% in Latvia<sup>91</sup>) for a long time did not have an obviously negative effect on economies. And this among others is explained not by deterioration of the trade balance as such or unfavourable changes of economic agents' incomes but for the reason that incomes earned by foreign companies play an increasing role, which are reflected on the debit side of a country's current account. At the same time, a considerable part of these incomes is reinvested, but on the capital account is reflected as a direct foreign investment.

As to inflationary pressure, then theoretically the limits of price growth are defined by demand growth, and in a smaller currency union members are not high. This ensures a single price law: the same goods have to cost the same price in different countries of the union. But in practice boundaries exist that impede the functioning of this law in real life: some goods are not traded (do not participate in external turnover), the majority of goods do not have precise substitutes, transportation costs, differences in taxation (therefore the European Commission works actively in the direction of taxation systems convergence up to total unification) and other reasons exist. These boundaries can cause price growth in separate countries. As a result, goods produced in these countries become relatively more expensive, and countries lose their competitiveness. Vladimir Lenin insisted that "the best way to destroy the capitalistic system is to weaken and dissolve its currency by dint of inflation". John Maynard Keynes agreed with him, stressing that there "is no finer and more

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<sup>91</sup> Source: Eurostat

[http://epp.eurostat.ec.europa.eu/portal/page?\\_pageid=1996,39140985&\\_dad=portal&\\_schema=PORTAL&screen=detailref&language=en&product=Yearlies\\_new\\_economy&root=Yearlies\\_new\\_economy/B/B4/B41/dca11536](http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,39140985&_dad=portal&_schema=PORTAL&screen=detailref&language=en&product=Yearlies_new_economy&root=Yearlies_new_economy/B/B4/B41/dca11536). Last visited 25.08.2009.

precise way to upheave the existing cornerstones of society". One cannot therefore forget the necessary "antidote" to the described situation, the same as with asymmetric shocks – a flexible labour market, allowing the economy gradually to adjust to restore its competitiveness.

Commodity and labour market functioning are influenced by the peculiarities of the institutions regulating the labour market, and the regulations and standards defining the functioning of the commodity markets. Trade unions, systems developing employment policy, defining the salary rate and its minimal value, salary taxes, regulating labour legislation, specific working conditions, working place requirements, social benefits for the unemployed – these are the institutions regulating the labour market. Commodity markets are influenced by the level of state control, transparency of regulating bodies' activity, state support, competition and investment promotion, innovation support, trade barriers.

These institutions can affect price formation on the two specified markets, thus influencing inflationary dynamics. Regulatory acts issued by the above institutions might result in structural market inflexibility, which will be visible from remuneration level inflexibility as a response to demand and supply changes. Notably, these inflexibilities might have both a nominal (minimum wage determination), and a real (wages indexation adjusted for inflation) nature. Structural reforms are those aiming at creation of flexible and mobile markets, although labour market liberalization might be related with certain difficulties: antagonism from EU citizens' side. According to research conducted by the EC in 2001, approximately 90% of respondents chose unemployment control measures as a state policy priority. However, the next 2007 EC survey demonstrated a much smaller share – 34% – the question of job creation remains important for the public. This is even truer today and the most recent 2009 survey would undoubtedly demonstrate a much higher percentage of supporters.

It is also worth mentioning that reforms have rarely met wide public endorsement. One of the reasons, according to the understanding of the average EU citizen, is the impossibility of exactly foretelling the outcome of reform. Moreover, according to the opinion of EU citizens, officials are not clear enough about the need for and progress of reforms. This is confirmed by a survey<sup>92</sup> conducted in 2004 in Germany which evidenced that

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<sup>92</sup> The survey was performed by "Deutschland-trend" for ARD (television channel) on 2 July 2004.

75% of the German population find official clarifications on the necessity of pursued reforms to be insufficient.

### **4.3 Agflation as a threat to stability of euro area member economy**

Another cost of euro area membership is agflation<sup>93</sup> – price increase of low elasticity agricultural products, surpassing price growth in non-agricultural sectors. Agflation, as it was supposed and as has proved to be, is generally the cost of EU membership. Consequences of agflation phenomena are especially painful in developing countries, where food products comprise on average a considerable part of the population's income. The situation with price growth, very distinct in some categories (for example, in January 2008 single use milk product prices increased in Latvia by 30%; however there was a decrease recently) was very vivid in 2008.

New Member States, having become part of a large Union, have become more actively involved in world processes and have become to a greater extent subject to them. Prices of food products on the international market stepped up 40% during 2006, 2007 and 2008 partially, and grain and oil seed have almost doubled. (Agflation was also visible in 1972-1974, when oil prices soared.) Such vigorous growth is determined by the fact that growing oil prices encourage increase in demand for alternative power generators (biofuel), which also stimulates growth in agricultural product prices via increase in transportation costs. On the other side, land that becomes involved in the process of biofuel production is withdrawn from agricultural goods production, thus increasing the scarcity of fruitful agricultural land and the price of agricultural products. Moreover, demand for agricultural products in developing countries grew steadily in previous years (e.g., meat consumption demonstrated stable growth due to changes in consumption patterns and population growth), and will recover and continue to grow in the future.

These two factors contribute to the demand-supply balance: an upward shift in soybean and corn demand causes growth of prices for these goods. As the two products have substitutes (other grains) consumers switch to them to avoid the negative price effect without discriminating as to quality of products consumed. This results in an upward swing in the substitutes' price, which does not benefit consumers. Additionally, the grains used in

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<sup>93</sup> Agriculture inflation (term introduced by Goldman Sachs bank economists).

livestock feed will contribute to growth in prices of animal derived products caused by “raw material” price increases.

One cannot exclude the feasibility of price growth for other groups of products. Growing demand for different groups of goods dependent upon development of Asian markets leads to a price increase of this good. A rapidly developing China duplicated its oil consumption in just 10 years; as a result, metal and utilities prices doubled in a three year period (2005-2008).

#### **4.4 Changeover cost**

Additionally to agflation considered in the previous section, based on seven-year old experience when on 1 January 2002 the euro was introduced in physical cash transactions in euro area countries, it appeared that price growth was also induced by the following subjective factors:

- many trade points were increasing euro prices of goods, so that during conversion the euro-national currency exchange rate was correctly accounted, even with an excess;
- dishonest sellers simply made use of the changeover to raise their margins;
- many shops were rounding euro prices upward. This especially concerned prices of smaller goods and services – car services, taxis, hotels, beverages and snacks in bars.

However, these processes have borne a short-term character and have not had a significant influence over Member economies.

#### **4.5 Loss of sovereign currency**

Seigniorage is the income of the issuer of money assigned to it by the right of ownership; the income is received when the issue costs are less than the nominal value of the money issued. It can also be defined as income associated with monetary base growth. In advanced countries income from seigniorage amounts to up to 1% of GDP, in emerging countries with moderate inflation up to 5% of GDP.

In times when governments issued paper money, this income equalled the difference between the nominal value of bills and the cost of their production, including paper, paint and print. When central banks started issuing money the character of

seigniorage changed. A central bank produces cash in exchange for previously issued non-cash money already in circulation. In developed countries this money appears in circulation when central banks acquire government securities and foreign currencies. Central banks typically return to the treasury, that is, the government, the interest income which they receive on government securities.

Significant features of seigniorage formation are observed in countries with high export potential, including oil. Currently foreign currencies form the core assets of many central banks. Issue of non-cash local currencies represents a source for acquisitions. The convertibility of a national currency presumes its validity for exchange for foreign currency. Therefore central bank reserves ensure the national currency's exchange rate.

A characteristic feature of the modern monetary system is freedom of exchange rate formation: the choice of exchange rate regime lies in the competence of central banks, which determine the rate to convert national currency into foreign. Central banks do not have to spend all their reserves to maintain a certain level of exchange rate. However, when a central bank is purchasing foreign currency for newly issued local currency, this represents a sort of seigniorage for the issuer. On the other hand, foreign currency assets may be lost by the central bank due to operations supporting the national currency, especially if the level of such support is wrongly determined. Moreover, the issue of new money decreases the money in circulation. This forms a kind of tax on cash – inflation tax. With a single currency and a single authority coordinating its issue the risk of high inflation tax decreases thanks to a more coordinated and balanced single policy.

Each of the new countries joining the euro area will lose its sovereign currency. This also bears a psychological character. Indeed, in the decision-making process this question does not play a minor role for citizens of each EU Member State, raising serious discontent since “reasonable argumentation is possible and prospective only until the moment when the emotional tension of the situation has not crossed a certain limit”<sup>94</sup>.

However, a more important aspect regarding the loss of a sovereign national currency is the inability of the state authorities to finance external debt by means of exchange rate adjustments. Italy, Spain and Greece, due to absence of monetary policy flexibility, have huge external and internal liabilities; while Great Britain and Sweden have preserved their national currencies to be able to manipulate exchange rates.

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<sup>94</sup> Jung, Carl Gustav (1875-1961) – Swiss psychologist and philosopher, founder of “analytical psychology”.

## 4.6 Complexity to meet liquidity requirements

It will be quite complicated for the European Central Bank to govern the constantly changing liquidity requirements of the Member States, which can lead to either money overhang or money stringency. "The decrease of money supply in the economy is the cause of most of the economic crisis"<sup>95</sup>. The same is true the other way round – liquidity excess in the economy overheats it and leads to the appearance of economic difficulties.

The problem of the inadequacy of liquidity supply for each Member State separately lies in structural differences and lack of synchronization of the Member State economies. As already mentioned in the section devoted to asymmetric shocks in the economy, structural differences and disagreement when one Member economy is blooming, and another is falling behind, it becomes very complicated with a single policy (e.g. single interest rates are set up for all eurozone Members) affecting all Members to hold further growth in one State (reduce liquidity available), and promote growth in a lagging one (provide the necessary liquidity to ensure investment and development).

However, these problems could be solved with the availability of effective and efficient mechanisms for funds redistribution between countries: from countries with excess liquidity to countries in need of the euro. Nevertheless, the difficulty lies in the fact that with increasing numbers of members and due to lack of convergence, the ECB will find it difficult to accurately determine the amount of shortage or excess liquidity, which in both cases can lead to inflation and cause other adverse effects. Another problem here (and simultaneously a disadvantage for all euro area Member States, current and potential) is that the existing eurozone is not homogenous, which in fact means that entering States have to converge with an unsynchronized union. Therefore, it is important to focus not only on States accessing the euro area complying with the criteria, but also on the homogeneity of the existing monetary union. In the case of marked remoteness from this condition, inclusion of new Members should be postponed to digest the latest Members and to give the monetary zone Members time to further converge.

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<sup>95</sup> Milton Friedman (1912-2006) – American economist, monetarism leader in the political economy, author of monetary theory of national income and the new version of quantitative theory of money, Nobel prizewinner (1976).

## **Main conclusions of the chapter**

With its growing number of Member States the European Union is losing its position on the GDP per capita level: in 2008 this indicator for the EU-15 stood at 27,800 euro, for the EU-27 by 2,700 euro less at 25,100 euro; and also a diversity of complicated controversy increases.

Monetary union membership decreases the number of political tools available to help overcome shocks, since they are now transferred to the European level. However the ECB may be paralyzed in its actions in the case of simultaneous occurrence of too many asymmetric shocks. However, small local shocks can give the necessary “jolt” to the economy, highlighting bottlenecks and bringing the need for complex cure measures to the fore.

Both old and new Member States should make an in-depth assessment and an informed decision on such an important issue as whether a euro zone of 27 members will be the optimum currency area. The author holds the opinion that such a eurozone may be optimal, but subject to a number of important and strict conditions. First and foremost, the Maastricht criteria have to be tightened (in particular, the period during which the country must demonstrate stability or, in the case of some indicators, a steady decline in inflation, budget deficits, public debt, nominal interest rates, market fluctuations of the national currency, should be increased) and include new requirements:

- 1) The degree of trade integration: similarity of trade structures can be assessed by the Balassa index. For the EU-15 this indicator shows country specialization on output of goods, requiring high qualification for their production. On this indicator only Estonia, the Czech Republic and Hungary converge towards goods that require active involvement of human capital and to a lesser extent physical capital in their production. In the remaining countries labour-intensive production is in operation.
- 2) GDP per capita not lower than the average of the present euro area members. Naturally, with time this value will increase, and thus become hard-hitting.
- 3) A number of indicators on key economic sectors is also required, particularly the energy, transport, labour and capital (mobility and flexibility assessment) markets.

Apart from that it is necessary to consistently apply a series of measures to protect against asymmetric shocks, including: creation of a two-level insurance mechanism (state level and private markets level).

It is clear that consistent and clear adherence to the chosen way of protection against risks, as well as European economic synchronization, and not thanks to the old members migration in the direction of the new ones, but rather due to migration of the new towards the old while maintaining sustainable development of the latter, will delay euro area accession by new countries for an indefinite period, which will require more than one decade. Forcing events will lead to serious economic difficulties, which may be insurmountable, which will result in disintegration in Europe. Therefore further euro area expansion and preserving its existence is only possible after a sufficiently rigorous testing of candidate countries.

A strong, stable and synchronized eurozone will reduce the risk of micro-and macro-distortions and currency crisis, as well as allow the European Central Bank to clearly identify and meet the liquidity needs of countries. But the problem (and another disadvantage) is that the existing eurozone is heterogeneous, so accession of new members different from the current euro area members will deteriorate the situation, especially since compliance with the Maastricht criteria might for some countries be artificial and strained.

As mentioned in the previous chapter, failure to benefit from one of the advantages is a disadvantage. The example with Latvia illustrates what happens to a country when it is not mature to let its financial borders open for cheap money inflow, deregulation and liberalization; when it pretends to function under the same rules as developed countries. The country should be ready for accession by not only fulfilling the five nominal Maastricht convergence criteria but also the country has to be in all aspects grown up (politically, legally (developed legal basis, effective and efficient laws), economically, mentally,...).



## 5 COSTS OF REFUSAL TO JOIN THE EURO AREA

Euro area membership is neither necessary, nor a sufficient condition for being an honoured member of the Union, whose opinion and position are taken into account. Great Britain, Denmark and Sweden are perfect examples of that. However, new Member States are bound by the obligation to enter the euro area. Nevertheless, let us review the costs related to refusal to join eurozone membership (not taking into consideration that one of the EU membership conditions for the new Member States was, in the long run, full integration in the form of eurozone accession).

### 5.1 Risk of considerable exchange rate volatility

One of the costs of refusal to participate in the euro area is the risk of high exchange rate volatility and its remoteness from equilibrium value.

High speed of productivity growth in new Member States allows them to gradually improve the competitiveness of their economies. However, it is recognized that for countries with a fixed exchange rate (the Baltics) this creates distortions between real and nominal convergence. Thus, the Balassa-Samuelson effect arises, which appears in countries with high rates of productivity growth.

High productivity growth rates allow wage increases in the corporate segment without increasing export prices at the same time. But wage growth in one sector leads to wage growth in the services sector, where labour productivity is relatively lower. This in the end spurs inflation<sup>96</sup>. The Balassa-Samuelson effect is one of the most important factors causing so-called “catching-up” inflation, which is distinctive of countries developing on the path of real convergence.

Possibly, the best way to surmount the gap between real and nominal convergence is national currency appreciation to an exchange rate reflecting the level of equilibrium exchange rate appreciation. For example, in 2005-2007 the Polish zloty appreciated following increase in its equilibrium level. In its turn, main production factors productivity growth resulted in wage growth, and appreciation of the zloty helped curb inflation.

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<sup>96</sup> Balassa R. The Purchasing Power Parity Doctrine: A Reappraisal (1964). *Journal of Political Economy*.

If with a fixed exchange rate a threat arises of differences appearing between real and nominal convergence, then with a floating exchange rate the risk appears of long-term diversion from equilibrium level. At the same time, active participation of the central Bank in the form of currency market interventions cannot eliminate this risk, although in some cases it can provide all necessary, although not long-term, results.

It is also worth mentioning that at some stage fixed exchange rate maintenance becomes overwhelming, as happened to Hungary. On 25 February 2008 the Central Bank of Hungary announced its decision from the very next day to detach the forint from the euro, even though at that point in time the EMS band was not very strict, allowing 15% fluctuations. This serious step was determined by the fact that the peg did not allow the state to manage the budget and balance of payments deficit in the country, and also solve other problems: countervail inflation growth (which in 2007 grew to 7.9% against an expected 7%, see appendix 6), stop the drop in population income (on the whole in 2007 this decreased by 4.7%) and increase GDP growth rate (which in 2007 totalled 1% against an expected 2.8%).

## **5.2 Risk of decrease in autonomy over national monetary policy**

One of the counter-arguments against euro area accession is that National Central Banks of separate European countries will lose the right to independently define monetary policy, transferring it to a supranational, pan-European level. But at the same time this ignores world economy globalization, conditioned among others by financial liberalization and technical progress.

Growing mobility of international capital flows decreases the spectrum of available monetary policy methods even in countries with floating exchange rates. Central Banks in developing countries, as a rule, take into consideration the influence of interest rates definition policy on exchange rate development trends. They try to prevent excessive volatility of exchange rates, as this can negatively influence the economy. But exchange rate volatility risk increases with growing volumes of borrowings in currency with lower interest rates with their future conversion into the currency of a country with higher interest rates.

According to economic theory, a floating exchange rate should guarantee a country's full monetary policy independence. But it is also known that growth of inflationary expectations leads to national currency exchange rate devaluation. But this is true in the long

run, when at the same time short-term speculation is inevitable, since a country that fixes higher interest rates is always more attractive and thus draws short-term capital flows.

If in the 70s and 80s of the previous century the devaluation of a national currency together with the necessary tightening in monetary and fiscal policies could be an effective leverage to sustain a country's competitiveness, then now this will no longer be so efficient, taking into consideration increased capital mobility and floating exchange rates in a majority of countries.

The implications of such speculation can be well analyzed by the New Zealand example, where its Reserve Bank in the last couple of years increased interest rates in order to suppress speculation on the internal mortgage market. But increasing rates attracted short-term capital, which increased the number of deposits in banks. Thus, commercial banks received much more opportunity to grant mortgage loans. In these conditions the National Reserve Bank of New Zealand was forced to raise interest rates to a level which considerably exceeded the expected inflation level.

As can be seen from the example of New Zealand, a floating exchange rate does not simplify, but on the contrary complicates, independent monetary policy making, as capital inflow, conventional upon high interest rates, led to considerable appreciation of national currency. Two years ago the Reserve Bank of New Zealand intervened in the foreign exchange market with the aim of decreasing the risk of capital overflow from countries with lower interest rates to countries with higher interest rates<sup>97</sup>. In 2000-2001 the phenomenon under which increasing capital mobility reduced national monetary policy independence, was also seen in Poland<sup>98</sup>.

### **Main conclusions of the chapter**

Firstly, eurozone membership is neither a necessary nor a sufficient prerequisite for being recognized as a reputable member of the Union, whose position is listened to, as an example with three countries shows: Great Britain, Denmark and Sweden.

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<sup>97</sup> Garnham P. NZ Bank Resolve Tested as Kiwi Climbs (22.06.2007). *Financial Times*, p. 26.

<sup>98</sup> Orłowski W. The Impact of EMU Membership on the Competitiveness of the Polish Corporate Sector (2003). *Polish Economic Society*, Warsaw.

However, costs attributable to eurozone membership are lower than costs deriving from refusal to participate in the euro area. Costs related to refusal to participate, are:

- Risk of high volatility of floating exchange rates and remoteness from equilibrium value for a long period, as well as the risk of serious discrepancies between nominal and real convergence for countries with a fixed exchange rate.
- Risk of decrease in national monetary policy autonomy. It is known that national monetary policy autonomy disappears with a country's accession to currency union, but increasing the mobility of international capital flows in any case reduces the spectrum of possible monetary policy approaches even in countries with floating exchange rates.

## 6 ECONOMIC AND FINANCIAL SYSTEM DEVELOPMENT OF NEW MEMBER STATES DURING THE EARLY YEARS AFTER ACCESSION TO THE EUROPEAN UNION

On 1 May 2008, ten new Member States (five Central European countries, three Baltic and two Mediterranean countries) celebrated the fourth anniversary of their EU accession. Membership in such a powerful community as the European Union has allowed these countries to achieve some economic success in the early years. Much research has been done to analyze and estimate the impact.

Bitāns and Kaužēns<sup>99</sup>, assessing the impact of the euro on the economy of Latvia, considered the possibility of asymmetric shocks arising as the only negative consequence, and overestimated the elasticity of the labour market and its simultaneous ability to quickly respond to shocks.

Economic history has seen much research in which the authors of more recent studies regularly refute the findings of their predecessors. If in 1969 Goldsmith<sup>100</sup> on the basis of his 35 countries crossover study concluded that only a rough parallel can be drawn between economic and financial development, then King and Levine<sup>101</sup> came to the conclusion that economic development in future years will depend on financial development in the past. King and Levine conducted their cross-analysis on the basis of data from 80 countries, using various long-term economic indicators: GDP growth (total and per capita), capital growth per capita, investment volume, investment- to-GDP ratio, and others.

Levine and Zervos<sup>102</sup> continued to study the relationship between financial development and economic growth, emphasizing the banking and securities market. The results demonstrated that the size of the stock market does not impact economic growth, while securities market liquidity and banking system development are important factors in economic growth.

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<sup>99</sup> Bitāns M., Kaužēns E. *Eiro ieviešanas ietekme uz Latvijas tautsaimniecību* (2004). Latvijas Banka.

<sup>100</sup> Goldsmith R. W. *Financial Structure and Development*. New Haven, CT, Yale University Press, 1969.

<sup>101</sup> King R.G., Levine R. Finance and Growth: Schumpeter May be Right (1993, No 111) *Quarterly Journal of Economics*, pp. 639-670.; King R.G., Levine R. Finance, Entrepreneurship and Growth (1993, No 32). *Journal of Monetary Economics*, pp. 513-542.

<sup>102</sup> Levine R., Zervos S. Stock Markets, Banks and Economic Growth (1998, No 88). *American Economic Review*, pp. 537-558.

La Porta, Lopez-de-Silanes and Shleifer<sup>103</sup> came to the conclusion that any national financial market is closely related to its legal system, and in common law countries (Anglo-Saxon) the investor's rights are better protected than in continental law countries. The legal origin of countries is considered in this context as an externality in economic growth, since the English, French and German legal systems were established centuries ago and spread mainly through occupation and colonization. Later Beck, Levine and Loayza<sup>104</sup> used the model of legal origin of the financial system to detect externality in economic growth. Based on their methodology, they reached the conclusion that the size of the financial sector positively correlated with GDP per capita growth rate and the total increase in productivity of production factors.

Demirguc-Kunt and Levine<sup>105</sup> analyzed the relationship between indexes of effectiveness and size of financial market with long-term growth. According to their findings, development of both the financial sector and its participants correlates with long-term growth in those cases when it is realized within the framework of a high-quality legal system (investor protection, efficient enforcement machinery). However, this work does not reveal which of the financial market segments is more important for growth: banking or securities.

Rose repeatedly attempted in his own<sup>106</sup> and in co-operative<sup>107</sup> works to assess monetary union membership impact on trade relations between the countries within the union. Rose is up to this day being criticized, which only confirms the actuality and significance of the issue.

The actual figures illustrating the first results – EU accession membership - are demonstrated below.

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<sup>103</sup> La Porta R., Lopez-de-Silanes F., Shleifer A. Law and Finance (1998, No 106). *Journal of Political Economy*, pp. 1113-1155.

<sup>104</sup> Beck T., Levine R., Loayza N. Financial Intermediation and Growth: Causality and Causes (2000, No 46). *Journal of Monetary Economics*, pp. 31-47.; Beck T., Levine R., Loayza N. Finance and the Sources of Growth (10-11.2000, No 58). *Journal of Financial Economics*, pp. 261-300.

<sup>105</sup> Demirguc-Kunt A., Levine R. *Financial Structure and Economic Growth. A Cross-Country Comparison of Banks, Markets and Development*. Cambridge, MIT Press, 2001.

<sup>106</sup> Rose A.K. One Money, One Market? The Effect of Common Currencies on International Trade (2000, No 30). *Economic Policy*, pp. 449-461.

<sup>107</sup> Rose A.K., van Wincoop E. National Money as a Barrier to International Trade: the Real Case for Currency Union (2001, Vol. 91, No 2). *American Economic Review*, pp. 386-390.

	average in 2001-2003	average in 2004-2006
EU-15	1.4	2.2
New Member States-8	3.1	5.3
NMS-8 – EU-15 (in percentage points)	1.7	3.1

Chart 12. GDP growth rates in 2001-2003 and 2004-2006 in %<sup>108</sup>.

	average in 2001-2003		average in 2004-2006	Change
Lithuania	7.9	Latvia	10.5	3.3 p.p.
Estonia	7.7	Estonia	8.9	1.2 p.p.
Latvia	7.2	Lithuania	7.7	-0.2 p.p.
Hungary	4.3	Slovakia	6.7	2.4 p.p.
Slovakia	4.3	Czech Republic	5.9	3.2 p.p.
Slovenia	3.2	Poland	5	2.8 p.p.
Czech Republic	2.7	Slovenia	4.9	1.7 p.p.
Poland	2.2	Hungary	4.1	-0.2 p.p.

Chart 13. GDP growth rates in NMS-8 in 2001-2003 and 2004-2006 in %<sup>109</sup>.

Prior to accession, in the period from 2001 to 2003, GDP was increasing 3.1% on average each year in the eight new member countries (Latvia, Lithuania, Estonia, Hungary, Slovakia, Slovenia, the Czech Republic, Poland). During the next three years (2004-2006), GDP added 5.3% annually, that is, 2.2 percentage points more than before accession. This is partly due to qualitatively better economic growth in the EU-15 in 2004-2006 (see charts 12, 13). Improvements in economic growth after EU accession were demonstrated by all countries except for Lithuania and Hungary (see chart 13).

<sup>108</sup> Source: based on data provided by Eurostat

<http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tsieb020>. Last visited 02.09.2009.

<sup>109</sup> Source: based on data provided by Eurostat

[http://epp.eurostat.ec.europa.eu/portal/page?\\_pageid=1996,39140985&\\_dad=portal&\\_schema=PORTAL&\\_screen=detailref&language=en&product=STRIND\\_ECOBAC&root=STRIND\\_ECOBAC/ecobac/eb012](http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,39140985&_dad=portal&_schema=PORTAL&_screen=detailref&language=en&product=STRIND_ECOBAC&root=STRIND_ECOBAC/ecobac/eb012) Last visited at 02.09.2009.

Even more impressive is the difference in growth rates of investments. In 2001-2003 both in the EU-15, and in the NMS-8 there was a minute close to zero increase (see charts 14 and 15). In 2004-2006 there was an appreciable leap in indicators, and the influx of financing in the NMS-8 exceeded the inflow of financial resources in the EU-15 by 4.7 percentage points.

	average in 2001-2003	average in 2004-2006
EU-15	0.3	3.6
New Member States-8	0.3	8.3
NMS-8 – EU-15 (in percentage points)	0	4.7

Chart 14. Investment growth rates in 2001-2003 and 2004-2006 in %<sup>110</sup>.

	average in 2001-2003		average in 2004-2006	Change
Estonia	15	Latvia	21.9	9.6 p.p.
Lithuania	12.8	Estonia	15.3	0.3 p.p.
Latvia	12.3	Lithuania	12.2	-0.6 p.p.
Hungary	5.7	Slovakia	9.8	6.4 p.p.
Czech Republic	4	Poland	9.8	15.3 p.p.
Slovakia	3.4	Slovenia	7	4.3 p.p.
Slovenia	2.7	Czech Republic	4.4	0.4 p.p.
Poland	-5.5	Hungary	3.8	-1.9 p.p.

Chart 15. Investment growth rates in NMS-8 in 2001-2003 and 2004-2006 in %<sup>111</sup>.

<sup>110</sup> Source: based on data provided by Eurostat

[http://epp.eurostat.ec.europa.eu/portal/page?\\_pageid=1996.39140985&\\_dad=portal&\\_schema=PORTAL&screen=detailref&language=en&product=REF\\_SD\\_EC&root=REF\\_SD\\_EC/sd\\_ec/sd\\_ec\\_dev/tsdec210](http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996.39140985&_dad=portal&_schema=PORTAL&screen=detailref&language=en&product=REF_SD_EC&root=REF_SD_EC/sd_ec/sd_ec_dev/tsdec210). Last visited 02.09.2009.

<sup>111</sup> Source: based on data provided by Eurostat

[http://epp.eurostat.ec.europa.eu/portal/page?\\_pageid=1996.39140985&\\_dad=portal&\\_schema=PORTAL&screen=detailref&language=en&product=REF\\_SD\\_EC&root=REF\\_SD\\_EC/sd\\_ec/sd\\_ec\\_dev/tsdec210](http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996.39140985&_dad=portal&_schema=PORTAL&screen=detailref&language=en&product=REF_SD_EC&root=REF_SD_EC/sd_ec/sd_ec_dev/tsdec210). Last visited 02.09.2009.



As to country trends, it is once again possible to observe positive dynamics in all countries except Lithuania and Hungary, where the inflow came short, in the second period was less than for the 2001-2003 period by 0.6 percentage points and 1.9 percentage points respectively (see chart 15).

The NMS-8 have become more attractive for foreign direct investment flows since 2004. All together about 25 billion euro (in current prices) was invested in the economies of the NMS-8 during the first three years after EU accession. Given two percent inflation in the euro area, foreign investment increased about 36% during the same period. The sources for most of these funds were the old EU Member States.

	average in 2001-2003		average in 2004-2006	Change
EU-15	1,331.7	EU-15	1,285.8	- 45.9 p.p.
NMS-8	55.8	NMS-8	80.4	24.6 p.p.
Czech Republic	17.2	Poland	29.1	14.3 p.p.
Poland	14.8	Czech Republic	18.1	0.9 p.p.
Hungary	9.5	Hungary	14.6	5.1 p.p.
Slovakia	8.1	Slovakia	7.5	-0.6 p.p.
Slovenia	2.4	Estonia	4.4	2.7 p.p.
Estonia	1.7	Lithuania	2.9	1.5 p.p.
Lithuania	1.4	Latvia	2.4	1.7 p.p.
Latvia	0.7	Slovenia	1.4	-1 p.p.

Chart 16. Foreign direct investment inflow in 2001-2003 and 2004-2006 in billion euro<sup>112</sup>.

The export growth rate nearly doubled after joining the EU, thus reflecting the enhancement of NMS-8 openness to the global economy. Equally high export growth rates were also typical of the EU-15 countries during the two comparable periods. Differences in export

<sup>112</sup> Source: based on data provided by Eurostat  
[http://epp.eurostat.ec.europa.eu/portal/page?\\_pageid=1996,39140985&\\_dad=portal&\\_schema=PORTAL&screen=detailref&language=en&product=REF\\_SD\\_EC&root=REF\\_SD\\_EC/sd\\_ec\\_dev/tsdec210](http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,39140985&_dad=portal&_schema=PORTAL&screen=detailref&language=en&product=REF_SD_EC&root=REF_SD_EC/sd_ec_dev/tsdec210). Last visited 02.09.2009.

growth rates between the EU-15 and NMS-8 before and after 2004 have remained almost unchanged. This evidences the heavy role of externalities, which have driven export volumes up. Notably, too, over both analyzed periods, import growth in the NMS-8 has lagged behind export growth, thus improving the country's trade balance.

Growth of household consumption in the NMS-8, the most important GDP component, has also quickened after 2004, although at a slower pace than the increase in investment and export growth rates (see charts 16, 17, 18, Appendix 4). This means that during the three-year period following EU accession, the level of consumption ceased to be the main source of economic growth.

	average in 2001-2003		average in 2004-2006	Change
EU-15 exports to third countries	0.7	EU-15 exports to third countries	8.9	8.2 p.p.
NMS-8 exports to third countries	10	NMS-8 exports to third countries	18.7	8.7 p.p.
NMS-8 – EU-15 (in p.p.)	9.3 p.p.	NMS-8 – EU-15 (in p.p.)	9.8 p.p.	0.6 p.p.
EU-15 imports from third countries	-0.6	EU-15 imports from third countries	11	11.6 p.p.
NMS-8 imports from third countries	6.9	NMS-8 imports from third countries	17.6	10.7 p.p.
NMS-8 – EU-15 (in p.p.)	7.5 p.p.	NMS-8 – EU-15 (in p.p.)	6.6 p.p.	-0.9 p.p.
Lithuania	15.5	Estonia	23.6	19.6 p.p.
Slovakia	14.6	Czech Republic	20.7	9.7 p.p.
Poland	11.3	Slovakia	19.9	5.3 p.p.
Czech Republic	11	Latvia	19.9	12.2 p.p.
Latvia	7.7	Poland	19.5	8.2 p.p.

Hungary	6.6	Lithuania	18.4	2.9 p.p.
Slovenia	6.3	Hungary	15.5	8.9 p.p.
Estonia	4	Slovenia	14.3	8 p.p.

Chart 17. Export and import growth rates in 2001-2003 and 2004-2006 in %<sup>113</sup>.

Strong economic growth has led to a decline in unemployment in the NMS-8. The change is not as noticeable as in the case of changes in GDP and investment and export growth but it would be wrong to underestimate its importance. The unemployment rate declined by 1.7 percentage points over the period from 2004 to 2006. Nevertheless, it continues at approximately twice the average for the EU-15, although the gap between the EU-15 and the new Member States declined by two percentage points. If each of the new countries is examined separately, a rather delinked picture would be seen (see chart 19).

Just as five countries (Lithuania, Latvia, Estonia, Slovakia, Poland) managed to make a dent in unemployment in their countries, in Hungary and the Czech Republic (two countries with traditionally lower levels of unemployment) this index has risen by 1.1 and 0.1 percentage points, respectively.

	average in 2001-2003		average in 2004-2006	Change
EU-15	1.7	EU-15	1.8	0.1 p.p.
NMS-8	4	NMS-8	4.4	0.4 p.p.
NMS-8 – EU-15 (in p.p.)	2.4	NMS-8 – EU-15 (in p.p.)	2.6	0.2 p.p.
Hungary	8.4	Lithuania	13.3	6.7 p.p.
Estonia	8.1	Latvia	11.8	4.2 p.p.
Latvia	7.6	Estonia	10.2	2.1 p.p.
Lithuania	6.6	Slovakia	5.8	2.3 p.p.
Slovakia	3.5	Poland	3.9	1.3 p.p.
Czech	3.5	Czech	3.3	-0.2 p.p.

<sup>113</sup> Source: based on data provided by Eurostat  
[http://epp.eurostat.ec.europa.eu/portal/page?\\_pageid=1996,45323734&\\_dad=portal&\\_schema=PORTAL&screen=welcomeref&open=/B/B4/B41&language=en&product=Yearlies\\_new\\_economy&root=Yearlies\\_new\\_economy&scrollto=545](http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,45323734&_dad=portal&_schema=PORTAL&screen=welcomeref&open=/B/B4/B41&language=en&product=Yearlies_new_economy&root=Yearlies_new_economy&scrollto=545). Last visited 02.09.2009.

Republic		Republic		
Poland	2.6	Slovenia	3.2	0.9 p.p.
Slovenia	2.3	Hungary	2.7	-5.7 p.p.

Chart 18. Household consumption growth in 2001-2003 and 2004-2006 in %<sup>114</sup>.

In the case of the Baltic States, Poland and Slovakia, which have illustrated a rapid decline in unemployment during the observed period, it is necessary to take into account that these countries were the main donors of people of active working age for Ireland and the United Kingdom, where they work illegally, thus not paying taxes to their countries, and moreover not being registered at the labour exchange. These low-skilled labour outflows have led to a shortage of labour forces within their countries, which in turn initiated the cost of services increase of remaining workers: builders, for example. The construction work price explosion has largely provoked inflation (see Appendix 5), and has also made departing for earnings less profitable. At the end of 2007 – beginning of 2008 this trend slightly changed for some time.

In February 2008, the first time for a long time, the number of Poles returning from the United Kingdom exceeded the number of Poles who went to work in the UK<sup>115</sup>.

	average in 2001-2003		average in 2004-2006	Change
EU-15	7.5	EU-15	7.8	0.3 p.p.
NMS-8	14.7	NMS-8	13	-1.7 p.p.
NMS-8 – EU-15 (in p.p.)	7.2	NMS-8 – EU-15 (in p.p.)	5.2	-2 p.p.
Hungary	5.8	Slovenia	6.3	-0.2 p.p.
Slovenia	6.5	Hungary	6.9	1.1 p.p.
Czech Republic	7.7	Czech Republic	7.8	0.1 p.p.

<sup>114</sup> Source: based on data provided by Eurostat

[http://epp.eurostat.ec.europa.eu/portal/page?\\_pageid=1996.39140985&\\_dad=portal&\\_schema=PORTAL&screen=detailref&language=en&product=Yearlies\\_new\\_economy&root=Yearlies\\_new\\_economy/B/B1/B14/dab1000.0](http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996.39140985&_dad=portal&_schema=PORTAL&screen=detailref&language=en&product=Yearlies_new_economy&root=Yearlies_new_economy/B/B1/B14/dab1000.0). Last visited 03.09.2009.

<sup>115</sup> Sumlennyi S. The Poles are going home (31.03-06.04.2008, №13). *Expert*. p. 68. (Сумленный С. Поляки возвращаются домой // Эксперт. 31.03-06.04.2008. №13. стр.68.)

Estonia	11	Estonia	7.8	-3.2 p.p.
Latvia	11.9	Latvia	8.4	- 6.1 p.p.
Lithuania	14.5	Lithuania	8.6	-3.3 p.p.
Slovakia	18.4	Slovakia	15.9	-2.5 p.p.
Poland	19.2	Poland	16.9	-2.3 p.p.

Chart 19. Unemployment levels in 2001-2003 and 2004-2006 in %<sup>116</sup>.

Macroeconomic stability indicators – inflation, fiscal balance, current account status – demonstrated a more delinked picture than indicators reflecting the situation in the real economy.

	average in 2001-2003		average in 2004-2006	Change
EU-15	2.1	EU-15	2.1	0 p.p.
NMS-8	3.4	NMS-8	3	-0.4 p.p.
NMS-8 – EU-15 (in p.p.)	1.3	NMS-8 – EU-15 (in p.p.)	0.9	-0.4 p.p.
Lithuania	0.1	Poland	2.2	-0.5 p.p.
Czech Republic	2.2	Czech Republic	2.4	0.2 p.p.
Latvia	2.4	Lithuania	2.6	2.5 p.p.
Poland	2.7	Slovenia	2.9	-4.3 p.p.
Estonia	3.6	Estonia	3.8	0.2 p.p.
Slovakia	6.3	Hungary	4.8	-1.6 p.p.
Hungary	6.4	Slovakia	4.9	-1.4 p.p.
Slovenia	7.2	Latvia	6.6	4.2 p.p.

Chart 20. Inflation in EU-15 and NMS-8 in 2001-2003 and 2004-2006 in %<sup>117</sup>.

<sup>116</sup> Source: based on data provided by Eurostat  
[http://epp.eurostat.ec.europa.eu/portal/page?\\_pageid=1996.39140985&\\_dad=portal&\\_schema=PORTAL&screen=detailref&language=en&product=STRIND\\_ECOBAC&root=STRIND\\_ECOBAC/ecobac/eb031](http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996.39140985&_dad=portal&_schema=PORTAL&screen=detailref&language=en&product=STRIND_ECOBAC&root=STRIND_ECOBAC/ecobac/eb031). Last visited 03.09.2009.

<sup>117</sup> Source: based on data provided by Eurostat  
[http://epp.eurostat.ec.europa.eu/portal/page?\\_pageid=1996.39140985&\\_dad=portal&\\_schema=PORTAL&screen=detailref&language=en&product=STRIND\\_ECOBAC&root=STRIND\\_ECOBAC/ecobac/eb040](http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996.39140985&_dad=portal&_schema=PORTAL&screen=detailref&language=en&product=STRIND_ECOBAC&root=STRIND_ECOBAC/ecobac/eb040). Last visited 03.09.2009.

	average in 2001-2003		average in 2004-2006	Change
EU-15	0.2	EU-15	0.2	0 p.p.
NMS-8	-4.3	NMS-8	-4.8	-0,5 p.p.
NMS-8 – EU-15 (in p.p.)	-4.5	NMS-8 – EU-15 (in p.p.)	-5	-0,5 p.p.
Slovenia	0.1	Slovenia	-2.4	-2,5 p.p.
Poland	-2.5	Poland	-2.7	-0,2 p.p.
Lithuania	-5.6	Czech Republic	-4.2	1,5 p.p.
Czech Republic	-5.7	Hungary	-7	0 p.p.
Hungary	-7	Slovakia	-8.3	-1 p.p.
Slovakia	-7.3	Lithuania	-8.7	-3,1 p.p.
Latvia	-7.5	Estonia	-12.8	-3,4 p.p.
Estonia	-9.4	Latvia	-16.1	-8,6 p.p.

Chart 21. Current account in 2001-2003 and 2004-2006, % of GDP<sup>118</sup>.

Increase of inflationary pressures was observed in half of the eight countries (see Appendix 5). In the case of the Czech Republic and Estonia, inflation dynamics deterioration was of negligible importance and therefore did not have much impact on the economic situation. In both other Baltic countries – Lithuania and Latvia – the inflation rate was more considerable: +2.5 and +4.2 percentage points respectively. Nevertheless, it has to be mentioned that the observed increase has still left Lithuania slightly below the Maastricht criteria level. The dominating position by inflation acceleration criteria held by Latvia and Lithuania is largely due to their rapid economic growth (during the period of 2004-2006 on average up to 10.4% and 7.5% respectively).

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<sup>118</sup> Source: based on data provided by Eurostat  
[http://epp.eurostat.ec.europa.eu/portal/page?\\_pageid=1996,45323734&\\_dad=portal&\\_schema=PORTAL&screen=welcomeref&open=/euro\\_bp/bp\\_curac&language=en&product=EUROIND\\_BP&root=EUROIND\\_BP&scrollto=0](http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,45323734&_dad=portal&_schema=PORTAL&screen=welcomeref&open=/euro_bp/bp_curac&language=en&product=EUROIND_BP&root=EUROIND_BP&scrollto=0). Last visited 02.09.2009.

In four other states, Slovenia, Hungary, Slovakia and Poland, inflation declined after EU accession. Slovenia was to illustrate the biggest decline and was the first to join the euro area.

Let us turn to analysis of the current account position of the countries. This has improved only in one country – the Czech Republic. In other countries it has remained unchanged (as in Hungary), or changed for the worse, and in some countries quite considerably (as in Latvia, where the budget deficit was 16.1%).

Among the five Central European countries analyzed, in fact only the Slovenian current account deteriorated (-2.5 percentage points). The reason for this is that earnings received by foreign companies in these countries and reflected on the debit side of accounts are increasing their impact on the state of the current account. A considerable proportion of these earnings is reinvested, in other words, remains in the country, but in terms of accounting it is shown in the capital account as a direct foreign investment influx into the country.

The situation in the Baltic States has seriously deteriorated after accession to the EU, especially in Estonia and Latvia, where the deficit reached 16.1% and 12.8% in 2004-2006, increasing by up to 8.6 and 3.4 percentage points respectively. A situation with massive deficits was also observed during the years preceding EU accession (in Latvia, 7.5%, in Estonia 9.4%). Moreover, a massive external balance deficit is also typical of these countries.

The budget to GDP ratio has improved in all countries except for Hungary (see chart 22). The fiscal problems experienced by Hungary bear a clearly political pattern (a significant increase in government spending related to elections in 2000 and later) and therefore do not depend on EU membership. Improvements presented by the other seven countries were very significant. The Czech Republic, managing to reduce the negative ratio by 3.3 percentage points, proved to be the leader among these countries. If in 2001-2003 only three countries from the NMS-8 corresponded to one of the Maastricht criteria concerning the state of the budget, then in 2004-2006 already five countries complied with the requirements, and the Czech Republic exceeded the three percent limit only by 0.1 percentage point.

	average in 2001-2003		average in 2004-2006	Change
EU-15	-2.1	EU-15	-2.2	-0.1 p.p.
NMS-8	-5.4	NMS-8	-4.2	1.2 p.p.
NMS-8 – EU-15 (in p.p.)	-3.3	NMS-8 – EU-15 (in p.p.)	-2	1.3 p.p.
Estonia	0.7	Estonia	2.8	2.1 p.p.
Latvia	-2	Latvia	-0.3	1.7 p.p.
Lithuania	-2.3	Lithuania	-0.8	1.5 p.p.
Slovenia	-3.1	Slovenia	-1.7	1.4 p.p.
Poland	-5.5	Slovakia	-2.9	2.8 p.p.
Slovakia	-5.7	Czech Republic	-3.1	3.3 p.p.
Czech Republic	-6.4	Poland	-4.7	0.8 p.p.
Hungary	-6.8	Hungary	-7.8	-1 p.p.

Chart 22. State budget in 2001-2003 and 2004-2006 in % of GDP<sup>119</sup>.

The pace of so-called “catching up” development accelerated after EU accession. For example, the gap in GDP per capita declined to a greater extent in 2004-2006 than in 2001-2003 (see Appendix 1). As a result, GDP per capita in Slovenia and the Czech Republic exceeded the corresponding figure for Portugal.

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<sup>119</sup> Source: based on data provided by Eurostat  
[http://epp.eurostat.ec.europa.eu/portal/page?\\_pageid=1996,45323734&\\_dad=portal&\\_schema=PORTAL&screen=welcomeref&open=/euro\\_na/na\\_geng&language=en&product=EUROIND\\_NA&root=EUROIND\\_NA&scrollto=169](http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,45323734&_dad=portal&_schema=PORTAL&screen=welcomeref&open=/euro_na/na_geng&language=en&product=EUROIND_NA&root=EUROIND_NA&scrollto=169). Last visited 03.09.2009.



	Inflation (CPI, average per period)	Current accounts (in % from GDP, average per period)	State budget (in % from GDP, average per period)
Czech Republic	–	+	+
Hungary	+	unchanged	–
Poland	+	–	+
Slovakia	+	–	+
Slovenia	+	–	+
Estonia	–	–	+
Latvia	–	–	+
Lithuania	–	–	+

+ improvement  
– deterioration

Chart 23. Changes in 3 indicators: inflation, current account, state budget in 2004-2006 relative to 2001-2003.

The fact that in 2004-2006 the external environment was more favourable than in 2001- 2003 cannot fail to be added to all the matters mentioned above if in 2001-2003 international trade increased only by 8 per cent but in the next three years the increase amounted to 30 per cent. Simultaneously the main export market for the NMS-8 – EU-15 has widened considerably. Moreover, notably increased energy prices have not had a decelerating impact on the economic development of the countries.

These favourable external conditions are less significant than the benefits that countries have obtained after EU accession. Although the export markets were opened to the NMS-8 long ago, except for relatively small segments such as agriculture or food, EU accession removed all customs barriers. The simplified system of inter-country collaboration and cooperation with other new Member States expanded trade between NMS and increased export flows directed outside the EU.

Increased investment volumes represent the result of greater confidence in lower risk exposure of European Union participants. After almost 15 years of transformational reforms, confidence in the predictability of institutional and economic changes has increased for domestic and foreign investors.

Having managed to attract large amounts of foreign direct investment, the NMS-8 have learned to invest funds received more efficiently and have improved the quality of financial resources management, thereby enhancing the competitiveness of their countries.

2006 was the most favourable year from the range of preceding years in the context of economic growth (see Appendix 3). The most vigorous growth in the post-Soviet period was recorded in Latvia, Estonia and Slovakia (12.5%, 11.6%, and 9.8% respectively). Such growth is more characteristic of Asian “tigers” than of Central European countries. The Czech Republic, Poland, Bulgaria, Romania also demonstrated high growth rates: 7.5%, 7.1%, 6.3% and 6.3% respectively. The only “outsider” was Hungary with 3.9% growth due to roll-out of the economic recovery programme (“simple packaging”) in the middle of 2006.

In 2007 economic growth continued but the percentage rates were still lower than in 2006. For example, in 2006 and in the previous years GDP growth in Slovakia, conditioned by half by increase in consumption, by a quarter by investment flows and to a wide extent by rise in net exports, also progressed in 2007 thanks to the same factors (see Appendix 4). The countries still have untapped resources for further growth, which will drive recovery in the future. Steady growth of consumption (but lower than GDP growth) added to the increase of investment and net exports will determine growth in the future.

At the same time, the situation with Bulgaria and Romania shows that consumption is the main factor in growth, while the net exports index deteriorates on a year to year basis. If increase of consumption is subject to low living standards of the population (the lowest in the EU), then steady deterioration in the external trade balance even several years ago required urgent measures from the authorities of those two countries. However, for them there is a potential growth factor – increase in investment, which exceeded GDP growth, remained low.

Romanian and Bulgarian accession in 2007 did not send prices higher in those countries. In Bulgaria inflation developed by only 0.2 percentage points in 2007, against 2006: from 7.4% to 7.6%, while in Romania, on the contrary, growth of CPI reduced from 6.6% to 4.9%.

Stability area				Rising concerns	Risk zone				
Poland	Czech Republic	Slovenia	Hungary	Slovakia	Lithuania	Bulgaria	Latvia	Romania	Estonia

Chart 24. Country distribution among risk zones (as of 2007)<sup>120</sup>.

Some slowdown in economic growth in the three Baltic States in 2007 was good news, because the risk of economic overheating was actively discussed in global economic and political quarters (see chart 24). But all the same, vigorous growth in domestic demand continued, which facilitated balancing of macroeconomic disproportion in the economy, especially in Latvia, whereas growth in household consumption and capital inflows significantly exceeded economic growth in these countries.

Characteristics of economic overheating were drawn most clearly in Latvia in 2007, where the current account deficit reached 21.1% of GDP. Domestic demand grew mainly due to increase in loans granted to households. In May 2007, the Bank of Latvia raised the refinance rate to 6%. But this step did not give the required effect, since euro-denominated loans are more popular (the same in Lithuania and Estonia). With inflation moving higher, real interest rates have declined all the more.

High inflation in the Baltic States, especially in Latvia, together with fixed exchange rates led to a real appreciation of Lithuanian litas, Latvian lats and the Estonian kroon. The slowdown in manufacturing output growth in Latvia and Lithuania and the deceleration of exports from Estonia and Lithuania is visible evidence of deterioration of these countries' competitiveness. This should have alarmed the authorities of the three Baltic States to take the necessary steps to curb excess domestic demand in advance.

In 2007 Poland and Slovenia continued to show high growth rates of up to 6.8% each, exceeding those forecast by the EC amounts of 6% and 3% respectively. Economic development in Poland and Slovenia was mainly due to growth of investment in these countries. In addition, notably, having achieved some success in previous years, Slovenia entered the euro area in 2007. The growth of its economy was far higher than in the "old"

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<sup>120</sup> Source: Economic situation in the Baltics, Bulgaria, Hungary, Poland, Romania, Slovakia, Slovenia, Czech Republic analysis: *New Europe: A warning not to be ignored* / Christensen L., Rasmussen L. Danske Bank. 23.02.2007.

eurozone member countries, and in 2007 inflation was 3.8%<sup>121</sup>. If Slovenia had shown similar dynamics in 2006, then it would not have joined the euro area with such indicators. Thus, inflation in the country increased after monetary union accession. At the same time other sub-aggregates have also showed some growth: manufacturing output increased by more than 10%, the unemployment rate fell below the European average, exports grew by 18% and imports by 17%, thereby reducing the external balance deficit. Moreover, active growth of the above listed indicators was already very much in evidence in the first months of 2007.

According to Polish Statistical Agency forecasts in 2007, the Polish economy was expected to perform by 5.5-6% better in 2008 than in 2007 (however, thanks to the economic recession it was lower, but still considerable – 5%). Growth, as expected, was driven by consumption development, added to the inflow of financial resources and, as a consequence, mild deterioration in the external balance deficit.

Czech economic growth, subject mainly to investment growth, came in 2007 just 0.7 shorter than 2006. The 2007 consumption growth tended upwards vigorously, running ahead of GDP growth, against a backdrop of a decline in investment and net export conditions worsening. In 2008 the Czech economy was still growing by 2.5% during the year. The expected 2009 decline of 2.7 per cent is one of the lowest in the European Union.

Hungary was the only country that stood out among the fast-growing new countries. In 2007 its growth rates decreased to 1%, that is, 3 percentage points less than in 2006 and 2 percentage points less than earlier forecast by the National Statistical Agency of Hungary. In 2007 Hungarian economic growth factors were conditioned by measures intended for economic recovery: the rate of consumption growth and investment declined, with a simultaneous marked improvement in net exports. Thus, the increase in investments is an important economic growth promoting factor. This is reflected in the Hungarian economic recovery programme: decline in consumption, considerable increase in investment and a marked improvement in the external balance of the country.

Despite negative indicators such as development of inflation and taking into account the rate of economic growth of the countries, it can still be agreed that EU membership has brought prosperity to the countries for the period under review. It turns out that after EU

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<sup>121</sup> Inflation was especially perceptible in the following segments: prices grew most for furniture, beausicraft and in restaurants and cafes..

accession, new members have experienced recognized economic benefits as separately analyzed in previous chapters.

Yet they were seriously affected in 2008-2009 due to lack of sustainable domestic sources of growth. All culture and development contributed by the EU came from outside and did not manage to secure a footing inland; therefore now the new Member States generally rely upon financial support from Western countries, not relying on their own resources and strengths.

### **Main conclusions of the chapter**

The estimate of the impact of EU membership in 2004-2006 compared with the period of 2001-2003 was carried out on the basis of the following indicators: GDP growth, investment growth, export and household consumption growth rate, changes in unemployment rate, inflation rate, assessment of the current account, government debt to gross domestic product ratio. The period from 2004 to 2006 was favourable for the NMS-8 largely due to EU accession, as well as to favourable economic conditions.

- GDP growth after EU entry was on average 2.2 percentage points higher than over the 2001-2003 period. Over the post-Soviet period the most vigorous growth was marked in the Baltic States.
- An average growth rate of investment, amounting to 8.3% over the 2004-2006 period versus 0.3%, provides evidence that the NMS-8 have been attractive for foreign investors.
- The export growth rate almost doubled in the NMS-8 over the 2004-2006 period, in fact the same as in the EU-15, since this indicator reflects some synchronization of the life cycles between new and old members.
- Slight change in the household consumption growth rate (+0.4 percentage points) shows that the level of consumption of the population and its growth ceased to be the main factors of economic growth of the countries.
- Unemployment declined by 1.7 percentage points on average in the NMS-8. At the same time in the Baltic States, Poland and Slovakia, the decline was much more apparent because of labour outflows to old European countries.

- Inflationary dynamics elicited great cross-country differences, divided the NMS-8 into three groups: countries where increase of inflationary pressures was low (the Czech Republic and Estonia); countries in which inflation growth was high (Latvia and Lithuania); countries, in which inflation declined after 2004 (Slovenia, Hungary, Slovakia and Poland).
- The change of current account status has also split the countries into three groups: the Czech Republic has demonstrated improvement; Hungary – is unchanged; Latvia, Lithuania, Estonia, Slovenia, Slovakia and Poland have demonstrated its worsening. The internal hierarchy in the last group looks rather discretely.
- Enhancement of government debt to GDP ratio occurred in all states except Hungary because of fiscal problems within the country. The improvement of this indicator is due to EU membership. Internal problems in the country caused deterioration in current account status in Hungary.

## CONCLUSION

“A day will come when all nations on our continent will form a European brotherhood... A day will come when we shall see...the United States of America and the United States of Europe, face to face, reaching out for each other across the seas.”  
V. Hugo<sup>122</sup>.

Euro introduction is certainly a great achievement within the process of European integration. The single European currency is to some extent a guarantee of monetary stability for the Member States, improvement of the export base, competitiveness growth, production efficiency development and increase, simplification of access to financing. However, this implies a responsibility to pursue a coherent, thought-out and concurrent policy hand in hand with alliance partners.

Notwithstanding successful introduction of the currency in the eurozone residing countries, monetary union expects many complexities related to European Union accession by the new countries. The euro area consisting of 27 members (including Britain, Denmark and Sweden) forms a considerable risk for the future of a united Europe. Risks primarily arise from the possible occurrence of serious asymmetric shocks that may in their turn derive from opportunities for specialization and agglomeration of economic activities in each country, although specialization leads to positive effects in the form of productivity development.

One cannot ignore the risks and dangers waylaying the European community on its integration path. Therefore it is necessary to take carefully thought out steps to ensure sustainable development in the euro zone. It is necessary to carry out a set of sequential structural reforms aiming at an upswing in markets, competitive recovery and promotion of

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<sup>122</sup> Victor-Marie Hugo (1802-1885) – French novelist, essayist, poet – expressed his view on the European future in 1848.

innovative activities, thus promoting economic growth, productivity, employment and the capacity of each country and of the entire euro zone to absorb domestic and external shocks.

Financial reforms are also absolutely indispensable for providing coherent and full-rate integration. They will increase marketability so that a firm basis for long-term confident growth of European economies will be created. Provision of equal access to financial services, instruments and resources will help towards the most efficient allocation of investment resources in the most profitable branches.

Nevertheless, the expansion of monetary union creates new opportunities for prosperity in Europe. Euro area accession is a way to increase economic stability for the new Member States by providing monetary and price stability due to attraction of investments, intensification of trade relations and increase in tourist flows. Financial integration stimulates the supply of financial products in the relatively less developed countries of the integrated zone and consequently develops the national financial system of these countries and increases their share of the financial sector in GDP. Economies of monetary integration are considerable both on the level of separate countries and of separate market segments. Development of national financial sectors brings about development and streamlining of national legislation in the areas of accounting, the securities market, banking supervision and corporate governance.

The fact of European Union membership has itself had a positive impact on the economic development of the “new” Member States. In particular, thanks to growth of confidence in the countries and enhancement of their credit ratings, investment growth has averaged 8.3% yearly during the period from 2004 to 2006, which is 8 percentage points higher than in the period from 2001 to 2003. The export growth rate doubled, evidencing some synchronization in business cycles between “new” and “old” members. Decline in unemployment has averaged 1.7 percentage points, in Lithuania this indicator even reached 6.1 percentage points, in Latvia and Estonia 3.3 and 3.2 percentage points correspondingly. In the first three years following euro area accession the total increment of GDP growth was on average 2.2 percentage points higher than during the period from 2001 to 2003. The most vigorous growth in the entire post-Soviet period was marked in the Baltic States. However, inflationary pressure in some countries increased because of differences in price situations between “new” (Latvia, Lithuania) and “old” European countries. At the same time the



consumer price index has reduced in a few of the “new” countries (Slovenia, Hungary, Slovakia and Poland.)

With euro area accession the countries will also experience other benefits. In particular, abolition of transaction costs will annually add 0.18-0.30 percentage points to the GDP of each country. Real interest rate decline will additionally contribute a 0.08-0.13 percentage point increase. According to different estimates, an improvement of commercial (trading) relations arriving at 40-150 per cent will add 0.55-0.76 percentage points to GDP annually. Upon that the seigniorage losses will amount to 0.17-0.23 per cent of GDP. The net result would be positive and equal to 0.64-0.96 annual GDP mark-up.

Introduction of a single European payment system, SEPA, coordinating the activities of European banks, clearing and financial settlements centres, companies, European and supra-national and governmental authorities, as well as EU citizens, will enable the launch of an efficient low-cost payment mechanism in the Euro-currency, ensuring equal access to services, and, what is most important, create a national euromarket. The increase of non-cash transactions will potentially average at 6.9 per cent a year, which will lead to real growth of up to 7.2 per cent in value terms. Comparison of growth indicators in quantitative and value terms demonstrates the effectiveness of the system. Ordinary Europeans will be satisfied with the savings, which will favour their positive attitude towards the single currency and facilitate a decrease of risk of discontent growth arising from abandoning the sovereign currency.

To make a profit on membership and to avoid probable expenses, it is necessary to take into account the time element required for final single currency adoption (the duration of the third stage of the EMU). It is also required to take into account and adhere to a set of principles concerning the functioning of the integrated Central bank: its independence; the accuracy and clearness of purpose of its pursued policy, based on a constitutional mandate; adherence to operational excellence in relation to transparency of regulatory action, and its liability for conduct of monetary policy.

Monetary union membership minimizes the set of political levers which the monetary authorities may address in each country to overcome shock fallout. The ECB, which is in charge of conduct of monetary policy and stable price maintenance in the European economy, may be paralyzed in its actions in case of simultaneous occurrence of several asymmetric shocks. At the same time, small local shocks can give a necessary “jolt” to the

economy, defining and highlighting narrow areas and pointing at the necessity to take a raft of monetary policy measures. It is worth adding that narrowing the autonomy of national monetary policy will in any event occur in each country with an open market system, as increasing mobility of international capital flows reduces the range of potential monetary policy measures even in countries with floating exchange rates.

Therefore, taking into account all the potential risks, as well as introducing the necessary steps to prevent them, European Monetary Union membership strives to bring prosperity to the economies of the “new” Member States if they enter the alliance, subject to adequate preparation and stability in accordance with the Maastricht criteria. These criteria have to be supplemented (e.g., by the trade integration index, calculated with the Balassa index; GDP per capita, which must be at least equal to the average value of the actual euro-zone members; estimates of labour and capital market mobility and flexibility) and tightened (extension of period during which countries must demonstrate stability or, for some indicators, a steady decline in inflation, budget deficits, public debt, nominal interest rates, national currency fluctuations).

Only by strong observance of safety measures when extending the eurozone, by consequent application of measures protecting against asymmetric shocks, which include creation of a two-level insurance system (at the state and private market level), can the enlarged euro area be an optimal currency area and preserve the balance over the time. A strong stable euro area, with synchronized economic cycles in the Member States, will reduce the risk of micro- and macro-imbalances in the economy and currency crisis arising, as well as allowing the European Central Bank to carefully evidence and meet national liquidity requirements.

Forcing admission of new members will lead to serious economic difficulties, which may be insurmountable, leading to European disintegration. Any further advance on the path to integration is impossible without expounding a set of questions that have to be addressed at the supranational level. Therefore a transfer of a stake in national sovereignty to the EU authorities is indispensable.

## LIST OF ABBREVIATIONS AND SYMBOLS

*EACHA* – European Automated Clearing House Association

*EBA* – European Bank Association

*EC* – European Commission

*EMI* – European Monetary Institute

*EMS* – European Monetary System

*EMU* – European Monetary Union

*EPC* - European Payments Council

*EU* – European Union (European Community)

*EU-11* - 11 EU Member States: Austria, Belgium, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Finland, France, Germany

*EU-15* - 15 EU Member States: Austria, Belgium, Great Britain, Greece, Hungary, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Finland, France, Germany, Sweden

*EU-25* - 25 EU Member countries, including the EU-15, as well as Cyprus, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia, Czech Republic, Estonia

*EU-27* - 27 EU Member countries, including the EU-25, as well as Bulgaria and Romania

*ESCB* – the European System of Central Banks

*ECB* – the European Central Bank

*Euro area* - zone including EU members, whose national currency is the euro: Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia, Spain

*WB* – the World Bank

*IMF* – the International Monetary Fund

*NCB* – National Central Bank of a Member State

*NMS* – the New Member States: countries that joined the EU after 2004

*NMS-8* – Latvia, Lithuania, Estonia, Hungary, Slovakia, Slovenia, Czech Republic, Poland

Members or Member States - EU Member States (until 1992 of the EEC)

*SEPA* – Single Euro Payment Area

*SEA* – Single European Act

# APPENDICES

## Appendix 1

### GDP per capita in PPS in 1997 – 2009

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
EU-27	100	100	100	100	100	100	100	100	100	100	100	100
EU-25	104.9	105	105	105	104.8	104.6	104.4	104.2	104.1	103.9	103.7	103.5
EU-15	115.5	115.4	115.4	115.3	114.9	114.3	113.7	113.2	112.8	112.2	111.6	110.8
Euro area	115.6	115.7	115.5	115.0	113.5	112.6	111.8	110.6	110.6	110.2	109.7	109.0
Euro area-16	113.0	113.1	112.9	112.5	112.1	111.3	110.5	109.4	109.6	109.2	109.0	108.4
Euro area-15	114.1	114.2	114.0	113.6	113.2	112.3	111.5	110.3	110.4	109.9	109.7	109.0
Euro area-13	114.2	114.3	114.1	113.7	113.3	112.4	111.6	110.4	110.5	110.0	109.7	109.1
Euro area-12	114.4	114.4	114.3	113.9	113.5	112.6	111.8	110.6	110.6	110.2	109.9	109.2
Belgium	125.6	122.9	123.0	126.1	123.7	125.3	123.4	121.2	119.8	118.4	118.1	113.9
Bulgaria	26.4	26.9	26.9	27.8	29.3	31.0	32.5	33.7	34.5	36.5	37.3	40.2
Czech Republic	72.9	70.5	69.5	68.5	70.2	70.4	73.4	75.1	75.9	77.6	80.3	80.1
Denmark	133.1	131.9	130.8	131.6	127.8	128.4	124.1	125.7	123.7	122.9	120.1	118.4
Germany	124.3	122.4	122.1	118.5	116.6	115.2	116.5	116.3	116.9	115.9	115.1	116.1
Estonia	42.0	42.5	42.5	45.0	46.4	50.0	54.5	57.4	61.6	65.9	69.5	68.2
Ireland	114.6	121.1	125.9	130.9	132.5	138.0	140.8	142.1	144.1	146.9	149.6	136.6
Greece	84.6	83.3	82.7	84.1	86.5	90.2	92.6	94.0	91.8	92.9	94.2	93.9
Spain	93.3	95.3	96.3	97.3	98.1	100.5	100.9	101.0	102.0	104.2	105.7	103.4
France	114.6	115.0	114.8	115.4	115.7	116.0	111.8	110.0	110.6	109.0	108.9	107.4
Italy	119.0	119.8	117.5	116.9	117.8	111.9	110.7	106.7	104.9	103.8	101.9	100.5
Cyprus	85.8	86.7	87.4	88.8	90.9	89.2	88.9	90.3	90.9	90.2	90.8	94.7
Latvia	34.6	35.6	36.0	36.7	38.7	41.2	43.3	45.7	48.6	52.5	57.9	55.8
Lithuania	38.6	40.4	38.9	39.3	41.5	44.1	49.1	50.5	52.9	55.5	59.8	61.1
Luxembourg	214.6	217.5	237.3	243.7	234.1	240.2	247.6	252.8	254.5	268.7	275.1	271.4
Hungary	53.1	54.6	54.7	55.3	58.9	61.6	62.8	63.4	63.2	63.5	62.6	62.8
Malta	80.5	80.5	81.0	83.6	77.9	79.5	78.3	76.8	77.8	76.7	77.5	75.5
Netherlands	127.0	128.6	130.8	134.3	133.7	133.4	129.3	129.2	130.8	130.9	131.3	135.0
Austria	131.3	131.6	131.2	131.4	125.1	126.2	126.8	126.7	124.4	123.7	123.9	123.2
Poland	46.8	47.8	48.6	48.2	47.6	48.3	48.9	50.6	51.4	52.3	53.8	57.6
Portugal	76.1	76.6	78.3	78.0	77.3	77.0	76.6	74.6	77.0	76.3	76.1	75.5
Romania			26.3	26.1	27.8	29.4	31.3	34.1	35.0	38.3	42.5	45.8
Slovenia	77.7	78.6	80.6	79.8	79.7	82.3	83.4	86.4	87.5	87.8	89.5	90.7
Slovakia	51.3	52.1	50.5	50.1	52.3	54.1	55.5	57.1	60.3	63.5	67.0	71.9
Finland	110.6	114.3	115.1	117.2	115.6	115.1	112.8	116.1	114.2	114.8	115.8	115.1
Sweden	123.4	122.5	125.3	126.7	121.4	121.1	122.6	124.7	120.3	121.4	122.3	121.5

United Kingdom	118.2	117.6	117.8	119.0	119.8	120.6	121.8	123.7	121.9	120.7	118.5	117.2
Norway	147.4	138.4	144.8	165.0	161.1	154.7	156.2	164.4	176.3	183.7	178.5	190.2
United States	160.8	160.7	162.7	161.1	156.5	154.2	156.3	157.3	159.1	158.0	155.8	154.4

Source Eurostat:

<http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tsieb010>

Last visited 01.11.2009

## GDP per capita at market prices in 1999-2010

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009*	2010*
EU-27	17800	19100	19800	20500	20700	21700	22500	23600	24900	25100		
EU-25	18700	20000	20700	21400	21600	22600	23400	24600	25800	25900		
EU-15	20600	22000	22700	23400	23600	24500	25400	26500	27800	27800		
Euro area	20600	21900	22500	23100	23200	23900	24900	26000	27300	27300		
Euro area-16	20100	21400	22200	22800	22900	23700	24600	25800	27100	27200		
Euro area-15	20300	21600	22400	23000	23100	23900	24800	26000	27300	27300		
Belgium	21900	24000	24500	25700	25600	26200 <sup>b</sup>	26900	28000	29400	28600	28000	28300
Bulgaria	4800	5300	5800	6300	6700	7300	7800	8600	9300	10100	9700	9900
Czech Republic	12400	13000	13900	14400	15200	16300	17100	18300	20000	20100	19500	19800
Denmark	23300	25100	25300	26300	25700	27200	27800	29100	29900	29700	28000	28600
Germany	21800	22600	23100	23600	24200	25200	26300	27400	28600	29100	27300	27900
Estonia	7600	8600	9200	10200	11300	12400	13800	15600	17300	17100	14700	14900
Ireland	22400	24900	26200	28200	29200	30800	32400	34700	37200	34300	31500	31200
Greece	14700	16000	17100	18500	19200	20400 <sup>p</sup>	20600 <sup>p</sup>	22000 <sup>p</sup>	23400 <sup>p</sup>	23500 <sup>p</sup>	23300	23700
Spain	17200	18500	19400	20600	20900	21900	22900	24600	26300	25900	24800	24800
France	20400	22000	22900	23700	23200	23800 <sup>b</sup>	24900	25800	27100	26900	25900	26200
Italy	20900	22300	23300	22900	22900	23100	23600	24500	25400	25200	23500	23800
Cyprus	15600	16900	18000	18300	18400	19600	20400	21300	22600	23800	22800	23000
Latvia	6400	7000	7700	8400	9000	9900	10900	12400	14400	14000	12000	11900
Lithuania	6900	7500	8200	9000	10200	10900	11900	13100	14900	15300	13600	13200
Luxembourg	42300	46400	46300	49200	51300	54700	57200	63500	68500	68100	65800	66600
Hungary	9700	10500	11600	12600	13000	13700	14200	15000	15600	15700	14600	14800
Malta	14400	15900	15400	16300	16200	16600	17500	18100	19300	18900	19100	19400
Netherlands	23300	25600	26400	27300	26800	28000	29400	30900	32700	33900	31700	32000
Austria	23400	25000	24700	25800	26300	27400	28000	29200	30800	30900*	29700	30100
Poland	8700	9200	9400	9900	10100	11000	11500	12400	13400	14400	13700	14100
Portugal	13900	14900	15300	15800	15900	16200	17300	18000	19000	18900	18100	18200
Romania	4700	5000	5500	6000	6500	7400	7900	9100	10600	11500*	10700	10900
Slovenia	14400	15200	15800	16800	17300	18700	19700	20700	22300	22700	22300	22800
Slovakia	9000	9500	10400	11100	11500	12400	13500	15000	16700	18000 <sup>e</sup>	17100	17500
Finland	20500	22300	22900	23600	23400	25200	25700	27100	28800	28900	27300	27800
Sweden	22300	24100	24000	24800	25400	27000	27100	28700	30400	30500	28600	29300
United Kingdom	21000	22700	23700	24700	25200	26800	27400	28500	29500	29400	28100	28600
Norway	25800	31400	31900	31700	32400	35600	39600	43400	44400	47700	42800	43600
United States	29000	30700	31000	31600	32400	34100	35800	37400	38800	38700	36800	37400
Japan	21000	22300	22500	22900	23200	24500	25400	26600	27900	27800*	26000	26500

- \* - forecasted value
- p – provisional value
- e – estimated value
- b – break in series

Source Eurostat:

<http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tec00001>

Last visited 01.11.2009



## Appendix 3

## Real GDP growth rate (as percentage from previous year) 1996 – 2010

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
EU-27	1.4	2.7	2.6	3.0	3.9	2.0	1.2	1.3	2.5	2.0	3.2	2.9	0.8	-4*	-0.1*
EU-25	1.9	2.5	2.5	3.1	3.9	2.0	1.2	1.3	2.5	2.0	3.1	2.8	0.7	-4*	-0.1*
EU-15	1.7	2.2	2.7	3.0	3.9	1.9	1.2	1.2	2.3	1.8	3.0	2.6	0.6	-4*	-0.1*
Belgium	1.4	3.2	1.3	3.4	3.7	0.8	1.5	1.0	3.0	1.8	3.0	2.8	1.1	-3.5*	-0.2*
Bulgaria	-8.3	-9.1	10	2.3	5.4	4.1	4.5	5.0	6.6	6.2	6.3	6.2	6.0	-1.6*	-0.1*
Czech Republic	4.9	-2.3	0.0	1.3	3.6	2.5	1.9	3.6	4.5	6.3	6.8	6.1	2.5	-2.7*	0.3*
Denmark	2.3	2.6	1.8	2.6	3.5	0.7	0.5	0.4	2.3	2.4	3.3	1.6	-1.2	-3.3*	0.3*
Germany	0.8	1.7	2.1	2.0	3.2	1.2	0.0	-0.2	1.2	0.8	3.2	2.5	1.3	-5.4*	0.3*
Estonia	5.0	14.3	4.2	-0.3	10.0	7.5	7.9	7.6	7.2	9.4	10.0	7.2	-3.6	-10.3*	-0.8*
Ireland	7.0	10.5	6.5	10.7	9.4	5.7	6.5	4.4	4.6	6.2	5.4	6.0	-3.0	-9.0*	-2.6*
Greece	1.2	2.3	3.4	3.4	4.5	4.2	3.4	5.9	4.6 <sup>p</sup>	2.2 <sup>p</sup>	4.5 <sup>p</sup>	4.5 <sup>p</sup>	2.0 <sup>p</sup>	-0.9*	0.1*
Spain	1.7	4.2	4.1	4.7	5.0	3.6	2.7	3.1	3.3	3.6	3.9	3.7	1.2	-3.2*	-1.0*
France	1.0	1.5	3.4	3.3	3.9	1.9	1.0	1.1	2.5	1.9	2.2	2.3	0.4	-3.0*	-0.2*
Italy	1.3	1.3	1.9	1.5	3.7	1.8	0.5	-0.0	1.5	0.7	2.0	1.6	-1.0	-4.4*	0.1*
Cyprus	0.0	0.9	3.6	4.8	5.0	4.0	2.1	1.9	4.2	3.9	4.1	4.4	3.7	0.3*	0.7*
Latvia	6.7	12.5	5.6	3.3	6.9	8.0	6.5	7.2	8.7	10.6	12.2	10.0	-4.6	-13.1*	-3.2*
Lithuania	0.0	14.3	6.3	-1.1	3.3	6.7	6.9	10.2	7.4	7.8	7.8	9.8	2.8	-11.0*	-4.7*
Luxembourg	0	4.7	5.2	8.4	8.4	2.5	4.1	1.5	4.4	5.4	5.6	6.5	0.0	-3.0*	0.1*
Hungary	3	2.9	5.7	4.2	4.9	4.1	4.4	4.3	4.9	3.5	4.0	1.0	0.6	-6.3*	-0.3*
Malta						-1.6	2.6	-0.3	0.4	4.1	3.8	3.7	2.1	-0.9*	0.2*
Netherlands	2.9	3.8	3.6	4.7	3.9	1.9	0.1	0.3	2.2	2.0	3.4	3.6	2.0	-3.5*	-0.4*
Austria	2.2	1.7	3.8	3.3	3.7	0.5	1.6	0.8	2.5	2.5	3.5	3.5	2.0	-4.0*	-0.1*
Poland	7.1	6.7	3.1	4.5	4.3	1.2	1.4	3.9	5.3	3.6	6.2	6.8	5.0	-1.4*	0.8*
Portugal	3.4	3.3	4.3	3.8	3.9	2.0	0.8	-0.8	1.5	0.9	1.4	1.9	-0.0	-3.7*	-0.8*
Romania				-1.2	2.4	5.7	5.1	5.2	8.5	4.2	7.9	6.3	6.2	-4.0*	0.0*
Slovenia	3.8	4.9	3.5	5.4	4.4	2.8	4.0	2.8	4.3	4.5	5.8	6.8	3.5	-3.4*	0.7*

Slovakia	7.1	6.7	3.1	0.0	1.4	3.4	4.8	4.7	5.2	6.5	8.5	10.4	6.4 <sup>e</sup>	-2.6*	0.7*
Finland	3.1	5.9	4.7	3.9	5.1	2.7	1.6	1.8	3.7	2.8	4.9	4.2	1.0	-4.7*	0.2*
Sweden	1.4	2.3	3.6	4.6	4.4	1.1	2.4	1.9	4.1	3.3	4.2	2.6	-0.2	-4.0*	0.8*
Great Britain	2.7	3.2	2.5	3.5	3.9	2.5	2.1	2.8	3.0	2.2	2.9	2.6	0.6	-3.8*	0.1*
Norway	4.6	4.8	2.1	2.0	3.3	2.0	1.5	1.0	3.9	2.7	2.3	3.1	2.1	-3.4*	0.2*

\* - forecasted value

<sup>p</sup> – provisional value

<sup>e</sup> – estimated value

Source: Eurostat:

<http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tsieb020> Last visited 02.09.2009

[http://epp.eurostat.ec.europa.eu/portal/page?\\_pageid=1996,39140985&\\_dad=portal&\\_schema=PORTAL&screen=detailref&language=en&product=REF\\_SD\\_EC&root=REF\\_SD\\_EC/sd\\_ec/tsdec100](http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,39140985&_dad=portal&_schema=PORTAL&screen=detailref&language=en&product=REF_SD_EC&root=REF_SD_EC/sd_ec/tsdec100) Last visited 21.12.2008

## External trade in the new EU Member States, in million euro

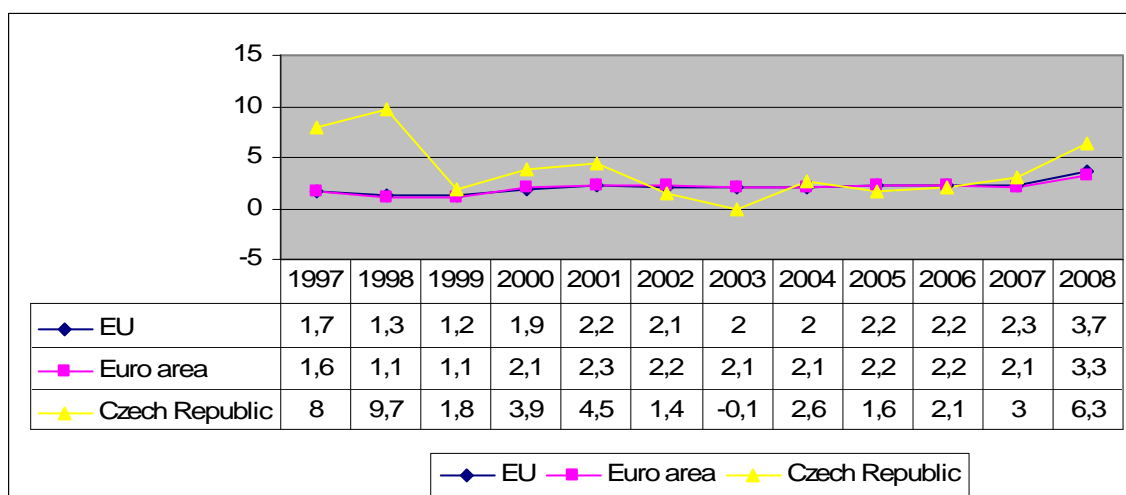
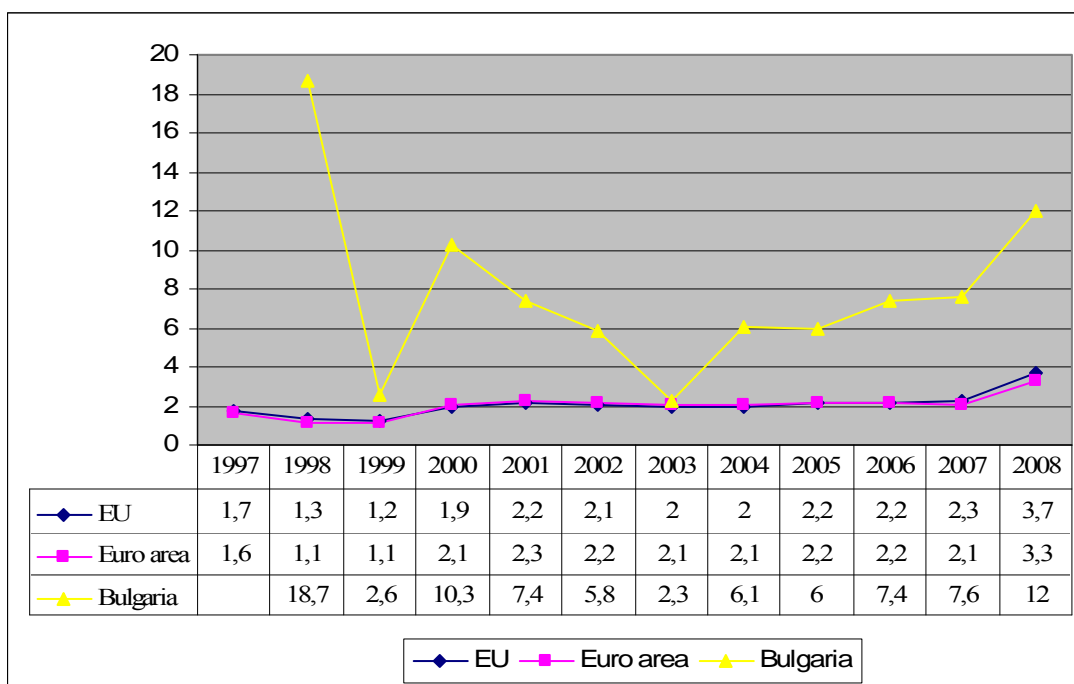
		2004	2005	2006
Czech Republic	Exports	53,995	62,738	75,645
	Imports	54,824	61,441	74,078
	Net exports	-829	1,297	1,566
Hungary	Exports	44,630	50,093	58,442
	Imports	48,550	52,996	60,418
	Net exports	-3,920	-2,903	-1,977
Poland	Exports	60,014	71,740	87,880
	Imports	71,812	81,530	100,371
	Net exports	-11,798	-9,791	-12,491
Slovakia	Exports	22,427	25,771	33,273
	Imports	23,686	27,748	35,733
	Net exports	-1,259	-1,978	-2,460
Slovenia	Exports	12,786	14,397	16,722
	Imports	14,146	15,804	18,260
	Net exports	-1,360	-1,408	-1,539
NMS-5	Exports	193,852	224,738	271,961
	Imports	213,018	239,520	288,861
	Net exports	-19,166	-14,782	-16,900
Bulgaria	Exports	7,985	9,466	11,983
	Imports	11,620	14,668	18,375
	Net exports	-3,635	-5,201	-6,392
Romania	Exports	18,935	22,255	25,851
	Imports	26,281	32,569	40,746
	Net exports	-7,346	-10,313	-14,895
Estonia	Exports	4,769	6,183	7,639
	Imports	6,703	8,204	10,564
	Net exports	-1,934	-2,021	-2,926

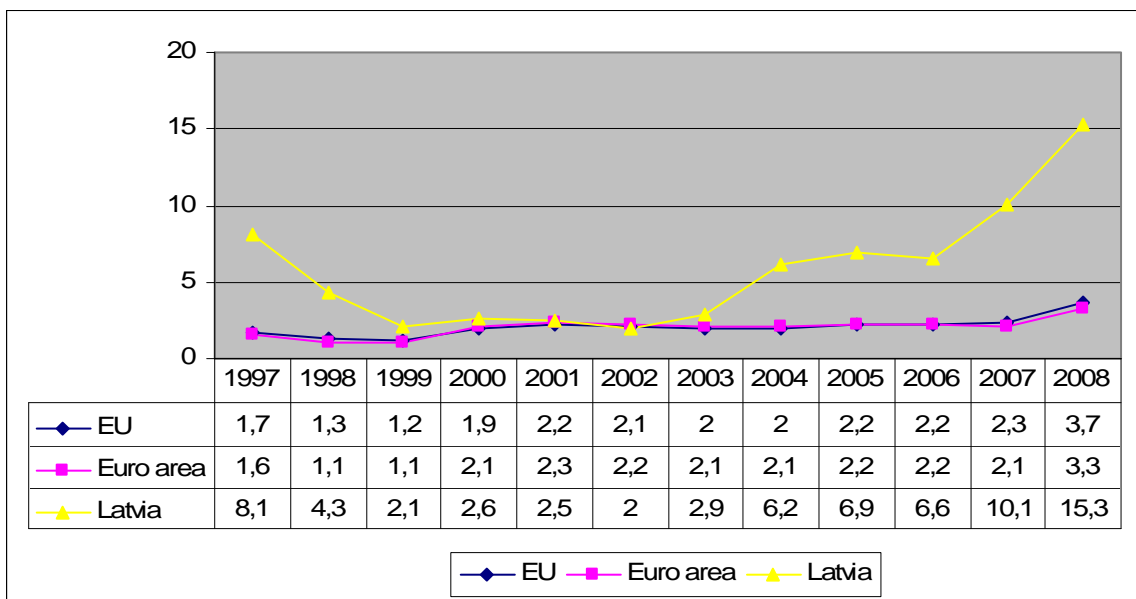
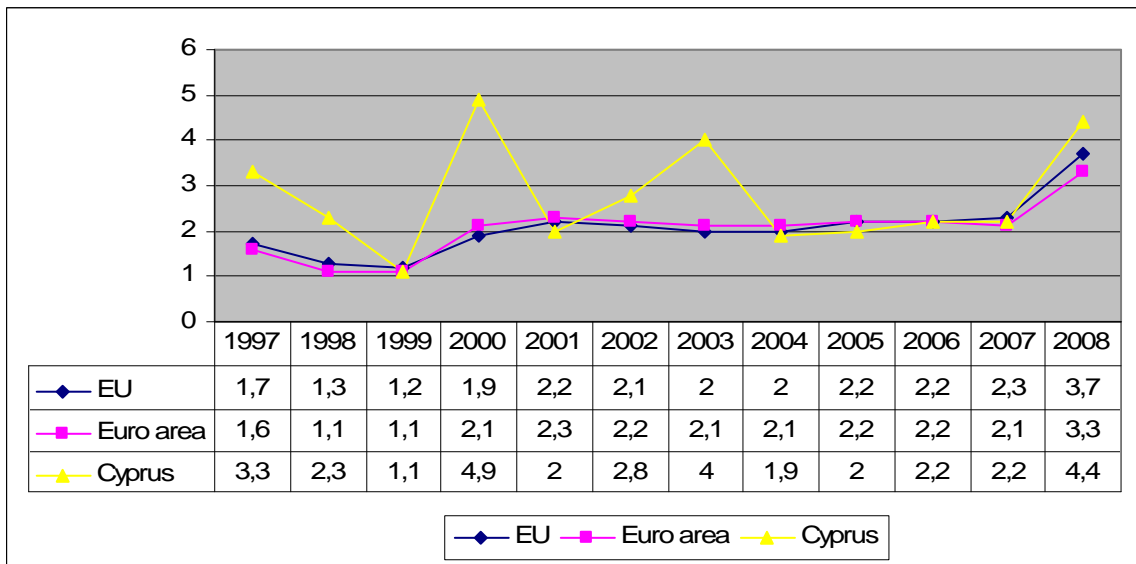
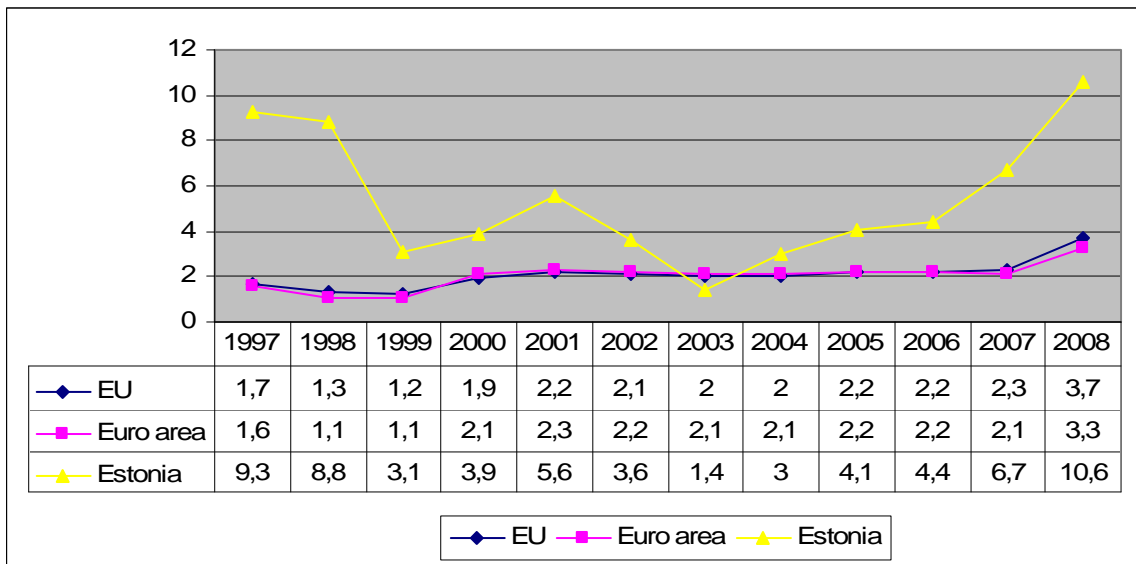
Latvia	Exports	3,204	4,110	4,684
	Imports	5,670	6,925	9,052
	Net exports	-2,467	-2,815	-4,368
Lithuania	Exports	7,478	9,490	11,240
	Imports	9,958	12,498	15,371
	Net exports	-2,480	-3,008	-4,131
NMS-10	Exports	236,222	276,242	333,357
	Imports	273,250	314,383	382,969
	Net exports	-37,028	-38,141	-49,612

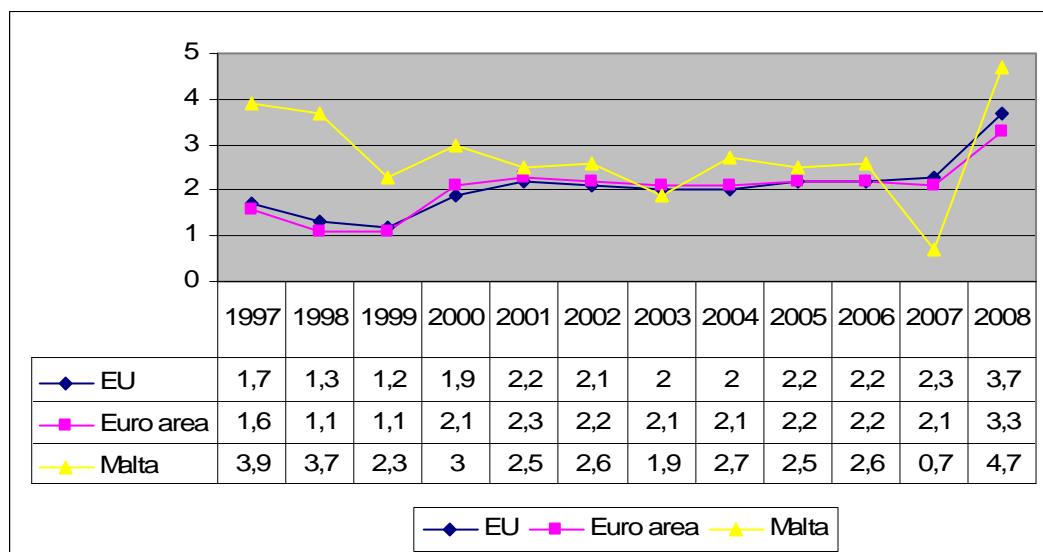
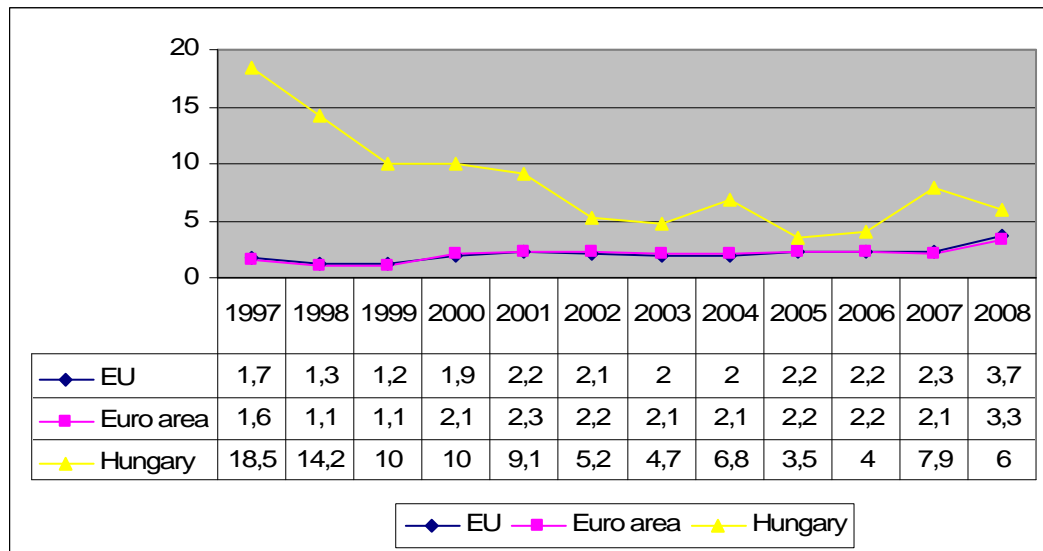
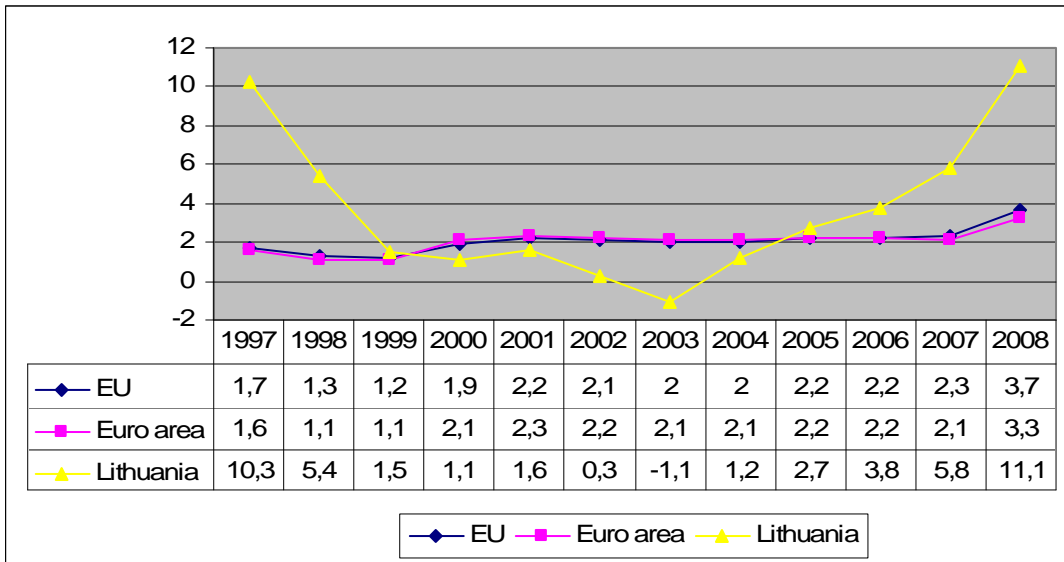
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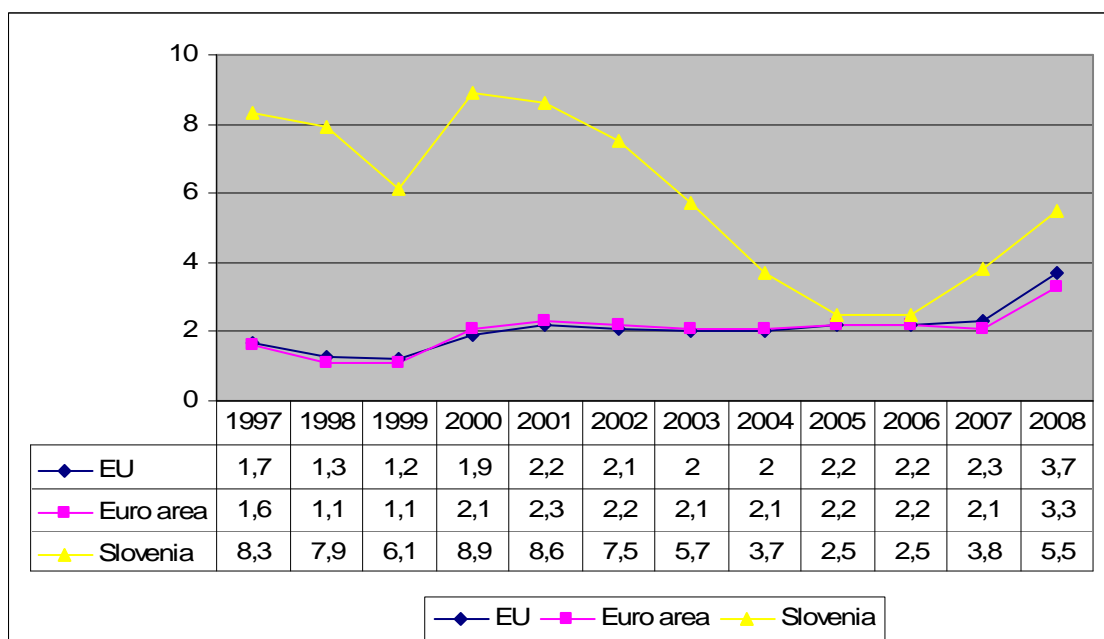
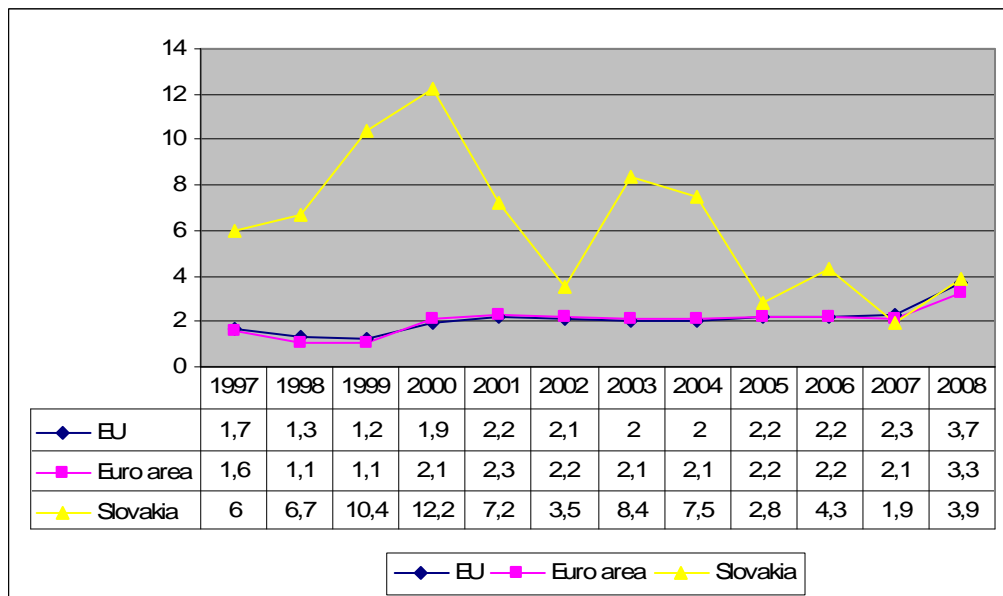
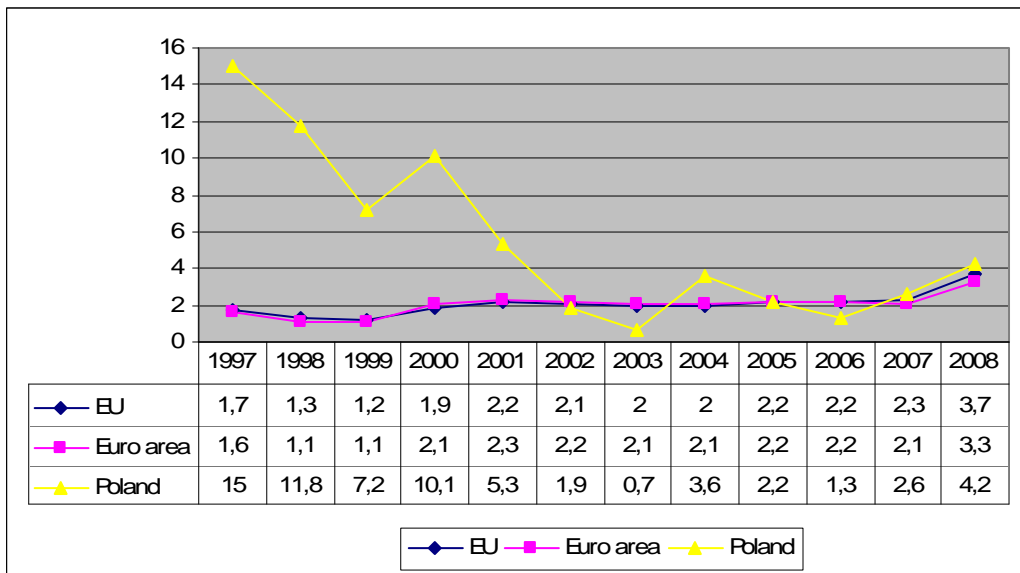
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Inflationary dynamics (annual average inflation rate) in EU and Member States in 1997-2008 (in %)

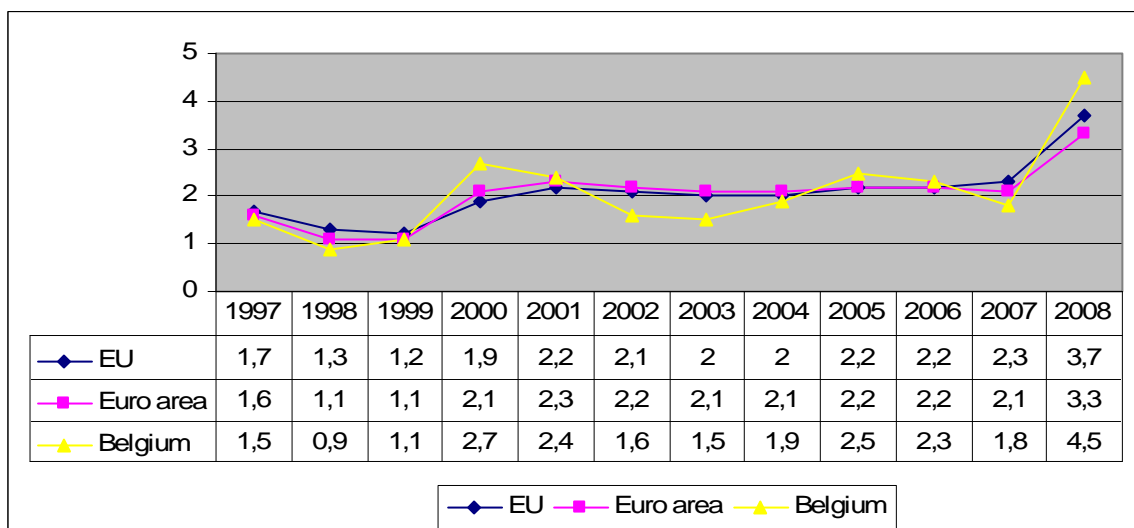
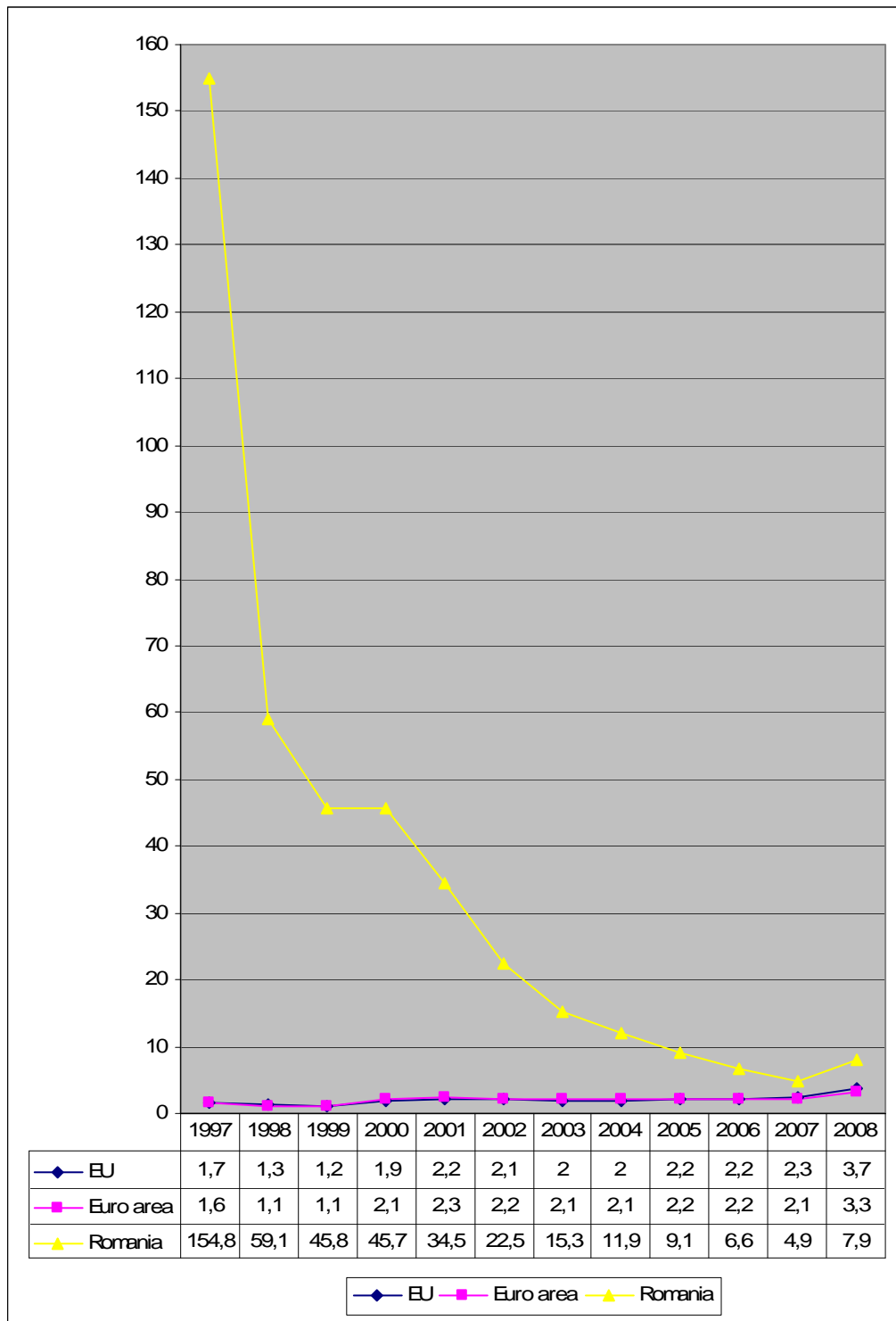


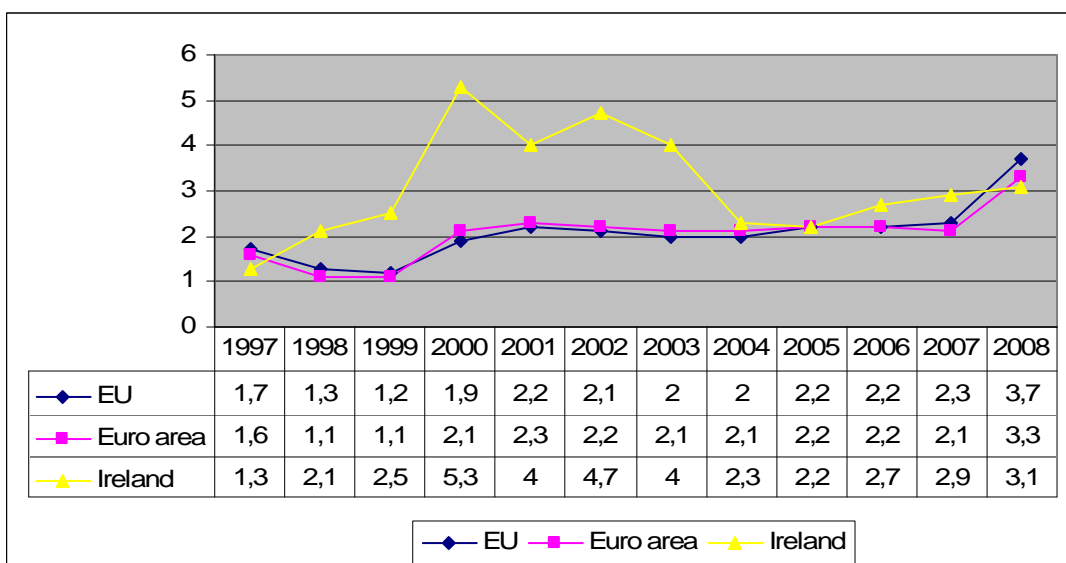
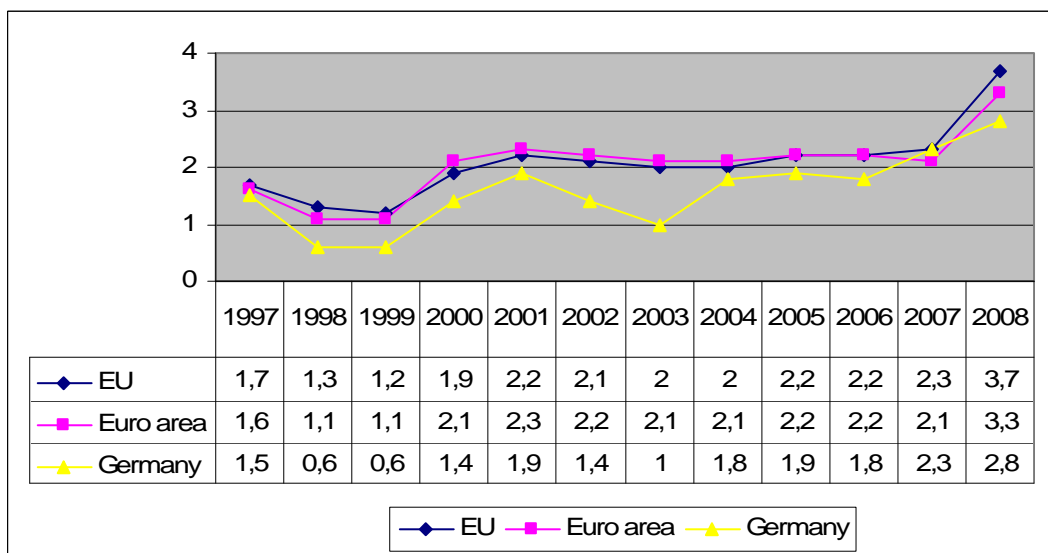
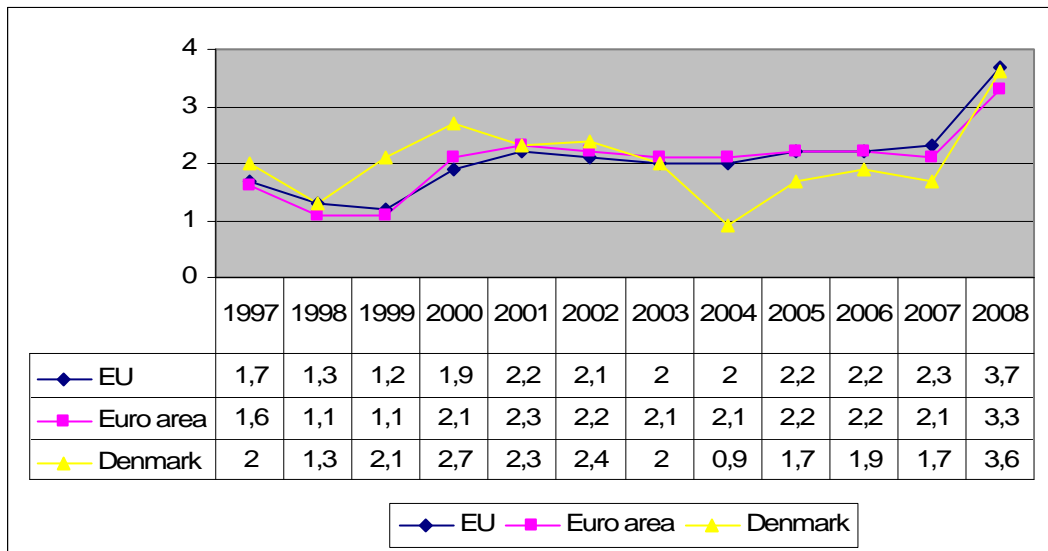


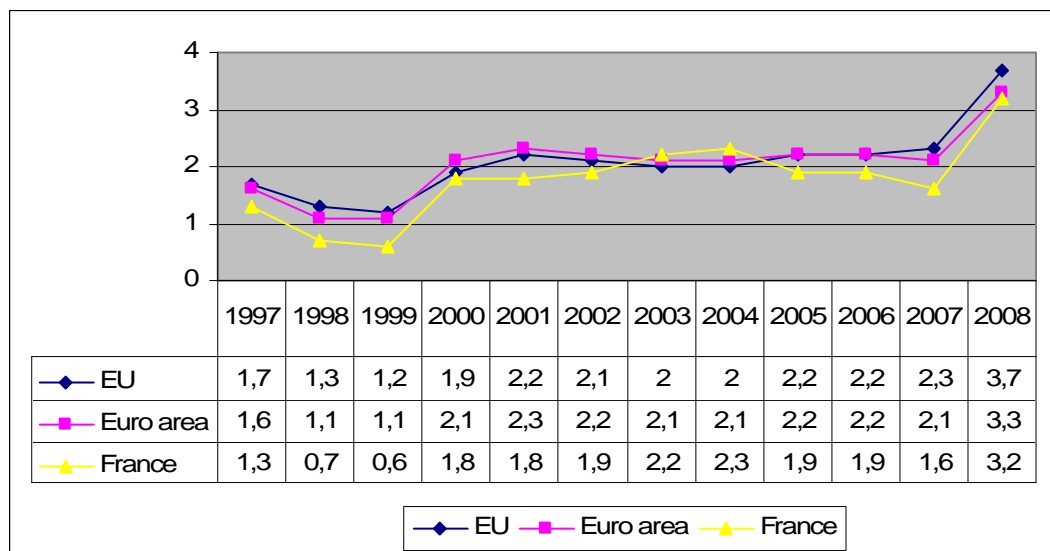
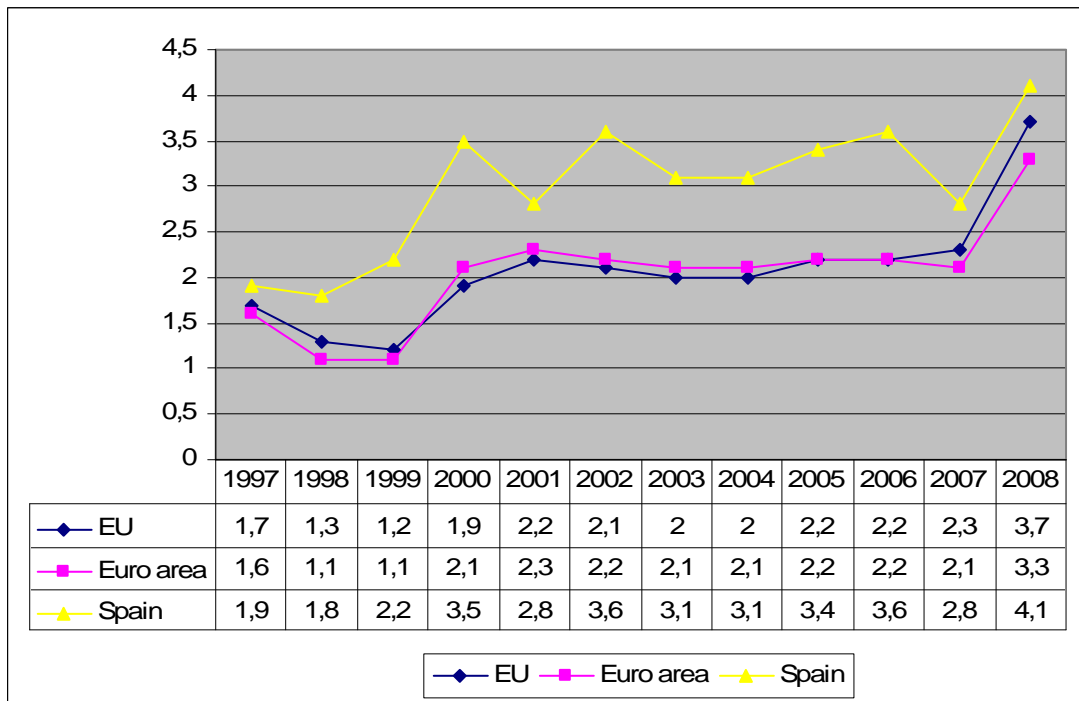
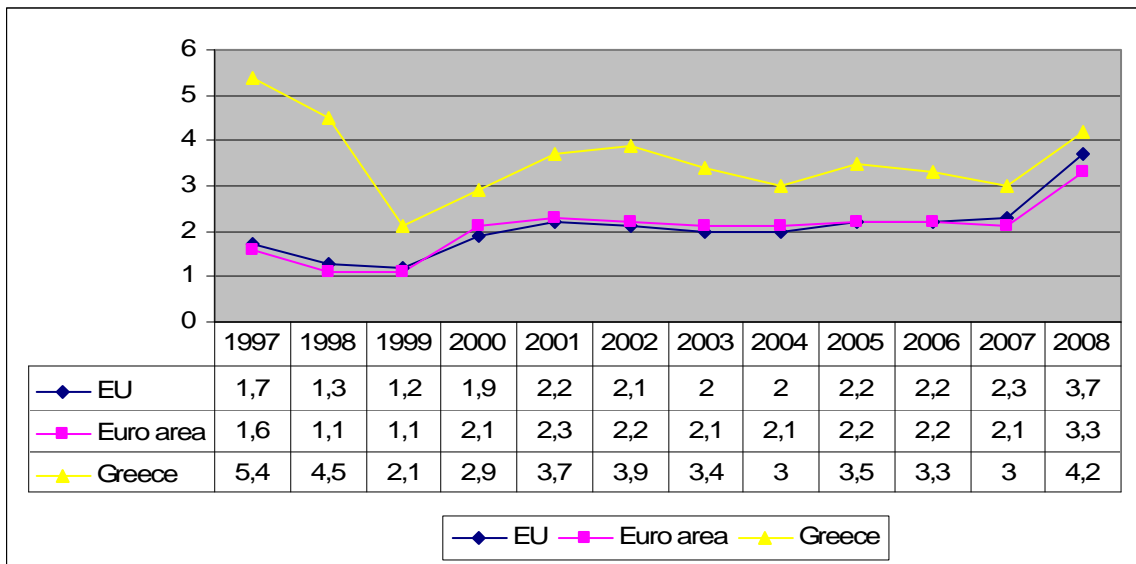


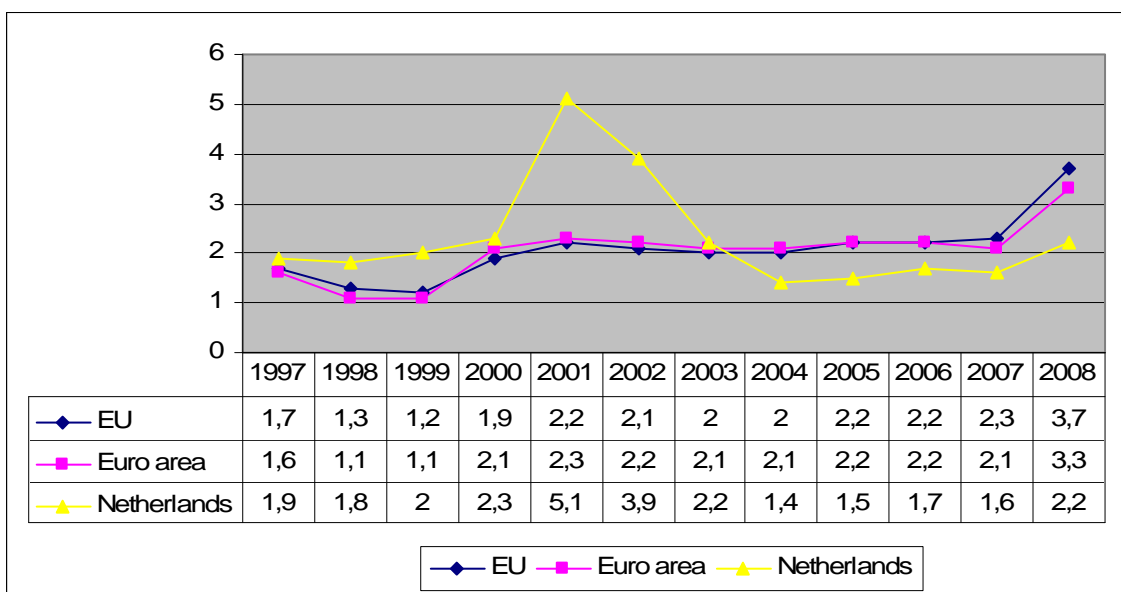
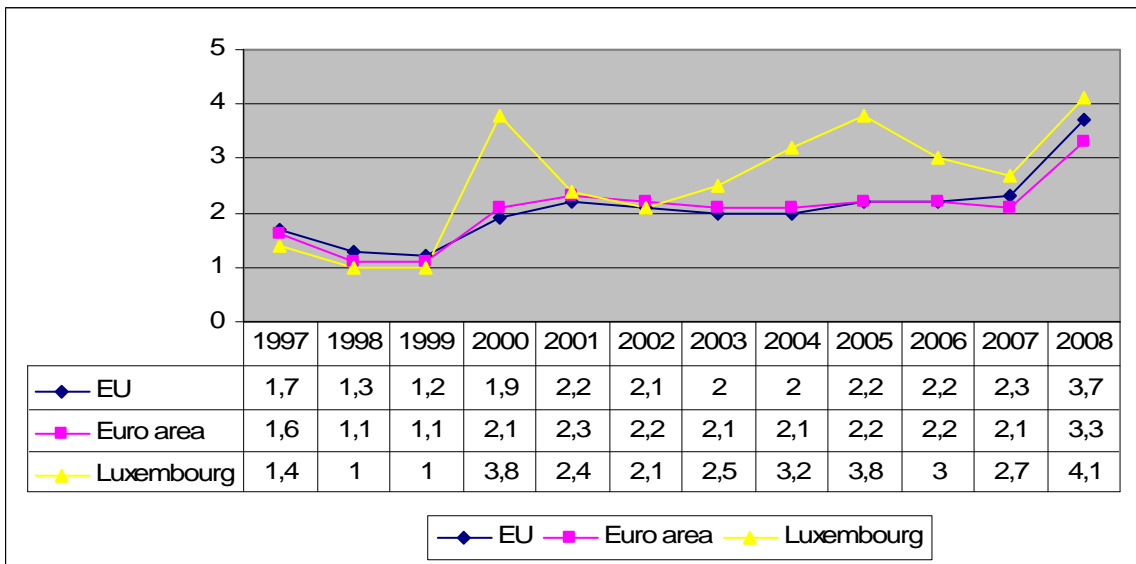
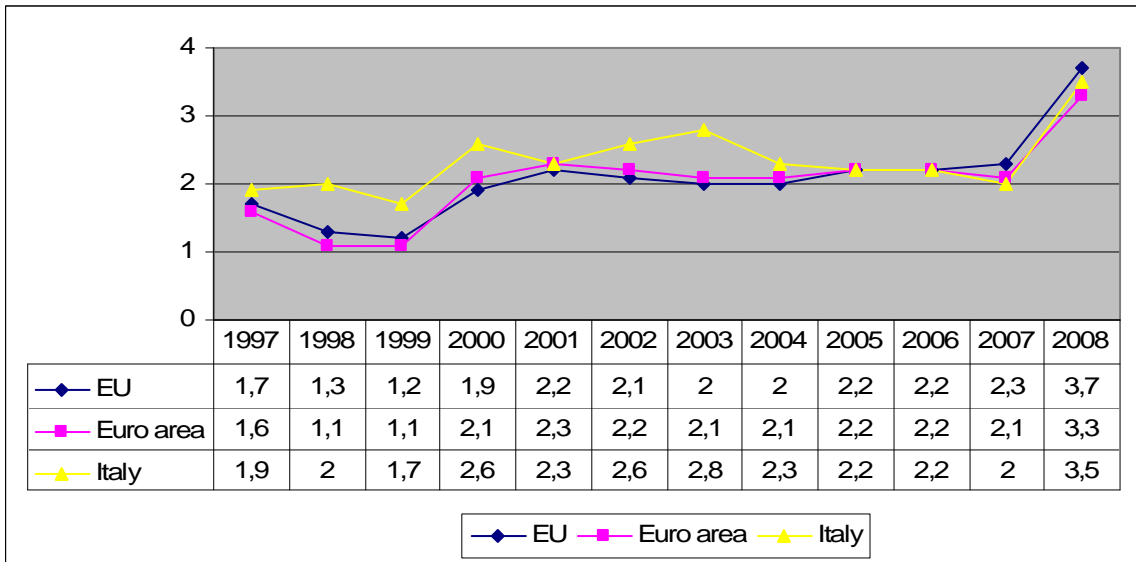


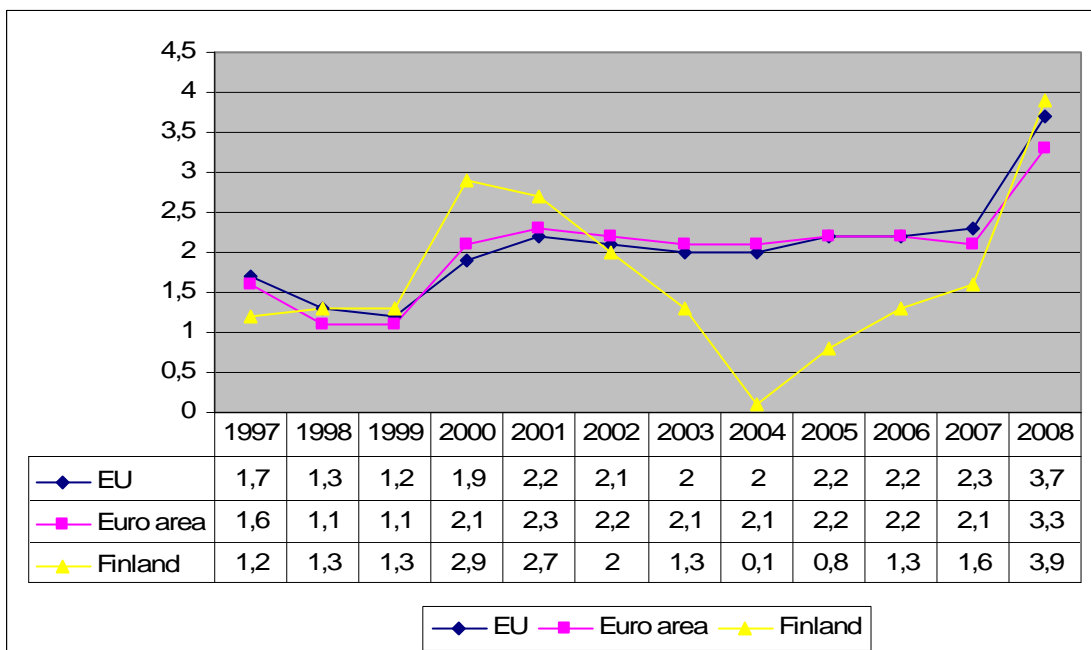
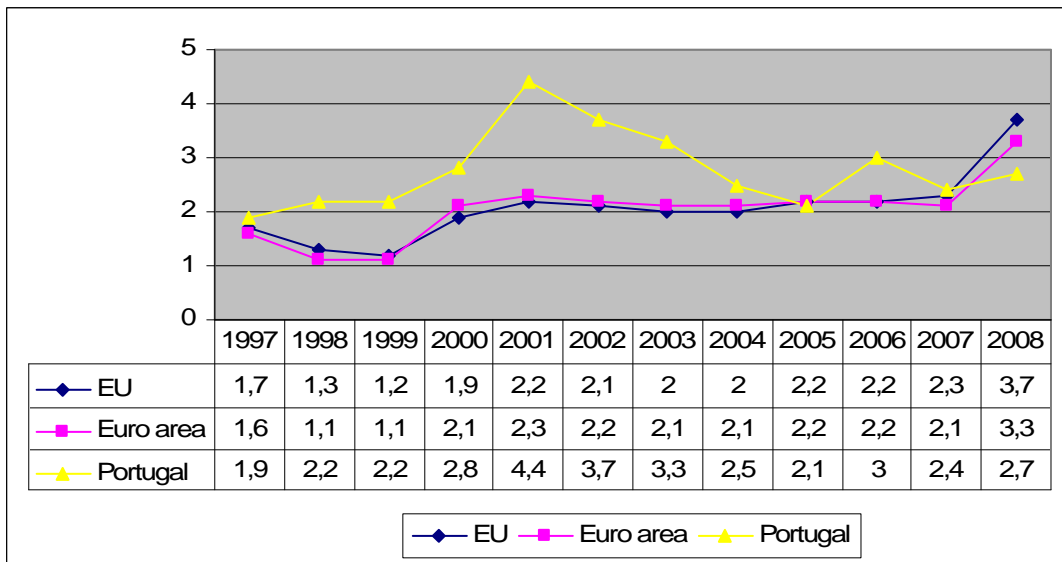
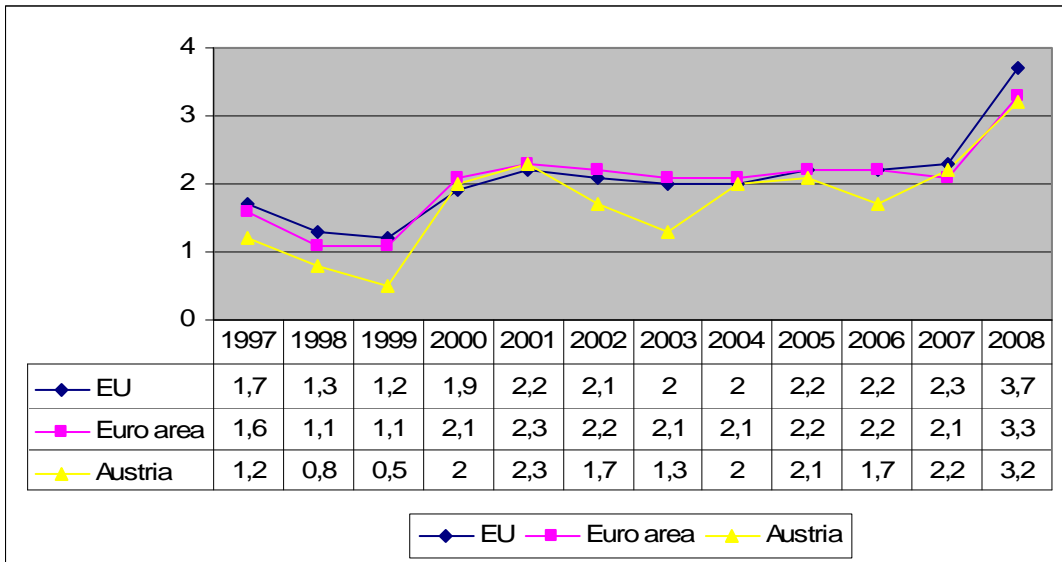


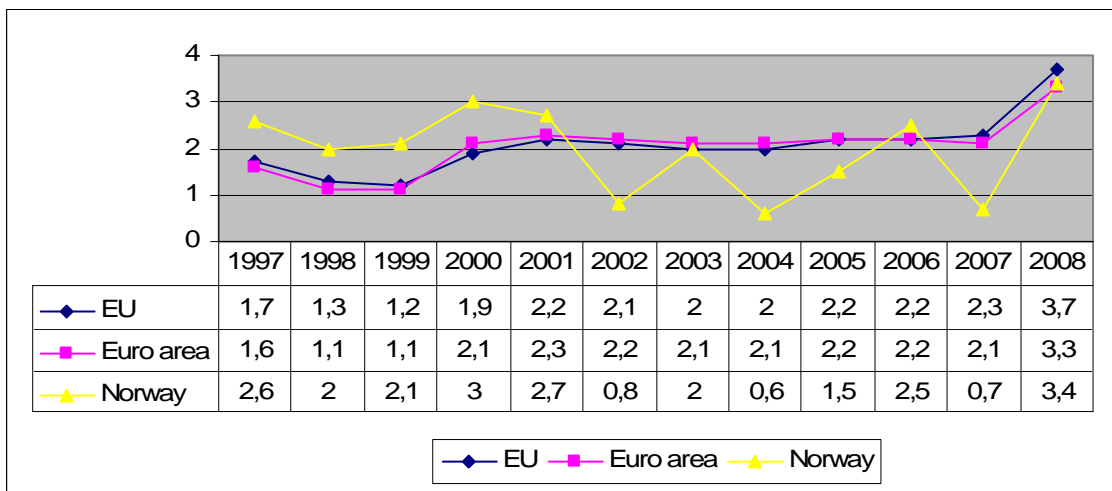
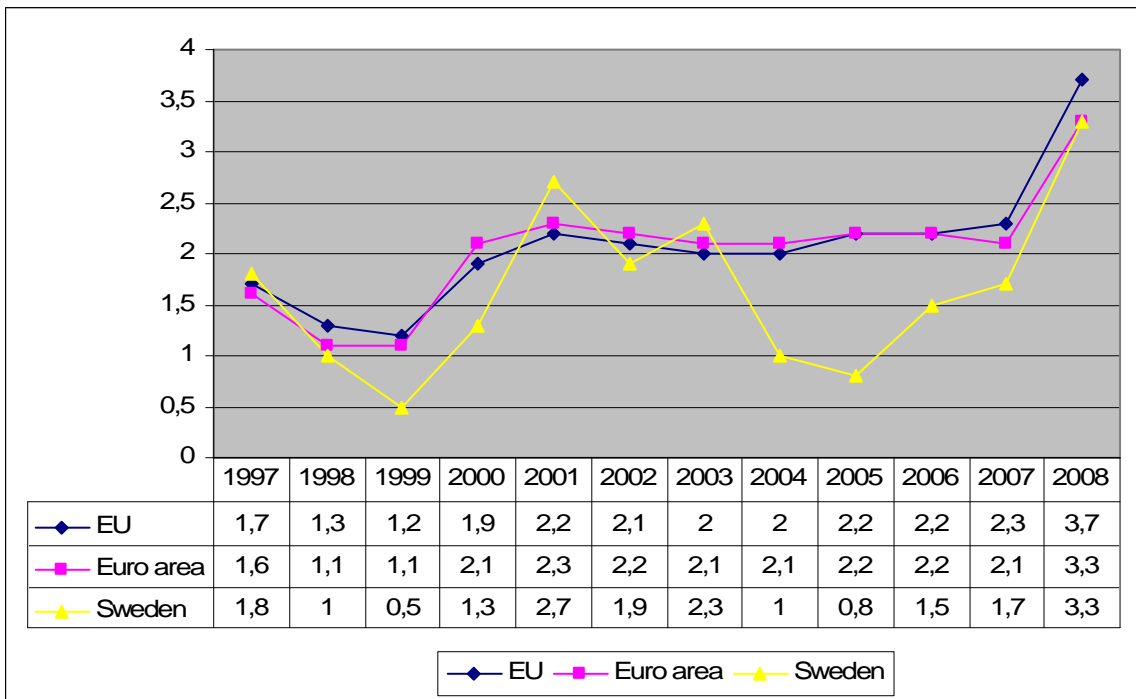
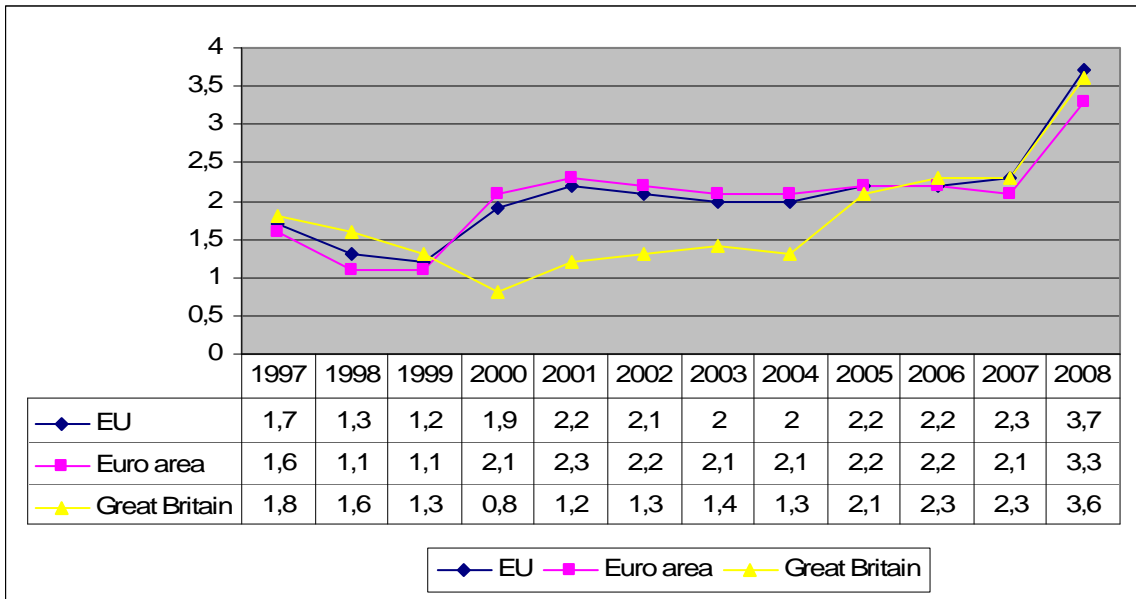


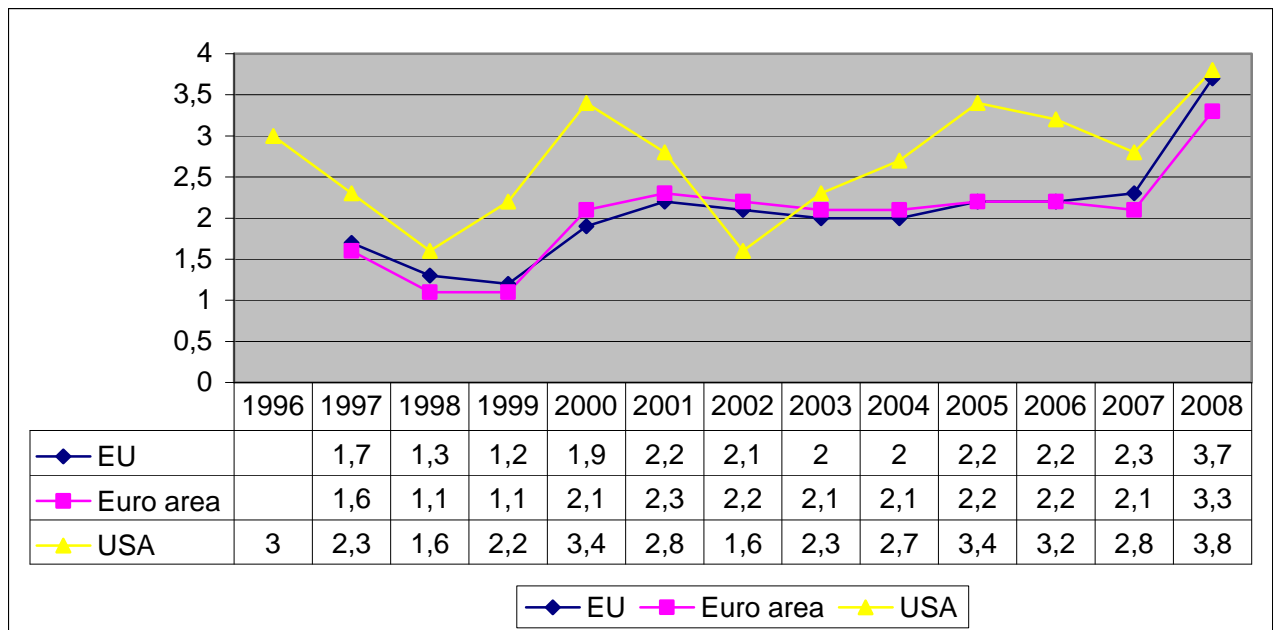












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