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AVRUPA BİRLİĞİ ENSTİTÜSÜ
AVRUPA BİRLİĞİ İKTİSADI ANABİLİM DALI

IMPLEMENTATIONS OF THE STABILITY AND GROWTH PACT AND THE MONETARY POLICY STRATEGY IN THE EMU

Doktora Tezi

Seçil SUNER CECAN

İSTANBUL – 2007

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Danışman: Prof. Dr. Sema KALAYCIOĞLU

İSTANBUL – 2007

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ABSTRACT

The EMU is characterized with a centralized monetary policy conducted by a common central bank and decentralized fiscal policies. The common monetary policy has been conducted by the ECB according to the two-pillar monetary policy strategy. The primary objective of the ECB was defined by the Maastricht Treaty of 1992 as maintenance of price stability. Nevertheless, national fiscal policies are restricted by fiscal rules under the SGP. The SGP was created to support the price stability objective through proving the fiscal discipline in member countries. Both the SGP and monetary policy strategy were revised in recent years due to problems raised from their implementations, but these revisions could not solve current problems.

The objective of this dissertation is to investigate implementations of the SGP and the monetary policy strategy in the EMU under the theory of optimum currency areas, to determine whether these frameworks are suitable for the EMU or not, to clarify the problems with the structures of these two frameworks and finally to produce appropriate solutions. This dissertation and its findings may be helpful to understand how fiscal and monetary policies should be designed and implemented in a monetary union.

Theoretical analysis and historical experiences prove that fiscal rules and a centralized common monetary policy are indispensable for the EMU and for any monetary union. Implementations of the SGP and the monetary policy strategy have been successful in maintaining price stability within the EMU. However, the SGP and the monetary policy strategy are not fully capable of responding to economic slowdown, unemployment and economic divergence, unless flexibility problem of the SGP and clarity and credibility problems of both the SGP and the monetary policy strategy are solved. In order to make these frameworks more capable of responding to existing economic problems of the euro area economies, further revisions on the basis of the suggestions in this thesis and a higher degree of macroeconomic convergence are necessary.

ÖZET

Avrupa Parasal Birliği (APB), ortak bir merkez bankası tarafından idare edilen merkezileştirilmiş bir para politikası ve merkezileştirilmemiş maliye politikaları ile karakterize edilir. Ortak para politikası, Avrupa Merkez Bankası (AMB) tarafından iki ayaklı para politikası stratejisine göre idare edilmektedir. 1992'deki Maastricht Antlaşması ile AMB'nın temel amacı, fiyat istikrarını korumak olarak belirlenmiştir. Ulusal maliye politikaları ise, İstikrar ve Büyüme Paktı (İBP) çerçevesinde mali kurallar ile sınırlandırılmaktadır. İBP, üye ülkelerde mali disiplini sağlamak yoluyla, fiyat istikrarı amacını desteklemek için oluşturulmutur. İBP ve para politkası stratejisi, uygulamalardan doğan problemler nedeniyle revize edilmiş; ancak halen mevcut olan problemler çözülememiştir.

Bu tezin amacı, İBP ve para politikası stratejisi uygulamalarını optimum para alanları teorisi çerçevesinde inceleyerek, bu iki yapının APB için uygun olup olmadığını belirlemek, mevcut sorunları ortaya koymak ve bu sorunlara uygun çözümler üretmektir. Bu tez ve bulguları, herhangi bir parasal birlikte, para ve maliye politkalarının nasıl tasarlanması ve uygulanması gerektiğini anlamada yararlı olabilir.

Teorik analiz ve geçmiş tecrübeler, mali kurallar ve merkezileştirilmiş bir ortak para politikasının, APB için ve herhangi bir parasal birlik için vazgeçilmez unsurlar olduğunu göstermiştir. İBP ve para politikası stratejisi uygulamaları, APB'de fiyat istikrarını korumada başarılıdır. Ancak, İBP'nin esneklik problemi, İBP ve para politikası stratejisinin açıklık ve kredibilite problemleri çözülmediği sürece, İBP ve para politikası stratejisi, ekonomik durgunluk, işsizlik ve ekonomik farklılık sorunlarına tam olarak cevap veremeyecektir. Bu iki yapı, bu tezdeki öneriler doğrultusunda revize edilmeli ve daha yüksek derecede bir makroekonomik uyum sağlanmalıdır.

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ABBREVIATIONS AND ACRONYMS

BEPGs:	Broad Economic Policy Guidelines
CAP:	Common Agricultural Policy
CAPB:	Cyclically-Adjusted Primary Balance
DI:	Divergence Indicator
DM:	Deutsche mark
EAGG:	European Agricultural Guidance and Guarantee Fund
EC:	European Community
ECB:	European Central Bank
ECOFIN:	Council of Economic and Finance Ministers
ECSC:	European Coal and Steel Community
ECU:	European Currency Unit
EDP:	Excessive Deficit Procedure
EEC:	European Economic Community
EERs:	Effective Exchange Rates
EMA:	European Monetary Agreement
EMCF:	European Monetary Cooperation Fund
EMF:	European Monetary Fund
EMS:	European Monetary System
EMI:	European Monetary Institute
EMU:	European Economic and Monetary Union
EONIA:	European Overnight Inter-bank Average
EPC:	European Political Cooperation
EPU:	European Payments Union
ERDF:	European Regional Development Fund
ERM:	Exchange Rate Mechanism
ESCB:	European System of Central Banks
ESF:	European Social Fund

EU:	European Union
Euratom:	European Community of Atomic Energy
FDI:	Foreign Direct Investments
GATT:	General Agreement on Tariffs and Trade
GDP:	Gross Domestic Product
HICP:	Harmonized Index of Consumer Prices
IMF:	International Monetary Fund
IPN:	Euro-system Inflation Persistence Network
NCBs:	National Central Banks
NEER:	Nominal Effective Exchange Rates
OEEC:	Organization for European Economic Cooperation
REER:	Real Effective Exchange Rates
TARGET:	Trans-border Payment System
SEA:	Single European Act
SGP:	Stability and Growth Pact
US:	United States
UK:	United Kingdom
VAT:	Value Added Tax
VSTF:	Very Short Term Financing Facility

INTRODUCTION

The European Economic and Monetary Union (EMU) represents a unique experience in history. The Stability and Growth Pact (SGP) and the monetary policy strategy, which form the macroeconomic policy framework of the EMU, create new economic problems required to be analyzed.

By the start of the EMU on 1 January 1999, eleven European Union (EU) countries launched a common currency, the euro. Greece joined the euro area in January 2001. The euro notes and coins replaced the national currencies on 1 January 2002, while each country started to withdraw national currency notes and coins from circulation. The national currencies of the participating countries were completely replaced by the euro at the end of February 2002. On 1 January 2007, Slovenia joined the EMU. Participation countries irrevocably fixed the exchange rates of their currencies. They also adopted a common monetary policy, which is conducted by the European Central Bank (ECB). The primary objective of the ECB was defined by the Maastricht Treaty of 1992 as maintenance of price stability. In order to realize such an objective, the Governing Council of the ECB announced the main elements of its stability-oriented monetary policy strategy in October 1998. The ECB has conducted the monetary policy in the EMU since the start of the EMU in 1999.

Despite the fact that there is no common fiscal policy in the EU, national fiscal policies are coordinated at a fiscal framework in the EMU. This framework has been gradually developed. The Treaty of Maastricht set the convergence criteria, which also contain fiscal rules, for joining the EMU. The SGP, which was established by the Amsterdam European Council in 1997 to support the price stability objective, provides the fiscal discipline in member countries. The SGP developed the fiscal criteria of the Maastricht Treaty and set procedures for its implementation. The euro area countries have to comply with these fiscal rules.

Both the SGP and stability-oriented monetary policy strategy were revised during recent years. Many economists have still criticized both of them due to problems in connection with their implementations. The European Commission has been still evaluating proposals of reforming the SGP for a period of time. However, there is no consensus on this issue yet. Current discussions on reforming the SGP undermine the importance of common fiscal rules for the EMU. On the other hand, current discussions on the monetary policy strategy focus on the fact that one single monetary policy cannot be suitable for all individual countries. However, fiscal rules and a centralized common monetary policy are indispensable for the EMU and for any monetary union, although the SGP and the monetary policy strategy have certain problems. The hypothesis of this dissertation is as follows: Although implementations of the SGP and the monetary policy strategy have been successful in maintaining price stability within the EMU, the SGP and the monetary policy strategy are not fully capable of responding to economic slowdown, unemployment and economic divergence, unless flexibility problem of the SGP and clarity and credibility problems of both the SGP and the monetary policy strategy are solved.

The objective of this dissertation is to investigate implementations of the SGP and the monetary policy strategy in the EMU under the theory of optimum currency areas, to determine whether these frameworks are suitable for the EMU or not, to clarify the problems with the structures of these two frameworks to light and finally to produce appropriate solutions. This dissertation and its findings may be helpful to understand how fiscal and monetary policies should be designed and implemented in a monetary union. Analyses in this dissertation do not take Slovenia into account, since this country's entry has been a recent event.

This dissertation consists of five chapters. In the first chapter, historical evolution of the EMU has been reviewed. A brief history of the European economic integration, which constitutes the origins of the macroeconomic policy strategy of the EMU, is reviewed since the Second World War and the Maastricht Treaty of 1992. The Maastricht Treaty and convergence criteria are extensively examined. The developments in the European economic

integration after the Maastricht Treaty and the phase for introduction of the euro are reviewed in detail.

In the second chapter, current implementation of the SGP and monetary policy strategy in the EMU are examined. The monetary policy strategy in the EMU, which consists of three main elements as a quantitative definition of price stability, and the two pillars of the strategy, is reviewed. The implementation of the ECB's the monetary policy strategy is analyzed, and then some lessons are inferred from this analysis. Main elements and procedures of and revisions and modifications in the SGP are reviewed. The implementation of the SGP is analyzed, and then some lessons are learnt from this analysis.

In the third chapter, theoretical approach to policy choice under the SGP provision and the monetary policy strategy is investigated. Theory of optimum currency areas and criteria for optimum currency area are reviewed. The fact whether if the EMU is an optimum currency area or not according to the criteria obtained from the theory, is also investigated. The way how to design the common monetary policy in a monetary union is inferred from the theory; and the monetary policy strategy in the EMU is investigated according to the theory. The way how to maintain the fiscal discipline in a monetary union is inferred from the theory; and the fiscal policy rules in the EMU are investigated according to the theory. Macroeconomic policy coordination in the EMU is also investigated according to the theory.

In the forth chapter, benefits and costs of the EMU, macroeconomic consequences of the EMU under the SGP and monetary policy strategy are investigated. Macroeconomic developments in the euro area in terms of growth and employment, price and wages, interest rate differentials, public finance, and balance of payments are examined respectively. Rationale for opting out from the EMU participation is also investigated in this chapter.

In the fifth and final chapter, challenges for the EMU under the SGP and the monetary policy strategy are examined. Economic divergence among the twelve member countries is examined in the titles of real divergence and structural divergence and asymmetry in

monetary transmission. Adverse economic shocks, the Exchange Rate Mechanism (ERM) II countries in its early years, types of shocks, which are the EMU likely to encounter in the future, main causes of the asymmetry in shocks, coping with asymmetric shocks in the absence of national monetary policy instrument in the EMU are analyzed. The prospective enlargement of the EMU is also analyzed taking into account the macroeconomic situations of the EMU countries, the EU countries outside the EMU and candidate countries.

CHAPTER I

HISTORICAL EVOLUTION OF THE EUROPEAN ECONOMIC AND MONETARY UNION

In order to analyze the implementations of the SGP and monetary policy strategy in the EMU and to clarify consequences of them, it is important to review the history of the European economic integration that constitutes the origins of the macroeconomic policy strategy of the EMU. Analyzing the historical evolution of the European economic integration is helpful to understand the reason why the European countries needed an economic integration among themselves, why the earlier exchange rate systems in Europe were not successful, and what issues are indispensable for the EMU under its macroeconomic framework, which is formed by the SGP and monetary policy strategy. In this chapter, firstly, a brief history of the European economic integration is reviewed from Second World War to Maastricht Treaty of 1992. Secondly, the Maastricht Treaty and convergence criteria are extensively examined. Finally, the developments in the European economic integration after the Maastricht Treaty are reviewed.

1.4. A BRIEF HISTORY OF EUROPEAN ECONOMIC AND MONETARY INTEGRATION

The idea of European economic and monetary integration did not rise after the Second World War. However, the starting point for the attempts to create a union was the period of

reconstruction following the Second World War. The European countries had many reasons to cooperate after the war.

Infrastructures such as especially transport and housing of the European countries were physically damaged. The war reduced the total labour force and changed its age and sex distribution. Damaged agricultural lands caused food shortages, playing an important role in formation of the common agricultural policy in Europe. However, despite the physical destruction, the recovery was rapid by considerable levels of growth. By 1948, industrial output reached the pre-war level in most of the European countries.[1] The efforts for recovery accelerated the European integration process.

Furthermore, the war also changed the trade relationships in European countries. The United States (US) became their major trade partner, providing goods that were not available in Europe at that time. After the Bretton Woods Agreement, each European country tended to keep their currencies against the dollar overvalued in order to reduce their costs from import.[2] Furthermore, the European countries could not export their goods to the US that applied protectionist policies and had the supply of domestic products as substitutes for European goods. Deficit with a participating country could not be offset with surpluses against another country in the Bretton Woods system. Then, serious disequilibrium of balance of payments and the dollar shortage problem occurred in Europe from 1945 to 1950. This forced the European countries to follow protectionist policies in trade through bilateral agreements, quantitative restrictions and etc. Then, the level of trade among the European countries significantly decreased.[3]

In order to facilitate trade, the European countries established associations at different levels. The post-war European economic cooperation is as follows.

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[1] Eichengreen, B. and De Long, J. B., (1991). "The Marshall Plan: History's Most Successful Structural Adjustment Program," *Economics Working Papers*, University of California at Berkeley, p.p. 91-184.
[2] The Bretton Woods system which was an international fixed exchange rate system will be reviewed extensively in the following parts of this chapter.
[3] Aldcroft, D. H., (2001). *European Economy 1914-2000*, third edition, London: Routledge, p.p. 30-61.

1.1.1. European Payments Union (EPU)

The European countries had to work together in order to overcome their post-war economic problems. The US played an important role in this regard through the Marshall Plan that was conditional on the cooperation of the European countries. This resulted in the Organization for European Economic Cooperation (OEEC) in 1948.[4] The OEEC provided the effective use of the US aid. The allocation of aid was determined by the size of the dollar deficit of the countries on foreign trade. The efforts to liberalize trade were encouraged by the OEEC. large amount quantities of distributed aid by the Marshall Plan increased the supply of dollar. However, bilateral agreements persisted; and, the European countries still faced the external imbalances and structural problems such as liquidity shortage in payments.

In 1950, the OEEC members established the European Payments Union (EPU) in order to eliminate their liquidity shortage in trade. By means of the EPU, an important compensation fund was created to balance intra-European deficits by determining a quota for each country. The quota constituted a reference for automatic settlement of surpluses. The EPU was to facilitate trade by helping to clear country imbalances and establishing fully convertible currencies among the participating countries.

Trade among the European countries expanded because of the EPU, from $10 billion in 1950 to $23 billion in 1959. However, despite the Marshall Plan which made the dollar shortage problem less severe, imports from North America grew rather slowly, from $4 billion to $6 billion.[5] Marshall Plan made the dollar shortage problem less serious. In 1958, participating countries made their currencies fully convertible mutually through the European Monetary Agreement (EMA), which replaced the EPU. Despite the EPU achieved its

[4] OEEC transformed as the OECD (Organization for Economic Co-operation and Development) in 1960 with an expanded membership. The OEEC had originally 18 participants: Austria, Belgium, Denmark, France, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Sweden, Switzerland, Turkey, United Kingdom, and Western Germany. For further information, see Organization for Economic Co-operation and Development, www.oecd.org , 14.01.2005.

[5] De Macedo, J. B., and Eichengreen, B., (2001). "The European Payments Union: History and Implications for the Evolution of the International Financial Architecture", *OECD Development Centre Publications*, Paris.

convertibility objective, tariffs barriers and quantitative restrictions on trade between the EPU members were not dismantled. It was only possible after the trade liberalization had begun around the world by the General Agreement on Tariffs and Trade (GATT) of 1947, the EPU members also started to reduce tariff barriers among themselves although they could not remove the non-tariff barriers. [6]

1.1.2. Three European Communities

After the war, the recovery of coal and steel sectors, which were the main sectors for industrial production, was very slow. The coal and steel were also the main elements of the war equipments, and Germany was still perceived as a potential treat to peace. In 1950, Robert Schumann and Jean Monnet prepared a plan, which is known as Schumann Plan, to place the production of coal and steel in Europe under a joint high authority. Then, the Six, namely Belgium, the Federal Republic of Germany, France, Italy, Luxembourg, and the Netherlands, signed the Treaty of Paris establishing the European Coal and Steel Community (ECSC). The main objectives of the ECSC were to stabilize the price, to ease the distribution of coal during the post-war boom, to eliminate trade barriers, and to encourage of competition in the sectors of coal and steel, although it had some political objectives.[7]

In 1955, the Six began to study on the problems of investment, social policy, fuel and power, atomic energy and transport. Finally, the first Treaty of Rome establishing the European Economic Community (EEC) was signed on 25 March 1957. The second Treaty of Rome setting up the European Community of Atomic Energy (Euratom) was also signed on the same day.

[6] In 1947-48, representatives of 55 countries held a conference in Havana. A Charter of International Commerce was drafted. It envisaged a gradual reduction of customs tariffs; proposed suppression of import quotas and imbalance of payments; prohibited discrimination in commerce; encouraged investments in the developing countries and suggested an International Trade Organization. 23 countries signed the General Agreement on Tariffs and Trade (GATT) in October 1947.

[7] Articles from 1 to 6 of the Treaty Establishing the European Coal and Steel Community.

The main objective of the Treaty was to achieve a common market with free movements of goods and services, labour, and capital. It primarily aimed at abolishing tariffs and quantitative restrictions on trade among the member states.[8] Although no explicit mention was made about either economic or monetary union in the Treaty of Rome, it was an important step in the European economic integration process, advocating three main elements, a common market, a customs union and common policies, most importantly harmonization of monetary policies and the Common Agricultural Policy (CAP).[9] The Article 2 and Article 3 indicated these three issues.

The Treaty of Rome constituted the legal basis of the EU's economic and monetary policy. Article 103 requested that the member states would regard their national economic policies as common concern and would coordinate them within the European Council in accordance with the principle of an open market economy with free competition favouring an efficient allocation of resources, and in compliance with the guiding principles stated in Article 3a, which were stable prices, sound public finances and monetary conditions, and a sustainable balance of payments. According to the Article 104, the member states can pursue their own economic policies, but they must maintain the equilibrium of the national balance of payments and confidence in their currencies, and they must also target of obtaining a high level of employment and price stability. The Article 105 declared that the member states had to coordinate their economic policies. The Article 106 stated that the member states were ready to remove the capital controls. The Article 107 required that each member states had to treat its exchange rate policy as a matter of common concern. In this respect, Article 68 stated that the domestic rules governing the capital market and the credit system were expected to be applied in a non-discriminatory manner; and the Article 73 stated that the member states could take protective measures in the field of capital movements if such movements bring disturbances in the operation of the national capital market, the conditions and details of which were expected to be determined by the Commission. The Article 108 required that the

[8] De Haan, J., and Eijffinger, S.C.W., (2000). *European Monetary and Fiscal Policy*, Oxford: Oxford University Press, p.p. 4-8.
[9] Verdun, A., (2000). *European Responses to Globalization and Financial Market Integration*, London: Palgrave Macmillan, p. 50.

Commission had to investigate the balance of payments difficulties of the member countries and make recommendations including mutual financial assistance of them. The Article 109 stated that the member countries should take the necessary protective measures as a precaution when a sudden crisis in the balance of payments occurred, but the commission might suspend such measures.[10]

The three communities, namely the ECSC, the EEC and the Euratom merged by the leaders of the Six in 1967 as the European Community (EC).

1.1.3. Between the Treaty of Rome and the Werner Plan

As of 1958, the six founding countries of the EEC made their currencies fully convertible with respect to each others, realizing the multilateral settlement of trade imbalances in the original Bretton Woods Agreement. This facilitated the increase in the intra-EEC trade volume. France, Germany, the Netherlands, and Italy experienced export-led growth.[11] Nevertheless, the member states could not move toward a single currency in the 1960's, because all European currencies were pegged to the US dollar with fixed exchange rates under the Bretton Woods system. The development towards the monetary integration was limited with the establishment of the Monetary Committee under the Treaty of Rome, and the Committee of Governors of the central bank of the EC members.

However, during the 1960's, the EEC experienced exchange rate adjustments, which disrupted the functioning of the customs union and the CAP. Germany and the Netherlands revaluated their currencies by 5 percent in 1961, because of the US current account deficits

[10] Jovanovic, M. N., (1997). *European Economic Integration: Limits and Prospects*, London and New York: Routledge, p. 56.
[11] Barbezat, D., and Neal, L., (1998). *The Economics of the European Union and the Economics of Europe*, New York: Oxford University Press, p. 146.

and capital outflows.[12] Meanwhile, Italy suffered from serious external deficit problem in 1963-4, but trying to remain on the fixed exchange rates. However, the German surplus continued for most of the 1960's.

The expansion of trade between France and Germany began to develop against France with increasing trade deficits by 1968, because of the differences of the demand elasticity of the exported goods. The differences of the monetary polices of the countries enhanced the French deficits. The Bundesbank in Federal Republic of Germany was completely independent from the government, while the Banque de France was not. Moreover, the German policy makers tended to restrain any money supply growth more rapidly than output, because of their hyperinflation experience after the First World War. However, the French policy makers did not take into consideration this issue so much.[13] Finally, in August 1969, France devalued the franc by 11.1 percent; and Germany revaluated the deutsche mark (DM) by nearly 10 percent, one month later. This disrupted the process of economic integration mandated by the Treaty of Rome.

1.1.4. The Hauge Summit and the Werner Plan

Increased exchange rate instability within the Community and the weaknesses of the Bretton Woods system forced the member states to take action about achieving economic and monetary union. In February 1969, French Prime Minister Raymond Barre proposed a report which is known as Barre Report, concentrated on establishment of an economic and monetary union within the period of 1976-80. The Report advocated creation of an exchange rate system and harmonization of economic policies.

[12] Gros, D., and Thygesen, N., (1995). *European Monetary Integration*, London: Longman Group UK Limited, p. 10.
[13] Barbezat, D., and Neal, L., op.cit., p.p. 147-148.

The negotiations surrounding the plan based on the two different approaches: *monetarist* approach which was supported by especially France, and *economist* approach which was supported by Germany and the Netherlands.[14] The European Council agreed with many features on the Report and committed members to prior consultation.

At the Hauge Summit in December 1969, the European Council approved the establishment of the Economic and Monetary Union; and authorized a committee under the chairmanship of Pierre Werner who was the Prime Minister of Luxembourg, to produce a plan that detailed how EMU could be achieved in stages by 1980. The plan, which is known as Werner Report, was prepared and it based the Barre Report.[15]

The principles of the Werner Report were to create a single currency within the union or irrevocable fixed exchange rates with full convertibility; to eliminate the barriers on free movement of persons, goods and services, and capital; to create a common central banking system. The Report envisaged the achievement of EMU with the first beginning in 1971 and the final completed by 1980 through the three stages. The first stage was to begin on 1 January 1971 and to complete within three years. It was expected to achieve a coordination of national macroeconomic policies. It was also expected to narrow exchange rate fluctuations among member currencies within a range smaller than ± 1 percent of the International Monetary Fund (IMF). The second stage was expected to create a European Monetary Cooperation Fund (EMCF) controlled by the governors of the each member states' central banks. It was expected to use its resources to intervene in the foreign exchange markets to minimize exchange rate fluctuations among member currencies. Finally, the third stage was

[14] The "*monetarists"* argued that since the strategic objective of the EMU was the introduction of a single common currency, coordination of economic policies should be maintained after the creation of exchange rate system; while the *"economists"* were in favour of economic unification before monetary union. For more details see Tsoukalis, L., (1997). *The New European* Economy, third edition, New York: Oxford University Press, p.p. 138-179.

[15] Karluk, R., (1998). *Avrupa Birliği ve Türkiye*, beşinci baskı, İstanbul: Beta Basım Yayım Dağıtım A.Ş., p. 220.

for the evolution of EMCF into a European Central Bank (ECB) managing a common currency by 1980.[16]

The *monetarist* approach of the Werner Report was adopted by the Council of Ministers of February 9th, 1971. However, implementation of the first stage was suspended because of the big international money crisis of 1971. The Werner Plan was completely abandoned in 1977. Despite its failure, the Werner Plan played an important role as a blueprint for the creation of the EMU.

1.1.5. Collapse of the Bretton Woods System and the 'Snake in the Tunnel'

An international monetary system was established by the Bretton Woods Agreement in 1944. Bretton Woods Agreement provided a system of fixed exchange rates with all participating currencies pegged to the US dollar. Countries could allow adjusting value of their exchange rate only after periods of fundamental disequilibrium in balance of payments. The participating countries undertook to make their currencies convertible. The main objective of the agreement was to avoid mistakes of the interwar period. These mistakes were widely floating exchange rates and competitive devaluations followed by trade and exchange restrictions and bilateral agreements. Therefore, it was designed to combine the advantage of gold exchange standard which was exchange rate stability, with the advantages of floating exchange rates which was independence to pursue national policies.[17]

[16] Werner Report, (1970). "Report to the Council and the Commission on the Realization by Stages of Economic and Monetary Union in the Community", the Council and the Commission of the EC, *Bulletin of the EC*, Supplement 11, Doc. 16.956/11/70, 8 October 1970.
[17] Bordo, M. D., (1993). "The Bretton Woods International Monetary System: An Historical Overview," *NBER Working Papers*, No: 4033.

In the 1960's and the 1970's, the US faced rising unemployment and an increasing current account deficit. Monetary policy in the US became more expansionary, diverging from the other countries in the Bretton Woods system. However, such a fixed exchange rate system required each member to follow a common monetary policy. Furthermore, increased speculative pressures against the dollar began, leading devaluation of dollar.[18]

In August 1971, the US unilaterally announced that it would discontinue the convertibility of the US dollar into gold. The dollar fell with the respect to the currencies of the European countries at different rates, most against the DM, then against the currencies of the Netherlands, and Belgium. This resulted in the collapse of the Bretton Woods System and instability in foreign exchange markets. Because the collapse of the system coincided with the first stage of the Werner Plan, the creation of the EMU was temporarily abandoned.

New exchange-rate parities with temporarily wider bands of ± 2, 25 percent were set up under the Smithsonian Agreement by the Group of Ten in December 1971.[19] The EEC currencies would maintain ± 2, 25 percent band with respect to one another, namely any two EEC currencies could move by up to 9 percent against each other. This band was incompatible with the functioning of the common market and the CAP.

The international money crisis, devaluations of the 1960's in the Community, and the Smithsonian Agreement forced the member states to make new arrangements about first stage. The fixed intra-EC exchange rates were also thought to be important for promoting trade and capital flows within Europe; and exchange rate movements within the Community raised the costs of the agricultural price supports under the CAP sharing the significant part of the Community budget.[20] However, domestic political consideration and the accession of

[18] Klein, M. W., (1998). "European Monetary Union", *New England Economic review*, March/ April 1998 issue, p.p. 3-12.
[19] The Group of Ten consisted of G7 that are the US, Germany, Japan, the UK, France, Italy, plus the Netherlands, Belgium, and Sweden.
[20] Klein, M. W., op. cit.

three new members – the United Kingdom (UK), Ireland and Denmark – made difficult to achieve a consensus over exchange rate policies.[21]

Following, by the Basle Agreement in April 1972, the six founding member states of the EEC decided to adopt a system, which was known as the *snake in the tunnel*, to narrow the fluctuation margins between the EEC currencies in relation to fluctuations against the US dollar. In order to ensure that this system functioned properly, in 1973 the member states created the EMCF, which was authorized to receive part of the national monetary reserves. The Agreement also advocated achieving coordination of economic policies and macroeconomic convergence.[22]

According to the new exchange rate agreement, the EEC members agreed on maintaining the fluctuation margins between the Community currencies to ± 1.125 percent (the snake), and those operating between these currencies and the dollar to ± 2.25 percent (the tunnel). The intra-EEC exchange rate system proved more to be temporary on arrangement than a lasting one, increasing uncertainty in trade relations in the Community. The chronological history of the snake is given in the Table.1.

The fixed exchange rate system of the Smithsonian Agreement broke down in March 1973. This ended the tunnel, but the snake continued to float until the formation of the European Monetary System (EMS) in 1979. Germany revaluated the DM by 3 percent in 1973 against the weakened dollar, and a further revaluation of 5.5 percent was decided in the same year. Denmark and Norway followed the German revaluation. Divergence occurred among the countries and it was increased by the first oil crisis in late 1973.[23] Then, France decided to withdraw in January 1974, however returned to the system from July 1975 to 1976.

[21] Barbezat, D., and Neal, L., op. cit., p. 149.
[22] Gros, D., and Thygesen, N., op. cit., p.p. 15-16.
[23] Ibid, p. 18.

Table 4: Chronological history of the snake

1972	
24 April	Basle Agreement enters into force. Participants: Belgium, France, Germany, Italy, Luxembourg, the Netherlands.
1 May	The United Kingdom and Denmark join.
23 May	Norway becomes associated.
23 June	The United Kingdom withdraws.
27 June	Denmark withdraws.
10 October	Denmark returns.
1973	
13 February	Italy withdraws.
19 March	Transition to the joint float: Interventions to maintain fixed margins against the dollar (tunnel) are discontinued.
19 March	Sweden becomes associated.
19 March	The DM is revaluated by 3 percent.
3 April	Establishment of a European Monetary Cooperation Fund is approved.
29 June	The DM is revaluated by 5.5 percent.
17 September	The Dutch guilder is revaluated by 5 percent.
16 November	The Norwegian krone is revaluated by 5 percent.
1974	
19 January	France withdraws.
1975	
10 July	France returns.
1976	
15 March	France withdraws again.
17 October	Agreement on exchange rate adjustment (Frankfurt realignment): The Danish krone is devalued by 6 percent, the Dutch guilder and Belgian franc by 2 percent, and the Norwegian and Swedish krona by 3 percent.
1977	
1 April	The Swedish krona is devalued by 6 percent, and the Danish and Norwegian krone are devalued by 3 percent.
28 August	Sweden withdraws; the Danish and Norwegian krone are devalued by 5 percent.
1978	
13 February	The Norwegian krone is devalued by 8 percent.
17 October	The DM is revaluated by 4 percent, the Dutch guilder and Belgian franc by 2 percent.
12 December	Norway announces decision to withdraw.
1979	
13 March	The European Monetary System becomes operational.

Source: Gros, D., and Thygesen, N., op. cit., p. 17.

By the first oil crisis in 1973, EEC member states began to apply their own national policies against effects of the crisis, which led to frequent and sharp fluctuations in the exchange rates. There were entrances and exits from the exchange rate arrangement. Then, member states pegged their currencies to the DM, because of the relative success of the German economy during the oil crisis. Therefore, the snake was rapidly transformed into a DM-zone.[24] By the end of 1977, only Germany, Belgium, the Netherlands, Luxembourg and Denmark remained within the snake. The Werner Plan was abandoned in the same year.

1.1.6. The European Monetary System (EMS)

On 27 October 1977, Roy Jenkins who was President of the Commission, proposed a new plan to reactivate the attempts for establishing a monetary union. In April 1978, at the Copenhagen meeting of the European Council, the German Chancellor Helmut Smith and the French President Valéry Giscard d'Estaing supported the plan in order to go little beyond the snake. At the Bremen European Council, in July 1978, the Six and three new members – the UK, Denmark, and Ireland – began to discus the EMS proposals. The member states agreed on several features of the EMS at this meeting. In the following six months, the EMS plan was worked out in technical committees and in the ECOFIN Council.[25] Finally, at the Brussels Summit of December 1978, the member states approved to set up the EMS which came into operation on 13 March 1979, replacing the snake. However, the UK decided to opt out from the EMS, while the other members fully joined the system.

According to the Conclusion of the European Council of 4 and 5 December, 1978:

"The purpose of the European Monetary System is to establish a greater measure of monetary stability in the Community. It should be seen as a fundamental component of a

[24] Arestis, P., McCauley, K., and Sawyer, M., (1999a). "From Common Market to EMU: A Historical Perspective of European Economic and Monetary Integration," Macroeconomics 9903013, *Economics Working Paper Archive at WUSTL.*
[25] Verdun, A., op. cit., p. 78.

more comprehensive strategy aimed at lasting growth with stability, a progressive return to full employment, the harmonization of living standards and the lessening of regional disparities in the Community." [26]

The creation of the EMS was a further step towards the monetary union. It based on the concept of fixed, but adjustable exchange rates. The EMS was open for both EC and non-EC countries. The member countries first delivered their political decisions about the establishment of the EMS, and then agreed about the operational details of the system unlike the snake. The elements of the EMS were a basket currency unit of EC currencies, an exchange rate mechanism, and credit financing.[27]

Table 5: Composition of the ECU (%)

	Weight in the Basket			
Currency	***1979-84***	***1984-89***	***1989-94***	***1995***
Deutsche mark	33.0	32.0	30.1	32.7
French franc	19.8	19.0	19.0	20.8
Pound sterling	13.3	15.0	13.0	11.2
Dutch guilder	10.5	10.1	9.4	10.2
Belgian franc	9.3	8.2	7.6	8.4
Italian lira	9.5	10.2	10.15	7.2
Spanish peseta	--	--	5.3	4.2
Danish krone	3.1	2.7	2.45	2.7
Irish pound	1.1	1.2	1.1	1.1
Portuguese escudo	--	--	0.8	0.7
Greek drachma	--	1.3	0.8	0.5
Luxembourg franc	0.4	0.3	0.3	0.3
TOTAL	100.0	100.0	100.0	100.0

Source: Jovanovic, M. N., op. cit., p. 58.

The first step was the creation of the European Currency Unit (ECU). It was a basket currency, comprising specified amounts of each member state's currency. After the negotiations, in March 1979, the weights to be assigned each currency were agreed by the member states. The weights depended on the country's share of Community GDP (gross

[26] European Community, (1989). "Compendium of Community Monetary Texts", *Official Publication of the European Communities*, Luxembourg, p. 44.
[27] Karluk, R., op. cit, p. 229.

domestic product) and intra-Community trade. The weights assigned to each currency can be seen in Table 2. The ECU was created as: a unit of account in the new exchange mechanism; a basis for determining divergence indicators; a unit of account for operations under the intervention and credit mechanisms; and a means of settlement between the monetary authorities of the member states; a unit for the store of value; a unit for financial transactions and statistics of the Community administration.

The next step was the establishment of the Exchange Rate Mechanism (ERM) that is a parity grid of bilateral exchange rates. It was the most important part of the system. The member states undertook to maintain their exchange rates with each other within ± 2 ¼ percent of a central rate of exchange. Ireland and Italy joined the system, exceptionally with large intervention bands (± 6) around their central rates. The parities were not fixed permanently. They could be amended according to a common procedure, if any currency diverged from the fluctuation bands. For this purpose, divergence indicator (DI) was created to provide symmetrical adjustment, and to obtain a signal when a currency becoming out of line with the rest of the system. According to the divergence indicator, the authorities were required to take necessary actions using the monetary and fiscal policy instruments.

The ERM was originally designed to encourage the individual central banks to intervene equally in each side of the market as a symmetrical system with respect to its member countries. In such a case, very little course could be necessary to use a central pool of reserves by the individual central banks with weaker currencies.[28] The central pool of reserves under the EMS was the Very Short Term Financing Facility (VSTF). It was created to provide for extension of credit from one central bank to another. It was repayable over a term initially 45 days. At the bilateral limits, one central bank could call on another for credit in the partner's currency without prospect of a refusal, the amount being repaid under this mechanism.

[28] Barbezat, D., and Neal, L., op. cit, p. 152.

The EMS consisted of phases like the earlier EMU plan. The second stage was expected to start in 1981, but the EMS failed to move to the next phase. The second stage was planed for extending the use of ECU and making the European Monetary Fund (EMF) fully operational. The EMF was expected to be the authority for realignments in the EMS and for formulation of a joint monetary policy. It was also expected to replace the EMCF.[29] However, the member countries could not agree on powers to be given to the EMF. Moreover, the establishment of the EMS coincided with the second oil crisis of 1979-80. Therefore, the EMCF remained to provide a source of ECUs for settlement of central bank transactions against a deposit of 20 % of gold and 20 % of foreign exchange reserves.[30]

1.1.6.1. Developments in the EMS

The ERM was originally designed to be symmetrical with respect to its member states, but it rapidly transformed into a DM-zone. If any individual country with the best performance in inflation, balance of payments, employment and growth had a relatively big economic size; it could influence the other member countries and could be dominant in the system.[31] Furthermore, the European countries began to follow German monetary policy because of the Germany's relative success during the oil crises. The member states pegged their currencies to the DM. The ERM became a currency area anchored to the deutsche mark and German monetary policy.[32]

The ERM can be examined in five periods for a better understanding. The first period covers the years between 1979 and 1983. In this period, the second oil crisis of 1979-80 raised both inflation and unemployment, reduced the output, and worsened the current accounts in Europe. However, the EMS survived from the second oil crisis. Despite these

[29] For further information, see Gros, D., and Thygesen, N., op. cit., p. 54-56.
[30] Verdun, A., op.cit., p. 79.
[31] Jovanovic, M. N., op. cit, p. 59.
[32] Mundel, R.A., (1994). "The European Monetary System 50 Years after Bretton Woods: A Comparison Between Two Systems", Project Europe 1985-95, the tenth edition of the *Incontri di Rocca Salimbeni Meetings*, Siena.

effects of the crisis, the EMS was initially successful and made progress in some respects relative to the experience of the Snake. The initial success of the EMS depended on the willingness of the member states to peg their currencies to the DM. The member states made realignments frequently from 1979 to 1983. The high inflation countries devalued their currencies to remain competitive with the low inflation countries. This was not long lasting and reduced the credibility of the member states. However, these realignments were at least sufficient to prevent serious misalignments among the member states and to contribute to better equilibrium.[33] The realignments in the ERM can be seen in Table.3.

Table 6: Realignments in the ERM, 1979-1993 (vis-à-vis DM)

	France	Italy	The Nether-Lands	Belgium	Denmark	Ireland	Spain	Portugal
24 Sep. 1979	- 2.0	- 2.0	- 2.0	- 2.0	- 5.0	- 2.0		
30 Nov. 1979	--	--	--	--	- 5.0	--		
23 March 1981	--	- 6.0	--	--	--	--		
5 Oct. 1981	- 8.5	- 8.5	--	- 5.5	- 5.5	- 5.5		
22 Feb. 1982	--	--	--	- 8.5	- 3.0	--		
14 June 1982	- 10.0	- 7.0	--	- 4.25	- 4.25	- 4.25		
21 March 1983	- 8.0	- 8.0	- 2.0	- 4.0	- 3.0	- 9.0		
22 July 1985	--	- 8.0	--	--	--	--		
7 April 1986	- 6.0	- 3.0	--	- 2.0	- 2.0	- 3.0		
4 August 1986	--	--	--	--	--	- 8.0		
12 January 1987	- 3.0	- 3.0	--	- 1.0	- 3.0	- 3.0		
8 January 1990	--	- 3.7	--	--	--	--		
14 Sep. 1992	--	- 7.0	--	--	--	--	--	--
16 Sep. 1992	--	--	--	--	--	--	- 5.0	--
23 Nov. 1993	--	--	--	--	--	--	- 6.0	- 6.0
1 Feb. 1993	--	--	--	--	--	- 10.0	--	--
14 May 1993	--	--	--	--	--	--	- 8.0	- 6.5
TOTAL	**- 25.5**	**- 44.1**	**- 4.0**	**- 24.4**	**- 27.0**	**- 37.1**	**- 17.8**	**-12.1**

Source: De Haan, J., and Eijffinger, S.C.W. ,op. cit., p. 13.

The second period covers the years between 1983 and 1987. Despite of initial success of the EMS, the member states achieved a little economic convergence. The French authorities were not contented with the leadership of Germany on the level of interest rates. After the devaluation of French franc in March 1983, French government decided to maintain

[33] Gros, D., and Thygesen, N., op. cit., p. 73.

a stable exchange rate vis-à-vis the DM. As well, other members of the EMS started to follow strict monetary and fiscal policies to maintain the stability of their exchange rate vis-à-vis DM. In this period, fewer currencies were realigned with a lower frequency. Inflation rates started to fall and stability of exchange rate was maintained in the member states. However, unemployment increased in the EMS members as a cost of this policy.[34]

At the time, a greater degree of macroeconomic convergence among the member states and coordination of economic policies were required for a stronger monetary system because of the weakness of the EMS. Firstly, the EMS had the asymmetry problem of a fixed exchange rate system that deficit countries are under pressure to deflate but surplus countries are not under similar pressure to deflate. The EMS was designed to maintain symmetry through the VTFS. However, the final liquidity effects of the intervention need not be symmetric because of speculative movements. The lack of the common monetary policy aggravated this asymmetry. Therefore, the member states were forced to implement capital controls in order to prevent the destabilizing effects of capital flows.[35] Secondly, Germany was the leader country of the EMS; and could pursue an independent monetary policy considering its own inflation preferences, without any accountability mechanism. The other member countries had no instrument to change the leader country's monetary policy. Such a system threatened to break down when the centre country pursued monetary policies, which were at variance with the needs of the outer countries.[36] Thirdly, the realignments were without exception smaller than differentials in national inflation rates between the countries concerned, leading to changes in real exchange rates of the member countries.[37] These weaknesses of the EMS could be eliminated through only macroeconomic convergence and coordination of economic policies among the member countries.

For this purpose, the Commission published the White Paper in 1985, which loaded the Community with the task of creating a single market by 1992. Then, in February 1986,

[34] De Haan, J., and Eijffinger, S.C.W., op. cit., p. 10.
[35] Arestis, P., McCauley, K., and Sawyer, M., op. cit.
[36] Mundel, R.A., op. cit.
[37] Gros, D., and Thygesen, N., op. cit., p. 69.

the Single European Act (SEA) was signed in Luxembourg, which came into force on 1 July 1987. The SEA designated a clear deadline for completion of the internal market with freedom of movement for goods, services, persons and capital. Its first part of the SEA reiterated main objective, which is the creation of a European Union. Its second part laid down the detailed legal framework for establishing a single market by 1992 and closer policy cooperation on the environment, research and technology. Its third part dealt with foreign policy cooperation under the European Political Cooperation (EPC).[38] The member states also signed the Basle-Nyborg Agreement in 1987. The objectives of the agreement were to achieve greater convergence and to review intervention policy, credit arrangements, and monetary coordination. It included some reforms about financial services liberalisation and the removal of some capital controls.[39]

The third period of the ERM started in 1987 and ended in 1992. After 1987, the realignments nearly ended. The new member states of the Community, Spain and Portugal joined the ERM with fluctuation margins of 6 percent, respectively in June 1989 and in April 1992. Italy and Ireland moved from the wide 6 percent to the narrow 2.25 percent fluctuation band; and the UK joined the ERM in October 1990. Between 1987 and 1992, the exchange rates were fixed; and convergence in the achievements of the economies in terms of inflation, interest rates and economic growth increased.[40] By July 1990, all restrictions to capital movements in the Community were removed; and by 1993, all remaining restrictions to the free movement of goods, services and labour were eliminated. Thus, the single market came into existence. By the success of this period, DM replaced the US dollar as the key currency for the European central banks; and, the process towards the EMU accelerated.[41]

However, the ERM suffered from the serious crisis in 1992-93 that was triggered by tight monetary policy of Germany. This can be examined as fourth period of the ERM. In 1991, Germany began to raise its interest rates in order to cover the costs of reunification.

[38] Karluk, R., op. cit., p.p. 38-43.
[39] Verdun, A., op. cit., p. 80.
[40] Arestis, P., Mc Cauley, K., and Sawyer, M., op. cit.
[41] Barbezat, D., and Neal, L., op. cit., p. 154.

The high inflation member countries, except the UK, followed Germany's policy to maintain the stability of exchange rates among themselves, avoiding devaluations against the DM. There was also political uncertainty that was caused by the doubt about achieving the objectives of the Maastricht Treaty, because the Treaty was rejected by the Danish referendum in June 1992. Germany continued to raise its interest rates, creating economic difficulties for other member states, especially Italy, the UK, Spain and France which were under deflationary pressures.[42] In the early September 1992, speculative movements began to increase and heavily affected European economies. Interest rates incredibly rose in Sweden; Italian lira was permitted to devalue by 7 percent against the other members' currencies. Then, speculative pressures focused on the pound sterling. In September 16, the pound sterling was withdrawn from the ERM; Italian lira was allowed to float; Spanish peseta was devalued by 5 percent against the all other currencies. During the crises between September 1992 and August 1993, the member countries devaluated their currencies from time to time.

France continued to follow Germany with slow growth and rising unemployment, in spite of the selling pressures on its currency. In July 1993, French government decided that it could no longer raise interest rates. French franc was devalued and withdrawn from the ERM. The crisis was eased in the spring of 1993 when the Bundesbank made three interest rate reductions. However, the Bundesbank failed to lower the interest rate in August 1993. At last, the ERM fluctuation bands were temporarily widened moving up to 15 percent above or below the central bilateral rates. French franc came back to the original ± 2.25 percent range due to speculative buying. In December 1993, the composition of the ECU was fixed at its 1989 basket.[43]

The crisis proved that a higher degree of economic coordination and convergence among the member states, a central monetary authority and a single currency were necessary. Furthermore, the fiscal policy was used freely by the member states without facing an external

[42] Healey, N. M., (1995). *The Economics of the New Europe from Community to Union*, London and New York: Routledge, p.p. 60-61.
[43] Barbezat, D., and Neal, L., op. cit., p.p. 156.-157

constraint like the SGP. Therefore, the member states, especially Germany and France, supported economic and monetary union.[44] The attempts to create an economic and monetary union were accelerated by the Maastricht Treaty in the fifth period of the ERM, which covers the years between 1993 and 1998.[45] During this period, the ERM and the EU enlarged again. Austria joined the ERM in January 1995. Italy re-entered the ERM in November 1996; while Finland and Greece joined the ERM in October 1996 and March 1998, respectively. Although, there was some realignment in this period, the member states become closer to economic and monetary union than before. However, the efforts were first launched in 1988 at the Hanover meeting.

1.1.7. The Dellors Report

The Hanover European Council in 27 and 28 June 1988 stated that the member states confirmed the objective of progressive realization of economic and monetary union, adopting the SEA. The Council decided to establish a committee, which was to be chaired by Jacques Dellors that should study and propose concrete stages leading towards the EMU. The committee prepared the Report on Economic and Monetary Union in the European Community, which is known as Dellors Report.

The Dellors Report defined the economic union as consisting of four elements: creation of a single market with the freedom of persons, goods, services, and capital; competition policy to strengthen the market mechanism; macroeconomic policy coordination including binding rules for budget deficits; common policies to strengthen regional

[44] Barrell, R., (1992). *Economic Convergence and Monetary Union in Europe*, London: SAGE Publications, p.p. 98-120.
[45] The Maastricht Treaty is examined extensively in part 1.2.

development and structural change.[46] The Dellors Report proposed a three-stage process towards the EMU without offering a strictly specified timetable. The following highlights the main characteristics of the three stages of the Dellors Report.

The ***Stage 1*** was expected to begin on 1 July 1990. It was concerned with the initiation of the process of creating of the EMU. It was planed to include all the member states' currencies in the ERM, and to achieve higher degree of cooperation among the central banks with relation to monetary policy, which was supported by more effective social and regional policies. It was expected to remove obstacles to financial integration, to monitor national economic policies, and to coordinate budgetary policies. Additionally, the Treaty of Rome was to be amended to set up the future European System of Central Banks (ESCB).[47]

The ***Stage 2*** was expected to begin on 1 January 1994. It was preparatory period for the final stage of the EMU. During this stage, the member states were to make significant progress towards convergence of the economic policies, and to narrow margins of fluctuation within the ERM. The ESCB was to be established, because of that the final stage involves the establishment of an independent *European Central Bank (ECB)*. Therefore, the national central banks were to become independent during this stage. At the start of this stage, the *European Monetary Institute (EMI)* was established as a forerunner of the ECB in Frankfurt. The member states were to make progressive transfer of monetary policy to European institutions. To the end of this stage, the European Council formulated economic policy guidelines.[48]

The ***Stage 3*** involved the irrevocable fixing of member states' exchange rates and their replacement by a single European currency. The member states were required to achieve a high degree of convergence by the convergence criteria of the Treaty, and to transfer their

[46] Delors Report, (1989). "Report on Economic and Monetary Union in the European Community", *Committee for the Study of Economic and Monetary Union*, Luxembourg: Office for Official Publications of the EC, April 1989.
[47] Ibid.
[48] Ibid.

responsibilities for monetary policy to the ESCB which was consisted of the national central banks and the ECB. The Treaty provided that the transition to the third stage of the EMU was to take place in 1997, if a majority of the member states fulfilled the criteria. If by the end of that year the date for the beginning of the third stage had not been determined, the third stage was to begin on 1 January 1999 with the member states which fulfilled the convergence criteria.[49]

The Dellors Report was unanimously adopted by the European Madrid Council in June 1989; and the first stage of the report began on 1 July 1990. The Treaty of Rome was amended by the Maastricht Treaty in 1992. By the second stage which began on 1 January 1994, the EMI was created as a precursor to the ECB. The role of the EMI was to improve cooperation between the national central banks, to coordinate of the national monetary policies, to monitor the functioning of the EMS. It also took over the tasks of the EMCF. Finally, third and final stage began on 1 January 1999.[50] These developments and the Maastricht Treaty are extensively examined in part 1.2.

1.2. THE MAASTRICHT TREATY

The Strasbourg European Council in December 1989 stated that the Treaty of Rome should be amended on the basis of the Dellors Report. A special meeting of the Council was held in Dublin in April 1990. The member states decided to arrange two Intergovernmental Conferences.[51] The Intergovernmental Conferences were held in December 1990 in Rome,

[49] Ibid.
[50] Arestis, P., Mc Cauley, K., and Sawyer, M., op. cit.
[51] See Verdun, A., op. cit., p. 89. One of the Intergovernmental Conferences was to be on economic and monetary union, while the other on political union. Both unions were expected to start in December 1990.

and imply the last preparations of the Treaty and the decisions that accelerated the process of forming the EMU. The European Commission submitted a draft treaty amending the Treaty of Rome and a report analyzing the costs and benefits of an economic and monetary union for Europe.[52] Central bank governors presented draft statutes of the European System of Central Banks (ESCB).

The Intergovernmental Conferences went on all through 1991 and concluded in Maastricht one year later, in December 1991. Finally, the Maastricht Treaty, which is known as the Treaty on European Union, was signed in February 1992 and was ratified by all member countries by the end of October 1993. The Treaty entered into force on 1 November 1993.

The Maastricht Treaty did not change the basic structure of the Treaty of Rome, but introduced additional principles and rules for the EMU. The objective of the Treaty was to establish economic and monetary union among the member states, to achieve an economic growth without inflation, high degree of employment and social security, and to provide stability. Establishment of an economic and monetary union was stated from Articles 98 to 124 (102a to 109m) of the Treaty. The Treaty prescribed that the economic and monetary union was to be established in three successive stages, which were the same transitional stages of the Dellors Report.[53] However, it differed from the Dellors Report on some significant points. The Protocols gave the details on the transition to the third stage in terms of the convergence criteria, the excessive deficit procedure, the UK and Denmark opt-out clauses, the statutes of the EMI, the ESCB and the ECB.[54]

The Treaty assumes that the first stage had already been reached before it came into effect, in consistence with the designated dates of the Dellors Report. During the ***first stage***,

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However, unlike the economic and monetary union, at the Intergovernmental Conferences, the member states could not make sufficient progress in political union.

[52] The Commission's report is known as *One Market, One Money*. See European Commission, (1990). "One Market, One Money", *European Economy*, No: 44.

[53] Treaty on European Union, *Official Journal of the European Communities*, No: C 191/01, 29.07.1992.

[54] Ibid.

the member states were to remove all barriers on the free movement of capital among themselves. They were also to prevent giving funds by central banks to public authorities, and to make their pubic finances stronger. The member states were to focus on economic and monetary convergence by adopting convergence programs, which included specified objectives for inflation and budgetary variables.[55] These programmes were subjected to the assessment of the Council of Economic and Finance Ministers (ECOFIN).

The ***second stage*** was to start as of 1 January 1994 and last until 31 December 1998. In this transitional period, the member states were to make significant progress in economic policy convergence. The second stage foresaw the establishment of the European Monetary Institute (EMI), which was to be located in Frankfurt. The EMS was to be administered by the EMI; and the EMI was to be also responsible from the economic policy coordination among the member states. It had no executive power to conduct monetary policy; but it could make recommendations and form opinions in this regard. The EMI was to make necessary preparations for adopting the single currency; then the ESCB was to control the EU monetary policy at the start of third stage. The EMI was to cease to exist by the establishment of the ECB at the end of the second stage. The member states were to introduce the necessary legal changes to make their central banks fully independent of government interventions by the end of this stage. [56]

The Maastricht Treaty prescribed that transition to the ***third stage*** was subject to achievement of a high degree of convergence among the member states. According to the Treaty, during 1996, the Council was responsible for determining whether a majority of the member states satisfy the *convergence criteria*, which had been laid down by the Treaty, and for setting a date for start of the third and final stage. However, the Treaty prescribed that the final stage should begin on 1 January 1999, even though only a minority of the EU member

[55] European Council, (1990). Council Decision 90/141/EEC of 12 March 1990 on the attainment of progressive convergence of economic policies and performance during stage one of economic and monetary union, *Official Journal,* No: L 78, 24.03.1990.
[56] Healey, N. M., op. cit., p.95.

states had satisfied the convergence criteria prior to launching of the single currency.[57] By the final stage, the member states, which had fulfilled convergence criteria, were to fix the exchange rates of their currencies irrevocably. The last but not the least the ECB had to take it over from the EMI to conduct monetary policy of the Union at the same year. The ECB and national central banks of the participating member states constitute the ESCB.[58] Nevertheless, the Treaty did not define the practical arrangements for introducing notes and coins; they were to be decided by the European Council.

The Maastricht Treaty defined the primary objective of the ECB as maintenance of price stability. The ECB was to be responsible for determination of the EMU's exchange rate policies vis-à-vis non-EU currencies. The ECB and the ESCB were to be independent from the member states' governments and the EU institutions. Nevertheless, the ECB was to be accountable to the European Parliament, the European Council, and the European Commission.[59]

1.2.1. The Convergence Criteria and Budgetary Discipline

The Maastricht Treaty and the relevant protocol established four *convergence criteria*, which member states had to fulfill before they adopted the single currency. At the Maastricht Summit, the UK and Denmark obtained opt-out clauses from adopting the single currency. The convergence criteria are laid down in detail in the Article 121 of the Maastricht Treaty and the protocol on the convergence criteria, which makes reference to the Article 109j of the Maastricht Treaty. The convergence criteria are as follows:

[57] Protocol on the Transition to the Third Stage of EMU, *Official Journal of the European Communities*, No: C 191, 29.7.1992, p. 87.
[58] Treaty on European Union, op. cit.
[59] Protocol on the Statute of the European System of Central Banks and the European Central Bank, *Official Journal of the European Communities*, No: C 191, 29.7.1992, p. 68.

(i) **Price Stability:** The member states must have a high degree of price stability. A member state must have a stable price performance, which is sustainable and an average rate of inflation, observed during a year before the examination. The average inflation rate must not be more than 1.5 percentage points above the average of three best performing member states in terms of price stability. [60] Inflation can be measured in terms of the consumer price indices on comparable basis by taking differences in national definitions into account.[61]

(ii) **The Government Budgetary Position:** The member states' planned or actual government deficit must not exceed 3 percent of Gross Domestic Product (GDP) at market prices, unless they are temporary and exceptional. According to the Protocol, government budgetary positions are to be observed at central, regional and/or local levels as well as social security funds. Government debt ratios must not exceed 60 percent of GDP at market prices, but this is also satisfied if it is approaching the reference value at a satisfactory speed. The Protocol defines the debt as total gross debt outstanding at nominal value at the end of each fiscal year and consolidated between and within the sectors of general government. The Protocol states that governments of the member states should be responsible for this criterion, and report their planned and actual deficits and debts regularly to the European Commission.[62]

(iii) **Participation in the ERM of the EMS:** The member states must respect the normal fluctuation margins provided for by the ERM of the EMS for at least two years without experiencing severe tensions before the EMU participation. In particular, the member states should not have devalued its currency's bilateral central rate against any other member state's currency on its own initiative during the same period.[63]

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[60] Protocol on the Convergence Criteria Referred to in Article 190j of the Treaty Establishing European Community, *Official Journal of the European Communities*, No: C 191, 29.07.1992, p. 85.
[61] Harmonized Index of Consumer Price (HCPI) was created to assess the convergence in terms of price stability, considering preceding twelve month period.
[62] Protocol on the Excessive Deficit Procedure, *Official Journal of the European Communities*, No: C 191, 29.07.1992, p. 84.
[63] Protocol on the Convergence Criteria, op. cit.

(iv) **The Convergence of Interest Rates:** Over a period of one year before the EMU participation, the member states must have an average nominal long-term interest rate that does not exceed by more than 2 percentage points that of the three best performing member states in terms of price stability. Interest rates should be measured on the basis of long term government bonds or comparable securities, taking into account differences in national definitions.[64]

According to the Protocol, the European Commission is responsible for providing the statistical data to be used in assessing a member state's compliance with the convergence criteria; then the European Council was to decide which member states have achieved sufficient convergence since the beginning of the final stage. This decision was to depend on a recommendation from the ECOFIN.

1.3. THE DEVELOPMENTS AFTER THE MAASTRICHT TREATY

The restrictions on the free movement of capital among the EMU member states had been removed before the beginning of the second stage. Full liberalization of the capital movements was achieved through the Articles 56 to 60 of the Treaty. The member sates adopted multi-annual convergence programs considering convergence criteria, in order to be prepared for adoption of the common currency. These programs depended on the assessments by the ECOFIN.[65]

During the second stage, the EMI was established as a forerunner of the ECB. The member states adopted the legislation prohibiting financing of public sector activities,

[64] Ibid.
[65] Karluk, R., op. cit., p.p. 261-268.

privileged access by public sector identities to financial institutions, and the assumption of the public sector liabilities of a member state by the Community or by another member state.[66] They also adopted the national legislations, which provide independence for the central banks. The member states endeavoured to satisfy convergence criteria.[67]

Table 4: The Madrid Scenario for Introduction of the Euro

Phase A 2 May 1998	The Council will decide which countries can participate in the EMU, according to compliance with the convergence criteria and independence degree of their central banks. This decision will depend on the reports of the Commission and the EMI. Then, the ECB will be established and prepared for the conduct the common monetary policy. The authorities at both European and national level will ensure that their legislations and technical systems conform to each other, in order to enter the third stage of the EMU. The corporate sector will prepare their accounting procedures, software, and equipments for the euro.
Phase B 1 January 1999	The third and final stage of the EMU will start on 1 January 1999 with the irrevocable fixing of the conversion rates of the countries. The ESCB will become operational. The euro will become the single currency replacing the ECU at the rate of one ECU for one euro. New issues of public debts will be denominated in euro. Wholesale transactions and large value operations are denominated in the single currency while retail or small transactions are denominated in national currency. The national currencies will become subunits of the euro.
Phase C 1 January 2002	By 1 January 2002 at the latest, the euro notes and coins will be introduced, while national banknotes and coins will be withdrawn from the market. Euro banknotes and coins will start to circulate alongside national notes and coins. At most 6 moths later, the national currencies of the participating countries will be completely replaced by the euro, and the changeover will be complete.

Source: European Commission, (1998a). op. cit. p.p. 8-9; Karluk, R., op. cit. p.p. 261-267; and European Commission, (1995a). Madrid Strategy, Madrid European Council Presidency Conclusions 15-16 December 1995, Part A.

[66] This is known as *no bail out clause*.

[67] European Commission, (1998a). "The Euro: Explanatory Notes", Directorate General II, Economic and Financial Affairs, Brussels, p.p. 6-7.

The Madrid European Council in December 1995 determined the starting date of the third stage as 1 January 1999 to comply with the Treaty. It was difficult to begin the final stage before 1999; because the 1992-93 crises in the ERM caused economic weakness that prevented efforts to meet the convergence criteria.[68] On the basis of the Commission's Green Paper, the Madrid European Council decided to name the single currency *euro* and laid down a timetable for the changeover to the single currency.[69] Table 4 shows the timetable in detail.

The Madrid European Council requested from the ECOFIN Council, the EMI and the Commission, a report about the monetary policy considering the relationships between the *ins* and *pre*-in[70]s countries.[71] The report focused on the need for a new exchange-rate mechanism.

The Dublin European Council in December 1996 agreed on the new exchange-rate mechanism (ERM II) as proposed by the ECOFIN Council, the EMI and the Commission. The ECOFIN Council was invited to prepare for the Amsterdam European Council in June 1997 a draft Resolution setting out the fundamental elements of the ERM II; while the EMI was invited to prepare a draft for an inter-central bank agreement, for submission to the ECB and the national central banks. The Dublin European Council emphasized the need to ensure durable budget discipline in the third stage of EMU. The principles and the main elements of the Stability and Growth Pact (SGP) for ensuring budgetary discipline in the EMU were agreed. The Dublin European Council requested the ECOFIN Council to examine the Commission proposals for two regulations. One regulation was on the strengthening of the surveillance and co-ordination of budgetary positions; while the other was on speeding up and

[68] IMF, (1997). "World Economic Outlook: A Survey", *World Economic and Financial Surveys series*, Washington.
[69] See European Commission, (1995b). "Green Paper on the Practical Arrangements for the Introduction of the Single Currency", COM (95) 333, 31 May 1995. The Commission's Green Paper on the practical arrangements for the introduction of the single currency proposed a transition scenario for the move to the single currency; and stressed the role of the different economic actors, and the legal framework for the single currency.
[70] Ins mean the twelve EU countries, which are the EMU members, while pre-ins mean the EU countries, which want to join the EMU but has not yet met the convergence criteria.
[71] European Commission, (1995a). op. cit.

clarifying the implementation of the excessive deficit procedure.[72] The Commission was invited to put forward a proposal for a regulation on non-participating member states; and the ECOFIN Council was invited to prepare a draft resolution on the SGP to be adopted by the European Council in June 1997, including the legal provisions on budgetary stability. The Dublin European Council also adopted the agreement by the ECOFIN Council on the regulations establishing the legal framework for the euro.[73]

The objective of the ERM II is to establish an appropriate exchange-system, which guarantees monetary stability and solidarity between the euro and the national currencies of those pre-in countries.[74] In the system, the euro is an anchor and a unit of account to the mechanism; and the pre-in currencies are linked to the anchor on a bilateral basis. Central rates were set against the euro with a standard fluctuation band of ± 15 % around the central rates. The decisions on central rates and the standard bands were taken by common deal by the ministers of the member states participating in the new mechanism, and the ECB. Interventions at the margin are automatic and unlimited, with very short-term financing being available. However, interventions may be suspended, if price stability were to be endangered. The ECB is responsible for monitoring the sustainability of bilateral exchange-rate relations between each participating currency.

[72] See Proposal for a Council Regulation on the strengthening of the surveillance and coordination of budgetary positions, *Official Journal*, No: C 368, 6.12.1996, COM (96) 496, Bulletin 10-1996; and Proposal for a Council Regulation on speeding up and clarifying the implementation of the excessive deficit procedure, *Official Journal*, No: C 368, 6.12.1996, COM (96) 496, Bulletin 10-1996.
[73] European Council, (1996). Presidency Conclusions of the Dublin European Council, 13-14 December 1996.
[74] European Council, (1997a). Council Resolution on the establishment of an exchange-rate mechanism in the third stage of economic and monetary union, Amsterdam, 16 June 1997, *Official Journal*, No: C 236 of 02.08.1997.

Table 5: Economic Indicators and the Convergence Criteria until the Euro Launch

(excluding the exchange-rate criterion)

		HICP Inflation[a]		Long-term Interest Rate[b]		General Gov. Surplus (+) or Deficit (-)[c]		General Gov. Gross Debt[c]
	1996	1.8		6.5		-3.2		126.9
Belgium	1997	1.5		5.8	#	-2.1		122.2
	1998[d]	1.4		5.7	#	-1.7		118.1
	1996	2.1		7.2	#	-0.7		70.6
Denmark	1997	1.9		6.3	#	0.7		65.1
	1998[d]	1.9		6.2	#	1.1	#	59.5
	1996	1.2		6.2		-3.4		60.4
Germany	1997	1.5		5.6	#	-2.7		61.3
	1998[d]	1.4		5.6	#	-2.5		61.2
	1996	7.9		14.4		-7.5		111.6
Greece	1997	5.4		9.9		-4.0		108.7
	1998[d]	5.2		9.8	#	-2.2		107.7
	1996	3.6		8.7		-4.6		70.1
Spain	1997	1.9		6.4	#	-2.6		68.8
	1998[d]	1.8		6.3	#	-2.2		67.4
	1996	2.1		6.3		-4.1	#	55.7
France	1997	1.3		5.6	#	-3.0	#	58.0
	1998[d]	** 1.2	**	5.5	#	-2.9	#	58.1
	1996	2.2		7.3	#	-0.4		72.7
Ireland	1997	*** 1.2	***	6.3	#	0.9		66.3
	1998[d]	*** 1.2	***	6.2	#	1.1	#	59.5
	1996	4.0		9.4		-6.7		124.0
Italy	1997	1.9		6.9	#	-2.7		121.6
	1998[d]	1.8		6.7	#	-2.5		118.1
	1996	*** 1.2	***	6.3	#	2.5	#	6.6
Luxembourg	1997	1.4		5.6	#	1.7	#	6.7
	1998[d]	1.4		5.6	#	1.0	#	7.1
	1996	1.4		6.2	#	-2.3		77.2
The Netherlands	1997	1.9		5.6	#	-1.4		72.1
	1998[d]	1.8		5.5	#	-1.6		70.0
	1996	1.8		6.3		-4.0		69.5
Austria	1997	* 1.2	*	5.7	#	-2.5		66.1
	1998[d]	* 1.1	*	5.6	#	-2.3		64.7
	1996	2.9		8.6		-3.2		65.0
Portugal	1997	1.9		6.4	#	-2.5		62.0
	1998[d]	1.8		6.2	#	-2.2	#	60.0
	1996	** 1.1	**	7.1		-3.3	#	57.6
Finland	1997	** 1.2	**	6.0	#	-0.9	#	55.8
	1998[d]	1.3		5.9	#	0.3	#	53.6
	1996	* 0.8	*	8.0		-3.5		76.7
Sweden	1997	1.8		6.6	#	-0.8		76.6
	1998[d]	1.9		6.5	#	0.5		74.1
	1996	2.5		7.9		-4.8	#	54.7
United Kingdom	1997	1.8		7.1	#	-1.9	#	53.4
	1998[d]	1.8		7.0	#	-0.6	#	52.3

Source: EMI, (1998). Convergence Report: Report required by Article 109j of the Treaty establishing the EC, p. 33.

*, **, ***: First, second, and third best performer in terms of price stability.

#: General gov. deficit not exceeding 3% of GDP; general gov. gross debt not exceeding 60% of GDP.

(a) Annual percentage changes; (b) In percentages; (c) As a percentage of GDP; (d) Twelve-month period ending January 1998 for HICP inflation and long-term interest rate; European Commission (spring 1998 forecasts) projections for general government surplus or deficit and general government gross debt.

The SGP and the ERM II, which were agreed upon at the Dublin European Council, were formally adopted at the Amsterdam European Council in June 1997.[75] Then, the Luxembourg European Council in December 1997 made clear the principles and the procedures for a higher degree of economic coordination during the third stage by a resolution on economic policy coordination.[76] In the meanwhile, the Finnish markka joined the ERM in October 1996; the Italian lira returned to the ERM in November 1996.[77]

On 3 May 1998, the Council meeting in the composition of the Heads of State and Government decided that eleven member states fulfilled the convergence criteria and can join the euro area from 1 January 1999. These countries were Austria, Belgium, France, Finland, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain. The decision was based on the convergence reports prepared by the ECB and the Commission as stated in the Maastricht Treaty.[78] Table 5 shows the compliance of the member states with the convergence criteria.

According to the Council meeting,

"Based on the European Monetary Institute and the Commission reports, the Council confirmed the positive findings of the ECOFIN Council for the eleven countries, which can be summarized as follows:

- *national legislation, including the statute of the national central bank, is compatible with the Treaty and the Statute of the ESCB, or, all the necessary steps have been taken to ensure that this is the case at the time of establishment of the ESCB, as the Treaty requires;*
- *the average rate of inflation in the year ending January 1998 was below the reference value;*
- *these countries are not subject to a Council Decision on the existence of an excessive government deficit;*
- *these countries have been members of the ERM for the last two years and their currencies have not been subject to severe tensions; the Italian lira and the Finnish*

[75] European Council, (1997b). Presidency Conclusions of the Amsterdam European Council, 16-17 June 1997.
[76] European Council, (1997c). Presidency Conclusions of the Luxembourg European Council, 12-13 December 1997.
[77] European Commission, (1999a). Commission report of 25 March 1998on progress towards convergence, COM (98) 1999 final, available at http://europa.eu/scadplus/leg/en/lvb/l25034.htm , 09.01.2005.
[78] European Council, (1998a). Council Decision of 3 May 1998 in accordance with Article 109j (4) of the Treaty, 98/317/EC, *Official Journal*, No: L 139, 11.05.1998, p.p. 30-35.

markka joined the ERM only in October and November 1996 respectively; since entry these currencies have not been subject to severe tensions;

- *in the year ending January 1998, the long term interest rates in these countries were below the reference value.*

The Council also stated that Greece and Sweden do not at this stage fulfill the necessary conditions. The Council did not assess whether the United Kingdom and Denmark fulfill the conditions given that, in accordance with the relevant Treaty provisions the United Kingdom notified the Council that it does not intend to move to the third stage of EMU on 1 January 1999, and Denmark notified the Council that it will not participate in the third stage of the EMU."[79]

Table 6: Conversion Rates between the Euro and the Euro Area Countries

Country	Old Currency	Conversion Rate
Austria	Schilling (Sch)	€1 = Sch 13.7603
Belgium	Franc (BFr)	€1 = BFr 40.3399
Finland	Markka (FM)	€1 = FM 5.94573
France	Franc (FFr)	€1 = FFr 6.55957
Germany	Deutsche Mark (DM)	€1 = DM 1.95583
Greece	Drachma (Dr)	€1 = Dr 340.75
Ireland	Punt (l£)	€1 = l£ 0.787564
Italy	Lira (L)	€1 = L 1936.27
Luxembourg	Franc (LFr)	€1 = LFr 40.3399
The Netherlands	Guilder (Fl)	€1 = Fl 2.20371
Portugal	Escudo (Es)	€1 = Es 200.482
Spain	Peseta (Pta)	€1 = Pta 166.386

Source: European Council, (1998b). Council Regulation (EC) No 2866/98 of 31 December 1998 on the conversion rates between the euro and the currencies of the Member States adopting the euro, Official Journal, No: L 359, 31.12.1998, p. 1-2.; and European Council, (2000a). Council Regulation (EC) No 1478/2000 of 19 June 2000 amending Regulation (EC) No 2866/98 on the conversion rates between the euro and the currencies of the Member States adopting the euro, Official Journal, No: L 16, 07.07.2000, p. 1.

While the establishment of the ECB on 1 June 1998, the EMI had completed its tasks. The ECB and the national central banks of the participating member states constituted the Euro-system**,** which formulates and defines the single monetary policy of the EMU.[80] On 31 December 1998, the exchange rates of the currencies of the eleven member states initially

[79] European Council, (1998c). Council of the EU, 2088th Council meeting in the composition of Head of State or Government-Brussels, 2/3 May 1998; 8170/98, C/98/124, p. 5.
[80] European Central Bank, (1999). "Monthly Bulletin February 1999", Frankfurt, p.p. 39-50.

adopting the euro were fixed irrevocably. The third stage began on 1 January 1999. The ECB became operational. The euro became the single currency replacing the ECU at the rate of one ECU for one euro.[81] The conversion rates between the euro and the currencies of the member states adopting the euro are given Table 6.

In June 2000, the Feira European Council decided that Greece had fulfilled the necessary conditions for the adoption of the single currency, and would join the euro from January 2001.[82] The rate for conversion of Greek drachma to the euro was also announced. Nevertheless, in September 2000, the Danish referendum rejected the euro area membership; but the Danish krone became a member of the ERM II. In September 2003, the Swedish referendum voted against joining the euro area.

As the Madrid scenario stated, the euro notes and coins replaced in national currencies on 1 January 2002, while each country started to withdraw national currency notes and coins from circulation. The national currencies of the participating countries were completely replaced by the euro at the end of February 2002. Thus, the member states achieved a unique monetary union, because there is no instance of a group of countries with a single currency controlled by a single central bank and a single monetary policy.

On 1 May 2004, ten new member states joined the EU[83]; and on 1 January 2007, Bulgaria and Romania joined the EU. On 1 January 2007, Slovenia joined the euro area. The other new member states will adopt the euro when they have fulfilled the convergence criteria. Today, the EMU has thirteen member countries.

[81] European Council, (1998b). op. cit.
[82] European Council, (2000b). Council Decision of 19 June 2000 in accordance with Article 122(2) of the Treaty on the adoption by Greece of the single currency on 1 January 2001, 2000/427/EC, *Official Journal*, No: L 167, 07.07.2000, p.p. 19-21.
[83] The ten new member states are Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia.

CHAPTER II

CURRENT IMPLEMENTATIONS OF THE STABILITY AND GROWTH PACT AND MONETARY POLICY STRATEGY IN THE EMU

Analyzing the historical evolution of the European monetary union proved the indispensability of real macroeconomic convergence for any economic and monetary union. As stated earlier, the European countries adopted the monetarist approach in establishing the EMU. According to this approach, establishment of the EMU could increase the degree of real macroeconomic convergence among member countries, while the economist approach emphasizes the need of economic unification before monetary union. Thus, by the Maastricht Treaty, the European countries established an economic and monetary union.

The Maastricht Treaty aims at promoting sustainable, non-inflationary economic growth with a high level of employment.[84] The Treaty is based on strict monetary and fiscal policies to achieve this objective. The preceding arrangements and the treaties constituting the EMU indicate that the price stability concept has always been the most important issue for the European economic integration. The monetary policy strategy and the SGP were designed to ensure it. In this chapter of the dissertation, the monetary policy strategy in the EMU, the implementation of ECB's the monetary policy strategy, the SGP, and the implementation of the SGP are respectively examined in order to investigate the functioning of these issues.

[84] Article 2 of the Maastricht Treaty.

2.1. MONETARY POLICY STRATEGY OF THE EMU

Articles 105 to 109 of the Maastricht Treaty refer to the monetary policy. According to these Articles, the primary objective of the ESCB is to maintain price stability.[85] In order to fulfill this requirement, the Governing Council of the ECB announced the main elements of its stability-oriented monetary policy strategy in October 1998. The strategy consists of three main elements, as a quantitative definition of price stability, and the *two pillars* of the strategy used to achieve this objective.

2.1.1. The ECB's Definition of Price Stability

Although the Maastricht Treaty established the maintenance of price stability as the primary objective of the ESCB, it does not give a precise definition of price stability. The Governing Council of the ECB decided to publish a quantitative definition of price stability. A published definition provides a clear and measurable guidance to the expectations of future price developments, helping to set up credibility of the new monetary strategy. Furthermore, it helps the ESCB, making the monetary policy strategy easier to understand, and providing a clear indication for its assessment of the success of the policy.[86] The ECB's definition of price stability is as follows:

"*price stability shall be defined as a year-on-year increase in the Harmonized Index of Consumer Prices (HICP) for the euro area of below 2 %. Price stability is to be maintained over the medium-term".*[87]

[85] Article 105 (1) of the Maastricht Treaty. The Treaty also states that the ESCB should support the general economic policies and act in accordance with principles of an open market economy.
[86] European Central Bank, (1999). op. cit., p. 46.
[87] European Central Bank, (1998). "Stability-oriented Monetary Policy Strategy for the ESCB", *ECB Press Release*, Frankfurt, 13.10.1998, http://www.ecb.int/press/pr/date/1998/html/pr981013_1.en.html, 09.01.2005.

The HICP was initially created for the assessment of price convergence in second stage of the EMU, then it began to be used in the assessment of whether price stability achieved and maintained. It is harmonized across the countries in the euro area. There is measurement bias in it, like the other consumer prices, however the Eurostat has expended considerable effort to reduce or eliminate measurement bias. The Governing Council states that decisions depend on the HICP .[88]

Nevertheless, in 2003, the Governing Council further clarified that, within the definition, it aimed at maintaining inflation rates below but close to 2 % over the medium term. Avoiding deflation is also important for the price stability objective as well as inflation. Therefore, it was decided that the inflation rates should be close to the upper boundary of the definition for minimization of the deflation risk.[89]

According to the monetary policy of the ECB, price stability is to be maintained over the medium-term. An economy can be subject to various unpredictable shocks that also affect price level. The ESCB cannot be held responsible for short-term shocks to price level; because monetary policy can only affect price developments with significant time lags. Furthermore, for some shocks such as demand shocks, monetary policy is often adequate to affect price level and to stabilize the economy. However, for some other shocks, i.e. supply-side shocks, monetary policy cannot solve the problems in short-term. Therefore, the monetary policy of the ECB aims to pursue price stability over the medium-term.[90]

[88] European Central Bank, (1999). op. cit., p.p. 46-47.
[89] European Central Bank, (2004a). "The Monetary Policy of the ECB", *ECB Press Release*, Frankfurt, p. 51.
[90] Ibid, p.p. 54-55.

2.1.2. Two Pillars of the ECB's Monetary Policy Strategy

There were two monetary policy strategy options for the ECB: monetary targeting and inflation targeting. The ultimate objective of both strategies is the price stability.[91]

In the monetary targeting approach, central banks change short-term official interest rates to speed up or slow down monetary growth for an aimed and pre-announced rate, in order to maintain price stability. One of the most famous examples for the monetary targeting strategy is the policy of the Bundesbank.[92] This strategy depends on three prerequisites. Firstly, the demand for money function should be stable over the medium term. Secondly, the targeted monetary aggregate should be controllable by the central bank, over relatively short periods of time. Thirdly, the intermediate target should be a leading indicator for inflation. The ECB did not adopt this approach because of the uncertainties about the properties of money in the euro area.[93]

In the inflation targeting approach, central banks change short-term official interest rate to react the deviations in a published inflation forecast or target. For example, the UK pursued the inflation targeting in a moderate way.[94] The ECB decided not to adopt this strategy. The ECB considered that relying on a single forecast is too risky due to a high degree of uncertainty in the euro area.

Therefore, the ECB adopted a diversified approach in order to achieve its price stability objective. The ECB's monetary policy decisions are based on analyses of the risks to price stability. These analyses are known as *two-pillar* of the ECB's monetary policy strategy which are monetary analysis and economic analysis.

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[91] De Haan, J. and Eijffinger, S.C.W., op. cit., p.55.
[92] Ibid, p .56.
[93] European Central Bank, (2004a). op. cit., p. 56.
[94] De Haan, J. and Eijffinger, S.C.W., op. cit., p.58.

2.1.2.1. The First Pillar: A Prominent Role for Money – Reference Value

The ECB's monetary strategy is broadly based on the Monetarist view. The ECB assumes that there is a strong relationship between inflation and monetary growth and that inflation is ultimately a monetary phenomenon. Therefore, it accepts money as a natural and reliable anchor for monetary policy aiming at the maintenance of price stability. Therefore, the Governing Council decided to give money a prominent role in the monetary policy strategy. [95]

In December 1998, the Governing Council announced its reference value for the broad monetary aggregate M3, in order to make assessment of monetary developments. M3 provides comprehensive assessment of liquidity and credit conditions, because of its composition. The three definitions of monetary aggregates in the Euro-system, which are narrow (M1), intermediate (M2), and broad monetary aggregate (M3), can be seen in Table 7.

Table 7: Definitions of the Euro Area Monetary Aggregates

Liabilities	**M1**	**M2**	**M3**
Currency in circulation	X	X	X
Overnight deposits	X	X	X
Deposits with agreed maturity up to 2 years		X	X
Deposits redeemable at notice up to 3 months		X	X
Repurchase agreements			X
Money market fund (MMF) shares/unit and money market paper			X
Debt securities up to 2 years			X

Source: European Central Bank, (1999). op. cit., p. 35.

The derivation of the reference value was based on the following medium-term assumptions:

- *"Price stability must be maintained according to the Euro-system's published definition, so that year-on-year increases in the HICP for the euro area are below 2 %.*

[95] Ibid, p. 62.

- *The trend of real gross domestic product (GDP) growth lies in the range 2 - 2½ % per annum.*
- *Over the medium-term, the decline in the velocity of circulation of M3 is in the approximate range ½ - 1 % each year."*[96]

Considering these values, the Governing Council decided to set its reference value for M3 growth at 4.5 % per annum.

The reference value represents a benchmark for analyzing the monetary developments in the euro area. It helps the ECB to respond to economic developments. However, the monetary policy does not react mechanically to deviations of M3 growth from the reference value. In order to take appropriate monetary policy decisions, the ECB makes monetary analysis, using the reference value, in the medium-term; hence the first pillar is also known as monetary analysis.

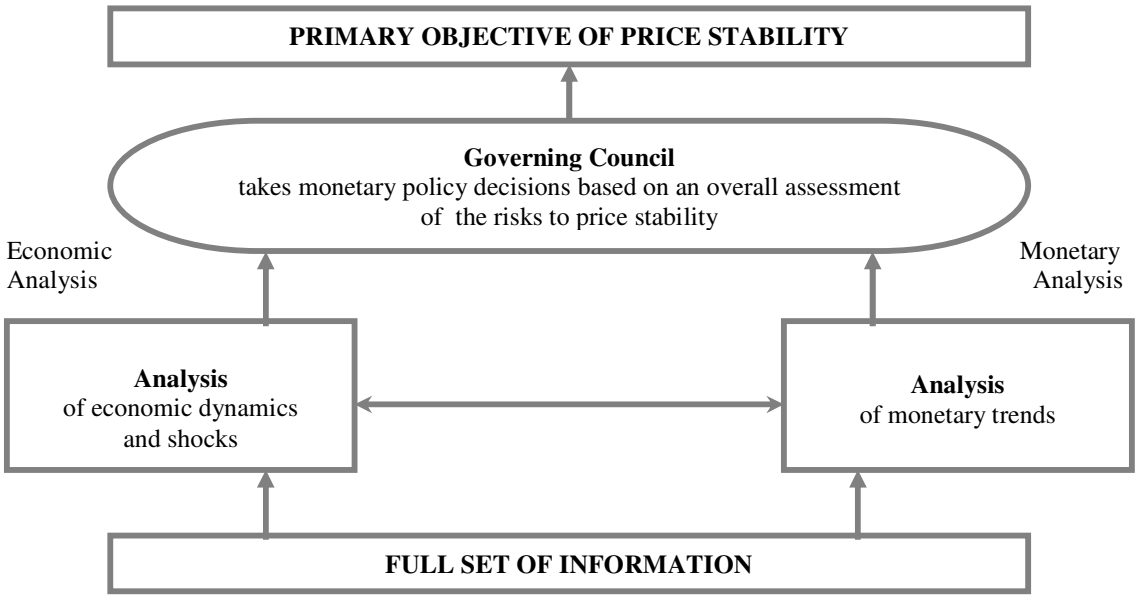
2.1.2.2. The Second Pillar: A Broadly Based Assessment of the Outlook for Price Developments

The second pillar is an economic analysis. In parallel with monetary analysis in relation to the reference value, the ECB takes into consideration a broadly based assessment of the outlook for price developments and the risks to price stability at its monetary policy decisions. This assessment is made using a wide range of economic indicators such as wages, the exchange rate, interest rates, various measures of real activity, fiscal policy indicators, price indices, and etc. All these indicators are helpful in assessing the economic activities and price developments, and also in identifying the nature of shocks hitting the economy. It is also useful to consider inflation forecasts in taking monetary policy decision. In this respect, the ECB evaluates and interprets the inflation forecasts produced by the international organizations and other institutions. It also produces its own inflation forecast.[97]

[96] European Central Bank, (1999). op. cit., p. 48.
[97] European Central Bank, (2004a). op. cit., p.p. 91-99.

The ECB's monetary strategy provides a cross-check of the information obtained from the pillars. These assessments and analyses help the Governing Council on monetary policy decisions. The Figure 1 summarizes the ECB's stability-oriented monetary policy strategy.

Figure 1: The Stability-oriented Monetary Policy Strategy of the ECB



Source: European Central Bank, (2004a). op. cit., p. 66.

2.1.3. The Instruments of the Monetary Policy in the EMU

The Euro-system has a set of monetary policy instruments in order to achieve its primary objective, which is price stability. The Euro-system conducts open market operations, offers standing facilities and requires credit institutions to hold minimum reserves on accounts with the Euro-system.[98] Table 8 summarized the monetary policy instruments.

[98] European Central Bank, (2005a). "The Implementation of Monetary Policy in the Euro Area: General Documentation on Eurosystem Monetary Policy Instruments and Procedures, Frankfurt, p. 11.

Table 8: Euro-system Monetary Policy Instruments

Monetary Policy Operations	Types of Transactions		Maturity	Frequency
	Provision of Liquidity	Absorption of Liquidity		
Open Market Operations				
Main refinancing operations	Reserve transactions	-	One week	Weekly
Longer-term refinancing operations	Reserve transactions	-	Three months	Monthly
Fine-tuning operations	Reserve transactions; Foreign exchange swaps	Reserve transactions; Collection of fixed-term deposits; Foreign exchange swaps	Non-standardised	Non-regular
	Outright purchases	Outright sales	-	Non-regular
Structural operations	Reserve transactions	Issuance of debt certificates	Standardised/ non-standardised	Regular and non-regular
	Outright purchases	Outright sales	-	Non-regular
Standing Facilities				
Marginal lending facility	Reserve transactions	-	Overnight	Access at the discretion of counterparties
Deposit facility	-	Deposits	Overnight	Access at the discretion of counterparties

Source: European Central Bank, (2005a). op. cit., p.p. 9-11.

2.1.3.1. Open Market Operations

Open market operations are the most important instruments of the monetary policy in the EMU. They play an important role in steering interest rates, managing the liquidity situation in the market and signaling the stance of monetary policy. There are five types of instruments to conduct the open market operations: reserve transaction, outright transactions, the issuance of debt certificates, foreign exchange swaps, and the collection of fixed-term deposits.[99] According to their aims, open market operations are divided into the following four categories:

- ***Main refinancing operations*** are liquidity-providing reserve transactions with a weekly frequency and a maturity of normally one week. These operations are

[99] Ibid., p.p. 7-10.

executed by the national central banks. They increase the volume of refinancing to the financial sector.

- ***Longer-term refinancing operations*** are liquidity-providing reserve transactions with a monthly frequency and a maturity of normally three months. These operations are executed by the national central banks. They aimed at providing additional longer-term refinancing.
- ***Fine-tuning operations*** are aimed at managing the liquidity situation in the market and at steering interest rates, in particular in order to smooth the effects on interest rates caused by unexpected liquidity fluctuations in the market. They are normally executed by the national central banks; however the ECB can decide to execute fine-tuning bilateral operations.
- ***Structural operations*** are carried out though the issuance of debt certificates, reserve transactions and outright transactions in order to adjust the structural position of the Euro-system vis-à-vis the financial sector. Structural operations in the form of reverse transactions and the issuance of debt instruments are executed by the national central banks. Structural operations in the form of outright transactions are carried out through bilateral procedures.[100]

2.1.3.2. Standing Facilities

Standing facilities are created to provide and absorb overnight liquidity, signal the general stance of monetary policy stance and bound overnight market interest rates. There are two types of standing facilities: marginal lending facility and deposit facility. Counterparties can use marginal lending facility to obtain overnight liquidity from the national central banks. The interest rate on the marginal lending facility normally provides a ceiling for the overnight market interest rate. Counterparties can also use the deposit facility to make overnight

[100] Ibid.

deposits with the national central banks. The interest rate on the deposit facility normally provides a floor for the overnight market interest rate.[101]

2.1.3.3. Minimum Reserve System

Minimum reserve system is applied to credit institutions in the euro area. It is intended to pursue the aims of stabilizing money market interest rates, creating or enlarging a structural liquidity shortage and possibly contributing to the control of monetary expansion. The reserve requirement of each institution is determined in relation to elements of its balance sheet. The minimum reserve system enables institutions to make use of averaging provisions. This implies that compliance with the reserve requirement is determined on the basis of the institutions' average daily reserve holdings over a one-month maintenance period. The required reserve holdings are remunerated at a level corresponding to the average interest rate over the maintenance period of the main refinancing operations of the Euro-system.[102]

2.1.3.4. Key Interest Rates

The ECB uses three key official interest rates when taking its monetary policy decisions. Firstly, the rate on the deposit facility, which banks may use to make overnight deposits with the Euro-system, provides a lower bound or floor for the daily European Overnight Inter-bank Average (EONIA) market rate. Secondly, the rate on the marginal lending facility, which offers overnight credit to banks from the Euro-system, provides an upper bound or ceiling for the daily EONIA. The third key official interest rate is the minimum bid rate in main refinancing operations, which provide the bulk of liquidity to the banking system. In a fixed rate tender, the ECB predetermines the repo interest rate, then invites bids from the commercial banks for their individual desired volumes of central bank

[101] Ibid.
[102] Ibid.

money, and finally allocates central bank money proportionally to all bidding banks in order to achieve a certain aggregate volume. Nevertheless, in a flexible rate tender, the ECB calls the commercial banks to provide bids for different combinations of interest rates and volumes, depending on a lower bound for the interest rate; then the ECB allocates central bank money to commercial banks with interest rate bids above the marginal rate, in order to achieve a certain aggregate volume.[103]

2.2. THE IMPLEMENTATION OF THE MONETARY POLICY STRATEGY

The experiences from the implementation of the monetary policy proved that the operational framework of the Euro-system has been functioning properly since the start of 1999. This facilitated the conduct of the monetary policy in the EMU.[104] However, the EMU faces some difficulties in achieving the reference values of the monetary policy strategy.

In the late 1998, the euro area inflation HICP was only 0.9 %; and inflation expectations were also low. M3 had been growing steadily at annual rates fluctuating between 4.4 % and 4.9 %. Nevertheless, the prospects for world growth had been going down because of the Asian and Russian financial crises. In early December, the NCBs decided to set their interest rate on main refinancing operations at 3 % with the rates on marginal lending and deposit facilities set at 4.5 % and 2 % respectively.[105] On 22 December 1998, the interest rates on the three main monetary policy instruments were officially announced.[106]

[103] European Central Bank, http://www.ecb.int/stats/monetary/rates/html/index.en.html, 02.01.2006.
[104] European Central Bank, (2004a). op. cit., p.p. 91-99.
[105] European Central Bank, (2000). "Annual Report 1999", Frankfurt, p.p. 8-11.
[106] The three main instruments of the monetary policy are open market operations, standing facilities, and minimum reserves. For detail see European Central Bank, (2004a). op. cit.

At the beginning of 1999, the level of nominal interest rates in the euro area was the lowest since the World War II due to stable price developments by the level of HICP at 0.8 % and to the fall in oil prices. The short-term real interest rate moved further below 2 %, which is lower level than at any time during the 1990s. In this low-inflation environment, downside risks to economic growth emerged.[107]

Oil prices started to rise from mid-February 1999, and the euro depreciated slightly in effective terms in the first few months of the year. During the same period, loans to the private sector were growing at an annual rate around 10 %; and M3 growth was clearly above the ECB's reference value of 4.5 %. Focusing solely on the short-term deviation of M3 growth from the reference value, on April 1999, the ECB reduced the interest rates. The ECB stated that the Governing Council did not regard the monetary developments in early 1999 while taking this decision because of the uncertainties such as change in the statistical reporting systems and the move to the new minimum reserve system.[108]

When taking these decisions in April 1999, the ECB did not significantly concern about potential upside risk to price stability in with some reasons. Firstly, the deviation from the reference value was not significant, and there was no condition for signaling risks to price stability as mentioned by the strategy. Second, some special factors associated with the transition to the Stage Three may explain the increase in M3 growth such as increasing liquidity preference due to uncertainties arising from the adoption of the common monetary policy. Third, HICP inflation was as low as 0.8 % from December 1998 to February 1999, creating a risk to the negative shocks to economic growth.[109] As the ECB stated, cutting interest rates was a precautionary measure against deflationary risks, and a measure to increase the growth potential of the euro area economy. These may partly help to reduce

[107] Gaspar, V., Masuch, K., and Pill, H., (2002). "The ECB's Monetary Policy Strategy: Responding to the Challenges of the Early Years of EMU". In *EMU and Economic Policy in Europe*, ed. Marco Buti, André Sapir, (2002). Chelthenham: Edward Elgar, p.p. 73-102.
[108] European Central Bank, (2000). op. cit., p.p. 89-90.
[109] Gaspar, V., Masuch, K., and Pill, H., op. cit., p. 91.

uncertainty about future economic developments and thus increase the confidence in the euro area economy.[110]

As of the summer 1999, economic growth significantly accelerated in the second half of that year and in 2000. At the same time, the global economic environment strengthened as the Asian economies started to recover, while the US economy continued to have a strong economic growth. The situations in both the supply and demand side of the oil market led to a steady arise in oil prices. In this environment, the exchange rate of the euro depreciated significantly. Both of these fed through to consumer prices. As a result, the annual HICP in the euro area increased gradually between mid-1999 and late 2000, reaching levels above 2 %. Furthermore, the annual M3 growth continued to increase significantly in late 1999 and early 2000 and eventually reached levels above 6 %.[111]

All these developments were interpreted as an indicator of emerging upward pressures on the price developments by the ECB. The ECB depended this view on the detailed analysis of M3 involving a variety of economic and econometric tools and the analysis of other economic and financial indicators under the second pillar.[112] In November 1999, the ECB decided to raise the interest rates. The aim of this decision was to prevent the liquidity from turning into upward pressures on prices, to contribute to maintaining the HICP below 2 %, to sustain non-inflationary growth, and to remove uncertainties about the monetary policy.[113] Between November 1999 and October 2000, the annual HICP reached 2.4 % mainly due to increases in oil prices and import prices. Loosening fiscal discipline in several EMU countries created upside risks to price stability. The growth rate of M3 remained above the reference value with 6.4 % in April 2000. During this period, the ECB raised the interest rates in a series of steps in order to maintain the price stability.[114]

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[110] Ibid., p. 98.
[111] European Central Bank, (2004a). op. cit., p.p. 91-99.
[112] Gaspar, V., Masuch, K., and Pill, H., op. cit., p. 99.
[113] European Central Bank, (2000). op. cit., p.p. 89-90.
[114] European Central Bank, (2001). "Annual Report 2000", Frankfurt, p.p. 10-15.

The annual HICP continued to rise in early 2001, peaking at 3.4 % in May. Wages rose and contributed to higher inflation. The ECB stated that the increase in the HICP was mainly due to rises in unprocessed food prices in a number of the euro area countries, delayed affects of past oil price rises, and the depreciation of the exchange rate of the euro. The ECB also stated that the global economy started to show signs of weaknesses in late 2000 and 2001, because of the impact of the rise in oil prices.[115]

The economic slowdown in the US became apparent by the strong decline in stock market prices, while the economic situation in Japan worsened by the end of 2000. Hence, the uncertainty about both the global growth prospects and euro area growth prospects increased. The economic slowdown continued to affect the euro area in the course of 2001. The terrorist attacks in the US on 11 September also weakened the prospects for economic growth in the euro area. As a result, the inflationary pressure was lowered through domestic demand and through wages. Nevertheless, M3 growth declined and annual M3 growth remained at levels below the reference value in 2001. Immediately after the attacks, the ECB took measures to ensure the normal functioning of the financial markets through conducting a number of open market operations. These measures stabilized money markets in the euro area. Considering these developments, the ECB decided to lower the key interest rates in May and again in August 2001 as a response for the common global shock, like the Fed and other central banks around the world, and also as a response for the lower inflationary pressures in the euro area.[116]

A further strong acceleration in M3 after 11 September was not seen as indicating upward risks to price stability but as a response by investors to heightening financial market uncertainty.[117] Indeed, this assessment was supported by the fact that annual growth of credit to private sector continued to decline. In the view of all these developments, in November

[115] Ibid.
[116] European Central Bank, (2002a). "Annual Report 2001", Frankfurt, p.p. 8-12.
[117] Ibid.

2001, the ECB reduced the key interest rates.[118] At its meeting in December 2001, considering previous monetary developments, the ECB decided that temporary deviations of M3 from the reference value in the long-term might occur in the context of extraordinary economic developments; and that strong M3 growth in late 2001 should be assessed in this light.[119]

The economic slowdown in the euro area continued in early 2002. Then, a moderate recovery of real GDP growth was experienced in the euro area. However, in the second half of 2002, the recovery lost momentum because of turbulence in financial markets and uncertainty in oil prices related to increasing geopolitical tensions in the Middle East. These factors led to renewed economic slowdown in the euro area.[120] However, the HICP remained above 2 % in 2002. The ECB stated that the higher inflation above the reference value was partly a result of the effect of adverse weather conditions on food prices and to the increases in oil prices. The ECB also saw the low degree of economic growth as a factor, which limits the potential upward risks to price stability.[121]

At the end of February 2002, the national currencies of participating countries were completely replaced by the euro; despite the member countries had 4 more months to complete the changeover. This increased the confidence in the euro and the EMU, accelerating the appreciation of the euro against the other currencies. The appreciation of the euro since the spring 2002 helped to reduce inflationary pressures, although M3 growth continued to be strong in 2002 and early 2003. In the light of all these developments, the ECB reduced the key interest rates further between December 2002 and June 2003. The aim of the ECB was to maintain inflation rate below, but close to, 2 % over the medium-term.[122]

During the second half of 2003, uncertainty in the euro area economy first declined, and then economic confidence gradually improved. The economic growth had increased

[118] Ibid. and see also European Central Bank, (2004a). op. cit., p.p. 91-99.
[119] European Central Bank, (2002a). op. cit., p.p. 8-12.
[120] European Central Bank, (2003a). "Annual Report 2002", Frankfurt, p.p. 8-13.
[121] European Central Bank, (2004a). op. cit., p.p. 91-99.
[122] Ibid.

since the mid-2003 and strengthened further in 2004, benefiting from strong global economic growth. In the second half of 2003, the annual HICP rate did not fall quickly as expected. The ECB attributed this situation to the adverse food price developments and the higher than expected oil prices. However, as the ECB aimed, the annual HICP stood at 1.9 % in January 2004. M3 growth moderated slowly during the second half of 2003. The ECB assessed the monetary policy stance as being appropriate to maintain price stability over the medium-term, and decided to keep the key interest rates unchanged during this period.[123]

The real GDP grew by 2.0 % in 2004, up from 0.6 % in 2003 and 0.9 % in 2002. However, domestic inflationary pressures remained contained. The ECB stated that inflation rates in 2004 were significantly affected by increases in direct taxes and oil prices. The annual HICP inflation rate in 2004 was 2.1 %, which is same as the previous year. The annual M3 growth in the first half of 2004 continued to downward trend, which began in mid-2003. The annual M3 growth strengthened again in the second half of 2004, standing at 6.4 % at the end of the year. However, the ECB did not assess this as an inflationary pressure, considering the increase in the real GDP growth rate. In the view of these developments, the ECB kept the key interest rates unchanged throughout 2004 at the lowest levels. The ECB stressed that a number of upside risks to price stability over the medium-term required continued observation.[124]

Economic growth in the euro area moderated in the second half of 2004 and the first half of 2005 because of rising oil prices, temporary global slowdown and the lagged effects of the past appreciation of the euro. By the second half of 2005, economic growth started to increase again due to the strong growth of global demand, increasing corporate earnings and favourable financial conditions. The real GDP rose by 1.4 % in 2005. The annual HICP was 2.2 % in 2005. Commission stated that upside risk continued to prevail resulting from higher oil prices. Against these developments, the key interest rates remained unchanged for most of the year. However, the inflation projections were revised upwards during the year because of

[123] European Central Bank, (2004b). "Annual Report 2003", Frankfurt, p.p. 16-21.
[124] European Central Bank, (2005b). "Annual Report 2004", Frankfurt, p.p. 16-18.

rising oil prices. The ECB has increased the key interest rates six times since December 2005 due to the inflationary pressures, which are caused from economic recovery and high oil prices.[125]

2.3. LESSONS FROM THE IMPLEMENTATION OF THE MONETARY POLICY STRATEGY

In the early years of the EMU, there was a very challenging economic environment to conduct the single monetary policy. Both the European economy and the world economy faced different shocks and developments, which significantly affected inflation rates; for example increase in oil prices, Asian and Russian financial crises, a significant depreciation of the exchange rate of the euro between 1999 and 2002, a significant appreciation of the exchange rate of the Euro from the beginning of June 2002, and the increase in food prices. In this economic environment, it was difficult to maintain price stability in both the short-term and the medium-term. Therefore, implementation of the monetary policy strategy was more important during this period than ever.

Implementation of the monetary policy strategy revealed that the transition to the common monetary policy has been successful; and that the operational part of the strategy has been working well. Since the introduction of the euro, inflation expectations have been low and stable; and fluctuations in the main macroeconomic variables has reduced. Therefore, there is no doubt that price stability is maintained in the euro area.

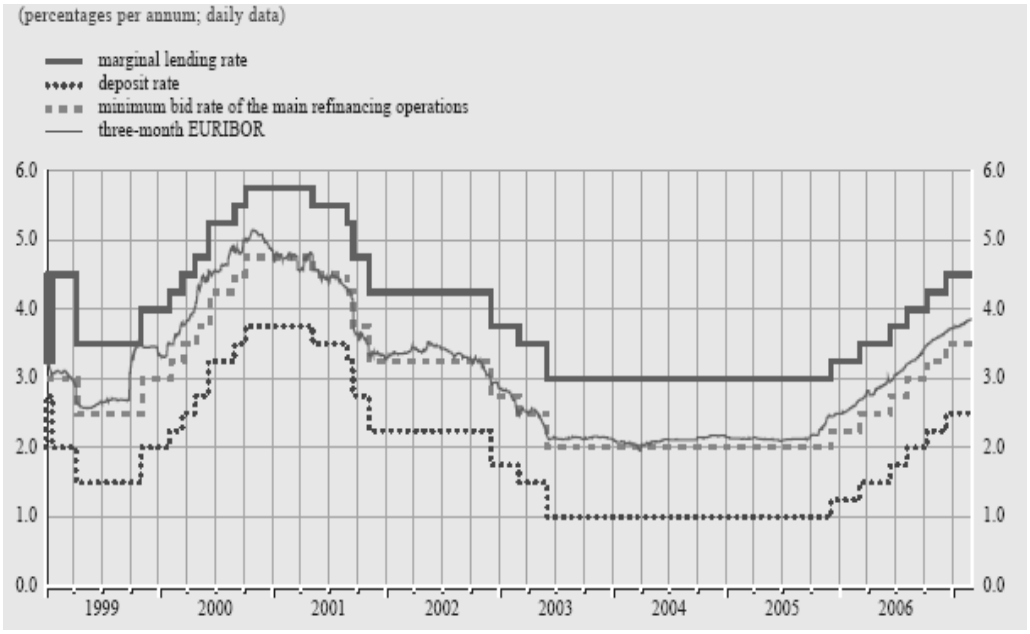
However, implementation also revealed that the ECB's monetary policy strategy and its implementation are more complex than alternative monetary policy strategies, and that

[125] European Central Bank, (2006a). "Annual Report 2005", Frankfurt, p.p. 18-21.

there are some problems with the design of the monetary policy strategy. Firstly, the strategy is not clear in some respects. The ECB does not define the concept of medium-term. The part of 2.2., which is titled as implementation of the monetary policy, showed that the annual HICP exceed the reference value many times, and that price increases above 2 % are attributed to some external factors, such as increasing oil prices, global economic slowdown and depreciation of the euro, by the ECB. Therefore, the strategy does not make it possible to assess exactly whether the price stability objective is met or not.

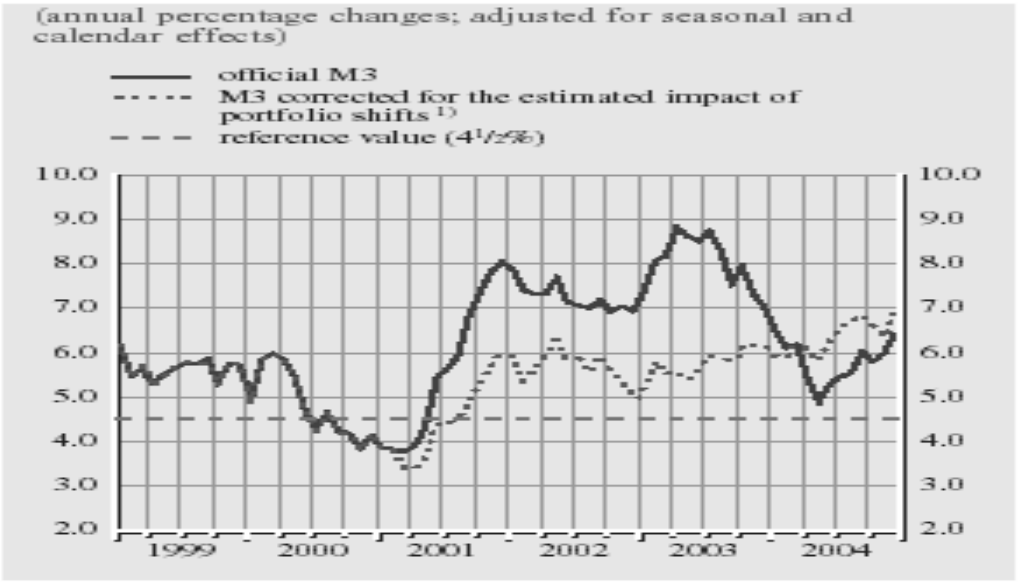
Secondly, the strategy has a credibility problem. The Figure 2 shows the ECB's interest rate decisions since the start of the EMU. Figure 3, 4 and 5 show M3 growth and the annual HICP inflation respectively. As it can be seen from the Figures, the ECB's interest rate decisions did not mechanically follow the deviations of M3 growth from the ECB reference value and the deviations of inflation projections from the ECB's definition of price stability, in accordance with its two-pillar monetary policy strategy. The ECB took its decisions according to the economic and monetary analysis. Despite the M3 growth was clearly above the ECB's reference value of 4.5 % from the beginning of the EMU, the average annual rate of HICP inflation in the euro area exceed the ECB's reference value of 2 %, by only 0.4 percentage points at most. Although the ECB's the monetary policy decisions maintain the price stability, M3 growth and HICP inflation had been above the reference values many times in the early years of the EMU. Breaching the reference values is the main difficulty with the implementation of the monetary policy within the EMU, because it may creates credibility problem and therefore instability in financial markets. Therefore, a further revision is necessary in order to make the strategy more clear and to eliminate the credibility problem.

Figure 2: ECB Interest Rates and Money Market Rates



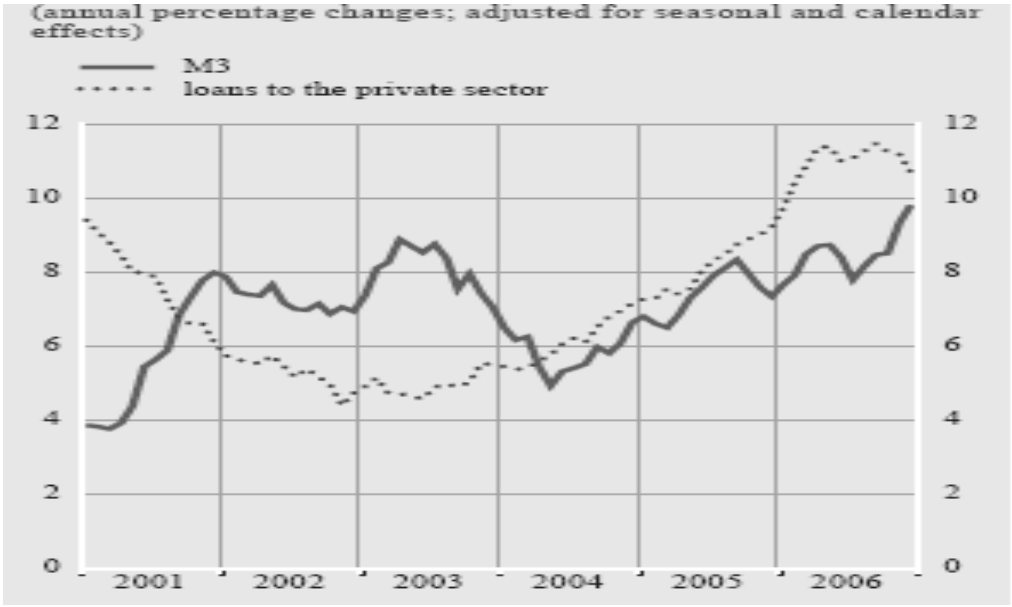
Source: European Central Bank (2007). "Annual Report 2006", Frankfurt, p. 16.

Figure 3: M3 and M3 Corrected for the Estimated Impact of Portfolio Shifts



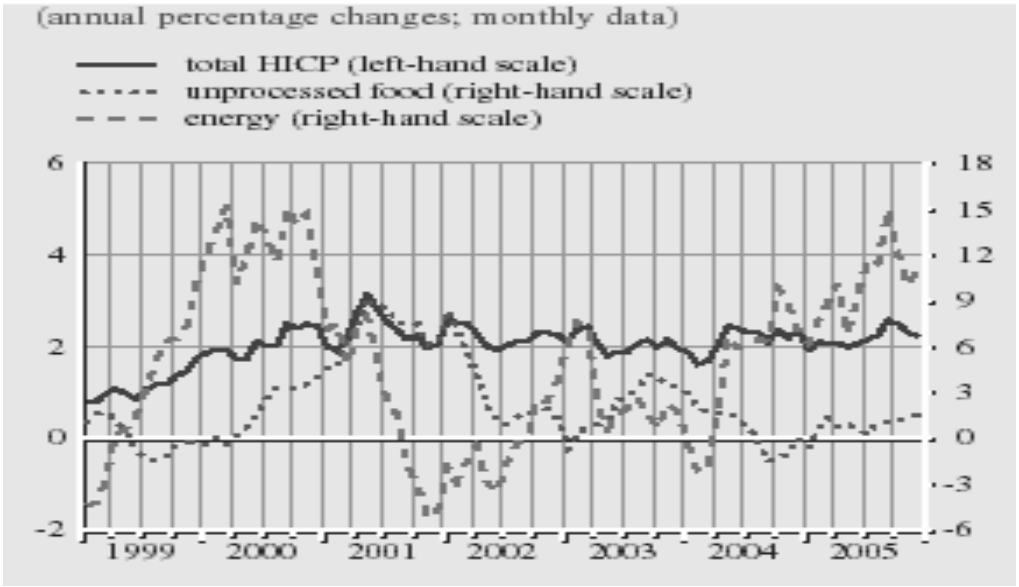
Source: European Central Bank (2005b). op. cit., p. 23.

Figure 4: M3 and Loans to the Private Sector



Source: European Central Bank (2007). op. cit., p. 26.

Figure 5: Harmonized Index of Consumer Prices (HICP) Inflation



Source: European Central Bank, (2006a). op. cit., p. 50.

2.4. THE STABILITY AND GROWTH PACT

The stability-oriented economic policy perspective has taken root in the European economies through the EMS and then the convergence criteria of the Maastricht Treaty. The member states have tried to maintain price stability with economic growth and a high level of employment by creating a higher degree of economic integration. However, in many member states, the general government deficits widened and the government debt rose correspondingly throughout the early 1990s. The reasons were various; but most of them were domestic such as lax spending habits, and misguided employment policies based on the Keynesian view, etc.[126] Expansionary fiscal policies and adverse financial circumstances had negative effects on price stability, growth, and employment.

At the beginning, eleven member countries could only satisfy the price stability and interest rate criteria. Until 1996, most of these countries' fiscal positions were still far from the acceptable values for the fiscal criteria; and there were only two countries, Germany and Luxembourg fulfilled the fiscal criteria of the Treaty.[127] Nevertheless, due to fiscal criteria of the Maastricht Treaty, the general government deficit for the euro area fell by 3.5 percentage points of GDP between 1993 and 1997.[128] Since, the convergence criteria could not be able to solve the fiscal problems of the euro area; the member states needed a new system to maintain sound fiscal policy.

At a conference in London in May 1995, German authorities suggested an additional agreement on government budget provisions for the participating member states in the EMU.[129] They argued that the member states should agree among themselves to establish

[126] Stark, J., (2001). "Genesis of a Pact". In *The Stability and Growth Pact: The Architecture of Fiscal Policy in EMU*, ed. Anne Brunila, Marco Buti, Daniele Franco, p.p. 77-105, London: Palgrave.
[127] European Monetary Institute, (1996). *Progress Towards Convergence – 1996*, Frankfurt, p. IV.
[128] European Commission, (2000a). "Public Finance in EMU: 2000", *European Economy*, Reports and Studies, no: 3, Brussels, p.p. 11-15.
[129] The supplementary agreement proposed by the German authorities was under the name *fiscal policy Schengen agreement.*

additional commitments and regulations in order to maintain sound fiscal policy. The rationale behind this suggestion was to prevent the monetary policy of the ECB from unsound fiscal policy practices, to prevent the member states from falling back into their old fiscal positions in the absence of binding rules, and to ease the potential conflict between a single monetary policy and decentralized fiscal policies. According to the German authorities, there were two vital requirements: first, more restrictive budgetary targets should be intended to ensure that the deficit ceiling of 3 percentage points of GDP was not violated during any stage of the business cycle; and second, more stringent and automatic sanctions should be applied in the case that the rules are violated.[130]

The German Federal Ministry of Finance prepared a draft document of the rules to protect the EMU against unsound fiscal policies of individual member states. It was stated that the member states participating in euro area were expected to sign a Stability Pact for Europe and this required no amendment to the Maastricht Treaty. The detailed proposal was sent to the ECOFIN in November 1995. The Pact depends on four main principles: budgetary discipline, establishment of an early warning system, mechanism for the automatic imposition of sanctions, and formation of a European Stability Council within the ECOFIN Council.[131]

At the Madrid European Council in December 1995, the significance of the budgetary discipline was highlighted, and the ECOFIN was assigned to prepare a report on this issue.[132] The work on report was supported by the Commission. The report was entitled Towards a Stability Pact. It was presented at the Dublin European Council in December 1996. The German proposal found widespread support, however a number of critical issues rose such as an appropriate target for budget positions and degree of its strictness. The alternatives under consideration were differentiating medium-term target specifications according to country, establishing medium-term target variable for the entire EU, and a target value for the stock of government debt. Nevertheless, the debates focused on the Excessive Deficit Procedure

[130] Stark, J., op. cit.
[131] Ibid.
[132] European Commission, (1995a). op. cit.

(EDP).[133] The consensus on the agreement known as the Stability and Growth Pact (SGP) was reached at the European Dublin Council. The SGP was accepted by the Amsterdam European Council in June 1997. The multilateral surveillance procedure and the EDP entered into force in 1 July 1998 and 1 January 1999, respectively.

Briefly, the principal concerns of the SGP are the implementation of fiscal rules within the EMU, and maintenance of sound public finance as a means to ensuring the conditions for price stability with sustainable growth in the absence of the exchange rate instrument in the EMU. There are two main elements of the SGP.

2.4.1. The Main Elements of the SGP

The Maastricht Treaty prescribes only quantitative criteria for the adoption of the euro; however it does not provide any definition of a budgetary policy to be conducted after the transition to the third stage of the EMU. Considering this, the EU member states decided that the establishment of the SGP, which is in keeping with the principles specified in the Treaty and extends its provisions, the Articles 99 ad 104, was necessary.

The SGP was constituted by two regulations and a European Council Resolution, which are largely based on the Commission's proposal. One of the regulations is on the strengthening of surveillance and budgetary discipline, which is prevention aspect. The other regulation is on speeding up and clarifying the implementation of the excessive deficit procedure, which is punitive aspect. These procedures are to apply to all EU member states. The European Council Resolution provides political guidance for the implementation of the

[133] Stark, J., op. cit.

SGP.[134] The SGP based on primarily two pillars: the principle of multilateral surveillance of budgetary position, and the EDP. Additionally, the broad economic policy guidelines (BEPGs) contribute to the implementation of the SGP.

2.4.1.1. The Multilateral Surveillance

The multilateral surveillance of budgetary positions, which is the first pillar of the SGP, was designed by the Article 99 of the Maastricht Treaty and the Council Regulation 1466/97 in order to monitor the budgetary positions of the member states and to the coordinate their economic policies, by taking preventive measures. It provides an early-warning to a member state in order to prevent the occurrence of an excessive deficit, and gives a recommendation to the member states concerned to take the necessary adjustment measures. For this purpose, the related Regulation provides the Stability and Convergence Programmes.[135]

The member states participating to the euro area have to summit the Stability Programme to the Council and the Commission; and the other member states have to summit the Convergence Programmes to the Council and the Commission. All the Programmes should present following information:

- *"the medium-term objective for the budgetary position of close to balance or in surplus and the adjustment path towards this objective for the general government surplus/deficit and the expected path of the general government debt ratio;*
- *the main assumptions about expected economic developments and important economic variables which are relevant to the realization of the stability programme such as government investment expenditure, real GDP growth, employment and inflation;*
- *a description of budgetary and other economic policy measures being taken and/or proposed to achieve the objectives of the programme, and, in the case of the main budgetary measures, an assessment of their quantitative effects on the budget;*

[134] European Council, (1997d). Resolution of the European Council on the Stability and Growth Pact, Amsterdam of 17 June 1997, *Official Journal,* No: C 236, 02.08.1997, p. 1. The parties who are responsible for implementation of the SGP are the Commission, the member states, and the Council.
[135] European Council, (1997e). Council Regulation (EC) 1466/97 of 7 July 1997, *Official Journal,* No: L 209, 02.08.1997, p.p. 1-5.

- *an analysis of how changes in the main economic assumptions would affect the budgetary and debt position."*[136]

Nevertheless, the Convergence Programmes should present also *"the medium-term monetary policy objectives; the relationship of those objectives to price and exchange rate stability"*.[137] The programmes have to cover the current and the preceding year, at least the following three years, and have to be updated each year.

The programmes are examined by the Council within at most two months of its submission. The Council assesses the programmes whether the medium-term budget objective in the programme can ensure the avoidance of an excessive deficit; whether the economic assumptions are realistic; and whether the measures taken or proposed can ensure to achieve the medium-term budgetary objective. In addition, the Council assesses whether the measures taken or proposed can ensure to achieve sustained convergence for the convergence programmes. The Council delivers its opinion on the programmes.[138] The Council forms its assessment and opinion by consulting the Economic and Financial Committee and depending on the Commission's recommendation.

The Council monitors the implementations of the programmes. If the Council determines a significant divergence of the budgetary position from the medium-term objective, or the adjustment path towards it, the Council makes a recommendation to the member state concerned to take the necessary adjustment measures. If the divergence persists or worsens, the Council makes another recommendation to the member state, but this time may make its recommendation public. In addition, the Council has to ensure that the non-participating member states follow appropriate monetary policies to maintain stability, and avoid real exchange-rate misalignments and excessive nominal exchange-rate fluctuations.[139]

[136] Ibid.
[137] Ibid.
[138] Ibid. The Council may request the member states to adjust their programmes.
[139] Ibid.

Furthermore, the Regulation also provides for overall assessments, which are known as BEPGs. The Council assesses whether the content of the stability and convergence programmes facilitates closer coordination of economic polices and whether the member states are consistent with the BEPGs.[140]

a) The Criteria Used by the Commission in Deciding to Activate the Early-Warning Mechanism

The SGP does not define clearly the significant divergence from the budgetary targets or the conditions under which the early-warning mechanism is to be activated. The Commission takes into following three factors in order to ensure consistency across the member states:

- the size of the budgetary slippage, such as the divergence from the budgetary position targets set down stability and convergence programmes;
- the reason for the budgetary slippage, such as cyclically or discretionary factors;
- the risk of an excessive deficit position, such as a risk of breaching the 3 % of GDP reference value.[141]

2.4.1.2. The Excessive Deficit Procedure (EDP)

The Article 104c of the Maastricht Treaty and the related protocol established the EDP in order to determine excessive general government deficits and to ensure their prompt correction if they occur.[142] The Council Regulation 1467/97 provides a clarification on how to

[140] Ibid.
[141] European Commission, (2002a). "Public Finance in EMU: 2002", *European Economy*, Reports and Studies, no: 3, Brussels, p.47.
[142] European Council, (1992). Protocol on the Excessive Deficit Procedure, *Official Journal of the European Communities*, No: C 191, 29.07.1992., p. 84.

implement Article 104c, and also provides precise deadlines for the different steps of the procedure.[143]

c) Identifying the Excessive Deficit

According to the Article 104c and the Protocol on the EDP, a government deficit exceeding the reference value of 3 % of GDP is excessive deficit and not subject to sanctions, when the excess over 3 % is only exceptional and temporary and the ratio remains close to the reference value.[144] However, the Treaty does not provide a precise definition of these concepts, exceptional and temporary and the ratio remains close to the reference value. The Regulation 1467/97 clarifies the concepts of exceptional and temporary. Such deficits can be considered as exceptional and temporary and not subject to sanctions, when it is caused by an unusual event outside the control of the member state and has a major impact on the financial position of the general government, and when it is caused by a severe economic downturn. Here, the concept of downturn is defined as an annual fall of real GDP of at least 2 %. If the annual fall of the real GDP is between 0.75 % and 2 %, then the Council may use discretion at its assessment on the decision of excessive deficit by taking in to account other factors.[145] However, the Regulation does not clarify the concept of close to the reference value.

When a member state's deficit exceeds 3 % percent of GDP or there is such a risk, the Commission has to prepare a report which initials the EDP. This report is sent to the Economic and Financial Committee for opinion. The Commission makes its assessment based on this opinion. If it considers that the deficit is indeed excessive, the Commission will make a recommendation to the Council. If the Council decides that deficit is excessive, it will send a recommendation to the member state and establish a deadline of four months for effective corrective action to be taken. [146] If the Council decides that no effective action has

[143] European Council, (1997f). Council Regulation (EC) 1467/97 of 7 July 1997, *Official Journal,* No: L 209, 02.08.1997, p.p. 6-11.
[144] Government deficit or surplus means the net borrowing or net lending of general government (central government + local government + social security funds). Commercial operations are excluded.
[145] European Council, (1997f). op. cit.
[146] European Council, (1997d). op. cit.

been taken, it will give a notice to the member state within one month, and determine a time limit for the member states to take corrective action. If the member state fails to comply with the Council's decisions before the deadline set out in the notice, sanctions will be imposed within two months. Nevertheless, the procedure can be stopped when the Council considers that effective actions have been taken. However, if the effective action taken by the member state are not implemented or considered insufficient, the procedure is activated.[147]

d) Application of Sanctions

The imposition of sanctions is a very serious decision for the Council to take. Neither the Maastricht Treaty nor the SGP foresee that sanctions can be imposed automatically.[148] However, the Regulation arranges the application of sanctions.

If the Council decides to impose a sanction, a non-interest-bearing deposit required from the member state concerned. The mount of the deposit is calculated according to the rule *deposit in per cent of GDP* = 0.2 + 0.1 × *(deficit* – 3 *per cent GDP)*. Each following year, until the decision on the existence of an excessive deficit is abrogated, the Council assess whether the member state has taken action to correct excessive deficit. In these annual assessments, the Council may decide to intensify the sanctions by requiring an additional deposit. However, any single deposit cannot exceed the upper limit of 0.5 % of GDP. A deposit is, as a rule, converted into a fine, if according to the view of the Council, the excessive deficit has not been corrected two years after. Nevertheless, the amount of sanctions can be calculated only when the excessive deficit results from the non-compliance with the deficit ratio criterion. In the case of the non-compliance with the debt ratio criterion, no sanction can be applied. The earnings of sanctions are distributed among the member

[147] European Council, (1997f). op. cit.
[148] Cabral, A. J., (2001). "Main Aspects of the Working of the SGP". In *The Stability and Growth Pact: The Architecture of Fiscal Policy in EMU*, ed. Anne Brunila, Marco Buti, Daniele Franco, London: Palgrave, 2001, p.p. 139-157.

states without an excessive deficit in proportion to their share in the total GDP of eligible member states.[149]

The Council may decide to abrogate the sanctions, depending on the progress made by the member state. The Council can abrogate all outstanding sanctions when the decision on the existence of an excessive deficit is itself abrogated. However, the fines already imposed cannot be reimbursed.[150]

2.4.2. Revisions and Modifications in the SGP

In the early years of the SGP, the Commission stated that as budget balances in most of the EU countries approach to a position of close to balance or in surplus, sustaining this position and an effective monitoring system will be important. It also stated that there are three emerging and related challenges in the implementation of the SGP, and provides recommendations to cope with these challenges.[151]

Firstly, the assessment of the budgetary positions is difficult, especially in a high growth environment. When growth forecasts are higher than what was assumed in the stability and convergence programmes, the targeted actual budget balances will become quickly outdated. If high growth rates actually materialize, the member countries could spend the budgetary gains of growth rather than pursuing deficit reductions. Therefore, stability and convergence programmes should take into consideration the growth conditions, which imply an examination of cyclically adjusted budget balances. The member countries should based their budget plans on these growth assumption and budget projections.[152]

[149] European Council, (1997f). op. cit.
[150] Ibid.
[151] European Commission, (2000a). op. cit., p. 57.
[152] Ibid., p.p.57-58.

Secondly, as budgets approach balanced positions, there will be more scope for cutting taxes. It is important to assess whether a member country has the capacity to safely cut taxes without endangering the SGP commitments. The Commission states that four criteria, which were endorsed by the ECOFIN Council of 28 February 2000, should guide policy decisions. The member countries should comply with the close to balance rule. Tax cuts must not be pro-cyclical to avoid inflationary pressures. The member countries should not have uncompensated tax cuts before they ensured their target levels of public debt and long-term sustainability of public finances. Tax reductions should form a part of a comprehensive reform package to boost substantially output and employment.[153]

Finally, it is important to identify significant divergences from the medium-term budgetary targets in order to ensure continued public confidence in the SGP.[154] The SGP does not provide an operational guidance to identify it. The Commission recommends taking into account the following elements. Firstly, both the ex-post budget out-turns and ex-ante, planed budgetary positions should be subject to monitoring. Secondly, cyclically adjusted developments should be taken into account in monitoring divergences in budget balances. While deviations from targets due to the operation of automatic stabilizers are allowed under the SGP, structural deterioration in the budget balance should be avoided. Thirdly, the size of allowed deviation should be related to the distance between the 3 % ceiling and close to balance target.[155]

In July 2001, the ECOFIN Council revised the code of conduct on the content and presentation of stability and convergence programmes, taking into account the experiences of three years in the EMU. Initially, the code of conduct was endorsed by the ECOFIN Council in October 1998 in order to ensure the smooth functioning of the SGP. The main changes to the 1998 code of conduct can be summarized as follows: Firstly, the new code of conduct provides for a clustered submission of programmes in a standardized format and with

[153] Ibid.
[154] European Council, (1997e). op. cit., Articles 6 and 10.
[155] European Commission, (2000a). op. cit., p. 59.

budgetary targets. The budgetary targets base on external macroeconomic assumptions, which have been agreed in common. Secondly, the new code of conduct also clarified the medium-term target of close to balance or in surplus for each member state. According to the code, it should ensure a rapid decline in high debt ratios, while respecting the government deficit reference value. The medium-term should be interpreted over the length of the economic cycle. The code underlined the importance of the cyclically-adjusted budget positions in assessing compliance of the member states with the medium-term budget targets set down in their programmes; and provided a new method to measure cyclically-adjusted budget positions based on a production function approach to estimating the output gap.[156] Thirdly, it extended the coverage of programmes to include information on the quality and sustainability of public finances as requested by the Lisbon Strategy. It includes long-term budgetary projections on the implications of ageing populations.[157]

A debate began on the SGP in 2002, due to the problems of some member states with achieving their budgetary targets. In March 2003, the European Council endorsed a report of the ECOFIN Council, which shared many of the Commission's proposals on strengthening the coordination of budgetary policies. The Council confirmed the provision on close to balance or in surplus position, and agreed that compliance with this provision should be assessed in cyclically-adjusted terms. The EMU countries with deficits should achieve an annual improvement in the cyclically-adjusted budget deficit of at least 0.5 % of GDP until the close to balance or in surplus requirement is reached. The automatic stabilizers should work symmetrically over the economic cycle; and pro-cyclical fiscal policies should be avoided. The Council also confirmed that the public debts should go down at a satisfactory pace towards the 60 % of GDP reference value, and stated that long-term sustainability of debts should be more important in the surveillance of budgetary positions. More attention is necessary for the public finance in order to promote economic growth. Therefore, the

[156] The previous method was Hodrick-Prescott (HP) filter.
[157] Economic and Fiscal Committee of the EC (2001). "Code of Conduct, Opinion on the Content and Format of Stability and Convergence Programmes", Brussels.

compositions of planned budgets should be examined with respect to its contribution to growth and employment.[158]

The debate on the SGP enhanced after the decision of the Court of Justice of the European Communities on 13 July 2004, which concerns the excessive deficit procedures initiated against Germany and France. On 3 September 2004, the Commission adopted a communication to strengthen economic governance and clarify the implementation of the SGP. The document stated that sound public finance is essential for sustainable economic growth. It stressed that excessive deficits should be avoided and quickly corrected. It also stressed that in an enlarged EU, the existing provisions can be made more effective by taking into account the differences between the economic situations of the member states. The document intends to ensure more flexibility for implementation of the SGP, and includes three recommendations to improve implementation of the SGP.[159]

Firstly, the Commission clarified the basis for assessing the satisfactory pace of debt reduction, which was mandated by the Article 104b of the Maastricht Treaty. The member states need to bring their debt levels back, considering the demographic ageing. The member states' initial debt levels and their potential growth levels should be considered in annual assessments.[160]

Secondly, the Commission stated that a medium-term budgetary objective can be based on current debt levels, taking into account the other factors such as potential economic growth, inflation, the impact of structural reforms etc. Medium-term budgetary objectives are designed to provide sufficient room for manoeuvre during an economic slowdown without using pro-cyclical fiscal policy.[161]

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[158] European Commission, (2003a). "Public Finance in EMU: 2003", *European Economy*, Reports and Studies, No: 3, Brussels, p.p. 57-58.
[159] European Commission, (2004a). Communication from the Commission to the Council and the European Parliament – Strengthening economic governance and clarifying the implementation of the Stability and Growth Pact, COM/2004/0581 final.
[160] Ibid.
[161] Ibid.

Thirdly, the Commission proposed considering economic circumstances and developments in the implementation of the EDP. This could be done through mainly two ways. The case of slow but still positive economic growth is not fully considered in the current framework. The exceptional circumstances clause could be improved through redefining the adjustment path once a country breaches the 3 % reference value for the deficit. According to the Council Regulation 1467/97, a member state which breaches the 3 % deficit to GDP ratio has to correct it in the year following its identification unless there are special circumstances. The Regulation does not consider the differences between the countries. Therefore, allowing for country-specific elements in the enforcement of the correction of excessive deficits is another solution.[162]

At the European Council meeting on 22 and 23 March 2005, the report of the ECOFIN Council entitled as Improving the Implementation of the Stability and Growth Pact, was endorsed. The report updates and complements the SGP. In the report, the Council gave consideration to enhancing the governance and the national ownership of the fiscal framework, to strengthening the economy and the effectiveness of the SGP, to safeguarding the sustainability of public finances in the long run, to promoting growth, and to avoiding excessive burdens on future generations.[163] At the same meeting, the Commission was invited to draw up proposals amending the Council Regulations 1466/97 and 1467/97 in accordance with this report.[164]

By the Council Regulation 1055/2005 amending Council Regulation 1466/97, the following *Article 2a* was inserted:

"Each member state shall have a differentiated medium-term objective for its budgetary position. These country-specific medium-term budgetary objectives may diverge from the requirement of a close to balance or in surplus position. They shall provide a safety margin with respect to the 3 % of GDP government deficit ratio; they shall ensure rapid

[162] Ibid.
[163] European Council, (2005a). "The Council Report to the European Council, Improving the Implementation of the Stability and Growth Pact", Brussels, 20 March 2005.
[164] European Council, (2005b). Brussels European Council Presidency Conclusions, 22-23 March 2005.

progress towards sustainability and, taking this into account, they shall allow room for budgetary manoeuvre, considering in particular the needs for public investment.

Taking these factors into account, for member states that have adopted the euro and for ERM2 member states the country-specific medium-term budgetary objectives shall be specified within a defined range between – 1 % of GDP and balance or surplus, in cyclically-adjusted terms, net of one-off and temporary measures.

A member state's medium-term budgetary objective can be revised when a major structural reform is implemented and in any case every four years."[165]

The other amendments in this proposal are related to the adjustment path toward the medium-term budgetary objectives. In its assessment, the Council should consider whether the member state pursues a minimum annual improvement of its cyclically-adjusted balance and whether a larger improvement is pursued in economic good times. The Council should also consider the implementation of major structural reforms, which have direct long-term cost-saving effects, such as raising growth, and long-term sustainability of public finances.[166]

By the Council Regulation 1056/2005 amending Council Regulation 1467/97, the Commission and the Council should take into account the following factors in their assessment on the existence of an excessive deficit: the excess over the reference value resulting from a negative growth rate or an accumulated loss of output during a period of very low growth relative to potential growth; developments in the medium-term economic and budgetary position.[167]

According to the other changes in the Regulation, the Council should decide on the existence of an excessive deficit within two months of the adoption by the Commission of a report. The Council recommendation should establish a deadline of six months at the most for effective action to be taken by the member states with excessive deficit. It should also

[165] European Council, (2005c). Council Regulation (EC) No 1055/2005 amending Regulation (EC) No 1466/97 on the strengthening of the surveillance of budgetary positions and the surveillance and coordination of economic policies, Brussels, *Official Journal,* No: L 174,07.07.2005, p.p. 1-4.
[166] Ibid.
[167] European Council, (2005d). Council Regulation (EC) No 1056/2005 amending Regulation (EC) No 1467/97 on speeding up and clarifying the implementation of the excessive deficit procedure, Brussels, *Official Journal,* No: L 174, 07.07.2005, p.p. 5-9.

establish a deadline for the correction of the excessive deficit. The correction should be completed in the year following its identification unless there are special circumstances. In its recommendation, the Council should request that the member state achieves a minimum annual improvement in the cyclically-adjusted balance. Then, the Council may decide to adopt a revised recommendation by assessing the existence of unexpected adverse economic events with unfavourable effects on government finances. The revised recommendation may extend the deadline for the correction. The Council should give notice to the member state within two months of its decision on that no effective action has been taken. The Council may also give a revised notice to the member state, in order to extend the deadline for the correction. Finally, the decision of the Council to impose should be taken within fourteen months of the adoption by the Commission of a report.[168]

2.5. THE IMPLEMENTATION OF THE STABILITY AND GROWTH PACT

The SGP entered into force on 1 January 1999 to strengthen the provisions of the Maastricht Treaty on budgetary discipline. The member countries should achieve and maintain medium-term budget positions that are close to balance or in surplus as the SGP set out. The SGP has been implemented since the beginning of 1999.

BEPGs in 1999 and 2000 contained the recommendations to take advantage of better than expected growth to achieve budgetary positions close to balance or in surplus no later than by the end of 2002. All member states improved their actual budgetary positions compared with 1999. In particular, deficits in Austria, Belgium and Spain reduced substantially, while surpluses in Ireland and Finland increased. Three EU countries remaining outside the euro area recorded substantial surpluses. A better than expected fiscal position in

[168] Ibid.

2000 was mainly the result of higher economic growth in 2000, which boosted tax revenues while expenditures remain broadly unchanged.[169]

However, it is also necessary to look at the cyclically-adjusted primary balance (CAPB). The CAPB did not improve significantly in 2000 compared with 1999. In fact, it deteriorated in many member countries, especially in Germany, France and Italy. This indicates that they did not use favourable growth conditions to improve budgetary positions.[170] In spite of the significant improvement in government balances, the debt ratio was still above 72 % of the GDP in 1999. The speed of debt reduction was fastest in Belgium, Ireland and the Netherlands; whereas the debt ratios in Germany, Austria, and Portugal increased considerably. In the EU countries remaining outside the euro area, the debt ratios decreased, especially in Sweden.[171]

The EMU countries' budget positions deteriorated in 2001 for the first time since 1993 due to a global slowdown in 2001. All EU countries, except Austria, experienced considerable fiscal expansions, which are larger than those of a year earlier. The member states, which had already achieved budgetary balance or surplus, let the automatic stabilizers operate in order to cope with the slowdown. The automatic stabilizers were also allowed to operate in countries, which had not yet achieved the close to balance target. As a result, budget deficits in Germany and Portugal started to increase and approach to the reference value of 3 % of GDP; and the budget positions of France and Italy remained weaker than the other EU countries. In this period, the fiscal authorities were under a considerable pressure to relax the fiscal policies and to use expansionary fiscal policies in response to the slowdown. However, the actual budget positions were unchanged in Belgium, Denmark and Italy, while improved in Greece, Spain, Austria and Sweden. The deterioration in the actual budget positions may be largely explained by the working of the automatic stabilizers in a period of slow growth. But, the

[169] European Commission, (2001a). "Public Finance in EMU: 2001", *European Economy Reports and Studies*, No: 3, Brussels, p. 11.
[170] Ibid.
[171] European Commission, (2000a). op. cit., p. 30.

other reason may be the implementation of tax cuts, which were only partially matched with expenditure reductions.[172]

In 2001, eight member states failed to reach their targets for budget balance. The divergence from target was relatively large in Germany and Portugal. Table 9 shows this situation. Almost all of budgetary slippage was due to economic slowdown.[173]

On 30 January 2002, the Commission recommended an early-warning to be issued to Germany and Portugal. Both countries could not reach the targets for 2001 set down in their stability programmes. There was also a risk of deficits approaching the reference value of 3 % of GDP. This was the first time that the preventive elements of the SGP were activated. The Council did not endorse this recommendation; but, the ECOFIN Council of 12 February 2002 reaffirmed it. In the conclusion of the ECOFIN Council, the German and Portuguese authorities were to make the following commitments: ensuring that the 3 % of GDP reference value will not breached; reaching a close to balance position by 2004; implementing budgetary plans by avoiding to take discretionary measures; for Portugal, compensating any revenue shortfall by additional measures; reducing the debt ratio over the period of the programme. After the German and Portuguese authorities made these commitments, the Council decided not to endorse the Commission recommendation.[174] Nevertheless, in its opinion, the Council urged the German authorities to ensure strict budgetary implementation and to accelerate the decline in the overall debt ratio. It also urged on Portugal to enhance its efforts to achieve its budgetary objective and to ensure strict budgetary implementation.[175]

[172] European Commission, (2002a). op. cit., p.p. 10-12.
[173] Ibid., p.p. 47-50.
[174] ECOFIN Council, (2002). Conclusions of the 2407th meeting of the ECOFIN Council, Brussels, 12.02.2002, Press 6108/02.
[175] European Commission, (2001b). Commission proposal to the European Parliament and the Council, COM(2001) 543, *Official Journal,* No: C 51, 26.02.2002, p. 1.

Table 9: Divergences from the targets for 2001 based on outlook from the updated stability and convergence programmes (% of GDP)

	Budget balance from SP/CP from late 2001	Budget target in SP/CP of late 2000	Divergence on actual budget balance	Budget impact from growth shortfall 2001	Divergence not explained by growth	PM: revision of starting positions (2000 outcome)	Cyclically-adjusted balance from 2001 SP/CP exercise
	(1)	(2)	(3)=(1)–(2)	(4)	(5)=(3)–(4)	(6)	(7)
Belgium	-0.2	0.2	-0.4	-0.9	0.5	0.2	-0.5
Denmark	2.0	2.8	-0.8	-0.4	-0.4	-0.2	-
Germany	-2.6	-1.5	-1.1	-1.1	0.0	-0.3	-2.2
Greece	-0.3	0.5	-0.8	-0.4	-0.4	-0.3	-0.6
Spain	0.0	0.0	0.0	-0.2	0.2	-0.1	-0.5
France	-1.5	-1.0	-0.5	-0.3	-0.2	-0.1	-1.5
Ireland	1.4	4.3	-2.9	-0.7	-2.2	-0.2	-0.7
Italy	-1.1	-0.8	-0.3	-0.4	0.1	-0.2	-0.8
Luxembourg	4.1	2.6	1.5	-0.8	2.3	3.2	3.7
Netherlands	0.7	0.7	0.0	-2.0	2.0	0.5	0.2
Austria	0.0	-0.8	0.8	-0.4	1.2	0.3	0.0
Portugal	-2.2	-1.1	-1.1	-0.4	-0.7	0.1	-2.5
Finland	4.7	4.7	0.0	-2.5	2.5	2.4	3.3
Sweden	4.6	3.5	1.1	-1.2	2.3	0.7	3.9
UK	-0.2	0.6	-0.8	0.0	-0.8	0.9	-0.3

Source: European Commission, (2002a). op. cit., p. 48.
NB: Column (6) is the difference between the 2000 budget balance given in the stability/convergence and the latest one incorporated in the 2000 stability/convergence programmes. In column (7), SP stands for stability programme.

The deterioration in the actual budget positions continued in 2002 and 2003, reflecting the protracted slowdown in growth and the working of automatic stabilizers. This was a difficult period for actual budgetary positions and the implementation of the SGP. In the euro area, the aggregate deficit rose from 0.9 % in 2000 to 2.8 % in 2003. By the end of 2002, only six EU countries achieved the budgetary position of close to balance or in surplus, whereas two EMU countries – Germany and Portugal – had deficits above the 3 % of GDP reference value.[176]

On 24 September 2002, the Commission activated the EDP for Portugal. By its report, the Commission stated that the breach of the 3 % of GDP reference value could not be

[176] European Commission, (2003a). op. cit., p.p. 1-7.

attributed to only the economic slowdown or the public investment; and also that underestimation of revenue shortfall, lax budget implementation, increasing primary expenditure and the economic slowdown, all are the reasons of the excessive deficit.[177] The Council endorsed the Commission's recommendation and decided that an excessive deficit existed in Portugal, on 5 November 2002.[178] That was the first time that EDP was applied. The Council also adopted a recommendation, which set down two deadlines by 31 December 2002.[179] The deficit fell to below the 3 % of GDP reference value both in 2002 and 2003. Accordingly, the Commission recommended to the Council to abrogate the decision on the existence of an excessive deficit position in Portugal. On 11 May 2004, the Council abrogated its decision. It noted the efforts made by Portugal, while emphasizing the need for further attention in 2004.[180]

Nevertheless, the Commission recommended to the Council to take a decision on the existence of an excessive deficit in Germany. On 21 January 2003, the Council decided that an excessive deficit exists in Germany, and adopted recommendations with Germany's agreement with a deadline of the end of 2004. However, achieving the correction of the excessive deficit situation by the end of 2004 was an unrealistic objective under the continuing economic slowdown. On 18 November 2003, the deadline was revised as at the latest by 2005.[181] Germany could not correct the excessive deficit by this deadline. However, the Commission decided to continue monitoring the budgetary situation in the coming months without taking any further steps under the EDP.[182]

On 21 January 2003, the Council adopted the Commission's recommendation giving an early-warning to France. This was the first time that an early-warning was issued by the

[177] Ibid., p.p. 63-65.
[178] European Council, (2002). Council Decision of 5 November 2002 on the existence of an excessive deficit in Portugal, *Official Journal,* No: L 322, 27.11.2002, p.p. 30-31.
[179] European Commission, (2004b). "Public Finance in EMU: 2004", *European Economy Reports and Studies*, No: 3, Brussels, p. 65.
[180] Ibid.
[181] Ibid.
[182] European Commission, (2005a). "Public Finance in EMU: 2005", *European Economy Reports and Studies*, No: 3, Brussels, p.p. 33-34.

Council, because there was a significant divergence from the budget target and a risk of a breach of the 3 % of GDP reference value. [183] The Commission activated the EDP for France, considering also its forecasts for 2003 of a deficit above 3 % of GDP and that the debt ratio would also breach the 60 % of GDP reference value. On 7 May 2003, it recommended to the Council to decide on the existence of an excessive deficit in France.[184] The Council decided that an excessive deficit existed in France on 3 June 2003. The deadline was set as 2004 at the latest. However, the measures taken by the French authorities did not significantly reduce the 2003 budget deficit. The Commission recommended to the Council to decide that France had taken no effective action.[185] The Council decided not to take any further step under the EDP, unless France fails to act in accordance with its commitments. Like in the case of Germany, the Commission decided to continue monitoring the budgetary situation in the coming months without taking any further steps under the EDP, because the budgetary situation of France remained vulnerable.[186]

The Commission initiated the EDP for the Netherlands on 28 April 2004. It concluded that the deficit cannot be attributed to the economic slowdown.[187] The Council recommended to the Netherlands to correct the deficit by the end of 2005 at latest.[188] On 6 October 2004, the Commission concluded that the Netherlands had taken effective action to correct the excessive deficit by 2005. The Council agreed to this analysis on 21 October 2004. The Commission recommended to the Council to abrogate its decision on the existence of an excessive deficit position in the Netherlands.[189]

Nevertheless, the government debt to GDP ratio increased in 2003. Italy, Greece and Belgium had a government debt to GDP ratio above 100 %, and the debt levels of 14 EU countries were below 60 % of GDP. In spring 2004, the Commission started the procedures

[183] European Commission, (2003a). op. cit., p.p. 67-68.
[184] Ibid.
[185] European Commission, (2004b), op. cit., p.p. 65-68.
[186] European Commission, (2005a), op. cit., p. 34.
[187] European Commission, (2004b). op. cit., p.p. 69-70.
[188] European Commission, (2005a). op. cit., p.p. 34-35.
[189] Ibid.

for Greece and the UK, which registered deficits above 3 % of GDP in 2003. In the same year, the Commission concluded that the UK's deficit was likely to be small and temporary. Then, in March 2005, the Commission concluded that the Greek authorities were taking effective action, therefore that no further step under the EDP is necessary. The Commission also recommended that an early-warning be addressed to Italy, but did not activate the EDP. The Commission started the EDP for 6 new member states following their accession to the EU. They were Hungary, Czech Republic, Cyprus, Malta, Poland and Slovakia.[190]

The deterioration in the actual budget positions ceased in 2004. Only three EMU countries and six EU countries had budget positions in balance or in surplus, both in nominal and cyclically-adjusted terms. Cyclically-adjusted budget deficit of the euro area unchanged in 2004, at 2.4 % of GDP. It was particularly high in Germany, France, Greece, Italy and the UK. It deteriorated significantly in Greece, Spain and Luxembourg. Only Belgium, Ireland and Finland had nominal positions in balance or in surplus in the euro area. Outside the euro area, most of the EU countries improved their budgetary positions, apart from Estonia, Lithuania and Poland. Nevertheless, the debt to GDP ratio continued increasing. The euro area debt ratio was at 70.8 % in 2003 and 71.3 % in 2004. The debt ratio remained high particularly in Belgium, Greece and Italy. It increased in Germany, France, Portugal and Malta.[191]

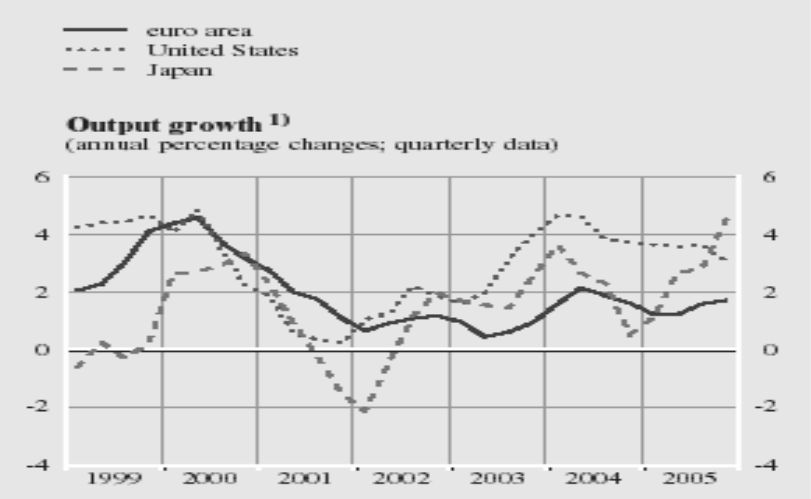
2.6. THE LESSONS FROM THE IMPLEMENTATION OF THE SGP

Although the SGP is a suitable framework for ensuring budgetary discipline in the EMU, a number of lessons can be drawn from the experiences with the EDP until now. The

[190] European Commission, (2004b). op. cit., p.p. 1-7.
[191] European Commission, (2005a). op. cit., p.p. 21-24.

Commission stressed some of the lessons as follows: Firstly, the assessment of compliance with the Council recommendations is difficult. In particular, difficulties were encountered in assessing ex-ante budgetary impact of the measures taken, and in measuring the changes in the cyclically adjusted budget due to discretionary budgetary measures and the changes associated with growth conditions. Secondly, attention should be given not only to the size of budgetary adjustment but also to its quality. The budgetary consolidation measures should secure a lasting improvement in budget balances and should provide a reinforcement of the growth potential consistent with the BEPGs. Finally, the steps undertaken in the EDPs are quite complex, not always well defined in the legal text, and sometimes difficult to comply with in terms of deadlines. Therefore, different interpretations between the Commission and Council occur in the application. In addition, the experiences proved that the deadlines were quite unrealistic. The Commission also accepted that there is room to improve the current practice in the EDP implementation.[192]

Figure 6: Output Growth in Major Industrialized Economies



Source: European Central Bank, (2006a). op. cit., p. 22.

[192] European Commission, (2004b). op. cit., p. 74.

Table 10: Budgetary Positions in the EU Member States (of % GDP) (surplus (+) / deficit (-))

	Budget Balance							Cyclically Adjusted Budget Balance						
	1999	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
BE	-0.9	-0.1	0.3	0.1	0.4	0.1	-0.2	-	-1.1	-0.4	0.1	1.2	0.6	0.3
DE	-1.1	-1.3	-2.8	-3.5	-3.8	-3.7	-3.3	-	-1.6	-3.0	-3.5	-3.2	-3.3	-2.8
EL	-1.6	-0.8	-1.9	-1.4	-5.2	-6.1	-4.5	-	-0.9	-2.3	-1.7	-5.7	-7.1	-5.5
ES	-1.1	-0.4	-0.1	0.0	0.3	-0.3	0.0	-	-1.1	-0.8	-0.2	0.2	-0.3	0.0
FR	-1.8	-1.3	-1.6	-3.2	-4.2	-3.7	-3.0	-	-1.7	-2.2	-3.8	-4.0	-3.6	-2.8
IE	2.0	4.5	1.2	-0.2	0.2	1.3	-0.6	-	2.4	0.0	-1.9	0.2	1.6	-0.1
IT	-1.9	-1.7	-2.6	-2.3	-2.9	-3.0	-3.6	-	-1.9	-3.1	-2.2	-2.6	-2.4	-2.9
LU	2.4	5.8	6.4	2.7	0.5	-1.1	-1.5	-	4.2	4.1	2.7	1.3	-0.3	-0.6
NL	0.5	1.5	0.1	-1.9	-3.2	-2.5	-2.0	-	-0.1	-1.0	-2.6	-2.0	-1.2	-0.4
AT	-2.0	-1.9	0.3	-0.2	-1.1	-1.3	-2.0	-	-2.5	0.0	-0.3	-0.8	-1.1	-1.9
PT	-2.0	-1.8	-4.2	-2.7	-2.9	-2.9	-4.9	-	-2.6	-4.6	-2.7	-2.2	-2.1	-3.9
FI	2.3	7.0	5.1	4.3	2.5	2.1	1.7	-	4.0	4.2	3.7	3.2	2.4	1.9
EU12	**-1.2**	**-0.8**	**-1.6**	**-2.3**	**-2.8**	**-2.7**	**-2.6**	**-**	**-1.4**	**-2.1**	**-2.5**	**-2.4**	**-2.4**	**-2.1**
CZ	-	-	-	-6.4	-11.7	-3.0	-4.5	-	-	-	-	-	-	-
DK	3.0	2.5	2.8	1.7	1.2	2.8	2.1	-	1.3	2.3	1.0	2.0	3.4	2.5
EE	-	-	-	1.8	3.1	1.8	0.9	-	-	-	-	-	-	-
-CY	-	-	-	-4.6	-6.3	-4.2	-2.9	-	-	-	-	-	-	-
LV	-	-	-	-2.7	-1.5	-0.8	-1.6	-	-	-	-	-	-	-
LT	-	-	-	-1.4	-1.9	-2.5	-2.4	-	-	-	-	-	-	-
HU	-	-	-	-9.3	-6.2	-4.5	-3.9	-	-	-	-	-	-	-
MT	-	-	-	-5.7	-10.5	-5.2	-3.9	-	-	-	-	-	-	-
PL	-	-	-	-3.6	-4.5	-4.8	-4.4	-	-	-	-	-	-	-
SI	-	-	-	-1.9	-2.0	-1.9	-2.2	-	-	-	-	-	-	-
SK	-	-	-	-5.7	-3.7	-3.3	-3.8	-	-	-	-	-	-	-
SE	1.9	3.7	4.5	0.0	0.2	1.4	0.8	-	2.1	3.6	-0.5	1.3	1.7	0.8
UK	1.2	1.7	0.8	-1.6	-3.4	-3.2	-3.0	-	1.2	0.7	-1.5	-3.0	-3.0	-2.9
EU25	**-**	**-**	**-**	**-2.1**	**-2.9**	**-2.6**	**-2.6**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Source: Several volumes of the European Economy of the European Commission

Table 11: Changes in Government Debt Ratio in the EU Member States (% of GDP)

	Gross Debt							Change in Gross Debt 1999-2005
	1999	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	
BE	115.0	109.3	108.5	105.8	100.0	95.6	94.9	- 20.1
DE	61.3	60.3	59.5	60.8	64.2	66.0	68.0	6.7
EL	104.6	102.8	107.0	104.7	109.3	110.5	110.5	- 5.9
ES	63.1	60.4	56.9	54.6	51.4	48.9	46.5	- 16.6
FR	58.5	57.8	56.8	58.6	63.9	65.6	66.2	7.7
IE	49.3	39.0	36.8	32.3	32.0	29.9	29.8	- 19.5
IT	114.6	110.6	109.5	108.0	106.3	105.8	105.6	- 9.0
LU	5.9	5.7	5.6	5.7	7.1	7.5	7.8	1.9
NL	63.1	56.0	52.8	52.6	54.3	55.7	57.6	- 5.5
AT	64.9	63.6	67.3	66.6	65.4	65.2	64.4	- 0.5
PT	54.5	53.4	55.6	58.1	60.1	61.9	66.2	11.7
FI	47.3	44.0	43.8	42.6	45.3	45.1	44.3	- 3.0
EU12	**72.6**	**70.3**	**69.2**	**69.2**	**70.8**	**71.3**	**71.7**	**- 0.9**
CZ	-	-	-	28.9	38.3	37.4	36.4	-
DK	52.0	46.8	45.4	47.2	44.7	42.7	40.5	- 11.5
EE	-	-	-	5.7	5.3	4.9	4.3	-
CY	-	-	-	67.1	69.8	71.9	69.1	-
LV	-	-	-	15.5	14.4	14.4	14.0	-
LT	-	-	-	22.8	21.4	19.7	21.2	-
HU	-	-	-	57.1	56.9	57.6	57.8	-
MT	-	-	-	61.7	71.8	75.0	76.4	-
PL	-	-	-	41.2	45.4	43.6	46.8	-
SI	-	-	-	27.8	29.4	29.4	30.2	-
SK	-	-	-	43.3	42.6	43.6	44.2	-
SE	65.0	55.3	54.4	52.6	52.0	51.2	50.3	- 14.7
UK	45.2	42.4	38.9	38.5	39.7	41.6	41.9	- 3.3
EU25	**-**	**-**	**-**	**61.5**	**63.3**	**63.8**	**64.1**	**-**

Source: Several volumes of the European Economy of the European Commission.

However, the most important lesson is that a strong growth trend of real GDP is a necessary condition for the sustainability of public finances in the EMU. Figure 6, Table 10, and Table 11 support this argument. Most of the EDP implementations occurred during the economic slowdown like in the case of Germany and France. In accordance with the Council recommendations, these countries had to take necessary measures to correct the excessive deficit position. However, adopting restrictive fiscal policies and the use of sanctions in the midst of a cyclical slowdown is openly questionable. This is the main problem in the implementation of the SGP. The other important problem is that credibility of the SGP may reduce due to breaching the reference value and activation of the EDP. This problem may

create instability in the financial markets. Therefore, the SGP should be improved considering this problem and Commission's statements.

Table 12: Economic Indicators and the Convergence Criteria since the Euro Launch
(excluding the exchange-rate criterion)

		HICP Inflation[(a)]	Long-term Interest Rate[(b)]	General Gov. Surplus (+) or Deficit (-)[(c)]	General Gov. Gross Debt[(c)]
	2002	1.6	5.0	# 0.1	105.8
Belgium	2003	1.5	4.2	# 0.2	100.5
	2004	1.5	4.2	# -0.5	97.4
	2002	2.4	5.1	# 1.7	# 47.2
Denmark	2003	2.0	4.3	# 1.5	# 45.0
	2004	1.5	4.3	# 1.1	# 42.3
	2002	1.3	4.8	-3.5	60.8
Germany	2003	1.0	4.1	-3.9	64.2
	2004	1.3	4.0	-3.6	65.6
	2002	3.9	5.1	# -1.4	104.7
Greece	2003	3.4	4.3	# -3.0	103.0
	2004	3.4	4.3	-3.2	102.8
	2002	3.6	5.0	# 0.0	# 54.6
Spain	2003	3.1	4.1	# 0.3	# 50.8
	2004	2.4	4.1	# 0.4	# 48.0
	2002	1.9	4.9	-3.2	# 58.6
France	2003	2.2	4.1	-4.1	63.0
	2004	1.9	4.1	-3.7	64.6
	2002	4.7	5.0	# -0.2	# 32.3
Ireland	2003	4.0	4.1	# 0.2	# 32.0
	2004	2.1	4.1	# -0.8	# 32.4
	2002	2.6	5.0	# -2.3	108.0
Italy	2003	2.8	4.3	# -2.4	106.2
	2004	2.2	4.3	-3.2	106.0
	2002	2.1	4.7	# 2.7	# 5.7
Luxembourg	2003	2.5	4.0	# -0.1	# 4.9
	2004	2.0	4.2	# -2.0	# 4.5
	2002	3.9	4.9	# -1.9	# 52.6
The Netherlands	2003	2.2	4.1	-3.2	# 54.8
	2004	1.4	4.1	-3.5	# 56.3
	2002	1.7	5.0	# -0.2	66.6
Austria	2003	1.3	4.2	# -1.1	65.0
	2004	1.4	4.2	# -1.1	65.5
	2002	3.7	5.0	# -2.7	# 58.1
Portugal	2003	3.3	4.2	# -2.8	# 59.4
	2004	2.0	4.1	-3.4	60.7
	2002	2.0	5.0	4.3	# 42.6
Finland	2003	2.3	4.1	# 2.3	# 45.3
	2004	1.2	4.1	# 2.0	# 44.5
	2002	2.0	5.3	# 0.0	# 52.6
Sweden	2003	2.3	4.6	# 0.7	# 51.9
	2004	1.2	4.4	# 0.2	# 51.8
	2002	1.3	4.9	# -1.6	# 38.5
United Kingdom	2003	1.4	4.6	-3.2	# 39.7
	2004	1.6	4.9	# -2.8	# 40.1

Source: Several volumes of the European Economy Series of the European Commission.
#: General government deficit not exceeding 3% of GDP; and general government gross debt not exceeding 60% of GDP. Annual percentage changes; (b) In percentages; (c) As a percentage of GDP.

CHAPTER III

THEORETICAL APPROACH TO POLICY CHOICE UNDER THE STABILITY AND GROWTH PACT PROVISIONS AND THE MONETARY POLICY STRATEGY

Monetary integration has two essential components: an exchange rate union, and capital market integration. The exchange rate union refers to that participating countries have permanently and irrevocably fixed exchange rates among themselves with no margins of currency fluctuations; but single currency is not necessary. Capital market integration requires full convertibility in the sense of the absence of the exchange rate control on either current or capital transactions within the union. The other important requirements are the formation of customs union and common market.[193] If these two components are guaranteed, two other requirements would be also essential: an explicit harmonization of monetary policies within the union and a common pool of foreign exchange reserves. The effects of such a system would be similar to a single currency.[194]

Although such a monetary integration may provide potential benefits, at the same time, it may entail some costs, including loss of important macroeconomic policy instrument. Therefore, it is crucial to determine the costs and benefits of a monetary integration and to identify the economic characteristics of a currency area, which is beneficial. Many economists have studied on the costs and benefits of the exchange rate regimes. These studies lead to the theory of optimum currency areas.

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[193] El-Agraa, A. M., (1990). *Economics of the European Community*, third edition, Cambridge: Philip Allan, p. 98.

[194] Robson, P., (1998). *The Economics of International Integration*, fourth edition, London and New York: Routledge, p.p. 190-191.

As mentioned in the third chapter of this thesis, the debate over the establishment of an economic and monetary union in Europe focused on the question whether an optimum currency area is a precondition for a monetary union or whether establishment of an economic and monetary union could drive automatically economic convergence among the member countries creating an optimum currency area. By the Maastricht Treaty, the European countries established an economic and monetary union assuming that it will create soon an optimum currency area. The Treaty included convergence criteria for membership. The macroeconomic feature of the EMU is characterized by two frameworks: a monetary policy strategy and the SGP.

The analysis in this part may be useful to answer the following questions: What does the theory of optimum currency areas tell us? What are the criteria for an optimum currency area? Has the EMU become an optimum currency area? How should common monetary policy and fiscal policy be designed in both any monetary union and the EMU? Are the monetary policy strategy and the SGP well-designed frameworks for the EMU?

3.4. THE THEORY OF OPTIMUM CURRENCY AREAS

The debates on the costs and benefits of fixed versus flexible exchange rate regimes generated the theory of optimum currency areas. These debates mainly rose after the establishment of the Bretton Woods System.

At that time, Friedman argued that flexible exchange rate regime is a better mean to absorb exogenous shocks. His argument was that, in general, prices and wages in a country are relatively rigid while the factors of production are immobile across the countries. Therefore, under the demand or supply shock, the only instrument to bring the economy back

to the initial external and internal equilibrium is a change in the flexible exchange. When the internal prices and wages are not rigid and/or the factors of production are fully mobile, the effects of a fixed exchange rate regime in a group of countries are similar to flexible exchange rate regime. He stated also that if there is little governmental interference to the economy or some specific relationship among the countries, the fixed exchange rate may be appropriate.[195]

Mundell challenged Friedman's argument through his first article on the theory of optimum currency areas. He argued that the stabilization argument for flexible exchange rates is valid only if it is based on regional currency areas.[196] He also argued that if factors of production are mobile across national boundaries then a flexible exchange rate system becomes unnecessary, and even be harmful. He defined the optimum currency area as a currency area for which the benefits of adopting a single currency or a fixed exchange rate regime exceed the costs of loosing the exchange rate as an economic policy instrument. An optimum currency area has the regions or countries affected symmetrically by shocks; and factors of production are mobile across these regions and countries.[197]

Mundell argued that there is a major difference between adjustment within a currency area, which has a single currency, and adjustment within a currency area, which involving more than one currency. He explains this argument with a simple model of two entities as A and B. Entities in the model may be regions or countries. The assumptions of the model are as follows: both A and B are initially in equilibrium defined as full employment and balance of payments equilibrium; wages and prices cannot be reduced in the short-run without causing unemployment; and monetary authorities act to prevent inflation.[198]

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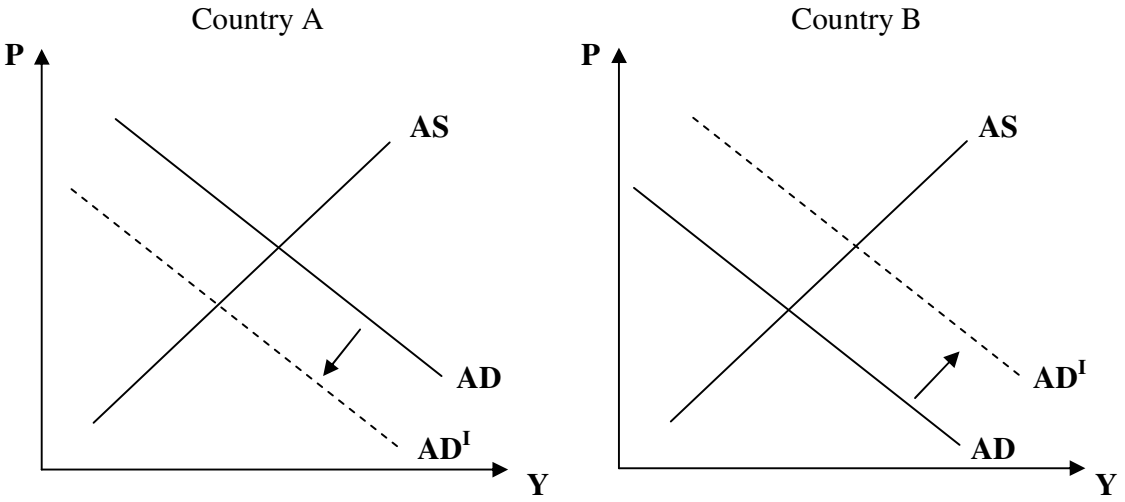
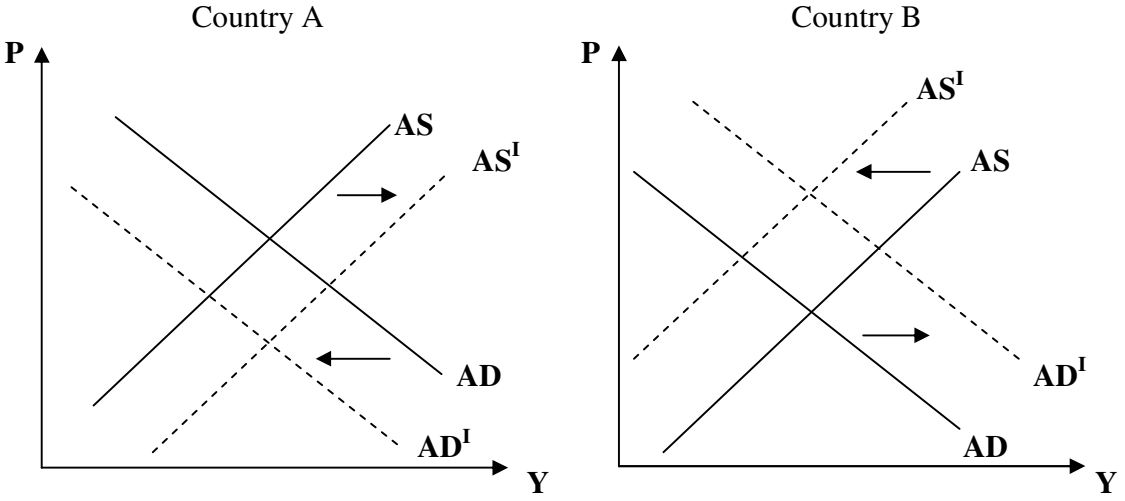
[195] Freidman, M., (1953). "The Case for Flexible Exchange Rate". In: Essays in Positive Economics, Chicago: University of Chicago Press, p.p. 166-167.
[196] Here, he meant the regions within each of which there is factor mobility – including both interregional and inter-industrial mobility – and between which there is factor immobility, and then each of these regions should have a separate currency which fluctuates relative to all other currencies.
[197] Mundell, R. A., (1961). "A Theory of Optimum Currency Areas", *American Economic Review*, No. 51, p.p. 657-665.
[198] Ibid.

Figure 7: Asymmetric Shifts in Demand[199]



Source: De Grauwe, P. (2003). Economics of Monetary Union, fourth edition, New York: Oxford University Press, p. 6.

Figure 8: The Automatic Adjustment Process



Source: De Grauwe, P. (2003). op.cit., p. 7.

[199] AD, AS, P and Y represent aggregate demand, aggregate supply, price level and output, respectively.

Firstly, consider that there is a shift in demand from the goods of A to the goods of B. Such a shift in demand reduces the price level and output in country A, hence raises unemployment, while it causes inflation in country B. Figure 7 shows this situation. In these circumstances, a common monetary policy cannot be beneficial for both countries at the same time. A restrictive monetary policy could reduce the inflation rate in country B by increasing unemployment in country A, while an expansionary monetary policy could reduce unemployment in country A by increasing inflation in country B.[200]

A change in relative prices is necessary in order to restore equilibrium. In the case that the countries A and B have their own currencies, country A can change the relative prices through a devaluation of its currency vis-à-vis country B's currency. Nevertheless, in the case that the countries A and B have a single currency and therefore need to use common monetary policy, some other mechanisms are necessary in order to restore equilibrium. Mundell offers three adjustment mechanisms: wage flexibility, labour mobility, and expansionary fiscal policy. The effects of adjustment mechanisms are shown in Figure 8. If wages are flexible, unemployment reduces the wage claims in country A, while the excess demand for labour increases wages in country B. If labour is mobile, workers move from the country A to country B; wages remain constant; hence, unemployment and inflation vanish. If the authorities in country B raise taxes and/or transfer the surplus to the country A, its aggregate demand decreases. These adjustment mechanisms minimize the costs of asymmetric shocks in a currency area.[201]

Through his article on the theory of optimum currency areas, Mundell suggested that if the effects of shocks on particular areas or countries are similar, i.e. symmetric, a monetary union will be appropriate; and that if the effects of shocks are not similar, high labour mobility and/or wage flexibility will be the main criteria.[202]

[200] Ibid.
[201] Ibid.
[202] Ibid.

However, Mundell's model was criticized by economists. Labour mobility as an adjustment mechanism is often costly and impractical. The other point is that wages are rigid downward due to the labour unions. The more serious criticism is that Mundell assumed a stable Phillips curve in the long run, because many economists argue that the trade-off between inflation and unemployment exist temporarily in the short run.[203]

Mundell's model was also improved by the economists. While Mundell's suggested that the effects of shocks in a currency area should be symmetric, Kenen, who is a leading contributor to the theory of optimum currency areas, set a criterion to minimize the asymmetric effects of substantial shocks. Considering the most of the severe asymmetric shocks befall the countries, which specialized in a narrow range of goods, he argued that the countries should deeply diversify their production and consumption, and should produce similar goods. Diversification makes the countries less vulnerable to asymmetric shocks, and makes the effects of good-specific shocks on countries similar; hence the need for any exchange rate adjustment lessens.[204]

The other important contributor is McKinnon. He argued that under a high degree of openness to trade most prices are determined at the union level. This reduces the benefits of flexible exchange rates, because devaluations affect both the export price of domestic products and the import price of foreign products, without changing relative prices of domestic and foreign goods.[205]

Krugman argued that higher trade integration, which resulted in economies of scale, lead to a higher specialization in production. His example for this was the US that has more highly integrated market than the EU. In this case, sector-specific shocks may become

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[203] Horvath, R., Komarek, L., (2002). "Optimum Currency Area Theory: An Approach for Thinking about Monetary Integration", *Warwick Economic Research Papers*, No. 647, University of Warwick.
[204] Kenen, P. B., (1969). "Theory of Optimum Currency Areas: An Eclectic View". In: R. A. Mundell and Swoboda, A.K. (eds.) *Monetary Problems of the International Economy,* p.p.41-60, University of Chicago Press, 1969.
[205] McKinnon, R., (1963). "Theory of Optimum Currency Area", *American Economic Review*, No: 4, September, p.p. 717-725.

country-specific shocks.[206] However, the regional concentration in the US was created by not only trade integration but also the US economic policy. Moreover, Krugman assumes that regional concentration of industry will not cross the borders of countries; however this is not valid for every case. Thus, sector-specific shocks may not be country-specific shocks.

The European Commission argues that shocks like in the Mundell's model, occur less frequently in the EMU, because the trade between the European countries is a high degree intra-industry trade based on economies of scale and imperfect competition. As a result, this does not lead to a higher degree of specialization, and hence the effects of such shocks will be symmetric. Moreover, higher degree of trade integration will provide synchronization of national business cycles. If the national business cycles are not synchronized, countries will be more vulnerable to the asymmetric shocks.[207]

Mundell changed his view on the optimum currency area through presenting two important papers in 1973. He argued that if a single currency can be managed without substantial change in their purchasing power parities, they gain better allocation of capital. Then, uncertainty in exchange rates disappears and assets are better diversified. As a result, asymmetric shocks do not create a decline in output, because costs of asymmetric shocks would be spread in time. In this case, the larger currency area will be better even under asymmetric shocks.[208]

The fiscal transfer systems, as suggested by Mundell, help countries that form a monetary union to cope with the asymmetric effects of shocks. Countries can centralize their budgets at the union, as well as they can make fiscal transfer directly to the deficit country.

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[206] Krugman, P., (1993). "Lessons of Massachusetts for EMU". In: Torres, F., and Giavazzi, F.: *Adjustment and Growth in European Monetary Union*, London: Cambridge University Press, p.p. 241-261.
[207] European Commission, (1990). op. cit.
[208] Mundell, R. A., (1973a). "Uncommon Arguments for Common Currencies". In: H.G. Johnson and A.K. Swoboda, *The Economics of Common Currencies*, Alen and Unwin, 1973, p.p. 114-32; and, Mundell, R. A., (1973b). "A Plan for a European Currency". In: H.G. Johnson and A.K. Swoboda, *The Economics of Common Currencies*, Alen and Unwin, 1973, p.p. 143-72.

Nevertheless, the financial market integration may help countries to cope with the asymmetric effects of shocks. In a monetary union, which has integrated financial markets, the risk of a negative shock in one country is shared by all countries.[209] Financial market integration was suggested first time by Ingram. According this view, financial integration reduces the need for exchange rate adjustments. Capital mobility may lessen the effects of temporary shocks. Under a high degree of financial integration, changes in interest rates may cause equilibrating capital movements across the other participating countries easily. These movements provide convergence among the long-term interest rates, and hence make easier the financing external imbalances and foster an efficient allocation of resource.[210]

Since the member countries should try to minimize the asymmetric effects of shocks, similarity in economic policy preferences is also essential criterion to achieve an optimum currency area. If countries do not react in the same way to the shocks, the effects of the shocks will be asymmetric. This requires that all countries agree on how to cope with each and every possible shock, since there is no a best way in practice. Preferences may differ, because the shocks and the way to cope with it may have redistributive effects, namely some groups may lose more than others or some group may even benefit. Each group has some political weight and will. Countries should ensure that the differences in economic policy preferences are not too wide.[211]

It is obvious that there will be disagreements among the member countries, because of the requirements to cope with the effects of shocks such as the need to make their economic policy preferences similar, using of fiscal transfer systems, and etc. Therefore, political will to accept some costs of compromising with each other is an essential criterion for countries that intend to form a currency area.

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[209] De Grauwe, P., op. cit., p. 12.
[210] Ingram, J. C., (1959). "State and Regional Payments Mechanisms", *Quarterly Journal of Economics,* No: 73, p.p. 619-632.
[211] Baldwin, R., and Wyplosz, C., (2004). *The Economics of European Integration,* London: McGrow Hill, p. 339-340.

The conclusion about what the main criteria for an optimum currency area with a single currency is as follows: similarity of the magnitude and nature of national shocks, domestic price and wage flexibility, labour and capital mobility, diversification in production and consumption, openness to trade, financial market integration, fiscal transfer systems, similarity in economic policy preferences and a strong political will.

3.5. THE EMU AND CRITERIA FOR AN OPTIMUM CURRENCY AREA

The previous part has suggested a few criteria for an optimum currency area. However, there is no precise method to measure and evaluate how a monetary union is close to an optimum currency area. Economists use different combinations of these criteria to decide whether a monetary union is an optimum currency area or not. Here, the criteria upon which the economists have agreed upon are used to investigate whether the EMU is an optimum currency area or not. The results are important to understand the economic structure of the euro area, and also important to find out how monetary and fiscal policies should be designed in such a monetary union. Some of these criteria are extensively examined in the subsequent chapters of the dissertation.

3.2.1. Symmetry in Shocks

According to the theory, an optimum currency area consists of regions or countries, which are affected symmetrically by shocks. Therefore, symmetry in shocks is an important criterion to form a monetary union. Many studies prove that the there is an asymmetry

instead of symmetry in the shocks to which the European countries are subjected.[212] This asymmetry is originated from two sources: asymmetric shocks and symmetric shocks, which produce asymmetric outcomes. The empirical studies indicate that the EMU is vulnerable to asymmetric shocks, and also indicate that the symmetric shocks can produce asymmetric effects across the EMU member countries because of the differences in characteristics of countries and regions, such as monetary transmission mechanisms, degree of market flexibilities, legal systems etc. The reasons and the consequences of the asymmetric shocks will be analyzed extensively in part 8.

3.2.2. Price and Wage Flexibility

In the presence of asymmetric shocks, price and wage flexibility can work as adjustment mechanisms. When a country face an asymmetric shock, price and wage flexibility can restore the equilibrium in the economy, and eliminate the effects of shocks in the short run. Therefore, price and wage flexibility is an essential criterion for optimum currency area. Many authors agree on that the degree of price flexibility is low in the EMU countries, because of low market competition, continuing state aids, and monopolistic tendencies.[213] For instance, OECD stated that the EMU should improve the functioning of product markets through improving the transparency and competition.[214] The Commissions report also supported this finding.[215] The economists also agree on that the degree of wage

[212] For example see Helg, R, Manasse, P, Monecelli, T, Rovelli, R, (1995). "How Much (A)symmetry in Europe? Evidence from Industrial Sectors". In: European Economic Review, 39, p.p. 1017-41; Bayoumi, T., Eichengreen, B., (1994). "One Money or One Many? Analysing the Prospects for Monetary Unification in Various Parts of the World". In: Princeton Studies in International Finance, No: 76; Eichengreen, B. (1991). "Is Europe an Optimal Currency Area?", In: NBER Working Paper, No: 3579; and see also De Grauwe, P., Vanhaverbeke, W., (1993). "Is Europe an Optimal Currency Area? Evidence from Ragional Data". In: P. Masson and Taylor (eds.), Policy Issues in the Operation of Currency Unions (Cambridge University Press), 1993.

[213] See De Grauwe, op.cit., p.p. 81-85, and see also De Haan, J., and Eijffinger, S.C.W., op. cit. p.21.

[214] OECD, (1999). "EMU: Facts, Challenges and Policies", Organisation for Economic Co-operation and Development, Paris.

[215] European Commission, (1999b). "The Competition of European Industry", 1999 Report, Brussels.

flexibility is low in the EMU member countries. The main reason of downward rigidity of real wages is labour unions, in spite of the unemployment. Nevertheless, there are also serious institutional differences in labour markets of the member countries, leading to divergence in competitiveness among the countries. Downward rigidity of the real wages and institutional differences in labour markets exacerbates the problem of price rigidity.[216]

3.2.3. Factor Mobility

The other essential criterion for an optimum currency area is factor mobility, including labour and capital mobility. Since the full labour mobility is never to be seen in real world due to non-economic reasons such as cultural differences, family, and nationalism; this criterion, here, is about the degree of labour mobility. However, recent empirical studies revealed that labour mobility is too low across the European countries and even internal migration across the regions.

OECD stated that the labour mobility is significantly higher in the US than in the EU, and that cross-country migration is an unlikely response to the shocks in the euro area. The economic reasons for cross-country migrations have weakened in spite of the high level of unemployment.[217] In addition to the non-economic factors, there are several institutional and administrative factors to explain low labour mobility across the European countries: limited cross border transfer of social protection and supplementary pension rights, administrative difficulties, and the cost of gaining legal resident status, and restrictions on public sector employment for non-citizens.[218]

[216] Mongelli, F. P., (2002). "New Views on the Optimum Currency Area Theory: What is EMU Telling Us?", *ECB Working Paper*, No: 138, Frankfurt.
[217] OECD, op. cit., p.p. 17-20.
[218] Mongelli, F. P., op. cit., p. 19.

The capital mobility is higher than the labour mobility within the EU. The Single European Act was a decisive step for capital mobility within the EU. It resulted in the adoption on 24 June 1988 of a Directive, which require the principle of full liberalization of capital movements with effect from 1 July 1990.[219] Then, the principle of full freedom of capital movements was incorporated into the Maastricht Treaty.[220]

OECD states that after the Maastricht Treaty, foreign direct investments (FDI) in the EMU have risen in almost all countries, and capital controls have liberalized[221] However, a higher degree of financial market integration is necessary in the EMU. Financial integration includes the intensity of cross-border financial flows, the law of one price, and the similarity in financial institutions. Many economists agreed on that the financial integration is lower in euro area than in the US.[222] The European countries show significant differences in terms of interest sensitivity of spending, maturity structure of debt, net-worth of firms and household sectors, the legal structure, contract enforcement costs, bank lending channel and the alternatives to bank financing. Such differences cause asymmetries in monetary transmission mechanism, making the conduct of common monetary policy more difficult. Therefore, euro area countries should make further legal harmonization of capital market and banking system.[223]

Nevertheless, differences in national tax systems can alter the direction of factor flows. The member countries can compete with each other to attract investment and capital through reducing corporate tax rates. On 1 December 1997, the ECOFIN reached an agreement on a package against harmful tax competition. The three measures of this agreement were related to a resolution on a code of conduct for business taxation, the taxation of income of non-residents from savings, and the elimination of withholding taxes on cross

[219] European Council, (1988). Council Directive 88/361/EEC of 24 June 1988 for the implementation of Article 67 of the Treaty, *Official Journal* L 178, 08/07/1988, p.p. 5-18.
[220] Articles 56 to 60 of the Treaty establishing the European Community.
[221] OECD, op. cit., p.p. 98-106.
[222] Mongelli, F. P., op. cit., p.p. 20-21.
[223] Cecchetti, S. G., (1999). "Legal Structure, Financial Structure, and the Monetary Policy Transmission Mechanism", *NBER Working Paper*, No: 7151, June 1999.

border interest and royalty payments between companies.[224] Although some harmonisation at the EU-level has been realized, particularly with respect to VAT, in present, the member states maintain their competences on their tax system and fiscal policy implementations.[225]

3.2.4. Openness to Trade

Openness to trade, which was suggested by McKinnon as a criterion for optimum currency area, can be measured by the average of two ratios, which are the ratio of exports to GDP and the ratio of imports to GDP.[226] Table 13 indicates that most of the European countries are very open, particularly the smaller countries.

However, the Table 13 and 14 show that there is a large difference in openness among the EU countries. This produces very different results for the different EU countries in terms of costs and benefits. Some countries with a large degree of openness relative to the other EU countries have benefits of participating in the EMU. This is most likely to be the case in the Benelux countries and Ireland, while it is less clear that the UK and Greece belong to the EMU. Nevertheless, some countries with a low trade share may obtain advantageous to be in the EMU because of the other criteria.[227]

[224] De Haan, J., and Eijffinger, S.C.W., op. cit. p.p. 100-104.
[225] OECD, op. cit., p. 86.
[226] Baldwin, R., and Wyplosz, C., op. cit., p. 341.
[227] De Grauwe, op. cit., p.p. 78-81.

Table 13: Openness to Trade (Average of Ratios of Exports and Imports to GDP, %)

Countries	2000	2001	2002	2003	2004
Belgium	84,0	84,0	81,5	79,6	80,1
Germany	33,6	34,2	33,9	34,0	36,0
Greece	30,8	28,0	25,1	24,4	25,4
Spain	31,2	30,7	29,4	28,6	28,9
France	27,9	27,1	26,1	25,2	25,6
Ireland	91,1	90,9	85,3	76,0	74,7
Italy	27,8	27,7	26,5	25,2	25,9
Luxembourg	141,5	144,4	134,3	128,1	130,4
The Netherlands	64,9	62,6	60,3	59,0	62,2
Austria	44,8	46,5	46,1	46,3	47,7
Portugal	37,2	35,7	33,9	33,5	35,4
Finland	38,4	35,8	34,5	34,0	34,2
Denmark	41,1	41,5	41,5	40,1	41,5
Sweden	43,2	42,8	40,8	40,4	42,0
UK	29,1	28,8	27,7	26,7	26,1
Czech Republic	66,0	67,8	62,6	63,9	69,0
Estonia	90,2	85,7	77,7	79,0	81,9
Cyprus	59,4	59,4	55,4	50,8	50,2
Latvia	46,4	46,6	46,4	48,8	50,7
Lithuania	48,1	52,7	55,9	54,7	57,4
Hungary	75,9	73,6	65,2	64,1	66,1
Malta	98,4	83,4	83,3	79,6	80,6
Poland	31,1	29,6	31,3	35,7	38,7
Slovenia	57,9	58,0	56,9	56,5	58,9
Slovakia	72,1	77,5	75,3	78,8	80,6
EU12	36,7	36,5	35,3	34,5	35,6
EU15	35,6	35,4	34,2	33,5	34,3
EU25	36,2	36,0	34,9	34,3	35,2
US	13,2	12,1	11,7	11,9	12,7
Japan	10,1	10,1	10,6	11,0	12,2

Source: European Commission, (2004c). European Economy: 2004 Review, No: 6, Belgium, p.p. 414-566.

Table 14: Intra-Union Exports and Imports (% of GDP)

Countries	2000	2001	2002	2003	2004
Belgium	57,5	59,6	60,7	59,1	60,5
Germany	17,8	18,1	17,7	18,2	19,3
Greece	12,1	9,0	8,4	9,1	8,8
Spain	16,8	16,5	15,7	15,4	15,6
France	16,7	16,2	15,2	14,9	15,3
Ireland	43,3	42,1	38,6	30,0	29,3
Italy	13,4	13,2	12,6	11,9	12,1
The Netherlands	41,1	39,0	37,5	36,9	38,7
Austria	27,7	29,0	28,8	29,7	30,6
Portugal	23,6	22,8	22,1	20,6	21,3
Finland	21,7	20,1	19,5	18,9	18,9
Denmark	21,8	21,6	22,4	21,1	21,8
Sweden	21,3	20,2	19,6	19,8	20,4
UK	12,0	11,8	11,5	11,1	10,7
Czech Republic	43,7	45,6	41,8	43,7	47,9
Estonia	53,1	46,4	43,3	43,6	41,1
Cyprus	11,6	12,0	11,5	10,5	10,6
Latvia	25,1	25,6	26,5	27,9	29,1
Lithuania	24,2	26,6	27,9	26,5	27,8
Hungary	46,9	44,8	40,1	39,4	40,9
Malta	37,6	33,7	33,8	33,7	34,4
Poland	17,75	17,15	18,6	21,6	23,7
Slovenia	36,7	36,25	34,55	34,2	33,85
Slovakia	47,95	52,3	50,85	53,9	56,4
EU15	19,0	18,8	18,3	18,0	18,4
EU25	19,5	19,3	18,8	18,6	19,1

Source: European Commission, (2004c). op. cit., p.p. 414-566.

3.2.5. Diversification in Production and Consumption

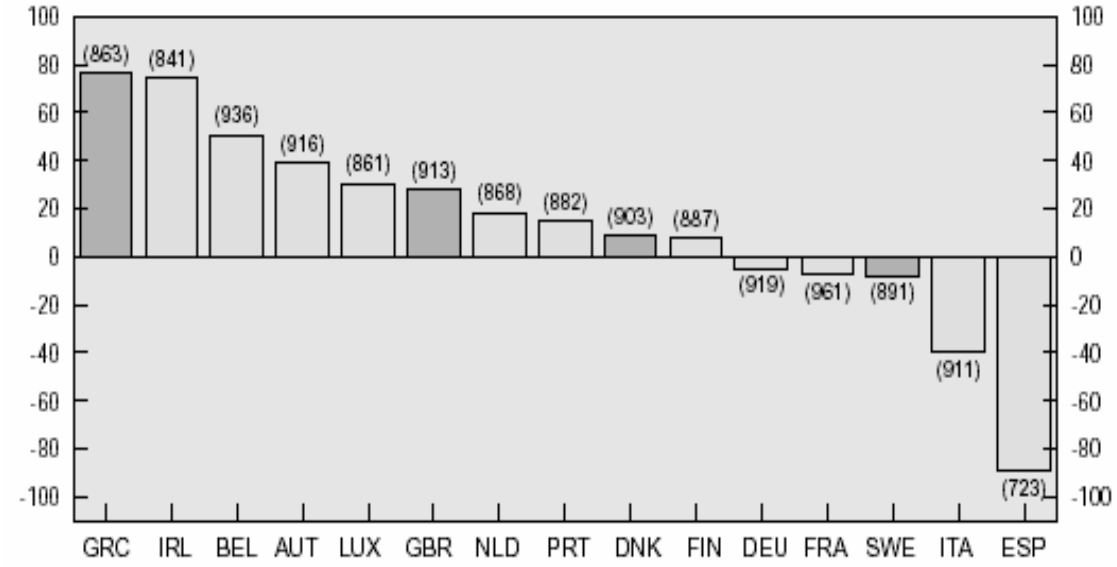
The EU countries have also satisfied the criterion of diversification in production and consumption, which was suggested by Kenen. Krugman found that the degree of specialization is smaller in Europe than in the US.[228] Bayoumi and Eichengreen found that the European trade was already well diversified at the end of 1995.[229] Nevertheless, the OECD analyzed the degree of similarity in the structure of consumption across the EU

[228] Krugman, P., op. cit.

[229] Bayoumi, T., and Eichengreen, B., (1996). "Ever Close to Heaven: An Optimum Currency Area Index for European Countries", *European Economic Review*, No: 41, p.p. 761-770.

countries, by using a consumption similarity index.[230] According to the results of this index, the OECD stated that the similarity in most of the EU countries, except Spain, was very high and it has been increased.[231] Figure 9 shows the results of the index. These studies proved that the EU countries produce a bit of everything and have similar consumption structures. This makes the EU countries less likely to be subjected to asymmetric shocks.

Figure 9: Private Consumption Similarity Indices
(Difference between 1990 and 1996)



Source: OECD, op. cit.

3.2.6. Similarity in Growth Rates and Business Cycles

Levels of economic development of the member countries should be similar. Differences in growth rates may lead some problems when countries form a monetary union. The following example theoretically illustrates this. Country A's growth rate is 5 % per year,

[230] The index bases on the correlations of variance components of real consumption in each country.
[231] OECD, op. cit.

country B's growth rate is 3 % per year. The income elasticity of country A's imports from country B is one; similarly country B's income elasticity of imports from A is equal to one. In this case, a trade balance problem occurs for the growing country A, of which imports tend to grow faster than its exports.[232] Table 15 shows that some southern European countries and Ireland experienced higher GDP growth rates, which were higher than those in the northern European countries.

Table 15: Average Yearly Real Growth Rates of GDP in the EU

Countries	1999	2000	2001	2002	2003	2004	99-04	91-00	81-90
Belgium	3,2	3,9	0,7	0,9	1,3	2,5	2,1	2,2	2,0
Germany	2,0	2,9	0,8	0,1	-0,1	1,9	1,3	1,9	2,3
Greece	3,4	4,5	4,3	3,6	4,5	3,8	4,0	2,3	0,7
Spain	4,2	4,4	2,8	2,2	2,5	2,6	3,1	2,7	2,9
France	3,2	3,8	2,1	1,2	0,5	2,4	2,2	1,9	2,5
Ireland	11,1	9,9	6,0	6,1	3,7	5,2	7,0	7,2	3,6
Italy	1,7	3,0	1,8	0,4	0,3	1,3	1,4	1,6	2,3
Luxembourg	7,8	9,0	1,5	2,5	2,9	4,0	4,6	5,5	5,0
The Netherlands	4,0	3,5	1,4	0,6	-0,9	1,4	1,7	2,9	2,2
Austria	3,3	3,4	0,7	1,2	0,8	1,9	1,9	2,6	2,5
Portugal	3,8	3,4	1,6	0,4	-1,2	1,3	1,6	2,8	3,3
Finland	3,4	5,1	1,1	2,3	1,9	3,0	2,8	1,9	3,0
Denmark	2,6	2,8	1,6	1,0	0,5	2,3	1,8	2,0	1,6
Sweden	4,6	4,3	0,9	2,1	1,6	3,7	2,9	2,4	2,2
UK	2,9	3,9	2,3	1,8	2,2	3,3	2,7	0,2	2,6
Czech Republic	1,2	3,9	2,6	1,5	3,1	3,8	2,7	-	-
Estonia	-0,1	7,8	6,4	7,2	5,1	5,9	5,4	4,2	-
Cyprus	4,7	5,0	4,0	2,0	2,0	3,5	3,5	-3,6	-
Latvia	3,3	6,9	8,0	6,4	7,5	7,5	6,6	-3,3	-
Lithuania	-1,7	3,9	6,4	6,8	9,7	7,1	5,4	0,9	-
Hungary	4,2	5,2	3,8	3,5	3,0	3,9	3,9	-	-
Malta	4,1	6,4	-2,2	1,8	0,2	1,0	1,9	3,6	-
Poland	4,1	4,0	1,0	1,4	3,8	5,8	3,4	1,8	-
Slovenia	5,6	3,9	2,7	3,3	2,5	4,0	3,7	-	-
Slovakia	1,5	2,0	3,8	4,6	4,0	4,9	3,5	2,1	-
EU15	2,9	3,6	1,7	1,1	0,9	2,3	2,1	-	2,4
EU25	2,9	3,6	1,8	1,1	1,0	2,5	2,2	-	-

Source: European Commission, (2004c). op. cit., p.p. 414-566.

It is also desirable that the economies of the EMU countries should follow similar business cycles. The appropriate level of interest rate for an economy, which is experiencing a boom, is likely to be inappropriate for an economy, which is in recession. This issue has

[232] De Grauwe, op. cit., p. 19.

arisen with the Irish economy.[233] Ireland has been growing at exceptionally high rates, as seen in Table 15; as a result, inflation rate of Ireland is above the target rate for inflation set by the ECB. There are many empirical studies on business cycles of the economies of the EMU member countries. For example, Frankel and Rose argued that trade integration among member countries makes the business cycles of these countries more synchronised.[234] Artis and Zhang found that there had been more synchronization among the business cycles of the EU countries since the early 1980s due to the higher degree of integration. Thus, there are fewer asymmetric shocks in the EU countries.[235]

3.2.7. Convergence of Inflation Rates

Fleming argued that when inflation rates of the member states are low and converge to each others, terms of trade will also remain fairly stable. In this case, current account transactions and trade are equilibrated; and changes in purchasing power parities are not substantial.[236] As stated before, Mundell argued that a currency area should be managed without- substantial change in member countries' purchasing power parities.[237] Nevertheless, a central bank of a monetary union is likely to reflect the average inflation rates of the member countries.[238] This is a cost of a monetary union for participating countries. Convergence of inflation rates is one of the convergence criteria, which was mandated by the Maastricht Treaty. By the introduction of the convergence criteria, inflation differentials have

[233] Omerod, P. and Mounfield, C., (2000). "The Convergence of European Business Cycles1978-2000", *Physica A*, No: 307, p.p. 494-504.
[234] Frankel, J. A., Rose, A. R., (1996). "The Endogeneity of the Optimum Currency Criteria", *NBER Working Paper*, No: 5700.
[235] Artis, M. J., Zhang, W., (1995). "International Business Cycles and the ERM: Is there a European Business Cycle?", *CEPR Discussion Paper*, No: 1191.
[236] Fleming, J. M., (1971). "On Exchange Rate Unification", *The Economic Journal*, No: 81, p.p. 467-488.
[237] Mundell, R. A., (1973a). op. cit.; and Mundell, R. A., (1973), op. cit.
[238] De Grauwe, op. cit., p.p. 131-133.

narrowed down among all EU countries, in particular EMU member countries.[239] This can be seen in Table 5.

3.2.8. Fiscal Transfer System

The theory of optimum currency areas proved that fiscal transfer system plays a crucial role in adjustment of macroeconomic shocks; therefore, it should be taken into consideration as a criterion for optimum currency area. In most countries, which are seen as currency area, fiscal federalism exists, therefore these transfers are often automatic outcome of tax systems. Fiscal federalism in a monetary union calls for certain transfer of resources from the prosperous countries or regions to the disadvantaged ones, as well as to promote mobility of resources.[240] The US is a good example for currency area with fiscal federalism. Any deficit of income in a state of the US can be compensated by federal transfers.

Since the EU is not a federal entity, it does not constitute a case for fiscal federalism. The EU budget is quite different from national budgets in terms of size and composition. It is small in relation to the budgets of the member countries. It accounts for just over 1 % of the EU's GDP. Therefore, activities of many economic policy areas are funded in the member countries, for example education and training, social security, health and consumer protection, infrastructure etc.[241]

The EU budget is limited by a prohibition on borrowing, and is not allowed to be in deficit. Therefore, revenue must cover the whole expenditures. During the first years of the EC, the budget was funded entirely by direct contributions from the member countries. Today, the revenue of the EU budget is divided into two main categories as own resources

[239] European Monetary Institute, op. cit.
[240] Jovanovic, M. N., op. cit., p. 71.
[241] European Commission, official web site, http://ec.europa.eu/budget/budget_glance/index_en.htm , 26.01.2007.

and other revenue. The most of the budget has been financed through own resources since 1970. The revenues of the EU budget are given in the Table 16, while expenditures of the EU budget are given in the Table 17. There is a ceiling for payments made from the EU budget. It is currently set at 1.24 % of the Union's GNI.[242]

The CAP still absorbs the largest part of the EU budget, although the agricultural spending has fallen to 45.4 % of total spending in 2006. The agricultural spending represented over 70 % of the total expenditure in the early and mid-1970s. Spending on structural operations is the second largest part of the EU budget. It represents 31.6 % of the total expenditure in 2006. Nevertheless, in 2006, internal policies, administration, external action, pre-accession strategy, compensations and reserves represent respectively 7.9 %, 5.9 %, 4.8 %, 2.6 %, 1 % and 0.4 % of the total expenditure.[243]

Table 16: Revenues of the EU Budget

Revenues
1. Own resources: - Traditional own resources: customs duties, agricultural duties and sugar levies - A share of the VAT base of each member country - A further contribution from the member countries based on the size of their GNI 2. Other resources: - The surplus of the previous year - Contributions from third countries participating in European programmes - Contributions by the staff of the European institutions

Source: European Commission, official web site, http://europa.eu/scadplus/leg/en/lvb/l34013.htm , 28.01.2007.

[242] Ibid.

[243] European Commission, General Budget of the European Union for the Financial Year 2006: the figures, Official Publications of the European Communities, Luxembourg.

Table 17: Expenditures of the EU Budget

Expenditures
1. *Agricultural and rural developments*: - The expenditure on the common organization of the agricultural market - The rural development actions which accompany support for rural measures and markets outside - Expenditure arising from certain veterinary measures - Information dissemination on the CAP. 2. *Structural operations*: - The Structural Funds: The European Agricultural Guidance and Guarantee Fund (EAGG) Guidance Section, the European Regional Development Fund (ERDF), the European Social Fund (ESF) and the Financial Instrument for Fisheries Guidance (FIFG) - The Cohesion Fund 3. *Internal policies of the EU*: - Actions to make Community industries more competitive through research and technological development - Other structural operations (e.g. common transport policy) - Activities relating to vocational training, education and youth, culture and audiovisual media, information, the social dimension and employment - Actions promoting energy policy, nuclear safeguards and the environment - Actions aimed at deepening the internal market, such as consumer protection and the area of freedom, security and justice 4. *External action benefiting third countries*: Horizontal actions and aid and cooperation actions for particular geographical areas. 5. *Administrative expenditures* 6. *Reserves for meeting expenses that cannot be foreseen when the budget is drawn up*: - The reserve for emergency aid (including the solidarity fund) - The reserve for loan guarantee 7. *Pre-accession strategy*

Source: European Commission, official web site, http://europa.eu/scadplus/leg/en/lvb/l34013.htm , 28.01.2007.

Nevertheless, there is a debate on redistribution of the EU budget between member countries. The UK made complaints about its net contribution to the EU budget; because the UK's net balance vis-à-vis the EU budget was negative. The UK has a small agricultural sector, thus it benefited very little from spending of the EU budget. In June 1984, the Fontainebleau European Council introduced a mechanism aimed at correcting the budgetary imbalance of the UK through reducing the UK's payments to the Community. Germany, Austria, the Netherlands and Sweden also considered their negative budgetary positions as excessive. Thus, the cost this mechanism is shared between the other member countries – except Germany, Austria, the Netherlands and Sweden – according to their share of GNI.[244]

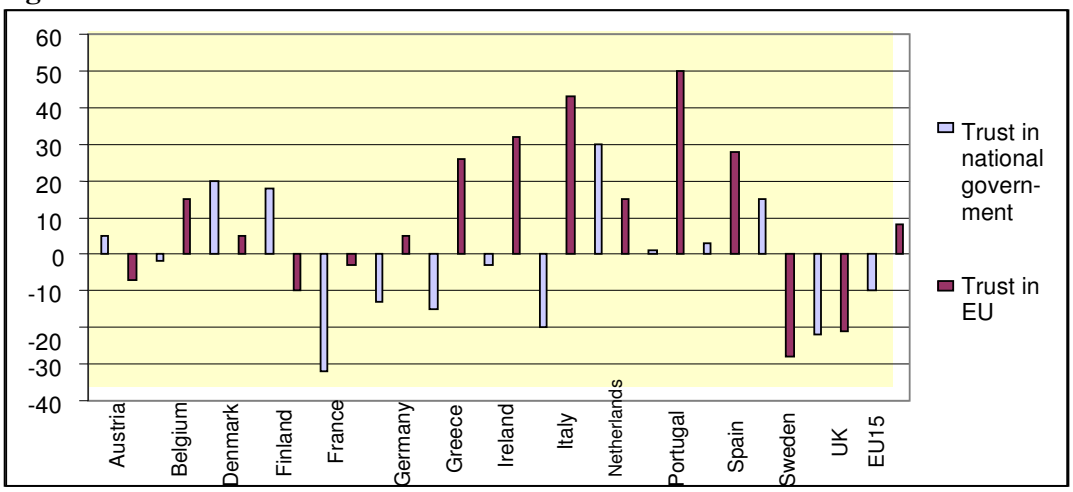
All these figures prove that the EU budget is too small to realize transfer of fiscal resources from prosperous regions to disadvantages ones as an adjustment mechanism of adverse shocks. The composition of expenditures is also inappropriate for this. The European Regional Policy provides EU-level assistance to help the regions overcome their handicaps. It also provides direct benefits to the EU citizens and SMEs.[245] Although the ERP is useful to diminish regional disparities in the EMU, it cannot substitute a fiscal transfer system within the EU, particularly under strong asymmetric shocks. A fiscal transfer system provides redistribution of funds to member countries affected by an asymmetric shock. It also eases the adjustment process to shocks.[246] Nevertheless, such a system requires a significant increase in the EU budget, change in the composition of the expenditure, and therefore further political integration.

[244] De Haan, J., and Eijffinger, S.C.W., op. cit., p.p. 118-119.
[245] Karluk, R., op.cit., p.p. 301-306.
[246] Kenen, P. B. op.cit.

3.2.9. Political Will

Political will can be seen as a criterion, because it is necessary for higher degree of budgetary centralization, coordination of economic policies, harmonization of legal systems, and compromising on joint commitments. However, the political integration among the member countries is only partially successful. The following table indicates this situation. Overall, the national governments are trusted by 39 % and distrust them by 51 %, while the EU by 46 % and distrust them by 37 %. Nevertheless, the EU citizens are willing to share so widely some important components of sovereignty such as adoption of a single currency and a common monetary policy, while they are not willing to share some other issues such as European Constitution.

Figure 10: Trust in Institutions



Source: Derived from European Commission, (2002b). Eurobarometer 57, June 2002.

3.2.10. Assessment of the Criteria for Optimum Currency Area

The theory of optimum currency areas mainly depends on market flexibility and factor mobility. The analysis in the part 3.2 revealed that price and wage flexibility and labour

mobility are too low within the EMU. The degree of capital mobility across the member countries, particularly in terms of FDI, is higher than before the establishment of the EMU but not satisfactory. The criteria of openness to trade and diversification in production and consumption are fulfilled by the member countries. However, *the EMU cannot be considered as an optimum currency area,* unless the other criteria are fulfilled.

There is a broad consensus among economists that the euro area is not an optimum currency area. De Grauwe argued that there is a real divergence among the EMU countries. Real divergence means the degree of which growth rates of output and employment tend to diverge as a result of asymmetric shock. In the presence of divergence, the participating countries need much flexibility in their labour markets to benefit from monetary union. Since the wage flexibility and labour mobility are so low in the European countries, they cannot form an optimum currency area.[247] De Haan and Eijffinger agreed on that the divergence among the EMU member countries is so high and the labour market flexibility so low, therefore the EMU cannot be considered as an optimum currency area.[248]

There is also a strong conviction among the economists that there is a subset of the EU countries which can form an optimum currency area. This minimum set of countries consists of Germany, the Benelux countries, and France.[249] Within these countries the degree of labour market flexibility is not higher than the other countries, while the degree of real divergence is lower.

In order to achieve convergence, a higher degree of economic and monetary integration with strong macroeconomic policy coordination among the member countries is necessary in the EMU. The European Commission stated that further economic and monetary integration provides more convergence in terms of income and employment.[250]

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[247] De Grauwe, P., op. cit., p.p. 82-85.
[248] De Haan, J., Eijffinger, S. C. W., op. cit., p. 21. See also Eichengreen, B., op. cit.; and De Grauwe, P., and Vanhaverbeke, W., (1993). op. cit.
[249] Eichengreen, B., op. cit.
[250] European Commission, (1990). op. cit.

However, higher degree of convergence and macroeconomic policy coordination may not be sufficient to cope with asymmetric effects of shocks. Any shock, which the participating countries are subjected to, may require different policy responses due to differences in their initial economic positions, degree of price and wage flexibility, tax structures, structures of financial markets. Therefore, in addition to the higher degree of integration, it is necessary to use the information about the economic situation of the member countries in macroeconomic policy choice.

3.3. THEORETICAL APPROACH TO MACROECONOMIC POLICY CHOICE IN THE EMU

In a monetary union, which is not an optimum currency area, macroeconomic policy choice is more important for the future of both individual countries and the union as a whole. The macroeconomic policy of the EMU is characterized by price stability and fiscal discipline. In this part, it is investigated through a theoretical approach how the macroeconomic policies should be implemented in the EMU under the SGP and the two-pillar monetary policy strategy.

3.3.1. Common Monetary Policy in a Monetary Union

The efficiency of common monetary policy in a monetary union mainly depends on the criterion of symmetry in shocks. Since the EMU does not fulfill this criterion, it is very

important to identify how the common monetary policy should be implemented under asymmetric shocks and how it affects the member countries under asymmetric shocks.

In a monetary union, shocks may occur in various ways; and the effects of the common monetary policy may be different due to the way in which shocks occur. Firstly, the EMU may face a pure asymmetric shock. In Mundell's two-country model, a pure asymmetric shock refers to that the positive effects of the shock in one country are exactly offset by the negative effects of the shock in the other country. In this case, there will be no change in unemployment and inflation of the euro area as a whole. Hence, the ECB will decide not to take action to stabilize the European economies.[251]

Secondly, a pure symmetric shock, which is exactly the same in both countries, may occur in the EMU. The ECB observes increase in unemployment in the euro area as a whole, and follows an expansionary monetary policy to stabilize the economy. The effectiveness of the ECB to stabilize economy in individual countries depends on whether the shocks are symmetric or asymmetric.[252]

Thirdly, symmetric shocks may produce asymmetric effects because of structural differences among the member countries such as institutions in labour, production, and financial markets. For example, one member country may have a high degree of flexibility, while the other may have a high degree of rigidity. In this case, the common monetary policy will be more effective in the flexible country than the rigid country.[253]

Under the existence of asymmetry in shocks, desired interest rates are likely to differ widely from one member country to other, preventing the ECB from taking action to stabilize the economy. Furthermore, the ECB may face this problem also during slowdown, because the member countries have different inflation rates and output gaps. However, according to

[251] De Grauwe, P., op. cit., p.p. 177-178.
[252] Ibid.
[253] Ibid.

the theory of optimum currency areas, a single currency should be managed without substantial change in purchasing power parities in order to eliminate effects negative of asymmetric shocks.[254] Considering both the theory of optimum currency areas and macroeconomic theory, it can be said that guaranteeing price stability should be the most important issue for a common monetary policy.

3.3.2. Monetary Policy Strategy in the EMU

As stated before, the ECB's monetary policy strategy depends on a diversified approach with inflation targeting strategy and monetary targeting strategy. Although in both inflation targeting and monetary targeting the ultimate target is inflation, their intermediate targets are different. Table 18 indicates the comparison of these strategies. While the monetary targeting strategy uses money supply growth as intermediate target, the inflation targeting strategy uses expected inflation as intermediate target.

Table 18: Monetary Policy Strategies

Strategy	***Instrument***	***Intermediate Target***	***Ultimate Target***
Monetary Targeting	Short-term interest rate	Money supply growth	Inflation
Inflation Targeting	Short-term interest rate	Expected inflation	Inflation

Source: De Haan, J., Eijffinger, S. C. W., op. cit., p. 55.

In addition, the ECB's two-pillar monetary policy strategy also implies economic analyses in order to observe price developments and the risks to price stability at its monetary policy decisions. Therefore, the monetary policy strategy and its implementation are more complex than alternative strategies. Since the euro area consists of 13 individual countries

[254] Mundell, R. A., (1973a). op. cit. and Mundell, R. A., (1973b). op.cit.

with structural differences and there is a lack of historical data for euro area's economic indicators, this complexity is necessary for an accurate and proper reflection to the challenges facing the ECB. Nevertheless, the primary objective of this strategy is to maintain price stability over the medium term. Although some economists criticize it, both the theory of optimum currency areas and macroeconomic theory reveal that price stability objective is suitable approach for the EMU.

3.3.2.1. Taylor Rule and the Monetary Policy Strategy in the EMU

A simple monetary policy rule, which is known as Taylor rule, has become popular over the last decade to describe how a central bank set interest rates. Taylor described the monetary policy of the Federal Reserve in the US. According to the Taylor rule, a central bank should set the interest rate equal to the result of following equation:

Interest rate = inflation + equilibrium real interest rate + ½ (inflation gap) + ½ (output gap)

Taylor assumed that the equilibrium real interest rate is 2 % and that an appropriate target for inflation would also be 2 % with equal weights of ½ on the inflation and output gaps. The rule indicate that monetary policy decisions of a central bank should aimed at both maintaining price stability and minimizing business cycle fluctuations of output around its potential.[255]

However, as stated earlier, the ECB's monetary policy strategy includes different monetary policy rules, and the ECB's primary objective is to maintain price stability. The ECB stated many times that a fixed monetary policy rule, such as Taylor rule, cannot be used directly in the ECB's monetary policy decisions; and also stated that if there is a trade-off

[255] Mishkin, F. S., (2001). *The Economics of Money, Banking and Financial Markets*, Sixth edition, New York: Addison Wesley, p.p. 474-475.

between price and output stabilization, it would pursue price stability.[256] There are some arguments for not using Taylor type rules in the euro area. Firstly, Svensson divides monetary policy rules into two categories as targeting rule and instrument rule. Accordingly, the Taylor rule is an instrument rule, while the ECB's rules are targeting rules. Svensson argues that simple instrument rules like variants of the Taylor rule are very incomplete rules, because they don't specify when the central bank should or should not deviate from the simple instrument rule. He also argues that targeting rules are much more complete, because there are few good reasons to deviate from them, since they allow the use of judgment and extra-model information.[257] Secondly, many economists found that the Taylor rule has some theoretical weaknesses and a number of practical problems in estimation. Thirdly, a further weakness arises in the case of euro area. Since the single currency is a relatively recent event, historical data on inflation and output gaps for euro area is not enough to make accurate analysis. Therefore, only few economists actually estimated a reaction function for the ECB.[258] Fourth and the most importantly, empirical studies proved that the Taylor rule is unstable when estimated on the euro area data and forecast poorly out of sample.[259] Therefore, the Taylor rule is not appropriate for the monetary policy strategy in the EMU.

3.3.2.2. Critical Assessment of the Monetary Policy Strategy in the EMU

The monetary policy strategy in the EMU depends on strictly price stability objective. This strategy is also known as one size fits all policy, because the ECB takes its decisions depending on the average values of variables for the entire euro area. Many economists

[256] For example, see European Central Bank, (1999). op. cit.
[257] Svensson, L.E.O., (2003). "What is Wrong with Taylor Rules? Using Judgement in Monetary Policy through Targeting Rules", *NBER Working Paper*, No: 9421.
[258] Sauer and Sturm found that the ECB is accommodating changes in inflation. See Sauer, S. and Sturm, J., (2003). "Using Taylor Rules to Understand ECB Monetary Policy", *CESifo Working Paper*, No: 110. Findings of the other studies indicate that there is a small interest rate reaction to inflation. See Gerdesmeier, D. and B. Roffia, (2003). "Empirical Estimates of Reaction Functions for the Euro Area", *ECB Working Paper*, No: 206.; Surico, P., (2003). "How does the ECB Target Inflation?", *ECB Working Paper*, No: 229.; and Ullrich, K., (2003). "A Comparison between the Fed and the ECB: Taylor Rules", *ZEW Discussion Paper*, No: 0319.
[259] For example see Gerlach-Kristen, P., (2003). "Interest Rate Reaction Functions and the Taylor Rule in the Euro Area", *ECB Working Paper Series*, No: 258.

criticize this feature of the strategy due to the fact that there are economic differences among member countries. Although these critics are right, there is no a better framework for the euro area. However, this problem is exaggerated by another characteristic of the monetary policy strategy. As stated earlier, the ECB stated that it would pursue price stability, if there is a trade-off between price and output stabilization. In fact, this does not mean that the ECB never pay attention to output stabilization in such cases. The price stability objective is defined over the medium run in the EMU. This creates clarity problem for the strategy, but this also provides the ECB some flexibility in its response to the shocks. It may take action after a negative shock slowly. Thus, the EMU does not face a sharp decline in the output level.[260] The strategy should clearly state that if there is a deflation risk or a serious recession in one or more member country, the ECB will take necessary actions even if there is a trade-off between price and output stabilization. In this dissertation, it is argued that this issue is related to the clarity problem of the monetary policy strategy.

Clarity problem is also seen in the first pillar of the strategy. The concept of medium-term is not defined by the strategy. Nevertheless, price increases above 2 % are attributed to some external factors, such as increasing oil prices, global economic slowdown and depreciation of the euro, by the ECB. Furthermore, the Governing Council in 2003 made a further clarification bringing the concept of "inflation rate below but close to 2 %" in order to avoid deflation, which is also important for the price stability objective as well as inflation. Although the rationale for this clarification is right, this concept exaggerated the clarity problem of the monetary policy strategy. Therefore, the strategy does not make it possible to assess exactly whether the price stability objective is met or not.

Another problem with the monetary policy strategy in the EMU is credibility problem. Implementation of the strategy revealed that the annual HICP has exceeded 2 %; and also that the annual growth rate of M3 has exceeded 4.5 % at several times since the introduction of the euro. Both the implementation of the monetary policy strategy and economic theories prove

[260] Svensson, L. E.O., (2002). "Inflation Targeting It Should be Modelled as an Instrument Rule or Targeting Rule?", *European Economic Review,* No: 46, p.p. 771-780.

that credibility is very important for the euro area. Indeed, the euro depreciated steadily since 1999 until February 2002. In addition to the weak ECB credibility due to breaching reference values, there was an unpredictable market psychology within the EMU between 1999 and 2002. By the withdrawn of the national currencies from the use on February 2002, the euro has begun to appreciate for three successive years without wild fluctuations and stabilized at the end of this period at a high level against the US dollar. The euro-dollar exchange rates have stabilized the since 2005.

In fact, the implementation of the monetary policy has been unexpectedly successful. The credibility problem is caused from choosing reference values of the monetary policy strategy. The annual HICP has been broadly stable in the range between 2 % and 2.5 %. Despite breaching the reference value, price stability has been maintained since the introduction of the euro. Therefore, the reference value for inflation should be scrutinized by the ECB to decide whether it is too low or not.

Nevertheless, the first pillar of the monetary policy strategy requires that the ECB should maintain the growth rate of broad monetary aggregate, M3, below 4.5 % per annum. Therefore, it can be said that monetary policy strategy of the ECB is characterized by Monetarist view. However, the ECB is now the only central bank among the industrial countries giving such important role to money in its strategy. In a low-inflation environment growth rate of monetary aggregate is very unreliable as signals of future inflation.[261] The empirical studies proved that money growth is likely to be a poor indicator of risks to price stability.[262] Furthermore, the part 2 indicated that the ECB has had to ignore that the growth rate of the monetary aggregate has been above the limit of 4.5 % in many times. Therefore, this reference value is useless and weakens the credibility of the monetary policy strategy. The ECB should reduce the role of money in monetary policy strategy by considering

[261] De Grauwe, P., op. cit., p. 193.
[262] For example, see Rudebusch, G.D., Svensson, L.E.O., (2002). "Eurosystem Monetary Targeting: Lessons from US Data", *European Economic Review*, No: 46, p.p. 417-442.

information about it. Therefore, the monetary policy strategy needs a further revision to eliminate these problems.

3.3.3. Fiscal Discipline in a Monetary Union

When countries join to a monetary union, they adopt a common monetary policy by giving up their national monetary policy instrument. The common monetary policy cannot solve all problems of the EMU member countries at the same time, because of differences among the countries and asymmetric shocks. This means that the fiscal policy have become more important for these countries, although it does not easily substitute for the monetary policy. It is important to determine how the fiscal policies should be implemented both at the national and at the union level.

Considering the theory of optimum currency areas, suppose that the European consumers shift their demand from the goods of country A to the goods of country B. The previous part revealed that price and wage flexibility and labour mobility are too low in the EMU countries. In these circumstances, this negative shock in country A will lead to an increase in the budget deficit of this country, because tax revenues decline while unemployment payments increase. Therefore, government of the country A needs to increase its borrowing. In opposite, government of the country B experiences an increase or a decline in its budget. If capital markets work efficiently, government of the country A can borrow easily from country B. As a result, external debt of the country A increases while the degrees of freedom of future fiscal policies of the country A reduce.[263]

Nevertheless, assume that the EMU countries have centralized a substantial part of their national budgets at the Union level. The social security system is organized at the Union

[263] De Grauwe, op. cit, p. 201-203.

level. Corporate taxes, income taxes, property taxes, VAT and excise taxes are levied by the central authority. In this case, under such a demand shock, the centralized European budget redistributes the income automatically from country B to country A. Income taxes, which are collected by the central authority in country A, decrease, while unemployment payments, which are provided by the central authority, increase. In opposite, tax revenues, which are collected by the central authority in the country B, increase, while the central authority spending in country B declines. Thus, the centralized budget at the Union level works as a shock absorber.[264]

Such a centralisation and fiscal transfer system is called as fiscal federalism. It is different from fiscal harmonisation, which refers to agreement on the manner in which each member state will utilize a particular fiscal instrument over which it retains control. It is also different from fiscal coordination, which refers to essentially voluntary alignments of national fiscal measures which cannot be enforced by the community authority.[265] The EU is too far from fiscal federalism. Nevertheless, some tax harmonisation at EU level has been realized notably so with respect to VAT, as required by the Treaty of Rome.[266]

It is important to decide the degree of centralization of national budgets at Union-level and the frequency of using fiscal transfers within the EU. The fiscal policy could be more effective in the context of monetary union, but there is the risk of free-riding by national or even regional governments.[267] The budgetary transfers should be used to cope only with temporary shocks and recessions. When the shocks are permanent, these transfers should be used only temporarily. Quite often, when a region experiences a negative shock, the transfers through the centralized social security system tend to get a permanent character; because, these social security transfers reduce the need to adjust, keeping real wages too high. Such a centralization of the social security system at the European level would almost certainly lead to quasi-permanent transfers from one group of countries to another and to political problems

[264] Ibid.
[265] Robson, P., op. cit, p. 123.
[266] Article 99 to 100 of the Treaty of Rome.
[267] Tsoukalis, L., op. cit., p. 185.

among the countries.[268] European Commission and several economists proposed limited centralization of social security systems, in particular unemployment benefit systems, which is able to cope with temporary asymmetric shocks, for the EU.[269]

Centralization of a substantial part of the national budgets at the union level requires high degree of political integration. Such centralization is not possible in the EMU because the degree of political integration is low. According to Kenen, it is desirable to centralize a significant part of the national budgets to the union level, but if such centralization is not possible, national fiscal policies should be used in a flexible way.[270] This means that when a country experiences an adverse shock or a recession it should be allowed to let the budgetary deficit increase and/or government debt.

However, the degree of this flexibility should not be too high, because excessive budgetary deficits and government debts may harm the union. Many economists argue that fiscal policy rules are necessary in the EMU. In the following part, it is analysed whether the EMU really needs fiscal policy rules, and whether the fiscal policy rules, which consists of the SGP provisions and the Maastricht Treaty, are appropriate for the EMU.

3.3.4. Critical Assessment of Fiscal Policy Rules in the EMU

The EU member countries created fiscal policy rules, which prevent excessive budgetary deficits and government debts and make definite how the national fiscal polices will be used in the EMU, through the SGP and the Maastricht Treaty. As stated earlier, according to these rules, the ratio of the annual government deficit to GDP must not exceed 3 % at the end of the preceding financial year; and the ratio of gross government debt to GDP

[268] Ibid., p. 204.
[269] European Commission, (1993). "Stable Money: Sound Finances, Community Public Finance in the Perspective of EMU", *European Economy Series,* No: 53.
[270] Kenen, op. cit.

must not exceed 60 % at the end of the preceding financial year. There are three arguments for restricting the national fiscal policies.

Firstly, the main argument is the negative spill-over effects of unsustainable government debts. When the national fiscal policies are used in a flexible way, the governments can absorb the asymmetric shocks and cope with the recessions through creating budget deficits. However, a budget deficit causes an increase in government debt. If the nominal interest rate of the government debt is higher than the nominal growth rate of the economy, using of budget deficits to absorb asymmetric shocks caused an increasing government debt relative to GDP. This is called as sustainability problem of debt.[271] This may threaten the price stability, which is the main objective of the ECB's monetary policy strategy, because of the negative spill-over effects for the rest of the Union. Unsustainable debts of a member country may increase interest rates in the Union through capital markets. High interest rates in the Union decreases the investment and hence growth in the long-term. The governments with financial trouble may apply to the central bank to finance their deficits, causing inflationary bias.[272] In EMU, the Maastricht Treaty forbids the Euro-system from providing direct support to governments. However, indirectly, the member countries may put pressure on the ECB to relax its monetary policy, resulting in inflation, despite its independence.[273]

Second argument for the fiscal rules in the EMU is that financial markets do not have enough disciplining impact on governments' fiscal policies. The experiences of many countries showed that financial markets react slowly to a threatening unsustainable fiscal position; and there is no empirical evidence that a higher interest rate burden stimulates governments to borrow less. Furthermore, the EMU member countries may fear the threat of one member country's default and its spill-over effects. In a monetary union, member

[271] De Grauwe, op. cit., p. 205.
[272] Stark, J., op. cit., p. 79.
[273] Eichengreen, B., and Wyplosz, C., (1998). "The Stability Pact: More than a Nuisance?", *Economic Policy*, no: 26, p.p. 65-113.

countries can default on their debts only by an outright default.[274] In this case, they may feel obliged to bail-out the deficit government, in spite of the no-bail-out clause introduced by the Maastricht Treaty.[275]

Thirdly, the countries may increase their government borrowing by the establishment of a monetary union. The establishment of the EMU may reduce the fiscal discipline of national governments, because the governments may borrow more easily. Before the EMU, the government borrowing, except in foreign currency, was limited by the size of their domestic capital markets. By the introduction of the euro, the domestic capital market became much bigger, which provide government to borrow more without taking on any exchange rate risk. In addition, financial markets may believe that the EMU provide an implicit guarantee of its member's debt; hence the correct risk premium could not be attached to the borrowing of the country with unsustainable debt. This again encourages the government to borrow more, leading to inflation.[276]

However, many economists found these arguments weak for the fiscal rules in EMU. According to this view, firstly, Europe is widely integrated in the world's financial markets, thus the borrowing of one country is unlikely to affect the interest rates in the Union. The risk is here that heavy borrowing may cause capital inflows to the Union, resulting in appreciation of the euro, weakness in the competitiveness of the euro area and decrease in the growth.[277] If the capital markets work efficiently, lenders attach a risk premium to the country with high debt. Thus, the country with a high debt to GDP ratio does not create spill-over effect to the other member countries.[278] Secondly, there is no evidence that the default risks of the countries increases when they joined in the EMU. McKinnon stated that the level of debt of some EMU member countries is so high. Since an EMU member country can no longer

[274] The second way to default is an implicit default by creating surprise inflation or devaluation. De Grauwe, P., op. cit., p. 215.
[275] Baldwin, R., and Wyplosz, C., op. cit., p.p. 386-87.
[276] Ibid.
[277] Baldwin, R., and Wyplosz, C., op. cit., p.p. 385-86.
[278] De Grauwe, P., op. cit., p.p. 210-212.

default by creating surprise inflation or devaluation, the EMU increases the default risk.[279] On the contrary, Eichengreen and Von Hagen argue that the risk of default is likely to be small, since the EMU consists of countries maintaining large domestic taxing powers.[280] Thirdly, implementation of fiscal rules is too difficult in practice. The experiences revealed that the existence of such rules have very little impact on the size of the state's budget deficits.[281] However, these arguments do not mean that the fiscal policy rules are unnecessary for the EMU.

In conclusion, the national fiscal polices should be implemented in a flexible way within the EMU; however there should be fiscal policy rules to prevent excessive deficits and government debts. The important point is how such rules should be designed and implemented in the EMU.

The fiscal policy choice of the EMU should be made by taking into account two important points. Firstly, considering the theory of optimum currency areas, the national fiscal policies should be used in a flexible way within the EMU, because the centralization of the national budgets is limited. In the absence of the monetary policy instrument, the national fiscal policies should play a vital role as automatic stabilizers when the country faces an asymmetric shock. Secondly, some fiscal rules are necessary for the member countries, because unsustainable national debts and deficits in one country may create negative spill-over effects to the other countries, damaging the provisions of the Maastricht Treaty such as independence of the ECB, no-bail-out clause. The fiscal policy rules should be designed to set balance between these two points.

The SGP provisions as fiscal policy rules do not ensure such a balance. They mainly focus on the spill-over effect of possible unsustainable debts and deficits. Therefore, these

[279] McKinnon, R., (1996). "Default Risk in Monetary Unions, background report for the Swedish Government Commission on EMU, Stockholm. In: De Grauwe, P., op. cit, p. 215.
[280] Eichengreen, B., and Von Hagen, J., (1995). "Fiscal Policy and Monetary Union: Federalism, Fiscal Restrictions and the No-Bailout Rule", *CEPR Discussion Paper*, No: 1247. In: De Grauwe, P., op. cit, p. 216.
[281] Von Hagen, J., (1991). "A Note on the Empirical Effectiveness of Formal Fiscal Restraints", *Journal of Public Economics,* No: 44, p.p. 199-210.

rules are too strict to use the national fiscal policies in a flexible way to make automatic stabilizers function during the recessions. The problems with the early implementations of the SGP, as examined in the previous parts, prove this argument.

In principle, the SGP's strategy is that the national budgets should be normally balanced to leave enough room for the automatic stabilizers. However, if the budget of any individual country is already at the 3 percent limit, there is no room left for the automatic stabilizers to cope with asymmetric shocks or to cushion the negative effects of its business cycle.[282]

The EMU needs more flexibility of national budgetary policies, taking into account business cycles and the risk of asymmetric shocks. The economists suggested that the judgment of whether budget deficits are excessive should be based on the debt levels of individual countries.[283] Some economists and Commission proposed to set limits for the cyclically adjusted budget.[284] Although this idea is a logical solution, it causes some problems. In this procedure, the SGP require that the cyclically adjusted budget be balanced every year, ignoring asymmetric shocks. Furthermore, it is not easy to compute the cyclically adjusted budgets. Another suggested solution is to limit only the public debt over the medium-term. This would give governments more room to use fiscal policy in the short-term.[285]

Arestis, McCauley and Sawyer proposed three elements concerning fiscal policy. Firstly, the present limits on national budget positions should be removed, and national governments should be allowed to set their fiscal policies. Secondly, institutional arrangements for the coordination of national fiscal policies should be strengthened. Thirdly, institutional arrangements are necessary at the EU level for the operation of an EU fiscal policy and for ensuring that monetary authorities are not dominant in economic policy

[282] Baldwin, R., and Wyplosz, C., op. cit., p. 394.
[283] For example see De Grauwe, P., op. cit., p. 219.
[284] For example see Baldwin, R., and Wyplosz, C., op. cit., and see also De Grauwe, P., op. cit.
[285] Baldwin, R., and Wyplosz, C., op. cit., p. 394.

making.[286] However, in the absence of any constraint on national budgetary positions caused fiscal indiscipline and unsustainable budget debts and deficits.

As a result, the fiscal policy rules under the SGP provisions are necessary in the EMU to maintain fiscal discipline. However, the SGP has same numerical rules for all member country, ignoring the differences in their macroeconomic structures. In theory, a member country should have 3 % real economic growth and 2 % inflation rate to make the value of the deficit to GDP ratio exactly 3 %. However, these limits are more arbitrary than being scientific, because there is no theoretical justification or historical argument, which support the choice of these numbers.[287] These numerical limits on the size of the national budget deficits and government debt are too strict and difficult to implement. Therefore, a reform for implementation of the SGP, which provides more flexibility of the national fiscal policies, is necessary to protect the EMU from adverse shocks and recessions.

3.3.5. Macroeconomic Policy Coordination in the EMU

Economic integration increases the policy interdependence between countries, and requires macroeconomic policy coordination. The high degree economic integration in Europe deepened and strengthened the economic interdependence between the EU member countries. In these circumstances, any change in macroeconomic policy within one country affects the macroeconomic indicators of all other countries. The speed and scale of the spill-over effect of macroeconomic policy depend on the degree of economic and financial integration. The EU is highly integrated in both senses.[288] Such a spill-over effect may cause

[286] Arestis, P., McCauley, K., and Sawyer, M., (1999b). op. cit.
[287] This critique was made by many economists. See Corsetti, G. and Roubini, N., (1993). "The Design of Optimal Fiscal Rules for Europe after 1992". In: Giavazzi, F. and Torres, F. (eds.), *Adjustment and Growth in the European Monetary Union*, Cambridge: Cambridge University Press, p.p. 46-87; see De Grauwe, P., op. cit., p. p. 217-221; and see also De Haan, J., Eijffinger, S. C. W., op. cit., p. 87-95.
[288] Healy, N. (1999). "Macroeconomic Policy Coordination". In: F. McDonald and S. Dearden (eds.), *European Economic Integration*, London: Longman, p.p. 73-75.

significant economic inefficiencies, unless member countries coordinate their macroeconomic policies.[289]

Macroeconomic policy coordination takes into account two essential elements. In the medium and long term, the main objective is to ensure a stable macroeconomic environment. In the short term, macroeconomic management in reaction to changing economic environment is a crucial issue.[290] The key question is how national macroeconomic policies should be coordinated among the EU member countries. This can be analysed from two perspectives. First perspective asks how much coordination of national macroeconomic policies is necessary. Coordination is seen as a process of agreement among the member countries. It focuses on the existence and magnitude of international spill-over effects of the national policies. Second perspective considers the economic theory of federalism. Coordination is seen as a process that makes economic activities mutually consistent in equilibrium. It is a matter of degree and ranges from competition among the national or regional authorities.[291] Since the EU is not a federal entity and do not have political will for achieving this, it should be analysed by the first perspective.

The scope of macroeconomic policy coordination has widened and deepened gradually in Europe as a response to the increased interdependence between countries. By the establishment of the EMU, the ECB started to conduct a common monetary policy, while the national fiscal policies remained as decentralized but under the SGP provisions. Although coordination is one of the most often used terms in official documents such as Maastricht and Amsterdam Treaties, there are only a few descriptions of coordination. In the report of the ECOFIN Council to the Helsinki European Council in December 1999, economic policy coordination was used as a general term for interactions among the policy-makers to deal with

[289] Cooper, R., (1985). "Economic Interdependence and the Coordination of Economic Policies", in R. Jones and P. Kenen (eds.), *Handbook of International Economics*, vol. 2, London: North Holland.
[290] Deroose, S. and Langedijk, S., (2002). "Economic Policy Coordination in EMU: Accomplishments and Challenges", in Buti, M. and Sapir, A., *EMU and Economic Policy in Europe: The Challenge of the Early Years*, Cheltenham: Edward Elgar, p.p. 205-227.
[291] Von Hagen, J. and Mundschenk, S., (2002). "The Functioning of Economic Policy Coordination". In: Buti, M. and Sapir, A., *EMU and Economic Policy in Europe: The Challenge of the Early Years*, Cheltenham: Edward Elgar, p.p. 173-204.

spill-over effects.[292] The Lisbon European Council stated that the BEPGs are at the centre of economic policy coordination.[293]

The macroeconomic policy coordination in the EU can be characterized by two types of coordination: hard policy coordination and soft policy coordination. In the case of hard policy coordination, supranational level plays an important role, but implementation lies with national authorities. It has a disciplining role and imposes an agreed model of how the economy functions. Nevertheless, it combines the preferences of national authorities within the context of a common commitment with specific legal rules. This type of coordination appears in the EU as the convergence criteria, common monetary policy and the SGP provisions. Nevertheless, in the case of soft policy coordination, guidelines, frameworks, communications, codes and etc. are designed to achieve a balance between policy credibility, political stability and policy flexibility. This type of coordination appears in the EU as BEPGs, European Employment Strategy, and Lisbon Strategy.[294]

There is a consensus on that soft macroeconomic policy coordination is useful for the European integration. On the one hand, a common monetary policy in the EMU takes of spill-over effect automatically. Under a common monetary policy, the important point is that policy-makers should take into account economic conditions in every individual country. On the other hand, large differences between member countries such as behaviours of business cycles, natures of shocks, tax and transfer systems, and macroeconomic indicators etc. create obstacles to widen the fiscal policy coordination. Furthermore, with a common monetary policy, there is a greater need for using national fiscal policies for economic stabilization purposes in the event of asymmetric shocks.[295] Macroeconomic policies are useless for the

[292] European Commission, (2005b). "Compilation of Community Legislation on Economic and Monetary Union", Belgium, p.p. 81-88.
http://ec.europa.eu/economy_finance/publications/euro_related/2005/compendium/pdfs/b1_04_en.pdf
[293] European Commission, (2000b). Lisbon Strategy, Presidency Conclusions of the Lisbon European Council, 23-24 March 2000.
[294] Begg, I., Hodson, D., and Maher, I., (2003). "Economic Policy Coordination in the European Union", *National Institute Economic Review*, No: 183, January, p.p. 66-77.
[295] Calmfors, L., (2001). "Macroeconomic Policy Coordination in the EU: How Far Should It Go?", *Swedish Economic Policy Review*, No: 8, p.p. 3-14.

EU's growth and employment problems, unless the member countries solve their structural problems such as rigidities in the goods and labour markets. Attempts to coordinate all economic policies in the hard type reduce transparency of the overall policy framework and accountability.[296] Hard policy coordination is useful for the EU to eliminate the spill-over effects of macroeconomic polices. Nevertheless, in some areas, soft policy coordination is also necessary instead of hard one in order to give flexibility to the member countries to solve their structural problems.

[296] Issing, O., (2002). "On Macroeconomic Policy Co-ordination in EMU", *Journal of Common Market Studies*, vol. 40, No: 2, p.p. 345-58.

CHAPTER IV

MACROECONOMIC CONSEQUENCES OF THE EMU UNDER THE STABILITY AND GROWTH PACT AND THE MONETARY POLICY STRATEGY

The SGP provisions and the rules of the ECB's monetary policy strategy have been affected the European economy since the introduction of the euro. Analyzing the macroeconomic developments in the euro area since 1999 may clarify the macroeconomic consequences of the EMU for the euro area economies under these rules. Nevertheless, three EU countries – the UK, Denmark and Sweden – opted out from the EMU membership in the early years of the euro due to different reasons, although Slovenia joined the EMU in January 2007 and the other new EU member countries announced their willingness to adopt the euro as soon as possible. Therefore, it is also important to investigate reasons of opting out from the EMU membership. In this chapter, benefits and costs of the EMU, macroeconomic developments in the euro area and opting out from the EMU participation are examined respectively.

4.1. BENEFITS AND COSTS OF THE EMU

Joining a monetary union implies both benefits and costs for individual countries. There is a comprehensive literature on the benefits and costs of a monetary union in Europe. They can be derived from the theory of optimum currency areas, which is analyzed in previous parts.

4.1.1. Benefits of the EMU

There are many benefits of adopting a common currency and convergence of monetary policies, upon which the economists agreed. Firstly, one of the main benefits of the introduction of the Euro is the elimination of the exchange rate uncertainty within the Union. It is argued that the exchange rate uncertainty has a negative impact on trade, international investment and revenue of firms, and growth. Most empirical studies have not found a significant relationship between exchange rate volatility and trade. However, a negative relationship between exchange rate volatility and long-term international investment cannot be easily denied.[297] If the adoption of a common currency reduces the risk and cost of capital, there will be a temporary increase in the rate of growth through the investment.[298] Furthermore, the elimination exchange rate uncertainty reduces the uncertainty about the future prices of goods and services; hence it helps to maintain price stability.[299]

Secondly, another benefit of a common currency is the elimination of the direct transaction costs, which are involved in converting one currency into another; therefore adoption of a common currency provides permanent resource savings. If payments outside the union formerly denominated in other currencies came to be denominated in the union currency, the gains would be larger.[300]

Thirdly, the elimination of transaction costs provides price transparency. By the introduction of the euro, consumers and corporate buyers become able to compare the prices across national markets in the same currency. Price transparency makes the internal market function better. It also increases competition within the union, because it will be easier for companies to sell across the euro area and for consumers to shop around.[301]

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[297] Eijffinger, S.C.W. and De Haan, J., op. cit., p.17.
[298] Baldwin, R. E., (1990). "On the Microeconomics of the European Monetary Union", *European Economy*, Special Edition, No: 1.
[299] De Grauwe, op. cit., p. 66.
[300] Robson, P., op. cit., p. 195.
[301] Dearden, S. and McDonald, F., (1999). *European Economic Integration*, London: Longman, p. 98.

Fourthly, a monetary union with a common currency implies a common pool of foreign exchange reserves. In this case, foreign exchange is no longer needed to finance intra-union trade; and member countries do not go into deficit simultaneously. Thus, it reduced the role of the EU's dependence on the US dollar or Japan yen. A common pool also makes a savings on foreign exchange reserves.[302]

Fifthly, the higher degree of integration of capital market is the further benefit of a common currency. Financial integration encourages capital to move where it is most productively rewarded and ensures labour to move to where the highest rewards prevail. It also improves the efficiency of the financing process itself to the extent that it provides both borrowers and lenders with a broader spectrum of financial instruments. Furthermore, the removal of the controls over FDI reinforces the benefits from investment decisions.[303]

In addition to these microeconomic benefits of a common currency, it has also macroeconomic benefits. Monetary integration may improve the anti-inflationary credibility of monetary policy. For countries with a better inflation rate and greater credibility, joining a monetary union may provide little gain, and even may imply a potential cost.[304]

If a monetary union is accompanied by a common fiscal authority with its own budget, there would be some additional benefits: national and regional deviations from internal balance can be financed from the central budget; the centralization of social security payments financed can have some stabilizing and compensating effects.[305] Nevertheless, this has not yet been a case for the EMU. Hence, costs of the EMU may partly be linked to the absence of a common fiscal policy.

[302] El-Agraa, A.M., op. cit., p. 100.
[303] Robson, P., op. cit., p. 194.
[304] Ibid., p. 196.
[305] El-Agraa, A.M., op. cit., p. 101.

4.1.2. Costs of the EMU

Adopting a common currency has also some costs. The most important and real cost of adopting a common currency is the loss of the ability to use monetary policy to stabilize the national economies. When a country joins the EMU, it relinquishes its national currency and its monetary policy instruments. The power and competence to make monetary policy is transferred to the ECB. The ECB sets a common interest rate and issues a single currency. Therefore, its national central bank has no direct power any longer, and becomes a regional agency of the ECB. A country adopting a common currency is not able to change the exchange rate of its currency, to determine the quantity of the national money in circulation, or to change the interest rate. While loss of seignorage is an important cost for countries with relatively higher inflation, the loss of the exchange rate as a tool of macroeconomic management is a cost, which affects the level of national competitiveness in the global economy.

As it was mentioned in the chapter III of this thesis, loss of the ability to use monetary policy may be a cost free option for the EMU, if the following conditions are satisfied: *(i)* The business cycles of member countries should be synchronized. There are still discrepancies between business cycles of member countries, differentials still exist in employment rates and growth rates. Hence, we may not talk about a cost free EMU. *(ii)* Since fiscal policy is independently implemented by individual countries, national fiscal polices should be used to adjust demand differentially in member countries and asymmetric shocks. If these conditions are not fulfilled, then the EMU may still be costless when the alternative adjustment mechanisms in the other conditions are provided: *(i)* Fiscal policy should be used to adjust demand differentially in member countries and asymmetric shocks. *(ii)* Prices and wages within member countries should be perfectly flexible, and/ or labour mobility should be provided. *(iii)* Goods and labour markets should be perfectly integrated across the EMU.[306]

[306] Dearden, S. and McDonald, F., op. cit., p.p. 102-103.

Introduction of a common currency introduced also switching costs. Banks, firms and consumers face adjustment problems. Modifications of all coin-operating machines, computer programmes and legal system generated a one-shot cost when countries simultaneously adopted the euro and when the other countries joined. There has also been a psychological effect of introduction of the new currency, influencing all economic expectations. However, these have all been a single-shot cost.

4.1.3. The Euro as a Reserve Currency: From a Common Currency to a Reserve Currency

The euro has become the second most important currency on the international financial and capital markets since its introduction. The flow of euro-denominated international bonds and notes jumped from 300 billion US Dollars in 1998 to 610.7 billion US Dollars in 1999.[307] Debt securities denominated in euro account for around 31% of the total stock of international issues in 2004. This development can be followed by the Figure 11. The increases in the stock of international debt securities issued in euro can be attributed to the economic size of the EMU. Furthermore, increases in the use of the euro, relative to other currencies, have been highest among residents of countries that are neighbours of the euro area. By contrast, borrowers in Asia, Latin America and the Middle East have continued to issue only a small fraction of their international bonds in euro.[308]

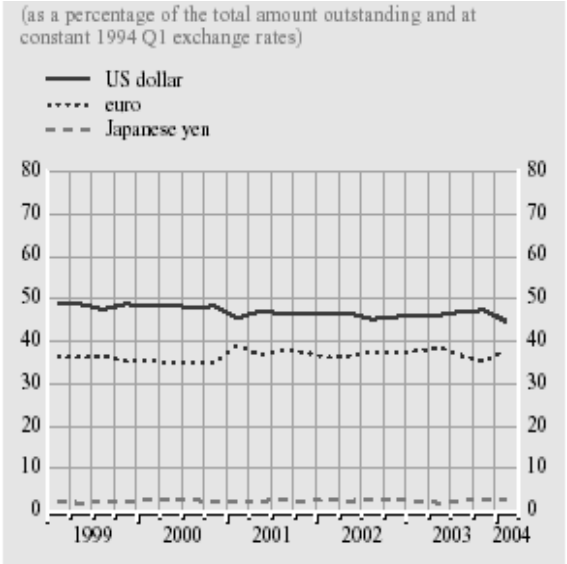
Similarly, international lending and deposit-taking in Euro takes place predominantly with residents of EMU countries. The UK residents follow that. By contrast, the share of the euro in cross-border lending or deposit activity conducted outside the euro area is small with

[307] Baras, J., Felke R. and Daniel D., (2002). "The Euro and the International Monetary System". In: *EMU and Economic Policy in Europe*, ed. Marco Buti, André Sapir, Chelthenham: Edward Elgar, p.p. 357-378.
[308] European Central Bank, (2005c). *Review of the International Role of the Euro*, Frankfurt, p.p. 12-23.

around 5 % to 6 % in the case of both loans and deposits.[309] The Figure 12 indicates this situation.

Figure 11: Stock of International Debt Securities: Currency Shares

Figure 12: Loans Granted by the Euro Area Banks to Non-bank Borrowers Outside the Euro Area: Currency Shares



Source: European Central Bank, (2005c). op. cit., p.p. 13-23.

There has been a notable increase in the activity in foreign exchange trading since the introduction of the euro. In 2004, the euro was the second most actively traded currency worldwide and accounted for 37 % of foreign exchange transactions as it was so in 2001. The euro has continued to be traded predominantly against the US dollar.[310]

The share of the euro in international trade has experienced a notable increase in many EMU countries. The use of the euro is more widespread in the case of exports than in the case of imports. The use of the euro is higher for exports of goods than for exports of services. The share of the euro in international trade increased notably in 2003 for most of the

[309] Ibid., p.p. 23-28.
[310] Bank of International Settlements, (2004). Press release – *Central Bank Survey of Foreign Exchange and Derivatives Market Activity in April 2004*, 28 September, Basel.

new member countries and candidate countries.[311] However, there is no evidence on the use of the euro as a pricing and quotation currency outside the EMU. On the major international commodity markets, such as the world oil markets, prices are still quoted mainly in US dollar.[312]

The role of the euro as an anchor currency in third countries outside the euro area has remained stable overall. Most of the new EU countries joined the ERM II.[313] These countries also use the euro as intervention currency. In addition, the euro, together with the US dollar and other currencies is used as a basket currency in many third countries.[314]

Introduction of the euro has systematically changed the composition of foreign exchange reserves around the world. Outside the EMU, official foreign exchange reserves denominated in the euro's predecessor currencies have automatically been re-dominated in euros. As a result, the share of euro in world official reserves increased rapidly; and the euro became world's second most important reserve currency.[315] Japan and other emerging economies in Asia account for the largest share in the total increase. The share of the euro in official foreign exchange reserves has increased from 19.3 % in 2002 to 19.7 % in 2003.[316]

There are some conditions for the euro to become the most important international currency in the world. First condition is the economic size. Although the real economy of the euro area is as big as real economy of the US, the same is not valid for its financial economy. Secondly, degree of financial liberalization is equally important for the euro to become an international currency. The liberalization of financial markets in the US began at least ten years before the EU. The US financial markets present not only more depth and liquidity but also a wider spectrum of financial instruments. Therefore, the US dollar is likely to keep its privileged position in the world economy for a while. Third condition is monetary stability.

[311] European Central Bank, (2005c). op. cit., p.p. 32-38.
[312] Baras, J., Felke R. and Daniel D., op. cit.
[313] European Central Bank, (2005c). op. cit., p.p. 51-62.
[314] Baras, J., Felke R. and Daniel D., op. cit.
[315] Ibid.
[316] European Central Bank, (2005c). op. cit., p.p. 51-62.

The leading indicator of it is the inflation rate. Both the US and the euro area have low inflation. Fourthly, financial stability is also important for a currency to become an international currency. The US and the euro area fulfill this condition.[317]

The euro may become the most important international currency. This can involve some political and economic benefits. The issuer of the dominant international currency benefits from seigniorage, a liquidity premium on short-term government debt, and financing its current account deficits.[318] Nevertheless, in the long term, exchange rates are mainly determined by macroeconomic variables, such as growth, inflation, productivity, budget balances, current balances, etc. However, becoming the most important international currency complicates the conduct of monetary policy as a result of effects of external agents on monetary aggregates, bringing with the potential risk of a period of exchange-rate instability between the euro and other major currencies.[319]

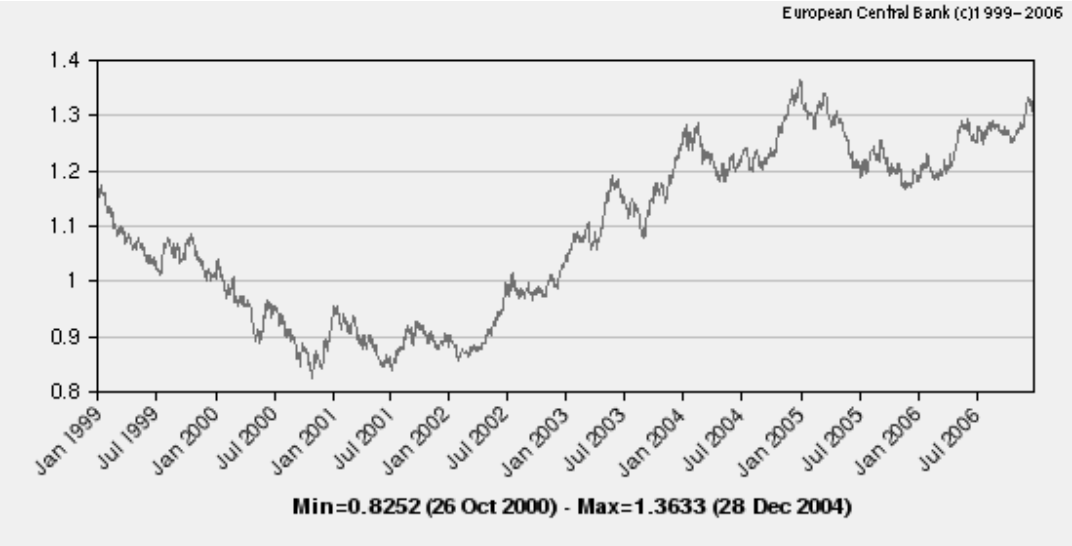
The euro area has recently achieved the exchange rate stability. The euro depreciated steadily and without any major interruption until February 2002 since its introduction. This can be followed by the Figure 13. The economists make many explanations for the depreciation of the euro between 1999 and 2002 through different approaches. Some economists argued that the reason is interest rate differentials. From $1998Q_3$ until mid-1999, both short and long-term interest rates in the US went up against those of the euro area. Then, Federal Reserve cut the interest rates in 2000-2001; and the interest rate differentials were rather stable. In contrast to this argument, the big and unexpected depreciation of the euro came from mid-1999.[320]

Some economists point out the productivity differential between the EU and the US as a factor determining the euro-dollar exchange rates. An improvement of the US productivity

[317] De Grauwe, op. cit., p.p. 228-232.
[318] Eijffinger, S.C.W., op. cit., p.p. 169-170.
[319] De Grauwe, op. cit., p.p. 228-232.
[320] Portes, R., (2002). "The Euro and the International Financial System". In: *EMU and Economic Policy in Europe*, ed. Marco Buti, André Sapir, Chelthenham: Edward Elgar, p.p. 334-356.

can increase the rate of return on capital and substantial capital flows out of the EU to the US depreciating the euro against the dollar. However, there is no evidence for productivity differential to explain the weakness of the euro against the dollar in this period.[321] Furthermore, there is no correlation in short-run data of capital outflows from the EU to the US between the euro-dollar exchange rates and net investment flows.[322]

Figure 13: Euro-Dollar Exchange Rate from January 1999 to December 2006



Source: European Central Bank, www.ecb.int, 21.12.2006.
http://www.ecb.int/stats/exchange/eurofxref/html/eurofxref-graph-usd.en.html

Another explanation for the depreciation of the euro between 1999 and 2002, which is suggested by economists, is the depreciation of some of national European currencies, which are fixed to the conversion rates. These national currencies existed until January 2002, but on the foreign exchange markets only euro was notified. Therefore, the depreciation of the euro was the result of the depreciation of at least some of these national currencies. However, there is no data for this period to prove this argument.[323]

[321] Shams, R., (2005). Dollar-Euro Exchange Rate 1999-2004 – Dollar and Euro as International Currencies, *HWWA Discussion Paper*, Hamburg Institute of International Economics, Hamburg.
[322] Portes, R., op. cit.
[323] Shams, R., op. cit.

The weak ECB credibility is another explanation for reason why the euro had depreciated during the reference period. There was some evidence for a weakening of ECB credibility in the second half of 1999. In this period, the ECB exceeded the reference values of its monetary policy strategy. In addition, there was a market distrust of the euro area stability due to fiscal positions of some member countries. All these weakened the ECB credibility between 1999 and 2002.[324]

In addition to the weak ECB credibility between 1999 and 2002, there is an unpredictable market psychology within the EMU. Until the introduction of euro coins and notes at the beginning of 2002, the euro has not been perceived as actual money by consumers and investors. The lack of confidence led to a weak demand for the euro during the period between 1999 and 2002.[325]

By the withdrawal of the national currencies from circulation in February 2002, the euro had begun to appreciate for three successive years without wild fluctuations and stabilized at the end of this period at a high level against the US dollar until 2005. This was not a surprising situation. In 2000, the US current account deficit was almost 5 % of GDP, while the euro area current account deficit was 0.4 %. The net foreign asset position of the US was strongly negative being a net debtor, while the euro area was a net creditor.[326] Furthermore, the euro area is an economy with a large internal market and comparable to the US and Japan. As stated before, the size of the economy is the most important indicator to become an international currency. The share of the euro area in total world exports of goods substantially exceeds the share of both the US and Japan. The euro-dollar exchange rates have stabilized since 2005. This makes the euro the second most international currency.[327]

However, it is still too early to tell that the euro may take over the role of the US dollar in global exchange markets. First of all, some indicators of the euro area economy,

[324] Ibid.
[325] Ibid.
[326] Portes, R., op. cit.
[327] Shams, R., op. cit.

such as HICP and EERs, have short historical records. Secondly, there exists an asymmetry in monetary transmission mechanism in the euro area. Thirdly, fiscal policy in the euro area is implemented by many independent governments under the SGP, while the monetary policy is implemented by the ECB, affecting the member countries differently. Fourthly, exchange rate fluctuations of the euro against the other major currencies affect some countries, regions and sectors more than others, causing the risk of protectionist measures in trade, even distorting the positive effects of the common trade policy. Finally, the exchange rate fluctuations between the euro and the currencies of the new member countries are an important issue, because the trade relations grow and change in nature as a result of increasing degree of economic integration.

4.2. MACROECONOMIC DEVELOPMENTS IN THE EURO AREA

The monetary policy strategy together with the SGP provisions has been successful to maintain price stability in the euro area, although there were some violations of the reference values during economic shocks such as oil price increases, global economic slowdown. The euro area countries have improved their public finance since the introduction of the euro. However, the euro area economy still has some problems especially with growth and employment. In this part, these issues are extensively analyzed in the titles of growth and employment, price and wages, interest rate differentials, public finance, and balance of payments, respectively.

4.2.1. Growth and Employment

As stated in the previous parts, one of the main objectives of the Maastricht Treaty is *to promote sustainable, non-inflationary economic growth with a high level of employment*. In November 1997, the European Employment Strategy was agreed by the Luxembourg Job Summit, on the basis of the provisions of the Amsterdam Treaty. Furthermore, the Lisbon Strategy is launched in March 2000 with a strategic goal for the next decade:

"to become the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion".[328]

The Lisbon Strategy was designed to provide full employment within the Union and strengthen cohesion by 2010. The Strategy sets specific targets: an overall employment rate of 70 % by 2010, an employment rate for women more than 60 % by 2010, and annual economic growth around 3 %.[329] The Stockholm European Council in March 2001 sets additional targets: the employment rate should become 67 % overall by 2005, 57 % for women by 2005 and 50 % for older workers by 2010.[330]

The Kok Report, which was presented to the European Commission and the European Council in November 2004, stated that the implementation of the Lisbon Strategy has been unsuccessful so far.[331] According to the report, the growth gap with North America and Asia has widened, while Europe faces low population growth and ageing. The EU economy is growing less quickly than the US and has suffered recently from a lower rate of productivity growth. The post-war catching-up process of the EU with the US in terms of GDP per capita ended in the mid-1970s, but then broadly stabilized. However, average annual growth in the EU GDP per capita has been below that of the US since 1996; and productivity growth in the

[328] European Commission, (2000b). op. cit.
[329] Ibid.
[330] European Council, (2001). The Stockholm European Council Presidency Conclusions, 23 and 24 March 2001.
[331] European Commission, (2004d). "Facing the Challenge: The Lisbon Strategy for Growth and Employment", Report from High Level Group chaired by Wim KOK, Luxembourg.

EU-15 is lower than that of the US. The reasons are insufficient investment in R&D and education, and Europe's industrial structure, which based on more low- and medium-tech industries. The recent employment growth in the EU has been associated with a decline in hours worked, while the employment growth in the US has been associated with an increase in hourly productivity.[332]

In February 2005, the Commission presented a communication on growth and jobs, which is called as a new start for the Lisbon Strategy. The Commission stated that Europe's economic performance, especially productivity, has diverged from that of its competitors, and that there is general consensus that Europe is far from achieving the potential for change that the Lisbon strategy offers by 2010. Thus, the renewed Lisbon Strategy focuses on three major points: making Europe a more attractive place to invest and work; giving more attention knowledge and innovation for European growth; and shaping the policies allowing Europe's business to create more and better jobs.[333]

However, growth and unemployment have been most challenging problems of the euro area economy for economic policy-makers since the beginning of the EMU. The first year of the EMU coincides with the Asia and Russia crises. However, the adverse effects of the crises on the euro area economy were limited. Economic activity in the euro are started to recover in mid-1999. Real GDP increased by 2.5 % in 1999 and by 3.4 % in 2000, which has been highest growth rate of the euro area since the introduction of the euro. Real GDP growth can be followed by Table 19. Strong growth in domestic demand provided the most important contribution to economic growth both in 1999 and 2000. Besides strong economic growth, moderate wage increases during this period maintain job creation. Thus, unemployment decreased to 9.4 % and 8.5 %, respectively in 1999 and 2000.[334] The contribution from net trade to GDP growth was negative in 1998 and early 1999. It turned to

[332] Ibid.
[333] European Commission, (2005c). "Communication to the Spring European Council: Working together for growth and jobs: A new start for the Lisbon Strategy", COM (2005) 24, Brussels.
[334] Unemployment rates can be followed by Table 25 in the part 5.1.1.

positive in the mid-1999 and continued to be positive during 2000. Reductions in direct taxes had a positive impact on economic growth in the euro area in 2000.[335]

Table 19: Gross Domestic Product, Volume (percentage change on preceding year)

Countries	Years											
	61-90	**91-95**	**96-00**	**97**	**98**	**99**	**00**	**01**	**02**	**03**	**04**	**05**
BE	3.4	1.4	2.8	3.6	2.2	3.0	4.0	0.7	0.9	1.3	3.0	1.1
DE	3.1	2.0	1.8	1.4	2.0	1.8	3.0	0.8	0.1	-0.1	1.2	0.9
EL	4.5	1.2	3.4	3.6	3.4	3.6	4.1	4.3	3.8	4.7	4.7	3.7
ES	4.6	1.5	3.8	4.0	4.3	4.1	4.1	2.8	2.2	2.5	3.2	3.5
FR	3.8	1.1	2.5	1.9	3.4	2.9	3.1	2.1	1.2	0.5	2.3	1.2
IE	3.2	4.7	9.9	10.8	8.6	10.8	11.5	6.0	6.1	3.7	4.3	5.5
IT	3.9	1.3	1.9	2.0	1.8	1.6	2.9	1.8	0.4	0.3	1.1	0.0
LU	3.5	3.9	6.4	9.0	5.8	6.0	7.5	1.5	2.5	2.9	3.6	4.0
NL	3.4	2.1	3.7	3.8	4.3	3.7	3.5	1.4	0.6	-0.9	2.0	1.5
AT	3.6	2.0	2.6	1.6	3.5	2.8	3.0	0.7	1.2	0.8	2.4	2.0
PT	4.8	1.7	3.8	3.9	4.5	3.4	3.4	1.7	0.4	-1.1	1.2	0.4
FI	3.8	-0.7	5.1	6.3	5.3	4.1	5.6	1.1	2.2	2.4	3.5	2.9
EU-12	**3.7**	**1.5**	**2.6**	**2.4**	**2.9**	**2.5**	**3.4**	**1.5**	**0.9**	**0.6**	**2.0**	**1.4**
CZ	--	-1.0	1.5	--	--	0.5	3.9	2.6	1.5	3.7	4.2	6.1
DK	2.7	2.0	2.7	3.0	2.5	2.3	3.0	1.6	1.0	0.4	1.9	3.0
EE	--	--	5.5	--	--	-0.6	7.8	6.4	7.2	5.3	8.1	10.5
CY	--	5.3	3.8	--	--	4.7	5.0	4.1	2.1	2.0	3.9	3.8
LV	--	-11.8	5.4	--	--	2.8	6.9	8.0	6.4	7.5	8.6	10.2
LT	--	-10.3	4.2	--	--	-1.8	3.9	6.4	6.8	9.7	7.3	7.6
HU	--	--	4.0	--	--	4.2	5.2	3.8	3.5	3.0	4.9	4.2
MT	--	--	4.5	--	--	4.1	6.4	-1.7	2.2	-1.8	0.0	2.2
PL	--	2.2	5.1	--	--	4.1	4.0	1.0	1.4	3.8	5.3	3.2
SI	--	-0.6	4.3	--	--	5.9	3.9	2.7	3.3	2.5	4.4	4.0
SK	--	--	3.7	--	--	1.5	2.0	3.8	4.6	4.5	5.4	6.0
SE	2.9	0.6	3.0	2.1	3.6	4.5	3.6	1.0	2.0	1.5	3.7	2.7
UK	2.5	1.8	2.8	3.4	3.0	2.1	3.0	2.3	1.8	2.2	3.3	1.9
US	3.5	2.4	4.1	4.5	4.3	4.1	4.2	0.5	2.2	2.5	3.9	3.2
JP	6.2	1.4	1.4	1.8	-1.1	0.7	2.4	0.4	-0.4	1.8	2.3	2.6

Source: Various volumes of European Commission, European Economy, Economic Forecasts.

Economic growth started to decrease in mid-2000 and continued to decrease in 2001 due to combination of adverse factors such as higher oil prices relative to 1999, higher inflation, deterioration in external environment terrorist attacks in the US at the end of 2001 and its aftermath as sharp increase in uncertainty. However, the main reason was slowing down of the domestic demand. Thus, real GDP growth in 2001 was 1.5 %. The growth of

[335] European Central Bank, (2000). op. cit., p.p. 28-35; and European Central Bank, (2001). op. cit., p.p. 36-45.

euro area's export and import 3.4 % and 1.8 % respectively in 2001. As a result, the contribution from net trade to GDP growth was unchanged compared with that of 2000. In most euro area countries, unemployment rate increased in 2001. However, some countries with high unemployment rates registered a slight decline in their rates. The average unemployment rate for the euro area became 8 % in 2001.[336]

Weak economic conditions and high uncertainty continued in 2002; and real GDP growth decreased to 0.9 %. Contribution of domestic demand to economic activity was weaker in 2002. Foreign investment in the euro area decreased. Growth of both import and export, including intra-euro-area trade, further slowed down. Unemployment rate increased to 8.3 % in 2002. The increase in unemployment was common to most euro area countries.[337]

Economic growth started to pick up in the second half of 2003 and continued in 2004 due to global economic recovery. However, increase in the real GDP of the euro area was only 0.6 % in 2003. The recovery started with the positive effect of improving foreign demand on euro area exports. This impact was somewhat reduced by the appreciation of the euro. As a whole, net trade made a negative contribution to economic growth in 2003. Unemployment increased 8.8 % in 2003; and hour worked per employed person declined relatively strongly in the past few years. Most euro area countries suffered from an increase in the unemployment rate since early 2001, with the exception Greece and Italy, where unemployment declined, and Finland and Spain, which have a broadly constant unemployment rate.[338] In 2004, real GDP growth became 2 %. The economic growth in 2004 was led by the strength of exports. Domestic demand was also high. However, high oil prices and appreciation of the euro prevented higher increase in the growth rate. The unemployment rate was unchanged in 2004.[339]

[336] European Central Bank, (2002a). op. cit., p.p. 38-45.
[337] European Central Bank, (2003a). op. cit., p.p. 44-51.
[338] European Central Bank, (2004b). op. cit., p.p. 49-59.
[339] European Central Bank, (2005b). op. cit., p.p. 50-59.

The real GDP growth in 2005 was 1.4 %, which was lower than expected. Growth in both domestic demand and exports in 2005 was below expectation at the end of 2004. The unemployment rate declined slightly, reaching 8.6 %.[340]

Table 20: Labour Productivity (real GDP per occupied person) (percentage of preceding year)

Countries	Years											
	61-90	**91-95**	**96-00**	**97**	**98**	**99**	**00**	**01**	**02**	**03**	**04**	**05**
BE	3.1	1.6	1.5	2.7	1.5	1.4	1.9	-0.7	1.2	1.2	2.4	0.1
DE	2.7	2.1	1.1	2.3	1.8	0.5	1.1	0.4	0.7	0.9	1.7	1.6
EL	4.2	0.7	2.5	3.8	0.3	4.1	4.2	4.6	3.7	3.2	1.7	2.3
ES	4.2	1.9	0.7	1.1	0.4	0.5	0.7	0.3	0.9	0.7	0.6	0.4
FR	3.3	1.5	1.5	1.7	2.0	1.1	1.0	0.2	0.2	0.4	2.3	0.9
IE	3.9	2.9	3.8	4.9	3.7	3.5	5.0	2.9	4.3	1.6	1.2	0.9
IT	3.5	2.1	1.1	1.7	0.9	0.4	1.3	0.1	-0.9	-0.2	1.0	0.4
LU	2.5	1.1	2.8	3.9	0.6	2.4	3.2	-3.9	-0.5	1.1	1.3	1.0
NL	2.7	1.3	1.2	0.6	1.2	1.0	1.6	0.1	0.7	0.1	3.4	1.8
AT	3.5	2.0	2.0	0.7	1.9	1.4	2.0	0.3	1.1	0.7	2.5	1.7
PT	4.7	2.3	1.9	1.9	0.9	1.1	1.6	0.0	0.0	-0.7	1.1	0.3
FI	3.5	2.9	2.4	2.9	3.0	2.0	2.8	-0.4	1.3	2.4	3.1	1.6
EU-12	**3.2**	**1.7**	**1.1**	**1.7**	**1.4**	**0.8**	**1.3**	**0.2**	**0.4**	**0.4**	**1.2**	**0.6**
CZ	--	--	2.9	--	--	2.6	4.4	2.2	0.0	3.9	4.1	4.4
DK	2.1	2.0	1.6	1.0	0.5	1.4	2.5	1.3	1.4	1.4	1.9	2.2
EE	--	--	8.2	--	--	4.0	11.0	5.6	5.6	4.3	8.1	8.3
CY	--	4.7	2.4	--	--	3.4	2.8	1.8	1.0	0.9	0.2	0.5
LV	--	-5.0	5.9	--	--	4.7	10.1	5.7	4.8	5.6	7.5	8.6
LT	--	-8.2	5.4	--	--	-1.3	8.3	10.0	2.7	7.2	7.4	6.1
HU	--	--	3.1	--	--	1.0	4.2	3.3	3.4	1.7	5.6	4.3
MT	--	--	3.8	--	--	4.5	4.0	-3.7	2.9	-1.1	0.8	0.7
PL	--	--	5.5	--	--	7.0	5.6	3.3	4.5	5.1	--	--
SI	--	--	3.9	--	--	4.3	0.7	2.2	3.7	2.8	3.9	3.7
SK	--	--	4.5	--	--	4.8	3.9	3.2	5.2	2.6	5.8	4.6
SE	2.2	3.0	2.5	2.6	1.7	2.4	1.9	-0.8	1.8	1.6	4.3	2.4
UK	2.1	2.4	1.9	1.7	1.1	1.3	2.7	1.5	1.0	1.3	2.2	0.9
US	1.6	1.4	2.0	2.2	2.2	2.6	1.4	0.8	2.7	3.1	2.8	1.4
JP	5.1	0.8	1.3	0.5	-1.9	0.9	2.5	0.8	1.1	1.7	2.1	2.2

Source: Several volumes of European Economy: Economic Forecasts of the European Commission.

Global slowdown and high oil prices do not provide sufficient explanation for the weak economic growth in the euro area. Although some EMU countries have outperformed the US, the euro area has grown half as much as the US since 1999. However, in general, growth rate and real GDP per capita in the euro area have been behind those of the US for the

[340] European Central Bank, (2006a). op. cit., p.p. 54-62.

last 10 years. Productivity growth has also decreased in the euro area, while it has increased in the US. Employment rate in the euro area has increased slightly for the past few years, but this was offset by a large decline in hours worked.[341] The European Commission stated that productivity problem is structural and that labour productivity performance in the EU has deteriorated significantly since 1996 relative to that of the US.[342] Table 20 shows labour productivity rates in the EU, the US and Japan. The slowdown in the labour productivity can be attributed to a lower investment per employee and a slowdown in the rate of technological progress. There is a widening gap between the euro area and the US in terms of R&D and innovation.[343]

Structural reforms aimed at increasing the flexibility of labour and product markets are essential to enhance the euro area's economic growth and productivity and to facilitate adjustment economic change.[344] Many empirical studies proved that although impact of structural reforms might be weak or negative on productivity growth in the short run, it has significantly positive effects on productivity growth in the long run.[345] Indeed, in the UK, where labour and product market reforms are relatively advanced, productivity growth has been stronger.[346] Therefore, price stability, which is maintained by the stability-oriented monetary policy and the SGP, cannot solve the slow growth and employment problems of the euro area without the structural reforms, as it is stated by the Lisbon Strategy.

However, the euro area countries could not make significant progress with those structural reforms. Many countries have implemented reforms in their tax and benefit systems for the past few years in order to reduce non-wage labour costs and encourage labour

[341] International Monetary Fund, (2006). "World Economic Outlook", *World Economic and Financial Surveys*, p.p. 44-47.
[342] European Commission, (2005d). "European Economy: Lisbon Strategy and the EU's Structural Productivity Problem", Economic Papers, No: 221, Brussels.
[343] European Commission, (2005e). "Second Report on the Implementation of the 2003-05 Broad Economic Policy Guidelines", European Economy, No: 1, Brussels, p.p. 41-42.
[344] European Commission, (2004e). "Report on the Implementation of the 2003-05 Broad Economic Policy Guidelines", *European Economy*, No: 1, Brussels, p.p. 21-46.
[345] Salgado, R., (2002). "Impact of Structural Reforms on Productivity Growth in Industrial Countries", IMF Working Paper, No: 2/10.
[346] International Monetary Fund, (2006). op. cit.

supply. But, these implementations have created a pressure on public finances in several member countries. Although many countries have announced many reform measures to improve labour market performance, their implementations are too slow.[347] Some progress with structural reforms in product markets has been made. However, the member countries should make further progress with maintaining effective competition in product markets and with integration of their product markets.[348] Nevertheless, these reforms should be complemented by spending on R&D and education. However, the euro area is low in international rankings in terms of R&D. Spending as a share of GDP has been around 1.9 % in recent years, which is below the Lisbon target of 3 %.[349]

Inadequate progresses with the structural reforms can be attributed to the fact that the member countries do not have enough room for maneuver of fiscal authorities without breaching the SGP rules. The member countries struggle to absorb the effects of appreciation of the euro, global slowdown and high oil prices, through using national fiscal policies. They also struggle to absorb the costs of the price stability-oriented common monetary policy, which are mainly caused by wide growth differences across the member countries.

However, today, progress with structural reforms and enhancing competitive power are more important for the euro area than ever, because of changing balance of global economic activity with the rise of China, India and other rapidly growing emerging countries.

4.2.2. Prices and Wages

In 1999, the HICP increased by 1.1 %, which was the same rate of increase as recorded in 1998. The price developments in the euro area since 1997 can be followed by

[347] European Commission, (2005e). op. cit., p.p. 41-42.
[348] Ibid.
[349] European Central Bank, (2006a). op. cit., p.p. 54-62.

Table 21. The rate of inflation declined during 1998, it mainly rose during 1999. This upward trend was caused by developments in the world market price of oil, while domestic sources of inflationary pressure remained relatively under control. Nevertheless, unit labour cost increased by 1.6 % in 1999, on the contrary it remained unchanged during 1998.[350]

Table 21: Price and Cost Developments in the Euro Area
(annual percentage changes, unless otherwise indicated)

	Years								
	97	**98**	**99**	**00**	**01**	**02**	**03**	**04**	**05**
HICP and its components									
Overall index	1.6	1.1	1.1	2.3	2.4	2.3	2.1	2.1	2.2
Energy	2.8	-2.6	2.4	13.3	2.3	-0.6	3.0	4.5	10.1
Processed food	1.4	1.4	0.9	1.1	2.8	3.1	3.3	3.4	2.0
Unprocessed food	1.4	2.0	0.0	1.7	7.0	3.1	2.1	0.6	0.8
Non-energy industrial goods	0.5	0.9	0.6	0.7	0.9	1.5	0.8	0.8	0.3
Services	2.3	1.9	1.5	1.7	2.7	3.1	2.5	2.6	2.3
Other price and cost indicator									
Industrial producer prices[1]	1.1	-0.8	0.0	5.5	2.2	-0.1	1.4	2.3	4.1
Unit labour costs[2]	0.7	0.2	1.2	1.1	1.3	2.2	2.0	0.9	--
Compensation per employee[2]	2.4	1.2	2.0	2.5	2.6	2.6	2.3	2.0	--
Total hourly labour costs[3]	2.5	1.8	2.2	3.4	3.3	3.5	2.8	2.5	--
Oil prices (EUR per barrel)	17.1	12.0	17.1	31.0	31.0	26.5	25.1	30.5	44.6
Commodity prices[4]	12.9	-12.5	-3.1	16.7	16.7	-0.9	-4.5	10.8	9.4

Source: Various volumes of European Central Bank Annual Report.
Note: For periods prior to 2001, HICP data do not include Greece. The other price and cost indicators include Greece for periods prior to 2001.
1) Excluding construction.
2) Whole economy.
3) Whole economy (excluding agriculture, public administration, education, health and other services).
4) Excluding energy. In euro.

The HICP significantly increased in 2000 as a result of external price pressures, but domestic pressures remained subdued. The HICP was 2.1 % in 2000. This significant increase was mainly caused by developments in oil prices and the exchange rate of the euro. The increase in oil prices contributed more than 1 percentage point to the HICP in 2000. The annual rate of change in the HICP's energy component rose from 2.4 % in 1999 to 13.3 % in

[350] European Central Bank, (2000). op. cit., p.p. 23-27.

2000. Unprocessed food prices also contributed to a rise in inflation, because of unfavourable weather conditions. As a result of the rise in oil prices and the decline in the exchange rate of the euro, import prices significantly increased. High import prices affected producer prices, which rose from an average of 0.4 % in 1999 to 5.4 % in 2000. Wage developments remained moderate with slight increases. Employment policies, working time arrangements and reduction in taxes and social security contributions in several countries made a dampening influence on wages. Wage increases in some individual countries were caused by cyclical situation of domestic economy.[351]

The upward trend in the HICP, which began in the spring of 1999, continued into 2001. In May 2001, the annual HICP rose to 3.4 %. On average, the HICP increased by 2.4 % in 2001. Prices of unprocessed foods were the main factor contributing to the increase in the HICP. After peaking in May 2001, the inflation rate started to decline due to mainly lower oil prices. However, in 2001, the HICP excluding energy and unprocessed food prices, which is known as core inflation, was still influenced by oil price increases and the depreciation of the euro exchange rate in 1999 and most of 2000. The core inflation further increased during 2001. Industrial producer price index increased by 2.2 % in 2001 due to developments in the energy and intermediate goods component in 2001. Nevertheless, wage growth remained moderate in 2001.[352]

In 2002, the HICP inflation rate was 2.2 %. However, the core inflation rate rose from 2 % to 2.5 %. Thus, lower inflation rate can be explained by lower increase in energy prices and unprocessed food prices. In spite of the relatively lower domestic demand conditions, decline in the HICP was limited during 2002. This was related to the effects of past oil and food price shocks, to the earlier depreciation of the euro exchange rate, and to the cost of introduction of the euro notes and coins. The industrial producer price index declined by 0.1 % in 2002, due to lower energy prices. Although average oil prices in US dollars were broadly unchanged in 2002, energy prices decreased through strengthening of euro against the

[351] European Central Bank, (2001). op. cit. p.p. 30-36.
[352] European Central Bank, (2002a). op. cit., p.p. 32-38.

US dollar. Since 1999, upward trend in almost euro-area-wide labour cost and wage indicators has continued in 2001 and in early 2002. It declined during the second half of 2002. Unit labour cost growth for the whole euro area economy fell from 2.6 % to 2.2 %.[353]

Despite limited economic activity and the appreciation of the euro, HICP was 2.1 % in 2003, which was only 0.2 percentage points. This decrease was related to lower growth rates in non-energy industrial goods and services. Therefore, HICP rate over 2 % in 2003 can be attributed to developments in energy and unprocessed food prices. The industrial producer prices declined during 2003 due to the appreciation of the euro and weak domestic demand. It was 1.6 % in 2003 as a result of developments in energy and intermediate goods prices. Nevertheless, the decline in labour productivity led to an increase in unit labour cost in the first half of 2003, and then it started to decline due to some improvement in productivity growth. Thus, the unit labour cost was 2.2 % in 2003.[354]

In 2004, the HICP was 2.1 %, unchanged from the previous year. Higher oil prices and further increase in indirect taxes were the main factors. These were offset by a further strengthening of the euro, low demand conditions and the significant decline in the annual growth rate of unprocessed food prices. The industrial producer price index rose steadily during 2004. However, there was little sign of significant price pressures building up at later stages of the production chain. Labour cost indicators continued to ease in 2004. The unit labour cost grew by 0.9 % in 2004.[355]

The HICP in the euro area was 2.2 % in 2005. Domestic inflationary pressure remained low during 2005, due to the continuation of wage moderation. Higher oil prices were the main factor affecting upward pressures on prices. However, there were only limited signs of a pass-through of past oil price increases to prices at a later stage of the production chain. At the same time, inflation was dampened by the lagged effects of the past euro

[353] European Central Bank, (2003a). op. cit., p.p. 36-44.
[354] European Central Bank, (2004b). op. cit., p.p. 42-48.
[355] European Central Bank, (2005b). op. cit., p.p. 43-50.

appreciation and the impact of strong global competition. As a result, although the HICP decreased slightly in 2005, it was still above the reference value. The industrial producer prices rose by 4.1 % in 2005. Developments in labour cost in 2005 were moderate.[356]

In 2003, the Eurosystem Inflation Persistence Network (IPN) was created to analyze the patterns, determinants and implications of inflation persistence and price-setting behaviour in the euro area and in its member countries. Inflation persistence means the tendency of inflation to converge only slowly to its long-run value following a shock. The IPN completed its work in 2005, achieving some conclusions. Firstly, under the current monetary policy regime, the estimated degree of inflation persistence in the euro area is moderate, due to mainly well anchored inflation expectations. Secondly, there is greater price stickiness in the retail sector in the euro area than in the US. The reasons are various such as differences in wages and competition. Therefore, stabilizing inflation will be more costly in terms of output losses. Thirdly, there is significant sectoral heterogeneity in the degree of price stickiness because of variability of the input costs. Price changes are very frequent for energy and unprocessed food, while they are relatively infrequent for non-energy industrial good and services. Structural reforms to enhance competitiveness in labour and product markets may help in reducing the price stickiness. Fourthly, nominal price rigidities are not matched by similar upward rigidities. Fifthly, there is ample evidence of state-dependence in price setting behaviour in the euro area. The frequency of price changes depends on economic developments such as changes in VAT rates and collective wage agreements. Finally, implicit and explicit contracts ranked by firms are the most relevant explanation for price stickiness.[357] These findings prove that structural reforms are necessary for price and wage flexibility as well as economic growth.

Although the euro area countries have experienced a considerable degree of convergence of inflation rates since the Maastricht Treaty, inflation differentials among the

[356] European Central Bank, (2006a). op. cit., p.p. 48-54.
[357] European Central Bank, (2006b). "Inflation Persistence and Price-setting Behaviour in the Euro Area: A Summary of IPN Evidence", *Occasional Paper Series*, No: 46, Frankfurt.

countries has widened from mid-1997 to 2000.[358] The inflation differentials among the member countries remained broadly unchanged in 2001 and 2002.[359] In particular, Greece, Spain, Ireland, the Netherlands and Portugal have experienced relatively large and persistent inflation differentials vis-à-vis euro area.[360] Table 22 shows the annual inflation rates for individual euro area countries. Although inflation differentials are slightly narrowed in 2003, the euro area still needs further convergence of inflation rates.

Table 22: Annual Inflation Rates (Harmonized Index of Consumer Prices)

Countries	Years									
	96	**97**	**98**	**99**	**00**	**01**	**02**	**03**	**04**	**05**
Belgium	1.8	1.5	0.9	1.1	2.7	2.4	1.6	1.5	1.9	2.5
Germany	1.2	1.5	0.6	0.6	1.5	2.1	1.3	1.0	1.0	1.8
Greece	7.9	5.4	4.5	2.1	2.9	3.7	3.9	3.4	3.0	3.4
Spain	3.6	1.9	1.8	2.2	3.5	2.8	3.6	3.1	3.1	3.4
France	2.1	1.3	0.7	0.6	1.8	1.8	1.9	2.2	2.3	1.9
Ireland	2.2	1.2	2.1	2.5	5.3	4.0	4.7	4.0	2.3	2.2
Italy	4.0	1.9	2.0	1.7	2.6	2.3	2.6	2.8	2.3	2.2
Luxembourg	1.2	1.4	1.0	1.0	3.8	2.4	2.1	2.5	3.2	3.8
The Netherlands	1.4	1.9	1.8	2.0	2.3	5.1	3.9	2.2	1.4	1.5
Austria	1.8	1.2	0.8	0.5	2.0	2.3	1.7	1.3	2.0	2.1
Portugal	2.9	1.9	2.2	2.2	2.8	4.4	3.7	3.3	2.5	2.1
Finland	1.1	1.2	1.4	1.3	3.0	2.7	2.0	1.2	0.1	0.8
Euro area	**1.6**	**1.6**	**1.1**	**1.1**	**2.1**	**2.4**	**2.2**	**2.1**	**2.1**	**2.2**
Czech Republic	--	--	--	--	3.9	4.5	1.4	-0.1	2.6	1.6
Denmark	2.1	1.9	1.3	2.1	2.7	2.3	2.4	2.0	2.0	0.9
Estonia	--	--	--	--	3.9	5.6	3.6	1.4	3.0	4.1
Cyprus	--	--	--	--	4.9	2.0	2.8	4.0	1.9	2.0
Latvia	--	--	--	--	2.6	2.5	2.0	2.9	6.2	6.9
Lithuania	--	--	--	--	0.9	1.3	0.4	-1.1	1.2	2.7
Hungary	--	--	--	--	10.0	9.1	5.2	4.7	6.8	3.5
Malta	--	--	--	--	3.0	2.5	2.6	1.9	2.7	2.5
Poland	--	--	--	--	10.1	5.3	1.9	0.7	3.6	2.2
Slovenia	--	--	--	--	8.9	8.6	7.5	5.7	3.7	2.5
Slovakia	--	--	--	--	12.2	7.2	3.5	8.5	7.5	2.8
Sweden	0.8	1.8	1.0	0.6	1.3	2.7	2.0	2.3	1.0	0.8
UK	2.5	1.8	1.5	1.3	0.8	1.2	1.3	1.4	1.3	2.1

Source: Various volumes of European Commission, European Economy, Economic Forecasts.
Note: For periods prior to 2001, HICP data do not include Greece. Euro area does not include Greece prior to 2001.

[358] European Central Bank, (2001). op. cit., p.p. 23-27.
[359] European Central Bank, (2003a). op. cit., p.p. 32-38.
[360] European Central Bank, (2004b). op. cit., p.p. 42-48.

The ECB attributed the inflation differentials to several reasons. The common monetary policy implied a regime shift. In particular, adoption of the common monetary policy led to strong declines in interest rates in Ireland, Portugal and Greece, which are the member countries with higher inflation rates in those countries than the euro area average. Nevertheless, the start of Stage Three caused developments and changes in administered prices and indirect taxes. Differences in the speed of implementing of structural reforms across countries also led to inflation differentials. Different levels of exposure to external shocks, because of national divergence in the degree of openness concerning extra-euro area trade and oil dependency, contributed inflation differentials. Furthermore, there is a relationship between cyclical position and inflation rates. The member countries with above average inflation rates have experienced the strongest growth rates in domestic demand, and relatively large positive output gaps. In addition to these factors, differences in fiscal policy stance also affected inflation differentials. Balassa-Samuelson effect was another factor, which affected the inflation differential in Greece, Ireland and Portugal. Finally, differences in degree of wage and price rigidities across the member countries also contributed to the inflation differential.[361]

The ECB's statements and all these factors prove that there are differences across countries, which are explained in the previous parts. Divergence among the member countries in terms of inflation rates and growth rates is the main challenge for the implementation of the ECB's monetary policy.

4.2.3. Interest Rate Differentials

Since the euro area member countries share same nominal interest rates, real interest rates in individual countries differ from each other due to the divergence among the national

[361] Ibid.

inflation rates. A substantial convergence towards lower real interest rates occurred after the Maastricht Treaty. At the beginning of the Stage Three of the EMU, real short-term interest rates were in general at the lowest level of the decade. This development was driven by the anticipation of the introduction of the euro, the elimination of intra-euro-area exchange rate risk premium, and a substantial fiscal consolidation during this period. The decline in interest rates was proportionally larger in Spain, Ireland and Finland, which previously had high interest rates. Proportionally smaller declines were observed in Germany, France and Austria, which previously had low interest rates. Nevertheless, at the beginning of the Stage Three, Spain, Ireland, the Netherlands, Portugal and Finland had clearly the real interest rates below the euro area average. In contrast, Germany, France and Austria had the highest real interest rate in 1998.[362]

After the launch of the euro, real interest rates in the euro area continued to decline. In particular, the largest declines during the first seven years of the EMU were experienced in Greece, Spain and Ireland. During this period, Germany, Austria, France and Belgium mostly recorded the interest rates above the euro area average, while Ireland, Portugal, the Netherlands, Greece, Span and Italy mostly recorded interest rates below the euro area average. However, the Netherlands have recorded the real interest rate above the euro area average since 2004. Despite Finland adopted the euro with the short-term interest rates below the euro area average, it began to record real interest rates above the euro area average after three years of the membership in the EMU.[363]

Persistence of the inflation rate differences among the member countries is the most relevant determinant of the real interest rate differentials in the euro area.[364] The inflation rate differentials can be attributed to three factors. Firstly, cyclical factors widen the real interest rate differentials across the countries. There is a relationship between output gap and inflation

[362] European Commission, (2006a). The EU Economy 2006 Review: Adjustment Dynamics in the Euro Area – experiences and challenges, Brussels, p.p. 114-127.
[363] Ibid.
[364] Angeloni, I. and Ehrmann, M., (2004). "Euro Area Inflation Differentials", *European Central Bank Working Paper Series*, No: 388, Frankfurt.

differentials in the euro area. The member countries with relatively large positive output gaps have inflation rate above the euro area average. Secondly, some of inflation rate differentials can be attributed to the national polices, such as increase in VAT and energy taxes. Thirdly, the euro area countries differ from each other in terms of economic, financial and institutional characteristics. These differences lead to inflation rate differentials and therefore to real interest rate differentials.[365] In the euro area, the causes of inflation rate differentials are mainly policy-induced and structural – such as the changes in indirect taxes, administered prices, oil prices and other commodity prices – rather than cyclical factors.[366]

There is a negative correlation of real interest rate differentials and competitiveness in all euro area countries with different profiles. For example, a relatively high inflation rate caused a low real interest rate in Spain, resulting in deterioration in price and cost competitiveness. The opposite is valid for Germany.[367] Nevertheless, the real interest rate differentials threaten the price stability and the effectiveness of the monetary policy of the ECB. When a member country experiences an increase in inflation rate, inflation is likely to remain higher in that country, and even rising further due to the lower real interest rate. The increase in the inflation rate does not continue in the long-run, because the country loses its competitive power. In this case, the country needs to use tightening fiscal policy. At the end of this period, the country needs to adopt an expansionary fiscal policy. Therefore, all these issues should be discussed in the SGP framework in order to achieve an appropriate monetary-fiscal policy mix for individual countries.

[365] European Commission, (2006a). op. cit., p.p. 114-127.
[366] European Central Bank, (2003b). "Inflation Differentials in the Euro Area: Potential Causes and Policy Implications", Frankfurt.
[367] European Commission, (2006a). op. cit., p.p. 114-127.

4.2.4. Public Finance

The average budget balance in the euro area deteriorated in 2001 for the first time since the Maastricht Treaty. The deterioration continued in 2002 and 2003. Then, general public deficit in the euro area slightly decreased in 2004 and 2005. This can be followed by Table 23.

Table 23: Fiscal Positions in the Euro Area (% of GDP)

	Years						
	1999	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Budget balance Surplus (+) / deficit (-)	-1.2	-0.8	-1.6	-2.3	-2.8	-2.7	-2.6
Cyclically adjusted budget balance surplus (+) / deficit (-)	-	-1.4	-2.1	-2.5	-2.4	-2.4	-2.1
General government gross debt	72.6	70.3	69.2	69.2	70.8	71.3	71.7

Source: Several volumes of European Economy: Economic Forecasts of the European Commission.

The reduction in the deficit and debt ratios in 1999 was the result of slightly lower government expenditure relative to GDP and a slight increase in the government revenue to GDP ratio.[368] This result was largely driven by economic conditions in the euro area. However, only a marginal improvement in the cyclically adjusted primary balance was experienced in 1999.[369]

The budget balances in the euro area continued to improve in 2000 due to consolidation efforts and a stronger economic growth than expected earlier.[370] However, cyclically adjusted budgets of some member countries are significantly in deficits. Therefore, there was no sufficient room for automatic stabilizers to work freely. Structural reforms, which help to support fiscal consolidation, started to be implemented in several member

[368] European Commission, (1999c). Spring 1999 Forecasts for 1999-2000, European Economy, Supplement A, No: 4, Luxembourg: Office for Official Publications for the EC, p.p. 11-12.
[369] European Central Bank, (2000). op. cit., p.p. 36-38.
[370] European Commission, (2000c). Spring 2000 Forecasts for 2000-2001, European Economy, Supplement A, Economic Trends. No: 1/2, Office for Official Publications of the EC, Luxembourg, p.p. 17-18.

countries. Significant tax reductions have implemented to stimulate employment and growth.[371]

Cutting taxes without supplementary reforms on the expenditure side and the working of automatic stabilizers[372] during the economic slowdown led to deterioration in budget balance in 2001. A limited decline in the debt ratio was experienced due to privatisation in some countries. Progress in the structural reform on expenditure side was limited in 2001 because there was no sufficient room in the budget position.[373]

In 2002, many countries failed to meet budget targets in their stability programmes. The negative effect of cutting taxes in budget balances continued. Furthermore, the ratio of government expenditure to GDP increased by nearly 0.5 % because of higher unemployment. The cyclically adjusted balance was also deteriorated relatively to 2001. The debt ratio was broadly unchanged in 2002.[374]

The budgetary deterioration continued in 2003 due to operation of automatic stabilizers in slow growth environment. Most of the member countries failed to meet their budgetary targets. Unfavourable budgetary developments adversely affected public debt/GDP ratio. Cyclically adjusted balance was unchanged in 2003.[375]

Budget balance in the euro area was broadly unchanged in 2004 and improved slightly in 2005. The budget deficits in 2004 mainly depend on a slightly expansionary fiscal stance, while the effect of business cycle on the budget deficits was limited. Several member countries failed to meet their budget targets. Nevertheless, euro area debt ratio increased in

[371] European Central Bank, (2001). op. cit., p.p. 45-49.
[372] Automatic stabilizers are the expenditure or receipts of the government that have stabilizing economic effects but increase and decrease automatically and without action by the government. Income taxes and unemployment compensation are the examples for them.
[373] European Central Bank, (2002a). op. cit., p.p. 32-38.
[374] European Central Bank, (2003a), op. cit., p.p. 51-55.
[375] European Central Bank, (2004b). op. cit., p.p. 55-59.

both 2004 and 2005 because of low and falling primary surplus ratio and lower economic growth than interest rate on public debt.[376]

Population ageing is one of the main challenges for sustainability of the public finance in the euro area. It makes significant pressures to increase public spending.[377] The EU agreed on a strategy considering population ageing in 2001. This strategy includes measures to raise elderly employment rates, a rapid reduction public debt, and further reforms of pension and health system.[378] The member states implemented reforms in their tax and benefit systems to promote growth and employment. They also implemented reforms in pension system. However, the implementation of structural reform on the expenditure side is still limited, because the euro area countries have no sufficient budgetary room. The expenditure priorities should be shifted towards productive expenditures, which can promote economic growth and employment, such as investment in R&D and physical and human capital.

Nevertheless, it is obvious that the fiscal positions in the euro area are affected by the business cycle. The SGP has attached more importance into the business cycle, taking into account cyclically budget balance, since March 2005, when it was revised. However, the SGP should ensure that the automatic stabilizers work freely in both downturns and upturns over the business cycle. During a strong economic growth, the member countries could not reduce their debt ratios. The debt rule of the SGP still remains to be achieved for the euro area as a whole. Furthermore, the upward trend in the euro area debt ratio has continued since 2003. This creates a credibility problem for the SGP.

Low level public debt is important for sound public finance in the long-run, especially in the euro area with ageing population. It enhances the sustainability of public finance, provides a sufficient room for automatic stabilizers to work freely and for making investment

[376] European Central Bank, (2005b). op. cit., p.p. 59-66.
[377] European Commission, (2006b). "The Long-term Sustainability of Public Finances in the European Union", *European Economy*, No: 4, Brussels.
[378] European Commission, (2002c). "Report on the Implementation of the 2001 Broad Economic Policy Guidelines", *European Economy*, No: 1, Brussels.

in physical and human capital to stimulate growth and employment. The problem with the debt rule can be attributed to the fact that within the SGP, there is no procedure for the member countries with debt ratios over 60 %. Therefore, the SGP should give more emphasis to the debt issue.

4.2.5. Balance of Payments

The euro area experienced sharp increase in the current account deficit in 2000, compared with 1999. The current account balances since 2000 can be followed by Table 24. The main reason of this deterioration was the reduction of goods surplus as the increase in the imports of goods exceeded the rise in the exports of goods. The growth in the imports of goods partly depends on the strong increase in import prices, which is a result of higher oil prices and the depreciation of the euro. Strong domestic demand also affected the import volumes. The exports of goods grew due to strong foreign demand. Combined direct and portfolio investment net outflows declined slightly in 2000.[379]

In 2001, the current account of the euro area closed to the balance, but it was in surplus according to calculations of 2006. This progress resulted mainly from a rise in the goods surplus together with a decrease in services deficit. Income deficit increased in 2001, while transfer remained broadly unchanged. Both volumes of exports and imports of goods declined because of global slowdown. The import was more affected by the slowdown and high oil prices. Income deficit increased in 2001. Combined net outflows in direct and portfolio investment in 2001 were lower than in 2000, because the large net outflows in portfolio investment turned into net inflows. This development was resulted mainly from a substantial rise in net equity inflows.[380]

[379] European Central Bank, (2001). op. cit., p.p. 49-55.
[380] European Central Bank, (2002a). op. cit., p.p. 49-59.

The current account of the euro area started to record surplus in 2002. A substantial increase in the goods surplus was the main factor causing this development. The income and current transfer deficits remained broadly unchanged. The rise in the goods surplus resulted from a significant decrease in the value of imports and a small increase in exports. Decrease in the value of imports depends on both lower import prices resulted from appreciation of the euro and weak domestic demand. The small increase in exports depends on stronger foreign demand. However, euro area exporters reduced their profit margins to offset the decline in competitiveness resulting from the euro appreciation. Net capital inflows were the result of combined net direct and portfolio investments in 2002.[381]

Table 24: Current Account Balance, deficits (-) / surplus (+) (as a percentage of GDP)

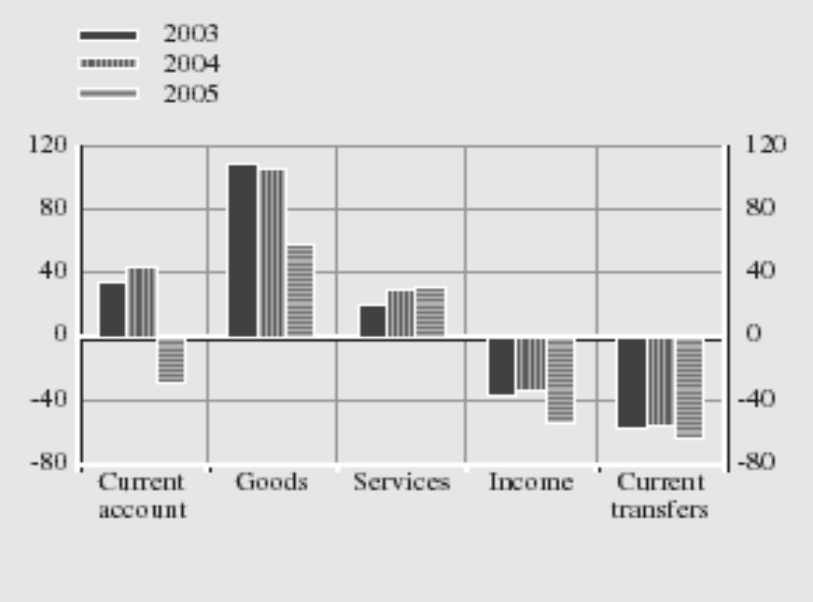
Countries	Years											
	61-90	**91-95**	**96-00**	**97**	**98**	**99**	**00**	**01**	**02**	**03**	**04**	**05**
BE	0.2	3.7	5.0	5.1	5.0	5.3	4.0	4.5	5.8	4.4	3.6	2.5
DE	1.3	-0.9	-0.5	-0.1	-0.3	-0.8	-1.1	0.4	2.4	2.4	3.9	4.2
EL	-0.9	-0.5	-3.1	-2.1	-3.5	-2.8	-8.2	-7.1	-7.7	-8.3	-9.5	-9.2
ES	-1.1	-2.0	-1.1	0.5	-0.6	-2.3	-3.3	-3.1	-2.7	-3.3	-5.9	-7.5
FR	-0.7	-0.1	1.9	2.5	2.4	2.3	1.3	1.5	1.5	0.4	-0.6	-2.1
IE	-4.4	1.9	1.4	3.1	0.9	0.4	-0.4	-0.7	-1.3	-1.4	-1.0	-3.1
IT	0.2	-0.1	1.7	2.8	1.9	1.0	-0.2	0.3	-0.3	-0.8	-0.5	-1.1
LU	18.2	13.3	11.1	--	--	--	13.7	9.0	11.8	8.2	10.6	9.7
NL	1.5	4.3	4.7	6.2	3.0	4.1	4.9	3.8	2.8	2.7	8.6	7.1
AT	-0.5	-1.1	-2.5	-2.6	-2.0	-3.1	-1.0	-0.4	2.5	1.5	2.1	2.9
PT	-2.5	-2.7	-7.3	-6.2	-7.2	-8.9	-10.8	-10.1	-7.7	-6.0	-7.8	-9.5
FI	-2.0	-1.2	5.7	5.6	5.6	6.0	7.2	6.9	7.4	4.3	7.6	4.6
EU-12	**0.2**	**-0.2**	**0.8**	**1.5**	**1.0**	**0.5**	**-0.1**	**0.5**	**1.2**	**0.6**	**0.8**	**0.0**
CZ	--	--	--	--	--	--	-4.9	-5.4	-6.3	-6.2	-6.3	-2.7
DK	-2.6	1.6	0.8	0.4	-0.9	1.7	1.5	3.1	2.0	3.3	2.3	2.9
EE	--	--	--	--	--	--	-5.5	-5.6	-10.2	-13.2	-12.5	-11.1
CY	--	--	--	--	--	--	-5.3	-3.3	-4.5	-3.0	-5.3	-5.7
LV	--	--	--	--	--	--	-4.6	-7.6	-6.7	-8.2	-12.9	-12.5
LT	--	--	--	--	--	--	-5.9	-4.7	-5.2	-6.9	-7.9	-6.9
HU	--	--	--	--	--	--	-8.6	-6.2	-7.1	-8.4	-8.4	-6.8
MT	--	--	--	--	--	--	-12.6	-3.1	0.3	-5.8	-7.5	-11.0
PL	--	--	--	--	--	--	-6.0	-2.9	-2.6	-2.2	-4.2	-2.2
SI	--	--	--	--	--	--	-2.8	0.2	1.4	-0.4	-2.6	-2.0
SK	--	--	--	--	--	--	-2.5	-7.4	-7.3	-0.8	-2.5	-7.9
SE	-0.4	-0.1	3.8	4.3	3.8	4.0	4.2	4.6	5.4	5.9	6.6	5.9
UK	-0.3	-1.6	-1.2	-0.2	-0.6	-2.1	-2.5	-2.3	-1.7	-1.8	-1.6	-2.2
US	-0.3	-0.9	-2.6	-1.5	-2.3	-3.3	-4.1	-3.7	-4.4	-4.7	-5.6	-6.2
JP	1.0	2.5	2.3	2.2	3.0	2.6	2.5	2.1	2.8	3.2	4.0	3.6

Source: Several volumes of European Economy: Economic Forecasts of the European Commission.

[381] European Central Bank, (2003a). op. cit., p.p. 55-66.

The euro area current account surplus fell in 2003. This decrease was mainly caused by drop in the goods surplus and a rise in the income deficit and current transfer deficit. The current account balance and its components since 2003 can be followed by Figure 14. Imports of goods remained broadly unchanged in 2003. The reduction in goods surplus resulted from a fall in the value of exports of goods. The appreciation of the euro caused the loss in price competitiveness in the euro area. Therefore, the euro area exporters lowered their prices. The decrease in export prices led weak foreign demand to the fall in the value of exports in 2003. Combined direct and portfolio investment experienced net outflows in 2003 due to mainly development in the global economy.[382]

Figure 14: Current Account Balance and Its Components
(EUR billions; seasonally adjusted data)



Source: European Central Bank, (2006a). op. cit. p. 69.
Note: The data are aggregated using 2005 exchange rate.

The income and current transfer deficits declined, while services surplus increased in 2004. As a result, the current account surplus increased slightly in 2004. The goods surplus remained broadly unchanged, because exports and imports of goods increased by a similar

[382] European Central Bank, (2004b). op. cit., p.p. 59-64.

amount. Nevertheless, the fall in income deficits was resulted from a substantial increase in income receipts. Combined direct and portfolio investment experienced net inflows in 2004, which was lower than previous year. The lower level of financial inflow to the euro area was a result of increased net outflows in direct investment, because of decline in foreign direct investment inflows into the euro area.[383]

The euro area current account recorded a deficit in 2005. The main reason of this development was higher cost of oil imports. The deterioration in the goods surplus and sharply increase in income deficit adversely affected the current account of the euro area, while the balances for services and current transfers remained broadly unchanged. The import values of goods strongly rose because of the higher oil prices. The growth in export values was affected by both the export prices and the export volumes. The export prices increased due to the costs associated with the higher oil prices. The export volumes of goods rose as a result of increasing euro area foreign demand. In financial account, the euro area recorded a net outflow in combined direct and portfolio investment in 2005. The deficit in foreign direct investment was a result of an increase in foreign direct investment by the euro area. The UK and the new EU member countries were the main recipients of the euro area direct investment. The new EU member countries were the main investors in the euro area in 2005. The euro area portfolio investment abroad was directed primarily towards the UK and offshore centers.[384]

Greece, Portugal and Spain suffer from large current account deficits by the beginning of the EMU. The current account deficits of these countries can be attributed to the fact that they are the poorest members of the euro area. The rates of return in poor countries are higher than other member countries, while growth prospects are higher in these countries. Thus, financial and goods market integration are likely to lead to both a decrease in saving and an increase in investment, therefore to a deterioration in balance of payments. Financial integration and elimination of exchange rate risk make it easier to borrow abroad. The effect

[383] European Central Bank, (2005b). op. cit., p.p. 66-70.
[384] European Central Bank, (2006a). op. cit., p.p. 67-75.

of increase in investment on the current account deficits of Greece, Portugal and Spain was limited. Current account deficits of these countries were result of a decrease in savings. Ireland was a one of the poor countries of the EU. However, it caught-up the EU average and exceeded it with a current account surplus due to an increase in public saving and a substantial fiscal consolidation. All these developments indicate that the euro area member countries should continue to collect current account statistics.[385]

4.3. OPTING OUT FROM THE EMU PARTICIPATION

In the early years of the EMU there were only three countries outside the euro area, namely Denmark, Sweden and the UK. The new EU member countries are also out of the euro area, except for Slovenia, which adopted the euro in January 2007. Denmark obtained opt-out clause[386] from adopting the single currency at the Maastricht Summit in 1992. The Maastricht Treaty provides Demark with guarantee that it would not automatically proceed to the Stage Three even if it fulfilled convergence criteria. The Danish Constitution requires a referendum for this issue. The Maastricht Treaty was presented to the Danish people in a referendum in June 1992, and then the Treaty was rejected. The Treaty had to be ratified by all member countries before it could enter into the force. As a solution, the European Council made a declaration, which laid down following decisions: Denmark gave notification that it would not participate in the Stage Three, and in the single currency; Denmark would not be bound by the rules concerning economic policy, which applied to the EMU countries; Denmark will retain its existing competences in the field of monetary policy according to its national laws and regulations; Denmark would participate fully in the Stage Two and would

[385] Blanchard, O. and Giavazzi, F., (2002). "Current Account Deficits in the Euro Area. The End of the Felfstein Horioka Puzzle?", *Massachusetts Institute of Technology Department of Economics Working Paper Series*, No: 03-05.
[386] Opt-out clause means that it was not required to participate in the third stage of the EMU.

continue to participate in exchange rate cooperation within the EMS; Denmark retained the capacity to pursue its own monetary policies with regard to distribution of income and social welfare.[387]

In May 1993, a second referendum was held, and then the Treaty was accepted. After the introduction of the euro, Danish government decided to organize a referendum on Denmark's entry to the Stage Three. Then, as stated earlier, in September 2000, the Danish referendum rejected the euro area membership. Today, Danish krone is within the EMS and has been a part of the ERM II since the introduction of the euro. It may fluctuate within a 2.25 % band on either side of the euro.[388]

In September 2003, the Swedish referendum voted against joining the euro area. However, Swedish referendum was different from the Danish referendum. There were two alternatives facing the voters: a free float – i.e. also outside the ERM II – or a monetary union. The referendum was a result of long public debate. There are many views based on different approaches, such as the theory of optimum currency areas, both economic and political costs and benefits of the EMU. The Swedish referendum voted against joining the euro area due to economic, ideological and political reasons.[389]

The UK is another EU country, which obtained opt-out clause from adopting the single currency by at the Maastricht Summit in 1992. According to the Protocol 25, certain articles of the Maastricht Treaty do not apply to the UK: its powers in the field of monetary policy are not affected by the Treaty; it is not subject to the provisions of the Treaty relating to excessive deficits; it is not concerned by the provisions of the Treaty relating to the ESCB, the ECB or the regulations and decisions adopted by those institutions. Nevertheless, the UK's voting rights are suspended for the acts related to the Stage Three and the ECB. In

[387] Protocol on certain provisions relating to Denmark, annexed to the Treaty establishing European Community, *Official Journal*, No: C 191, 29.07.1992, p. 89.
[388] European Union official web site, http://europa.eu/scadplus/leg/en/lvb/l25061.htm, 26.01.2007.
[389] Jonung, L., (2004). "To be or not to be in the euro?: Benefits and costs of monetary unification as a perceived by voters in the Swedish euro referendum 2003", *European Economy Series of the European Commission*, No: 205, Belgium.

October 1997, the UK notified the European Council that it was not intending to adopt the euro on 1 January 1999. The UK fulfilled the convergence criteria to adopt the euro. It may change its notification at any moment and introduce the euro.[390]

In June 2003, the UK government announced that any move to the Stage Three would depend on five economic tests. The UK government has been making assessment on five economic tests since 1997. These tests and the conclusion on each test are as follows:

(i) **Convergence** (Are business cycles and economic structures compatible so that the UK and other member countries could live comfortably with euro interest rates on a permanent basis?): There has been significant progress on convergence since 1997. The UK exhibits a greater degree of cyclical convergence today, and fulfilled the convergence criteria. However, there are still significant structural differences with the euro area such as in the housing market. The UK's business cycles are not sufficiently compatible with those of euro area.

(ii) **Flexibility** (If problems emerge is there sufficient flexibility to deal with them?): UK labour market flexibility has markedly improved since 1997. Significant decreases in unemployment have been experienced. This made the UK one of countries with the lowest levels of unemployment in the OECD. Considerable progress has been made to reform labour, product and capital markets in the UK and the euro area. However, more progress can be made. Higher degree of flexibility in the UK and the euro area can minimize output and employment instability. Therefore, progress on a range of economic reform policies, particularly in labour markets, is necessary in order to enhance flexibility and resilience to shocks. The UK achieved a higher degree of flexibility than the EU. However, the progress on flexibility, which is achieved in both the EU and the UK, is not sufficient. Higher degree of flexibility is necessary to achieving sustainable convergence and to ensure that any asymmetrical shocks can be absorbed by labour market flexibility and mobility and by fiscal policy.

[390] Treaty of Maastricht, Protocol no: 25, 1992.

(iii) **Investment** (Would joining the EMU create better conditions for firms making long-term decisions to invest in Britain?): Joining the EMU could reduce the cost of capital for UK firms if long-term interest rates fell further in the euro area and if membership of a larger financial market reduced the cost of finance. In particular, these costs could fall for SMEs. The EMU is likely to boost cross-border investment flows and FDI in the euro area. There has been a fall in the UK's share of total EU FDI since the start of the EMU, and a corresponding increase in the share of the euro area. However, it is difficult to say that the EMU boosted FDI in the euro area. If sustainable and durable convergence is achieved, quantity and quality of investment would increase.

(iv) **Financial Services** (What impact would entry into EMU have on the competitive position of the UK's financial services industry, particularly London's wholesale markets?): The UK has attracted a significant level of wholesale financial services business since the start of the EMU. The strength of London should be continuous, whether inside or outside the EMU. Joining the EMU should enhance the strong competitive position of the UK's financial sector by offering some additional benefits. Overall, the financial services test is met.

(v) **Growth, Stability and Employment** (Will EMU entry promote higher growth, stability and a lasting increase in jobs?): Joining the EMU could significantly raise the UK output and lead to a lasting increase in jobs in the long-term. The UK could benefit from a significant boost to trade with the euro area. Despite the progress made since 1997, the lack of convergence means that macroeconomic stability would be harder to maintain inside the EMU than outside. The potential uncertainty created by the price stability objective of the ECB and the constraints on the use of fiscal policy for stabilization under the current interpretation of the SGP increase the possibility that output and employment would be less stable inside the EMU. Nevertheless, the UK government supports the EU's evolving macroeconomic policy framework such

as Lisbon Strategy. Overall, growth, stability and employment test would be met once sustainable and durable convergence has been achieved.[391]

The general assessment of the UK government is that the UK has made real progress towards meeting the five economic tests since 1997. The potential benefits of increased investment, trade, a boost to financial services, growth and jobs are clear. However, there is no sustainable and durable convergence or sufficient flexibility to cope with any potential difficulties, such as asymmetric shocks, within the EMU. Therefore, despite the risks and costs from delaying the benefits of entry, a decision to joining the EMU is not currently in the UK national interest.[392] Nevertheless, the UK government adopted a wide programme of economic reform to prosper inside the euro area.

There are four key elements of this policy agenda. First element is maintaining stability. The UK government announced that a symmetric inflation target as measured by HICP would improve the quality of the UK inflation target and help ensure inflation expectations in the UK remain in the line with those of the euro area. Second element is enhancing stability and flexibility. The UK government is committed to a comprehensive programme to improve the functioning of the housing market. This includes reforms on both supply and demand in the housing market. Third element is proposal for enhancing fiscal stabilization. This includes the reforms to the institutional framework in order to ensure an enhanced fiscal stabilization policy operates symmetrically, credibly and transparently. It also includes further analysis into these issues to ensure that the policy proposals deliver effective counter-cyclical stabilization of the economy when the UK joins the EMU. Fourth element is flexibility. Sufficient degree of flexibility ensures shocks do not have long-lasting effects and that high levels of output and employment are maintained. In the labour market, the UK government introduced a package of measures designed to increase wage flexibility and increase labour supply by increasing cyclical economic migration. In the product market,

[391] Treasury of the UK official web site, (2003). "UK Membership of the Single Currency: An Assessment of the Five Economic Tests", http://www.hm-treasury.gov.uk/documents/international_issues/the_euro/euro_index_index.cfm, 05.02.2007.
[392] Ibid.

the UK government introduced measures to increase competition. In the capital market, reforms to improve access to finance for small enterprises and further reform to the corporation tax system are adopted.[393]

The previous parts proved that the EU countries take the risks and face costs when they decided to join the EMU. Denmark and Sweden decided not to join the EMU because of the results of referendums in these countries rather than those of an economic analysis. However, the UK's decision depends on an analysis of costs and benefits, if we assume that there is no political effect on this decision. The results of the five tests support the claims of this dissertation.

Nevertheless, there is also a discussion among economists whether the UK, Denmark and Sweden should adopt the euro. Skeptic economists point out that unemployment in these countries is lower than the EMU countries; as well as their inflation rates are low. Furthermore, there are no signs from financial markets that the credibility of monetary policy in controlling inflation has been weakened. Other economists note the relative weakness of foreign direct investment inflows into the *outs*.[394]

It is important to analyze the implications of adopting the euro from recent economic events within Europe. There is no significant difference between the overall macroeconomic performance of the EU-*ins* and that of the EU-*outs*; on the contrary, the similarities are remarkable. Inflation in most European countries has been low and unemployment has fallen since 1999 in most countries. However, the adoption of the euro made a difference in terms of trade among the EMU countries. There is a significant evidence for a trade enhancing effect on bilateral trade within the EU from the formation of the single currency. The trade

[393] Ibid.
[394] Barr, D., Breedon, F. and Miles, D., (2003). "Life on the Outside: Economic Conditions and Prospects Outside Euroland", *Economic Policy*, p.p. 573-613.

between the EU-*outs* and the EU-*ins* is expected to be increased, if they adopted the euro.[395] In addition, the introduction of the euro has lowered firms' cost of capital in the EU-*ins*.[396]

There has been a fall in FDI to the EU-outs, but these flows have historically been volatile. However, such a fall is much less economically significant than the potential trade effects. Nevertheless, there is no evidence that the introduction of the euro has not affected the financial markets of the EU-*outs* yet.[397] On the contrary, both the UK's analysis and previous parts of this dissertation proves that there are structural differences between the UK and the euro area countries; and the same is valid for Sweden. Indeed, financial sectors in the UK and Sweden are highly developed relative to the euro area countries. Therefore, effects of monetary policy decisions on the UK economy would be more rapid and higher, when the UK joins the EMU. This difference creates a challenge for both the UK government and the ECB.

[395] Ibid.
[396] Bris, A., Koskinen Y. and Nilsson, M., (2003). "The Euro is Good after all: Evidence from Corporate Valuations, *CEPR Discussion Papers*, No: 3910.
[397] Treasury of the UK, op. cit.

CHAPTER V

CHALLENGES FOR THE EMU UNDER THE STABILITY AND GROWTH PACT AND THE MONETARY POLICY STRATEGY

The current process of the European monetary integration implies a tendency towards a creation of an optimum currency area. However, the adjustment mechanisms within the euro area are not sufficiently developed yet. Theoretical analysis, implementations of the SGP and monetary policy strategy and macroeconomic developments in the EU revealed that under the SGP provisions and the ECB's monetary policy strategy, there are some other challenges for the EMU to sustain its economic stability. These challenges can be summarized in the following titles: divergence among the member states, asymmetric shocks, and enlargement.

5.1. DIVERGENCE AMONG THE MEMBER COUNTRIES

During the formation of the EMU, much of the concern about the preconditions for adopting the euro has focused on the need to achieve nominal convergence. Both the Convergence Criteria and the SGP provisions indicates that nominal convergence is accepted as a numerical similarity of the member countries' macroeconomic indicators such as inflation rates, interest rates, budget deficits, public debts etc. Little attention has been paid to real convergence and structural convergence. As a result, divergence among the member countries is one of the most important challenges for the future EMU.

5.1.1. Real Divergence

Real divergence can be defined as disparities among the member countries in terms of per capita income level, growth rates of output, productivity and unemployment. In a monetary union, degree of real divergence should be very low. Namely, the member countries constituting a currency area should be an economically homogenous group. Homogeneity is a necessary condition for several reasons. Firstly, real divergence makes the effects of symmetric shocks on the member states different.[398] Secondly, in general, countries with low levels of income tend to experience faster productivity growth. If there are disparities in productivity growth between member countries in a monetary union, inflation rates of member countries differ from each others. This is known as Balassa-Samuelson effect. In this case, real wages increase faster in the member country with higher productivity growth.[399] Thirdly, if there is significant real divergence among the member countries in a monetary union, effects of common economic policies on economies of member countries will be different. Therefore, when the ECB bases its decisions on the average values of inflation, output and employment for the entire euro area without taking national divergences into account, welfares of some member countries may be reduced.[400] Finally, in the case of real divergence, poorer member countries continuously benefit fiscal transfers from the EU funds, while rich member countries compensate them. This may cause political conflict between member countries.

Real divergence should be regarded as an important challenge for the EMU, in particular when considering that adjustment mechanisms are not sufficiently developed within the EMU and that there are restrictive fiscal rules for the national policy-makers under the SGP provisions. Although the EMU countries achieved significant degree of nominal convergence among themselves, the Table 25 and many studies proved that there is a real

[398] Mundel, R.A., op.cit.
[399] Balassa, B., (1964). "The Purchasing Power Parity Doctrine: A Reappraisal", *Journal of Political Economy,* No: 72, p.p. 584-596.
[400] Gros, D. and Hefeker, C., (2002). "Common Monetary Policy with Asymmetric Shocks", *CESifo Working Papers*, No: 705 (6), Munich.

divergence among them.[401] However, the degree of divergence has been decreasing due to the higher degree of economic integration. Frankel and Rose argued that increasing trade among member countries makes the business cycles in these countries more synchronized.[402] Artis and Zhang found that there has been more synchronization among the business cycles of the member countries since the early 1980s.[403]

Table 25: Real Divergence among the Member Countries

	GDP Per Capita (EU15=100)							Unemployment (%)						
	1999	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
BE	105.0	106.1	106.8	106.6	107.1	107.4	107.8	8.6	6.9	6.7	7.3	8.0	8.2	8.1
DE	102.8	101.7	100.2	99.1	98.6	98.5	98.0	8.4	7.8	7.8	8.7	9.6	9.7	10.0
EL	65.1	65.8	67.2	70.7	73.2	74.4	75.2	11.8	11.0	10.4	10.0	9.3	8.5	9.0
ES	83.3	83.2	84.1	86.1	87.4	87.4	87.5	12.8	11.3	10.6	11.3	11.3	11.1	10.8
FR	103.7	103.5	104.5	104.6	104.2	104.4	104.3	10.5	9.1	8.4	8.9	9.4	9.6	9.5
IE	110.8	114.9	117.9	123.2	125.1	127.1	128.9	5.6	4.3	3.9	4.3	4.6	4.4	4.4
IT	103.3	102.7	101.5	99.6	98.7	97.5	97.2	11.3	10.4	9.4	9.0	8.6	8.3	8.1
LU	188.7	198.4	194.2	191.8	194.8	196.9	198.1	2.4	2.3	2.1	2.8	3.7	4.3	4.6
NL	109.4	110.4	113.1	111.2	109.1	108.1	107.5	3.2	2.9	2.5	2.7	3.8	4.6	5.0
AT	115.1	116.1	113.3	111.9	112.0	111.5	111.4	3.9	3.7	3.6	4.2	4.3	4.2	3.9
PT	70.0	70.2	70.2	70.1	68.6	67.7	67.4	4.5	4.1	4.0	5.0	6.3	6.3	6.2
FI	101.2	103.8	103.9	101.5	102.8	103.6	104.6	10.2	9.8	9.1	9.1	9.0	8.8	8.6
EU12	**99.0**	**98.8**	**98.6**	**98.3**	**98.1**	**97.8**	**97.7**	**9.4**	**8.4**	**8.0**	**8.4**	**8.8**	**8.8**	**8.3**
CZ	59.6	58.9	60.2	61.8	63.5	64.6	65.9	8.6	8.7	8.0	7.3	7.8	8.3	8.2
DK	115.5	115.1	115.0	112.0	111.8	112.0	112.3	4.8	4.4	4.3	4.6	5.6	5.8	5.3
EE	35.6	37.8	39.1	40.9	43.0	44.8	46.8	11.3	12.5	11.8	9.5	10.1	9.7	9.4
CY	74.5	76.1	78.3	76.3	76.7	77.2	78.0	5.3	5.2	4.4	3.9	4.4	4.2	4.0
LV	31.0	32.2	34.1	36.0	38.8	41.1	43.1	14.0	13.7	12.9	12.6	10.5	9.9	9.7
LT	34.2	35.0	37.1	39.4	43.3	45.5	47.6	13.7	16.4	16.4	13.5	12.7	11.4	10.6
HU	47.6	48.6	51.4	53.2	54.8	56.0	57.1	6.9	6.3	5.6	5.6	5.8	5.8	5.9
MT	70.4	71.3	68.4	67.4	66.9	66.0	65.4	7.4	7.0	6.7	7.5	8.2	8.6	8.5
PL	41.4	41.6	41.8	41.5	42.9	44.6	45.9	13.4	16.4	18.5	19.8	19.2	19.0	18.7
SI	67.1	66.5	68.1	69.3	70.7	72.1	73.2	7.2	6.6	5.8	6.1	6.5	6.3	6.1
SK	42.8	43.5	44.5	47.0	48.7	50.0	51.3	16.7	18.7	19.4	18.7	17.5	18.4	17.9
SE	107.4	108.8	105.9	104.4	105.3	106.7	107.5	6.7	5.6	4.9	4.9	5.6	6.3	5.8
UK	102.6	109.5	104.8	107.1	108.1	109.1	109.6	5.9	5.4	5.0	5.1	5.0	4.9	4.9
EU25	**90.9**	**91.0**	**91.2**	**91.4**	**91.7**	**92.0**	**92.2**	**9.2**	**8.7**	**8.5**	**8.9**	**9.1**	**9.1**	**9.1**

Source: Several volumes of European Economy: Economic Forecasts of the European Commission.

[401] See for instance European Commission, (1996). *First Report on Economic and Social Cohesion*, Luxembourg: European Commission; Dunford, M., (1996). "Disparities in Employment, Productivity and Output in the EU: The Roles of Labour Market Governance and Welfare Regimes", *Regional Studies*, No:30, p.p. 339-357; De Grauwe, P., op. cit. p.p. 82-85; De Haan, J., Eijffinger, S. C. W., op. cit., p. 21.
[402] Frankel, J.A., Rose, A.R., (1996). op. cit.
[403] Artis, M.J., Zhang, W., (1995). op. cit.

Two long-term determinants of potential economic growth are labour supply and total factor productivity. Ide and Moes computed the absolute value of the difference between the average growth rate of a variable in a country in one sub-period and the corresponding average growth rate for the euro area. According to this study, differences in growth rates of labour supply are significant in Spain, the Netherlands, Greece and Ireland; and differences in growth of total factor productivity with the euro area are higher in Portugal, Greece, Ireland and Finland. The European Commission stated that since the mid-1990s the average growth rates of real GDP, labour productivity and total factor productivity in the EU have fallen behind those in the US.[404] According to the Commission's report, there is a wide variation across the EU in productivity performance both in terms of growth rates as well as level. A few member countries – such as Germany and the Netherlands – show productivity levels near to that of the US or even above it – i.e. Belgium and France – whereas others are substantially behind. Nearly all member countries experienced a recent decrease in their average productivity levels relative to the US.[405] Another study argued that decrease in productivity is mainly the result of convergence of production levels in the EU. However, the EU is not homogenous in terms of productivity level due to the different macroeconomic developments in the individual member countries such as behaviour of national business cycles, labour market organizations or sectoral developments.[406]

[404] Total factor productivity (TFP) is defined as the change in output after taking account of growth in capital physical and changes in the quantity and quality of labour input.
[405] European Commission, (2003b). *EU Productivity and Competitiveness: An Industry Perspective: Can Europe Resume the Catching-up Process?,*ed. by O'Mahony, M. and Van Ark, B., Luxembourg: Enterprise Publications.
[406] Geppert, K., Gornig, M. and Stephan, A., (2003). "Regional productivity differences in the European Union - Theoretical Predictions and Empirical Evidence," ERSA Conference Papers, no: ersa03p171, European Regional Science Association.

5.1.2. Structural Divergence and Asymmetry in Monetary Transmission

Structural divergence can be defined as differences among the member countries in terms of labour market structure, financial structure and legal system. These differences cause asymmetry in monetary policy transmission process.[407] Under the asymmetry in monetary policy transmission, the impact of the ECB's monetary policy decisions, which are based on the average values of inflation, output and employment for the entire euro area, may be different across the member countries in terms of timing, magnitude and distributional effects, because of the different structures.[408]

Many empirical studies prove that there exists asymmetry in the monetary policy transmission of the EMU.[409] The standard taxonomy of transmission channels are the interest rate, the exchange rate and credit channels. It is possible to examine the monetary policy transmission in the EMU through this taxonomy.

There are five key factors of the interest rate channel. First factor is the transmission change in policy interest rates to market and bank lending interest rates, i.e. interest rate pass-through. A quicker interest rate pass-through from policy interest rates to market and bank lending interest rates increases the power of transmission. Although the EMU countries share the same money market and the same yield curve, national banking sectors continue to be segmented and there is a differential pass-through from market interest rates to bank lending

[407] For example, see Cecchetti, S.G. (1999). op. cit.; also see Dornbush, R., Favero, C. and Giavazzi, F., (1998). "Immediate Challenges for the European Central Bank", *Economic Policy*, No: 26; and also Maclennan, D., Muellbauer, J. and Stephens, M., (1999). "Asymmetries in Housing and Financial Market Institutions and EMU", *CEPR Discussion Papers*, No: 2062.

[408] Peersman, G., (2004). "The Transmission of Monetary Policy in the Euro Area: Are the Effects Different Across Countries?", *Oxford Bulletin of Economics and Statistics*, No: 66 (3), p.p. 285-308.

[409] For example, see De Grauwe, P., Senegas, M. A. (2004). "Monetary Policy Transmission Asymmetries: Some Implications for EMU and Its Enlargement", *JCMS*, vol. 42, issue: 4, p.754; Kieler, M. and Saarenheimo, T., (1998). "Differences in Monetary Policy Transmission? A Case Not Closed", *European Commission Economic Papers*, No: 132; and Guiso, L., Kashyap, A. K., Panetta F. and Terlizzese, D., (1999). "Will a Common European Monetary Policy Have Asymmetric Effcets?", *Federal Reserve Bank of Chicago Economic Perspectives*, Forth Quarter, p.p. 56-75.

rates. The response of short term credit rates to money market rates is significantly smaller in Italy, Germany and Spain than in Belgium, France and the Netherlands. The pass-through to bank lending rates is more complete in Belgium, the Netherlands. Second factor is the structure of production. A higher share of interest-sensitive sectors – such as durable goods – in GDP strengthens the effect of monetary policy. There is a relatively greater sensitivity of output to monetary policy in Germany and Italy. Third factor is the degree of wage and price flexibility. The more rigid nominal prices and wages, the larger the impact of any given demand falls on output. Real rigidities magnify the effect of nominal rigidities. As an indicator for the euro area, the degrees of employment protection in the member countries are similar.[410] Fourth factor is the income effect. The effect of higher interest rates on disposable income depends on households' debt position, the maturity of their interest-bearing assets and liabilities, and the pass-through from policy interest rates to average interest rates. Despite there is a comparatively stronger income effect outside the euro area – the UK and Sweden – the income effects in Germany, Spain, France and Italy are similar. Fifth factor is the wealth effect. The wealth effect of interest rate on consumption is stronger in countries where households' consumption is large and held in the form of assets with volatile prices. According to the empirical studies, there is a significant wealth effect on consumption in the Netherlands and Germany, while there is no significant wealth effect on consumption in France and Italy. Additionally, the housing market has an important role in monetary policy transmission; and there is a relationship between cross-country heterogeneity in the volatility of house prices and differences in housing and financial market institutions. In Finland, real house prices are more volatile than Belgium, Germany, France and Italy.[411]

The key factor for the exchange rate channel in the EMU is the degree of trade openness of the euro area. An exchange rate appreciation causes a reduction in output of more open economies with the assumption of high elasticity. However, in such economies, the exchange rate has a comparatively stronger impact on prices; and exports may have higher

[410] Differently, outside the euro area, there is a relatively lower degree of employment protection in the UK
[411] Suardi, M., (2001). "EMU and Asymmetries in Monetary Policy Transmission", *European Commission Economic Papers*, No: 157.

import content. The EMU member countries are affected by changes in the euro exchange rate asymmetrically because of two reasons. Firstly, an appreciation of the euro is likely to have a stronger impact on economic activity in the member countries, which export relatively more goods and services to third countries. Secondly, in the EMU countries in which imports from outside the euro area constitute a large share of the economy, a change in the euro exchange rate is likely to have a larger impact on the domestic price level, and a larger inverse impact on domestic real income. Exports to third countries are proportionally larger in the small open members of the EMU – Belgium, Luxembourg and the Netherlands – and Germany amongst the large ones. Therefore, these countries are relatively more exposed to the euro exchange rate movements.[412]

For the credit channel, a distinction is made between a bank lending channel and a balance sheet channel. On the one hand, according to the bank lending view, the key factors are the impact of monetary policy on loan supply and the degree of bank dependence. A tightening monetary policy may reduce loan supply. But banks, which have large holdings of securities, can acquire loanable funds, can keep their loan supply unchanged. Banks in the Netherlands and Belgium are financially stronger, while Italy and France have the weakest banking sectors. Nevertheless, a high share of bank loans in business financing and a large number of small firms would point to a potentially strong bank lending channel. While equity finance is most developed outside the euro area, it is growing in the euro area. On the other hand, according to the balance sheet view, the key factors are use of collateral, size structure of firms, firms' leverage[413] and efficiency of legal system and contract enforcement. These factors in the EU are follows: Firstly, collateral is more widespread outside the euro area than the euro area countries; secondly, in Italy and Spain, small firms account for as much as 80 % of employment, at the opposite end it is around 60 % in Germany and the Netherlands; thirdly, average leverage ratios are the lowest in France, with the other countries having

[412] Ibid.
[413] Firms in financial distress can be measured by a high ratio of interest payments over operating income.

similar ratios; fourthly, Italy has a relatively weaker legal system as a result of weak enforcement of contracts and shareholding rights.[414]

The asymmetry in monetary policy transmission could reduce over time as financial structures become more similar. However, it may remain to some degree a persistent feature of the euro area as in any other large monetary union.

5.2. ADVERSE ECONOMIC SHOCKS

The previous parts reveal that according to the theory of optimum currency areas, symmetry in the shocks and similarity of policy responses to shocks are essential criteria for monetary unions. The main reasons of asymmetric effects of shocks are the differences among the member countries. The previous parts also reveal that within the EMU there are significant differences in monetary transmission mechanisms, market structures and business cycles; and that the EMU cannot be considered as an optimum currency area yet. Under these circumstances, adverse shocks are likely to produce asymmetric effects in the EMU.

In the absence of the national monetary policy instruments, the main policy issue of a monetary union concerns the response to asymmetric shocks. Here, asymmetric shocks also imply symmetric shocks, which produce asymmetric effects. The EMU was designed to function according to two-pillar monetary policy strategy and the SGP provisions. The rationale for this framework is to maintain price stability with aggregate output close to potential and sound public finance. However, as stated before, implementations of the two-pillar monetary policy strategy and the SGP are problematic. Effects of asymmetric shocks cannot be absorbed by using only a common monetary policy or restricted national fiscal

[414] Ibid. Financial systems of the UK and Sweden are stronger than the euro area countries.

polices, because the EMU cannot be considered as an optimum currency area yet as mentioned in part 3.3. Therefore, in the absence of national monetary policy instruments and adjustment mechanisms, asymmetric shocks should be considered as a threat for the EMU and its member countries; and alternative adjustment mechanisms should be provided to absorb asymmetric effects.

However, the European Commission argues that not all shocks are critical for the EMU. The Commission made the following taxonomy of shocks[415]:

- First distinction is made between *temporary* and *permanent shocks*. The Commission states that an unanticipated fall in aggregate demand can be an example for temporary shocks. Permanent shocks generally appear as a decline in comparative real incomes and prices or a labour force migration etc.
- Second distinction is made between *country-specific* and *sector-specific shocks*. The Commission argues that changes in monetary or fiscal policy have a general effect on the whole of an economy and are wrong instrument to absorb a shock, which affects only one sector or region of that economy. It also argues that only a small part of the shocks experienced by the EU economy are country-specific.
- Third distinction is made between *real* and *financial shocks*. The Commission argues that even when shocks are country-specific, monetary policy instrument are only appropriate if effects of shocks are on the real side of the economy. It also argues that if the shocks are purely financial, common monetary policy under a fixed exchange-rate or a single currency is the best remedy for the shocks.
- Fourth distinction is made between *exogenous* and *policy-induced shocks*. The Commission stated that exogenous shocks are caused by outside events over which the authorities have no direct control; and that policy-induced shocks are arising from internal policies.

[415] European Commission (1997). "Economic Policy in EMU", *Commission Economic Papers*, No: 12, p.p. 27-28.

Using this taxonomy, the Commission concluded that exchange rate instrument is potentially useful only in rather narrow circumstances; i.e., the national monetary policies are useful only in the event of simultaneously country-specific, real and temporary shocks. It also argued that the probability of such events will be even smaller in the EMU under the future economic and policy framework, which reduces the degree of divergence among the member countries. Furthermore, according to the Commission, even in the case of the other types of shocks, optimal use of the exchange rate instrument may not be feasible in an environment of high capital mobility. In short, the Commission does not accept asymmetric shocks as a treat and the fact that alternative adjustment mechanisms are required to absorb them.[416]

Despite the Commission's stance on this matter, it is not reasonable for several reasons. The Commission considers high capital mobility as the only criterion to adopt a common monetary policy. However, theoretically, there are many criteria to constitute an optimum currency area, such as wage and price flexibility, labour mobility, openness to trade, fiscal transfer system etc; and at the same time, these are alternative adjustment mechanisms for asymmetric shocks. The part 3.2. of this thesis reveal that these mechanisms are not yet fully available or high developed. In theory, under these circumstances, market adjustment capability in the EMU is low to cushion shocks; hence asymmetric shocks are dangerous for both the EMU and individual countries. Nevertheless, contrary to the Commission's claim, in the absence of monetary policy instrument and under the SGP provisions, all types of shocks should be considered as a threat, unless all criteria for an optimum currency area are satisfied.

Nevertheless, the Commission does not accept asymmetric shocks as threat for the euro area, because of the argument that the degree of divergence among the member countries will decrease. However, since the early years of the EMU, the issue of asymmetric shocks has been likely to be more problematic. Within the EMU, there have been still large differences between the member countries, such as differences in degrees of specialization and levels of economic growth. Since a single currency requires a common monetary policy, economic heterogeneity of the EMU countries arises as a serious problem. Namely, the key

[416] Ibid.

questions are whether one monetary policy decision can be appropriate for all member countries, and on which country's situation the monetary policy decision is based. This problem becomes apparent, in particular, when a monetary union faces exogenous shocks.[417] Therefore, none of common monetary policy decisions can be the best decision for all member countries; and implementation of monetary policy in the EMU creates asymmetric effects.

5.2.1. The Shocks during the ERM II

The first shock within the ERM II was the relinquishment of national monetary policy by the establishment of the EMU. This shock affected the member countries in different ways. There was a German leadership in the ERM I for some countries – France, Belgium, the Netherlands, Luxembourg and Austria – which are called as DM-zone. Bundesbank monetary policy was depended on solely to the conditions of the German economy. The Bundesbank monetary policy was tight in order to deal with domestic inflationary pressures in Germany. However, the ECB monetary policy reflects the conditions in the whole area. This monetary policy change was a shock for Germany, because it was still absorbing the effects of reunification. The other DM-zone countries faced significant reductions in interest rates at the time of the launch of the euro, resulting in a boost to domestic demand. Non-DM-zone countries were affected significantly, because they lost their monetary policy independence and were a highly heterogeneous group in terms of economic growth.[418]

The euro area was affected by the Asian crisis of 1997[419] and Russian crisis of 1998, which are negative symmetric demand shocks. In the late 1998, in the aftermath of the Asian

[417] Buti, M. and Sapir, A., (2002). "EMU in the Early Years: Differences and Credibility" in *EMU and Economic Policy in Europe*, ed. Marco Buti, André Sapir, Chelthenham: Edward Elgar, p.p. 3-38.
[418] Ibid.
[419] The Asian countries, which are subjected to the financial crisis, were South Korea, Indonesia, Malaysia, Plippines, Singapore, Thailand, Hong Kong and China.

and Russian financial crises, GDP of the euro area decreased, while the inflation rates were at low level. However, this slowdown did not cause a general move towards expansionary fiscal policies within the euro area. During the first year of the EMU, the common monetary policy eased supporting growth with no danger for the price stability objective; and nominal interest rates in the euro area were lowest since World War II.[420] Nevertheless, a study by the Commission on Italy's growth in the 1990s found evidence that the Asian crisis had a disproportionate effect on Italy, because of the net external position with this region and of its export composition. Therefore, this experience proved that a symmetric shock in origin may have country-specific effects, because of heterogeneous industrial structures.[421]

The euro area has started to feel the inflationary threat of increasing oil prices since 2000. Supply shocks drive inflation up and economic growth down, creating a policy conflict between monetary policy-makers and fiscal policy-makers. Fiscal stance in the EMU countries was slightly expansionary. Nevertheless, the ECB raised interest rates gradually, because this situation increased upward risks to price stability objective of the ECB, raising interest rates only moderately.[422] However, Germany, France and Italy did not meet close to balance rule of the SGP. Oil prices increased further in 2004 and 2005. The impact of the increase in oil prices was observed on the euro area inflation and real GDP growth. The ECB did not raise the interest rates in 2004, and raised interest rates by only 0.25 percentage points in 2005. However, in 2005, inflation rate started to increase and economic growth slowed down. The ECB has raised the interest rates by 1.25 percentage points gradually in 2006, because of the upward risk to price stability. As a result, the inflation was 2.2 % in 2006 unchanged from 2005.[423]

In the aftermath of increasing oil prices in 2000 and 2001, big member countries of the EMU lost their ability of maneuver of their fiscal authorities to cope with severe shocks or

[420] Gaspar, V., Masuch, K., and Pill, H., op. cit., p.p. 88-99.
[421] Buti, M. and Sapir, A., op. cit., p. 38.
[422] Ibid.
[423] European Central Bank, (2005b). op. cit., p.p. 45-48; and European Central Bank, (2006a). op. cit., p.p. 50-58.

economic slowdowns. With a little room for maneuver of fiscal authorities, the euro area countries had started to experience a global slowdown since the beginning of 2001. Thus, the early-warning mechanism and EDP were activated for a number of countries, i.e. Germany, France, Portugal, Italy, Greece and etc. Today, Germany, France, Greece and Italy have still problems with the SGP rules.

These experiences and many empirical studies prove that even symmetric shocks have asymmetric effects on the economies of the euro area countries; and that the euro area is vulnerable to both symmetric and asymmetric shocks.[424]

5.2.2. Types of Shocks that Likely to Be Faced by the EU

On one side, differences across member countries and regions increase the degree of asymmetry at the level of macroeconomic shocks. On the other side, asymmetry at the level of macroeconomic shocks increases the degree of differences across the member countries, together with the other factors.[425]

Some economists used the real exchange rates as an indicator for asymmetric shocks, because they respond to the shocks. Eichengreen found that only a few EU member countries' real exchange rates react to the shocks similarly.[426] Bayoumi and Eichengreen found that supply shocks are more highly correlated in a small group of the EU countries – which consists of Belgium, Denmark, France, Germany and the Netherlands, than the other

[424] For instance see Ide, S. and Moes, P., (2003). "Scope of Asymmetries in the Euro Area", *National Bank of Belgium Working Paper Series,* No: 37, Belgium; and see also Frenkel, M., Nickel, C. (2005). "How Symmetric are the Shocks and the Shock Adjustment Dynamics between the Euro Area and Central and Eastern European Countries?". In: JCMS, vol.43, No.1, p.p.53-7

[425] Suner, S., (2005). " The Challenge of Asymmetric Shocks for Economic and Monetary Union", In: G. Genov, J. Zaharieva and K.Y. Nikolov (eds.), *The European Union in 2005: Candidate Countries' Perspectives,* Sofia: Bulgarian European Community Studies Association.

[426] See Eichengreen, B. (1991). op. cit.; and see also De Greuwe, P., and Vanhaverbeke, W. (1993). op. cit.

group – Greece, Ireland, Italy, Portugal, Spain and the UK. They found no evidence that the shocks tend to converge.[427] The existence of a subset of the EU countries in terms of shock convergence was found by also many other economists. Recent empirical studies showed that a high proportion of the asymmetric shocks in the EMU are sector-specific and regional-specific rather than country-specific.[428] Nevertheless, this type of shocks across the sectors may result in the changes in the level of output and employment creating significant divergence in business cycles.

5.2.3. Main Reasons of the Asymmetry in Shocks

In the EMU, both symmetric and asymmetric shocks are likely to produce asymmetric effects. The main reasons are structural differences among the EMU countries and lack of adjustment mechanisms. These differences exist in various grounds, such as differences in levels of economic growth, degree of wage and price flexibility, policy preferences, income distributions etc. However, the most important reasons are that differences in monetary policy transmission mechanisms, movements of business cycles and degree of diversification in production and consumption still persist among the EMU countries.

There exist large differences at the level of the transmission of monetary policy. Many economists found asymmetries in monetary transmission mechanism in the EMU. The source of these asymmetries is the differences in the financial structure of the member countries, such as the role of banks, the extent of consumer debt, etc. In order to conduct a common monetary policy successfully, member countries should make further legal harmonization of capital market and banking system.[429]

[427] Bayoumi, T., and Eichengreen, B., (1994). op. cit.
[428] See Helg, R., Manasse, P., Monecelli, T., and Rovelli, R. (1995). op. cit.
[429] Cecchetti, S.G., op. cit.

There are differences in movements of business cycles. Business cycles may differ across member countries or regions; because countries or regions may have different economic conditions. For instance; policy-makers in each member country may respond to common economic conditions in different ways; and the compositions of output may differ across countries or regions. [430]

In addition to the differences across the member countries and regions, Kenen stated that specialization in the production of particular goods makes the external shocks have more asymmetric effects, while a high diversification in production and consumption reduce the possible impact of asymmetric shocks.[431] As stated in the previous part 3.2.5., the diversification in production and the similarity in consumption are high in most of the EMU countries. The share of intra-industry trade within the euro area has increased. However, they should increase diversification in order to make themselves less vulnerable to asymmetric shocks, because adjustment mechanisms like labour mobility may be often costly.[432]

5.2.4. Coping with Asymmetric Shocks in the Absence of National Monetary Policy Instrument within the EMU

Had the EMU been supported by a supra-national fiscal transfer system, the member countries could have redistributed funds to the member country, which was affected by an asymmetric shock. They could also ease the adjustment to shocks through such a system.[433] The EMU has not a supra-national fiscal transfer system, nevertheless the member countries have to make their fiscal positions closer to the balance through the criteria of the Maastricht Treaty and the SGP. Under the common monetary policy, national fiscal policies became

[430] Suner, S., op. cit.
[431] Kenen, P.B. op.cit.
[432] Suner, S., op. cit.
[433] Kenen, P.B. op.cit.

more important for coping with shocks than ever within the EMU, because the adjustment mechanisms are not able to absorb the shocks yet.

The capability to stabilize the economy through national fiscal policy in the EMU countries depends on the size of effectiveness of automatic stabilizers and the room for maneuver of individual fiscal authorities. The European Commission states that the degree of stabilization, which is provided by automatic stabilizers, varies significantly under different types of shocks and across countries. The highest degree of stabilization is provided under a shock to private consumption, and the lowest under an investment shock. The effectiveness of automatic stabilizers under export demand shocks were generally close to those under private investment shocks. Under supply shocks the effectiveness was relatively low.[434] Nevertheless, without distinguishing between the types of shocks, OECD finds that Finland and the Netherlands have highest degree of stabilization with their large budgetary automatic stabilizers, while this degree is lower in Austria, France, Spain and Greece.[435] The studies prove that within the EMU, automatic stabilizers are less effective in coping with supply shocks than demand shocks. In the case of supply shocks, structural adjustment mechanisms such as price and wage flexibility and factor mobility are required.

Nevertheless, a room for maneuver of individual fiscal authorities has not been sufficient yet. Most of the member countries entered to the EMU with budget deficits close to the 3 % of GDP reference value and the stock of public debt close to the 60 % of GDP reference value. This severely curtailed the room for maneuver for budgetary policy in the event of shock or a cyclical slowdown. As stated in the part 2.4., this situation has still continued in the EMU. Many countries like Germany and France prefer breaching the reference values to cope with cyclical slowdown. The dilemma between using the necessary fiscal policies during a slowdown and abiding them by the SGP rules is the main problem of the EMU.

[434] European Commission, (2001a). op. cit., p.p. 65-78; and European Commission, (2002a). op. cit..
[435] OECD, op. cit.

Buti and Sapir argued that stabilizing the economy through fiscal policy and market adjustment capability are complementary. According to them, the EMU countries fell into three groups: Firstly, Ireland, Finland and the Netherlands have ample room for maneuver of fiscal authorities – high stabilization capability – and a high degree of market flexibility – high market adjustment capability. These countries seem relatively able to deal with asymmetric shocks; Secondly, Italy, Greece and Portugal have low stabilization capability and low adjustment capability. Especially, Greece and Portugal are more exposed to country-specific disturbances. Thirdly, Germany, France, Austria, Belgium and Spain are in-between these two groups.[436]

5.3. THE PROSPECTIVE ENLARGEMENT OF THE EMU

Ten new member countries joined the EU on 1 May 2004; and two new member countries joined the EU on 1 January 2007. In order to adopt the euro, the countries must stay at the normal fluctuation band of the ERM II for at least two years without devaluating their currencies. Then, the Council decides which member countries fulfill the convergence criteria in accordance with the EC Treaty. The Council's decision depends on a proposal from the Commission. By the date of adoption of the euro, the conversion rates become effective; and national monetary policy is transferred to the ECB.[437]

Estonia, Lithuania and Slovenia joined the ERM II on 27 June 2004, while Cyprus, Latvia and Malta joined the ERM II on 2 May 2005. Then, Slovakia joined the ERM II on 25

[436] Buti, M. and Sapir, A., op.cit.
[437] European Commission, (2004f). 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: First report on the practical preparations for the future enlargement of the euro area, COM(2004) 748 final, *Official Journal* of 20.04.2006.

November 2005. Fluctuation band of the ERM II for these countries is ± 15 %.[438] The Commission declared the target dates for each member countries for the adoption of the euro. The dates were 1 January 2007 for Estonia, Lithuania and Slovenia, no later than 1 January 2008 for Cyprus, Latvia and Malta, 1 January 2009 for Slovakia, and 2010 for the Czech Republic and Hungary. According to the Commission report, preparations in Slovenia and Slovakia are well advanced; Estonia and Lithuania should speed up their preparations; but preparations in Cyprus, Latvia and Malta are still at a preliminary stage and should be speeded up. The Commission notes that preparations in Czech Republic, Hungary and Poland are also at a preliminary stage.[439]

However, many countries have postponed their target date to adopt the euro. Slovenia is the only country, which adopted the euro on its original target date. In April 2006, Estonian government moved the target date to 1 January 2008. In May 2006, the Commission Convergence Report concluded that Lithuania did not fulfill the convergence criteria. Lithuanian government stated that Lithuania will join the euro area as soon as possible and that the more favourable period for Lithuania to adopt the euro starts from 2010. Latvian government announced the postponement their target date, but the new target remained to be decided. In 2006, the Czech and Hungarian authorities also postponed their target dates for euro adoption, without defining a new date. Slovakia preserves its original target rate, while Poland and Sweden have not put forward any target date. In Sweden, preparations are stalled in practice since the negative outcome of the referendum in 2003.[440]

[438] European Commission, (2006c). Communiqués on behalf of the European Union concerning ERM II and Cyprus, Estonia, Latvia, Lithuania, Malta, Slovakia and Slovenia, *Official Journal* of 25.03.2006.
[439] European Commission, (2005f). Commission Communication to the Council, the European Parliament, the European Economic and Social Committee, the Committee of the Regions and the European Central Bank: Second report on the practical preparations for the future enlargement of the euro area, COM(2005) 545 final, *04.11.2005.*
[440] European Commission, (2006d). 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: Fourth Report on the Practical Preparations for the Future Enlargement of the euro area, COM(2006) 671 Final, Brussels, p.p. 2-3.

Nevertheless, most of the new member countries of the EU have almost completed the transition from a planned economy to a market economy. They realized a significant progress in nominal convergence. The current performance of the ten 2004 enlargement countries in relation to the convergence criteria can be followed by the Table 26.

Table 26: Economic Indicators of the Convergence Criteria for Ten 2004 Enlargement Countries and Sweden

(excluding the exchange-rate criterion)

		HICP Inflation[(1)]	Long-term Interest Rate[(2)]	General Gov. Surplus (+) or Deficit (-)[(3)]	General Gov. Gross Debt[(3)]
	2002	1.4	4.9	-6.8	28.8
Czech Republic	2003	-0.1	4.1	-12.6	37.8
	2004	1.8	4.7	-5.0	37.9
	2002	3.6	-	1.4	5.3
Estonia	2003	1.4	-	3.1	5.3
	2004	2.0	-	0.3	4.8
	2002	2.8	5.7	-4.6	67.4
Cyprus	2003	4.0	4.7	-6.4	70.9
	2004	2.1	5.2	-5.2	72.6
	2002	2.0	5.4	-2.7	14.1
Latvia	2003	2.9	4.9	-1.5	14.4
	2004	4.9	5.0	-2.0	14.7
	2002	0.4	6.1	-1.5	22.4
Lithuania	2003	-1.1	5.3	-1.9	21.4
	2004	-0.2	4.7	-2.6	21.4
	2002	5.2	7.1	-9.2	57.2
Hungary	2003	4.7	6.8	-6.2	59.1
	2004	6.5	8.1	-5.5	59.9
	2002	2.6	5.8	-5.9	62.7
Malta	2003	1.9	5.0	-9.7	71.1
	2004	2.6	4.7	-5.2	73.8
	2002	1.9	7.4	-3.6	41.1
Poland	2003	0.7	5.8	-3.9	45.4
	2004	2.5	6.9	-5.6	47.2
	2002	7.5	-	-2.4	29.5
Slovenia	2003	5.7	6.4	-2.0	29.4
	2004	4.1	5.2	-2.3	30.8
	2002	3.5	6.9	-5.7	43.3
Slovakia	2003	8.5	5.0	-3.7	42.6
	2004	8.4	5.1	-3.9	44.5
	2002	2.0	5.3	0.0	52.6
Sweden	2003	2.3	4.6	0.3	52.0
	2004	1.3	4.7	0.6	51.6
Reference Value[(4)]		**2.4 %**	**6.4 %**	**-3 %**	**60 %**

Source: European Central Bank, (2004c). Convergence Report 2004, Frankfurt, p. 21.

(1) Annual average percentage change. 2004 data refer to the period September 2003 to August 2004.

(2) In percentages, annual average. 2004 data refer to the period September 2003 to August 2004.

(3) As percentage of GDP. European Commission Services projections for 2004.

(4) Reference value refers to the period September 2003 to August 2004 for HICP inflation and long-term interest rates and to the year 2003 for general government deficit and debt.

According to the Commission's convergence report, none of the countries has fulfilled all convergence criteria to adopt the euro yet.[441] The convergence situations of the new EU countries reviewed by the report are as follows:

- ***Czech Republic:*** The average inflation rate in the Czech Republic during the 12 months to August 2004 was below the reference value.[442] The Czech Republic has not participated in the ERM II. Over the last two years, Czech koruna gradually depreciated against the euro, although this trend has been partially reversed in recent months. Czech koruna has become stronger than its October 2002 average exchange rate against the euro. The Czech Republic fulfilled the criterion on interest rates. The Czech Republic has not fulfilled the criterion on the government budgetary position yet. Although the public debt ratio remains below the reference value, the budget deficit is significantly higher than the reference value. Nevertheless, national bank-related legislation in the Czech Republic is not compatible with the ESCB and the ECB statutes. Therefore, the Czech Republic must comply with adaptation requirements under Article 109 of the Treaty.
- ***Estonia:*** The average inflation rate in Estonia during the 12 months to August 2004 was below the reference value. The Estonian kroon has been in the ERM II since 27 June 2004, but Estonia must keep its currency in the ERM II for two years in order to meet the exchange rate criterion. A harmonized long-term interest rate to examine the degree of convergence is not available for Estonia. However, considering the low level of government debt and on the basis of a broad analysis of financial markets, there are no indications suggesting a negative assessment. Estonia had fulfilled the deficit and debt criteria with a budget surplus in 2003 and extremely low rate of public debt. However, national bank-related legislation in Estonia is not compatible with the EU Treaty.

[441] European Central Bank, (2004c). op. cit., p.p. 6-50.
[442] Three best performing counties in terms of price stability were Finland (0.4 %), Denmark (1.0 %) and Sweden (1.3 %). Thus, reference value for inflation rate was 2.4 %. The long-term interest rates of these three countries were 4.2 % (Finland), 4.4 % (Denmark) and 4.7 % (Sweden). Thus, average rate is 4.4 %, and adding 2 percentage points, the reference value for long-term interest rates is 6.4 %.

- ***Cyprus:*** The average inflation rate in Cyprus during the 12 months to August 2004 was below the reference value. Cyprus has not participated in the ERM II. Cyprus fulfils the criterion on the convergence of long-term interest rates. However, it does not fulfill the criteria on the fiscal discipline with high budget deficit and debt ratio. Central bank laws in Cyprus are still not compatible with the Treaty.
- ***Latvia:*** The average inflation rate in Latvia during the 12 months to August 2004 was above the reference value. Therefore, Latvia does not fulfill the criterion on price stability. Latvia has not participated in the ERM II. However, the average long-term interest rate in 2004 was acceptable under the convergence criterion. Latvia also meets the deficit and debt criteria. Central bank laws in Latvia are still not compatible with the Treaty.
- ***Lithuania:*** The average inflation rate during the 12 months to August 2004 was a negative rate remaining the reference value. Lithuania has been in the ERM II since 27 June 2004, but that is less than the two year requirement. Lithuania must keep its currency in the ERM II for two years in order to meet the exchange rate criterion. Lithuania fulfills the interest rate criterion. Lithuania also fulfills the deficit and debt criteria with very low ratios. National bank-related laws are not yet in compatible with the ESCB and ECB statutes.
- ***Hungary:*** The average inflation rate in Hungary in 2004 was above the reference value. The country has not joined ERM II. The average long-term interest rate in Hungary in 2004 was significantly above the reference value. Hungary does not fulfill the fiscal criteria due to its high budget deficit and debt ratio. National bank laws in Hungary are not compatible with the ESCB and ECB statutes.
- ***Malta:*** The average inflation rate in Malta in 2004 was still above the reference value. Malta does not meet the exchange rate criterion, but it does fulfill the long-term interest rate requirement. Malta does not fulfill the fiscal criteria due to its high budget deficit and debt ratio. National bank-related legislation is not compatible with the ESCB and ECB statutes.

- ***Poland:*** The average inflation rate in Poland in 2004 was higher than the reference value. Poland has not participated in the ERM II and is left floating. The average long-term interest rate in 2004 was higher than the reference value, thus Poland does not fulfill the criterion on interest rate. Although Poland's public debt ratio was below the reference value, it does not fulfill the criterion on budget deficit. Central bank laws are not compatible with the ESCB and ECB statutes.
- ***Slovenia:*** The average inflation rate in Slovenia during 2004 was significantly higher than the reference value. Slovenia has been in the ERM II since 27 June 2004, but that is less than the two year requirement. Slovenia must keep its currency in the ERM II for two years in order to meet the exchange rate criterion. The average long-term interest rate in Slovenia in 2004 was within the convergence band. Slovenia fulfills the budget deficit and public debt criteria. Central bank laws are not compatible with the ESCB and ECB statutes.
- ***Slovakia:*** The average inflation rate in Slovakia during 2004 was significantly higher than the reference value. Slovenia has participated in the ERM II recently. It does not meet the criterion on interest rate. Although Slovakia's public debt ratio was below the reference value, it does not fulfill the criterion on budget deficit. Central bank laws still need to be brought into line with the ESCB and ECB statutes.[443]

In addition to ten new EU countries, Sweden may also join the euro area in the future. Sweden fulfills the fiscal discipline, inflation rates and long-term interest rate criteria. It does not fulfill only the exchange-rate criterion. Sweden has derogation, but there is no provision to exempt it from participation in the euro area as in the case of Denmark and the UK.[444]

Nevertheless, the situation in 2007 enlargement countries – Bulgaria and Romania – and the applicant countries – Croatia and Turkey – is not different from the new the EU countries. The current performance of these countries in relation to the convergence criteria can be followed by the Table 27.

[443] European Central Bank, (2004c). op. cit., p.p. 33-49.
[444] Ibid.

Table 27: Economic Indicators of the Convergence Criteria for Two 2007 Enlargement Countries and the Applicant Countries

(excluding the exchange-rate criterion)

		Inflation	Long-term Interest Rate	General Gov. Surplus (+) or Deficit (-)	General Gov. Gross Debt
Bulgaria	2002	5.8	4.9	-0.8	53.2
	2003	2.3	3.6	-0.1	46.2
	2004	6.1	3.3	-0.7	44.4
Romania	2002	22.8	27.3	-2.0	23.3
	2003	15.3	17.7	-2.0	21.8
	2004	11.9	19.1	-3.0	23.5
Croatia	2002	1.7	4.6	-4.2	39.9
	2003	1.8	5.4	-4.6	41.5
	2004	2.1	7.3	-5.2	44.2
Turkey	2002	45.0	50.5	-12.6	94.3
	2003	21.6	37.7	-8.8	87.4
	2004	8.6	24.3	-7.1	83.4
Reference Value		**2.4 %**	**6.4 %**	**-3 %**	**60 %**

Source: Various volumes of the European Commission's European Economy series.

- ***Bulgaria:*** Although Bulgaria began its transition to a market economy later than the ten new EU countries, it has a functioning market economy. Per capita income is low and amounted to 25 % of the EU average. However, the Bulgarian economy has benefited from high growth and a high degree of stability due to the strength of domestic demand. Bulgaria fulfills the criteria on budget deficit and public debt. The inflation rate in Bulgaria is significantly higher than the reference value. Bulgaria also meets the criterion on interest rate. Central bank laws are not compatible with the ESCB and ECB statutes.
- ***Romania:*** Romania had made progress in establishing a market economy. In 2004, the Commission concluded that Romania complied with the criterion of being a functioning market economy. Per capita income is low and amounted to 30 % of the EU average; and unemployment is too high. Inflation rate was 177.5 % in June 1997. It declined sharply year by year. The target of 9 % inflation in 2004 was met. The exchange rate is not stable. Romania fulfills the criteria on budget deficit and public debt. The statute of central bank in Romania is compatible with the Treaty, but there is a need to make progress in Romanian law on public debt.

- ***Croatia:*** Croatia has a functioning market economy. Croatia has a positive but low growth rate. The inflation rate is below the reference value. The exchange rate seems to have stabilized. High unemployment is one of the most important problems affecting the Croatian economy. Croatia does not meet the criteria on fiscal discipline. It still needs to make further efforts in the area of fiscal discipline. Further alignment on the central bank laws is still needed.
- ***Turkey:*** Turkey has a functioning market economy. Per capita income is low and amounted to 27 % of the EU average. Turkish economy has staged a strong recovery since the beginning of 2002. The situation of public finances was improving, although budget deficit and public debt ratio is still high. Inflation is still above the reference value, but it has a declining trend. The nominal exchange rate has remained relatively stable since mid-2002. In 2004, the Commission stated that Turkey's institutional and regulatory provisions have been radically modernized and central bank laws are compatible with the Treaty.[445]

Although, the new member countries and applicant countries realized a significant progress in nominal convergence, the progress in real convergence has been slower. Since the current member countries of the EMU have continued to converge in terms of per capita income level, growth rates of output, productivity and unemployment, there is no doubt that enlargement will increase the degree of real divergence within the EMU more severely than the previous enlargement experiences.

During the early years of the EC, real divergence was not an important issue, because the founding members of the EC were a quite homogenous group in terms of per capita income and regional balance. The only problem was related to southern Italy. This problem was solved mainly by the European Social Fund, which is relatively small instrument of the EC aimed at labour market problems. The divergence problem was increased by the first enlargement in 1973. Although Denmark did not significantly diverge from the founding

[445] European Commission, (2005g). "2004 Pre-accession Economic Programmes of Acceding and Candidate Countries: Overview and Assessment", *European Economy – Enlargement Papers*, No: 24.

members, some of the UK regions, especially the North England and Northern Ireland, had major unemployment problems with a low per capita income. However, Ireland was significantly poorer than the founding members. This divergence problem and the first oil crisis forced the members to found the European Regional Development Fund in 1975.[446]

Divergence became a much more important issue by the second enlargement in 1981 and third enlargement in 1986. The accession of Greece, Spain and Portugal, and the reunification of the Germany in 1992 strengthened the divergence among the member countries again. Nevertheless, 1995 enlargement by Finland, Sweden and Austria, was much less problematic, because their per capita incomes were higher than the Union average. Over the years, Ireland experienced a remarkable economic development, and Greece significantly increased its per capita income.[447]

However, the EMU is still significantly a heterogeneous group, as pointed out in part 4.1. Many studies indicate that economic and financial structures of the new member countries differ from the EMU countries. The level of economic development of the most accession countries is much lower than that of Portugal and Spain at the moment these countries entered the EU. Per capita income and productivity levels are too much lower than the EU average. The accession countries are still in a process of economic transition from centrally planned to market economies.[448] There are clear differences between business cycles of the accession countries and those of EMU countries.[449] There are also large differences in financial structures of the accession countries.[450] Even in the case of that the

[446] Martin, R., (1999). *The Regional Dimension in European Public Policy: Convergence or Divergence?*, New York: Palgrave Publishers, p.p. 7-11.
[447] Ibid.
[448] See Rostowski, J., (2003). "When Should the Central Europeans Join EMU?", *International Affairs*, No: 79, 5, p.p. 993-1008; also Amplatz, C., (2003). "The Economic Convergence Performance of Central and Eastern European Countries" in *Economics of Planning*, the Netherlands: Kluwer Academic Publishers, p.p. 273-295; and also European Parliament, (1999). "EMU and Enlargement: A Review of Policy Issues", *Working Paper Economic Affairs Series*, Luxembourg.
[449] Korhonen, L., (2003). "Some Empirical Tests on the Integration of Economic Activity between the euro area and the Accession Countries", *Economics of Transition*, vol. 11 (1), p.p. 177-196.
[450] See Eichengreen, B. and Ghironi, F., (2002). "EMU and Enlargement". In: *EMU and Economic Policy in Europe*, ed. Marco Buti, André Sapir, Chelthenham: Edward Elgar, p.p. 381-408.

countries fulfill all convergence criteria, real divergence will exist. Moreover, fulfilling the convergence criteria and the SGP rules slow the catching-up process of these countries down, because there is generally a trade-off between growth rate and inflation rate. Therefore, the accession of these countries to the EMU will certainly increase the heterogeneity in the euro area, unless they make a significant progress in achieving real convergence.

There are some implications of the accession of these countries to the EMU with large differences in terms of economic structures, per capita incomes and growth rates for both monetary and fiscal policies of the EMU. On the one hand, the SGP rules and procedures designed for the EU countries with high income levels will not be compatible with growth and stability in the new member countries. The SGP rules and procedures limit the efforts by these countries to catch-up the EMU countries. This means continuous real divergence among the EMU member countries. On the other hand, enlargement makes the ECB decision-making process too difficult and complicated. The new member states, which make efforts to catch-up the current EMU countries, will have higher inflation rates than the others. In this case, monetary policy decisions will not be compatible with the economic situations in all countries. Moreover, disagreements among the countries will appear in decision-making process in the ECB.[451]

When considering all these challenges, it is obvious that the enlargement of the euro area without making a significant progress in real convergence is risky for both the accession countries and the EMU as a whole. The enlargement should be realized by taking into account individual countries' economic situation and the degree of both nominal and real convergence to the euro area countries.

[451] Ibid.

CHAPTER VI

CONCLUDING REMARKS AND FINAL ASSESSMENT

The negotiations surrounding establishment of an economic and monetary union were based on the two different approaches. The economist approach suggested an economic union before a monetary union, while monetarist approach suggested coordination of economic policies after the creation of an exchange rate system. According to monetarist approach, the Werner Plan was prepared in 1969. The ERM, which was an exchange rate system of the EMS, had gone through different stages before it transformed into a DM-zone rapidly because of Germany's relative success during the first oil crisis in 1973. The member countries pegged their currencies to the DM and followed the German monetary policy at the time. Since there was no convergence between the German economy and the economies of other members, unemployment increased in these countries rapidly. A similar problem occurred due to the reunification of East and West Germany in 1992-3. These experiences proved the indispensability of real macroeconomic convergence for a monetary integration, if monetary union were to be an objective.

In 1992, the Maastricht Treaty set the convergence criteria to adopt the single currency. The Maastricht Treaty defined the primary objective of the ECB as the maintenance of price stability. In 1996, the SGP was adopted to support the price stability objective through providing fiscal discipline in the member countries. The SGP and the ECB's stability-oriented monetary policy strategy formed the macroeconomic policy framework of the EMU, and the euro area was established as of 1999.

In recent years, the euro area experienced some problems with both the SGP and stability-oriented monetary policy strategy. The monetary policy strategy was revised in 2003; and the SGP was revised in 2005. Many economists have still criticized both of them

due to problems in connection with their implementations. The European Commission has been still evaluating proposals of reforming the SGP for a period of time. However, there is no consensus on this issue yet.

In this dissertation, I attempted to investigate implementations of the SGP and the monetary policy strategy in the EMU under the theory of optimum currency areas; to clarify the problems with the structures of these two frameworks; and finally to produce appropriate solutions.

For this purpose, I investigated whether the EMU is an optimum currency area or not, because it is important to understand the EMU's characteristics for analyzing whether the structures of the SGP and the monetary policy strategy are appropriate for the EMU or not. The criteria for the optimum currency area in terms of symmetry in shocks, price and wage flexibility, factor mobility, openness to trade, diversification in production and consumption, similarity in growth rates and business cycles, convergence of inflation rates, fiscal transfer system and political will are tested in this thesis.

- The criteria of openness to trade and diversification in production and consumption are fulfilled in the EMU.
- There has been significant progress in the criteria of similarity in growth rates and business cycles, convergence of inflation rates and symmetry in shocks.
- However, asymmetry in shocks is still prevalent to a certain degree.
- Considering the fact that the EU budget is still too small to create a fiscal transfer system; and there is no political will for such a higher degree fiscal convergence, we may conclude that only two criteria for the optimum currency area are fulfilled for the EMU.

This dissertation may clarify how monetary policy strategy and fiscal policy rules should be designed and implemented in any monetary union and especially in the EMU. Since the EMU does not fully satisfy the optimum currency area criteria, we may also

conclude that member countries may still benefit from different interest rates. Especially at time of an economic slowdown, implementation of the common monetary policy still needs to be tested for success.

In the EMU, which is less than an optimum currency area, the national fiscal policies have become more important for participation countries, although it is not a substitute for the monetary policy. The EU budget is too negligible to redistribute fiscal funds to absorb the impact of any unexpected economic situation. Furthermore, as long as the degree of political integration remains to be low, it is not likely to make the EU budget more functional. As a result, fiscal policies are to be used at national level in a flexible way. Therefore, when a country experiences an adverse shock or a slowdown, it is supported to employ its own national fiscal instruments widely; and when a country makes structural reforms and public investment, it should be allowed to let its budgetary deficit and/or government debt increase. However, too much flexibility in budget deficits and/or public debt may harm national fiscal discipline as well as it may create problem of sustainability. Therefore, fiscal policy rules are necessary in the EMU. The SGP and its implementation should provide a balance between the need to use of national fiscal policies in a flexible way and the need of fiscal policy rules to maintain fiscal discipline in the member countries. In this thesis, it is argued that the SGP does not provide such a balance and it needs more flexibility.

Implementation of the monetary policy strategy revealed that since the introduction of the euro, the operational part of the strategy has been worked properly and the macroeconomic stability has been maintained in the euro area. However, this dissertation proves that there are still some problems with the monetary policy strategy to be solved. My final assessment of the monetary policy strategy is as follows:

- The monetary policy strategy has a clarity problem. Firstly, the price stability objective is defined over the medium run in the EMU, but the concept of medium-term is not defined by the strategy. Therefore, the strategy does not make it possible to assess technically whether the price stability objective is met or not. Secondly, there

is a similar problem with the first pillar of the strategy. The ratio of 4.5 % for the annual M3 growth is defined as a reference value. Thirdly, there is a statement in the strategy that it will pursue price stability, if there is a trade-off between price and output stabilization. In fact, this does not mean that the ECB never pay attention to output stabilization in such cases. Therefore, the strategy should clearly state that if there is a deflation risk or a serious recession in one or more member country, the ECB will take necessary actions even if there is a trade-off between price and output stabilization. Fourthly, the strategy does not define the concept of "close to 2 %". The strategy should be amended by further clarifications as made in 2003.

- The monetary policy strategy has a credibility problem due to breaching reference value. Implementation of the strategy revealed that the annual HICP has exceeded 2 %; and also that the annual growth rate of M3 has exceeded 4.5 % at several times since the introduction of the euro. Especially, the annual M3 growth has not been below the reference value excluding few months temporarily. In fact, the implementation of the monetary policy has been unexpectedly successful. The credibility problem is caused by choosing reference values of the monetary policy strategy. The annual HICP has been broadly stable in the range between 2 % and 2.5 %. Despite breaching the reference value, price stability has been maintained since the introduction of the euro. Therefore, the reference value for inflation should be scrutinized by the ECB to decide whether it is too low or not. Nevertheless, the ECB is now the only central bank among the industrial countries giving such important role to money in its strategy. In a low-inflation environment growth rate of monetary aggregate is very unreliable as signals of future inflation. In practice, the ECB has had to ignore that the growth rate of the monetary aggregate has been above the limit of 4.5 % in many times, leading to credibility problem. Therefore, this reference value is useless and weakens the credibility of the monetary policy strategy. The ECB should reduce the role of money in monetary policy strategy by considering information about it.

Implementation revealed that the SGP has been very helpful to achieve and maintain price stability in the euro area. However, there have still been problems, complications and dissatisfactions with the SGP to be solved. My final assessment of the SGP is as follows:

- The most important problem with the SGP is the lack of flexibility. This can be seen from following findings of this dissertation: The SGP does not provide a balance between the need to use of national fiscal policies in a flexible way arose from the lack of a centralized budget at a Union level and the need of fiscal policy rules to maintain fiscal discipline in the member countries and therefore price stability. The SGP mainly focus on the spill-over effect of possible unsustainable debts and deficits. The rules are too strict to use the national fiscal policies in a flexible way to make automatic stabilizers function during global or cyclical economic slowdowns, to cope with shocks, to invest in R&D and human capital, and to implement necessary structural reforms. Most of the EDP implementations occurred due to the global or cyclical economic slowdowns. Therefore, adopting restrictive fiscal policies and the idea of using sanctions in the midst of a slowdown under the SGP is not reasonable. The EMU countries cannot pay attention to their economic problems to avoid breaching the SGP rules. Therefore, because of this rigidity, member countries can neither reform, nor restructure to upgrade their old industrial and social set ups. Consequently, they fail to achieve the goals of the Lisbon Strategy. Structural reform measures to improve labour and product market performance are essential to enhance the euro area's economic growth and productivity. Although impact of structural reforms may be weak or negative on productivity growth in the short run, it has significantly positive effects on productivity growth in the long run. The progress with structural reforms, especially investment in R&D and innovation, has been inadequate in the EMU countries, because they do not have enough room for maneuver of fiscal authorities without breaching the SGP rules. However, today, progress with structural reforms and enhancing competitive power are more important for the euro area than ever, because of changing balance of global economic activity with the rise of China, India and other rapidly growing emerging countries.

- In order to solve the flexibility problem, attention should be given not only to the size of budgetary adjustment but also to its quality. The budgetary consolidation measures should secure a lasting improvement in budget balances and should provide a reinforcement of the growth potential.

- The current structure of the SGP aimed at only maintaining price stability neglecting its duties to growth; there is no a clear strategy for growth. Under the SGP framework, a growth strategy must be constituted not only for the euro area at this moment but also for individual member countries.

- The SGP has also a credibility problem. Several countries have been breaching the reference value for budget deficit since 2002, but have not been subjected to any sanction. Furthermore, the debt rule of the SGP still remains to be achieved. The upward trend in the euro area debt ratio has continued since 2003. The problem with the debt rule can be attributed to that which is present within the SGP, there is no procedure for the member countries with debt ratios over 60 %. Therefore, the SGP should give more emphasis to the debt rule focusing on the sustainability issue.

- In relation to both the flexibility and credibility problems, another problem is that the SGP has same numerical rules for all member countries, ignoring the differences in their macroeconomic structures. These limits are not scientific, because there is no theoretical justification or historical argument, which support the choice of these numbers. The SGP can be revised in order to provide different fiscal limits for each member country taking into account their economic situations. However, revision should not harm legitimacy of the SGP through maintaining the SGP's transparency and accountability.

- The SGP has also a clarity problem. The SGP procedures are quite complex and not clearly defined. Implementation revealed that the lack of clarity causes different

interpretations between the Commission and Council in the application. The deadlines are quite unrealistic in most case.

- The SGP is also problematic for the new member states of the EU. Enlargement is an important challenge for both the EMU and the new EU countries. Enforcement of the SGP rules and procedures, which are designed for the EU countries with high income levels, limit the efforts by these countries to catch-up the EMU countries, unless they smoothly converge their economies with the euro area. The enlargement of the EMU without making a significant progress in real convergence is too risky for both the new EU members and the EMU as a whole. As a proof for these arguments, recently, most of the countries have postponed their target date to adopt the euro.

Overall, theoretical analysis and the EMU experience prove that a centralized common monetary policy is indispensable for any monetary union, and also that fiscal rules are indispensable in a monetary union, which has a centralized monetary policy conducted by a common central bank and decentralized fiscal policies. Implementations of the SGP and the ECB's monetary policy strategy have been successful in maintaining price stability within the EMU. However, the SGP and the monetary policy strategy are not fully capable frameworks for responding to economic slowdown, unemployment, and economic divergence, unless flexibility problem of the SGP and clarity and credibility problems of both the SGP and the monetary policy strategy are solved. The problems with these frameworks can be eliminated by further revisions. Nevertheless, a higher degree of macroeconomic convergence is also necessary to makes these frameworks more capable for responding to economic slowdown, unemployment, and economic divergence.

APPENDIX A

CHRONOLOGY OF THE EUROPEAN ECONOMIC INTEGRATION

1948 – Establishment of the Organization for European Economic Cooperation (It transformed as the OECD in 1960).

1950 – Establishment of the European Payments Union (EPU) to make participating countries' currencies fully convertible and to make trade easier.

1951 – Signing of the Treaty of Paris, which establishes the European Coal and Steel Community (ECSC).

1955 – Messina Conference: Signing of the European Monetary Agreement (EMA).

1957 – Signing of the Treaty of Rome, which establishes the European Economic Community (EEC). Creation of the European Atomic Energy Community (Euratom).

1958 – Entry into force of the Treaty of Rome.

1960 – Establishment of the European Free Trade Association (EFTA) by the UK, Denmark, Sweden, Norway, Portugal, Austria, and Switzerland.

1961 – Entry into force of the Common Agricultural Policy (CAP).

1963 – France vetoed the UK's membership application. Association Agreement signed between the Community and Turkey.

1964 – Establishment of the Committee of Governors of the central banks of the EEC.

1965 – Merger Treaty signed, combining the Euratom, ECSC, and the EEC into the European Community.

1967 – France vetoed any resumption of negotiations on the UK's membership application.

1968 – The Council of Ministers recognized the need of an increased convergence of economic polices with the Community under the Barre Plan. Common custom tariff was adopted and the last internal customs duties were eliminated.

1969 – The European Summit in The Hague made the Economic and Monetary Union an official objective.

1970 – The Werner Report envisaged the creation of an economic and monetary union within 10 years. Luxembourg Treaty signed creating the own-resource finance system.

1971 – The Council of Representatives of the Member States' Governments adopted a resolution on the achievement of EMU in two stages, which are 1971-74, 1974-80. End of the convertibility of the dollar into gold. The Six agreed on the conditions for the UK membership.

1972 – Accession of the UK, Denmark, and Ireland to the EEC. Agreement between central banks on the creation of the European monetary snake. Referendum in Norway rejected the EC membership.

1973 – Establishment of the European Monetary Co-operation Fund and its monetary unit. Denmark, Ireland and the UK became full EC members.

1974 – The Paris Summit established the European Council.

1975 – Lomé Convention signed creating the European Currency Unit (ECU).
1977 – The European Council decided that the ECU shall be used in the EC's budget from 1 January 1978 onwards.

1978 – The Brussels European Council established the European Monetary System (EMS) and the ECU.

1979 – An agreement between the central banks fixed the EMS operation modes.

1981 – Accession of Greece to the EEC. First issue of an ECU bond by an Italian operator.

1983 – Member states issued a declaration on "European Union" to express their wish to form European Union.

1985 – Reinforcement of the EMS, assigning a greater importance to the official ECU. The Commission proposed measures for the creation of a unified economic area: free circulation of people, goods, services and capital. The Luxembourg European Council adopted the Single European Act (SEA), establishing the end of 1992 for the implementation of the internal market.

1986 – Spain and Portugal became members of the EC. Danish Parliament rejected the SEA, but the SEA passed the Danish referendum by majority of 56.2 %. The SEA was signed, targeting at "the progressive achievement of the EMU". First stage of the full liberalization of capital flows within the EC.

1987 – The SEA entered into force. Basel and Nyborg agreements on the EMS were signed.

1988 – The Hanover European Council set up a Committee chaired by Jacques Delors, who is President of the European Commission, to embark on the study of the establishment of EMU. The Delors Report is a three-stage plan, which envisages an increased co-ordination of

economic and monetary policies, for the creation of a single currency and of the European Central Bank (ECB).

1989 – The Dellors Report was approved at the Madrid European Council. The Strasbourg European Council confirmed that the decisions made with a view to reinforcing the co-ordination of economic policies and the co-operation between central banks will allow the start of Stage One of EMU on 1 July 1990. Fall of the Berlin wall.

1990 – The Stage One of the EMU begun, removing capital controls. The pound sterling joined the EMS exchange rate mechanism. The Rome European Council defined the EMU, announcing the final objective of an irrevocably fixed exchange rate, namely a single currency. Unification Treaty between East and West Germany came into force.

1991 – The Maastricht European Council decided that Europe will have a common currency, before the year 2000. Denmark and the UK reserved the right to decide on their participation on Stage Three of EMU.

1992 – The Maastricht Treaty was signed, providing for the establishment of the EMU, as well as the introduction of the single currency. The Italian lira and the pound sterling abandon the EMS. The escudo participated in the ERM of the EMS, and became fully converted. A European Economic Area (EEA) between EFTA and the EC was established.

1993 – The single market entered into force. Devaluation of the Irish pound by 10%, of the Spanish peseta by 8%, and of the Portuguese escudo by 6%. Due to the crisis in currency markets, the EMS fluctuation margins were widened from 2.25 to 15%.

1994 – The European Union officially begun. Stage Two of EMU started. The European Monetary Institute (EMI) was established in Frankfurt, forerunner of the future ECB.

1995 – The EMI published a report on the changeover to the single currency. The Madrid European Council adopted "euro" as the single currency denomination. Finland, Sweden and Austria became the members of the EU.

1997 – The Amsterdam European Council approved the SGP, the creation of a new ERM for non-participating currencies and the regulations establishing the legal status of the euro.

1998 – The European Commission and the EMI report on the achievement of economic convergence by the Member States in relation to the criteria set down in the Treaties. The Commission recommended 11 member countries to be entitled to participate in the euro area. Council decided that 11 countries fulfilled the criteria for the adoption of the euro.

1999 – The Council irrevocably fixed the euro conversion rates for each participating currency. The euro became a legal currency and national currencies of participating countries become subdivisions of the euro. As from that moment foreign exchange operations in euro can begin, all new public debt issues are in euro and many outstanding ones are converted into euro. Bank operations can be executed both in euro and in national currency.

2001 – Greece joined the euro.

2002 – Euro notes and coins started to replace gradually all national currencies in January. The national currencies of the participating countries were completely replaced by the euro at the end of February.

2007 – Slovenia joined the euro area.

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