1 History of the EU Monetary Union

1.1. Introduction

Just over a decade has passed since the euro was introduced as the single currency of the 11 states of the European Union (EU) — Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain — unifying the monetary policy under the European Central Bank (ECB) from January 1999. The policy management of the ECB which spans multiple independent states was first viewed with caution, but it has achieved a measure of success in the face of a variety of challenges. As a result, the euro has established its status as an international currency second only to the US dollar. Furthermore, the number of states that participate in the monetary union (officially called the "Economic and Monetary Union", or EMU) has grown to 16 with the new additions of Greece in 2001, Slovenia in 2007, Cyprus and Malta in 2008, and Slovakia in 2009.

This chapter attempts to outline and consider the kinds of developments that led to the bold experiment of realizing the EMU in the EU. Table 1.1 provides a brief history of the EMU.

1.2. Various Experiments Toward Achieving the Monetary Union

1.2.1. *Werner Report*

Since the establishment of its predecessor, the European Economic Community (EEC),[1] in 1958, the EU has sought to realize an

[1]The name "EEC" was later changed to the European Community (EC) in 1967, and to the European Union (EU) in 1993.

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Table 1.1. A Brief History of the EMU.

Jul 1952	West Germany, France, Italy, the Netherlands, Belgium, and Luxembourg ("the Six") establish the European Coal and Steel Community (ECSC).
Jan 1958	The Treaty of Rome comes into force, establishing the European Economic Community (EEC) and the European Atomic Energy Community (EAEC or Euratom).
Jul 1967	The Treaty of Brussels comes into force, unifying the above three Communities to form the European Community (EC) comprising six countries.
Jul 1968	Establishment of a Customs Union.
Dec 1969	A framework for economic and monetary integration is hammered out by EC Heads of State at the Hague Summit.
Oct 1970	Publication of the Werner Report.
Apr 1972	Establishment of the "currency snake" system.
Jan 1973	The United Kingdom, Ireland, and Denmark join the EC (nine countries).
Mar 1973	Transition to the joint float system.
Mar 1979	Establishment of the European Monetary System (EMS) including the Exchange Rate Mechanism (ERM).
Jan 1981	Greece joins the EC (10 countries).
Jun 1985	Publication of the White Paper on the Completion of the Single Market.
Jan 1986	Spain and Portugal join the EC (12 countries).
Jan 1987	The Single European Act comes into force; revision of the Treaty of Rome.
Apr 1989	Publication of the Delors Plan, proposing a three-stage plan toward the realization of the Economic and Monetary Union (EMU).
Jun 1989	Spain joins the ERM.
Jan 1990	Launch of the first stage of the EMU.
Oct 1990	The United Kingdom joins the ERM.
Dec 1991	Agreement on the Maastricht Treaty regarding the European Union; agenda for the second and third stages of the EMU revealed.
Apr 1992	Portugal joins the ERM.
Sep 1992	The United Kingdom and Italy leave the ERM.
Nov 1993	Establishment of the European Union (EU).
Jan 1994	Beginning of the second stage of the EMU.
Jan 1995	Austria, Sweden, and Finland join the EU (15 countries).
Jan 1995	Austria joins the ERM.

(*Continued*)

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Table 1.1. (*Continued*)

Dec 1995	The Madrid European Council selects the "euro" as the name of the EU currency unit and finalizes the schedule for its introduction.
Oct 1996	Finland joins the ERM.
Nov 1996	Italy rejoins the ERM.
Jun 1997	Agreement on the Amsterdam Treaty (the New Treaty on the European Union) (established in May 1995); final agreements on the Stability and Growth Pact, the New ERM (ERM II), and the legal framework of the euro.
Mar 1998	Greece joins the ERM.
May 1998	Decision is reached that 11 countries (Germany, France, Italy, the Netherlands, Belgium, Luxembourg, Ireland, Spain, Portugal, Finland, and Austria) will enter the third stage of the EMU.
Jun 1998	Establishment of the European Central Bank (ECB).
Jan 1999	Beginning of the third stage of the EMU; the ECB commences financial operations; introduction of the euro. Launch of ERM II with Denmark and Greece as the initial members.
Jan 2001	Greece joins the EMU (12 countries).
Jan 2002	Circulation of euro banknotes and coins begins.
May 2004	The Czech Republic, Slovakia, Cyprus, Latvia, Estonia, Lithuania, Hungary, Malta, Poland, and Slovenia join the EU (25 countries).
Jun 2004	Slovenia, Estonia, and Lithuania join ERM II.
May 2005	Cyprus, Malta, and Latvia join ERM II.
Nov 2005	Slovakia joins ERM II.
Jan 2007	Slovenia joins the EMU (13 countries); Bulgaria and Romania join the EU (27 countries).
Jan 2008	Malta and Cyprus join the EMU (15 countries).
Jan 2009	Slovakia joins the EMU (16 countries).

intra-regional integration of markets to enable the free movement of people, goods, and services in order to establish an economic zone that can compete with the US and Japan. From the early 1960s onward, there was agreement among the six members of the EEC (Belgium, France, Germany, Italy, Luxembourg, and the Netherlands) that economic union and monetary union should be promoted simultaneously; however, movements toward achieving monetary union were not particularly visible, perhaps owing in part to the fact that

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the Bretton Woods fixed exchange rate system — an international monetary system centering on the US dollar — was extremely stable at the time. The currency crisis that arose in 1969, however, triggered the publication of the first plan toward the realization of the EMU, the Werner Report in 1970.[2] Based on this report, the European Council of the European Communities adopted a resolution in March 1971 related to the realization of the EMU in stages and implemented it retroactively to January of that same year.

The main points of the Werner Report were as follows:

(1) In the final stage of the EMU, the exchange rate of each state's currency will be completely fixed and the liberalization of capital movements will be realized. Moreover, at that stage, it will be desirable to introduce a single currency.
(2) In the final stage of the EMU, it is essential to establish an EC central bank system and EC economic policy implementing entity.
(3) EMU realization in three stages to 1980 will be sought, and the reduction of exchange rate fluctuation bands and economic policy integration will be promoted in tandem.
(4) In stage one of the EMU, the reduction of exchange rate fluctuation bands will begin from 15 June 1971. This will involve establishing a reference rate versus the US dollar with a scope of US dollar parity of ±0.15 percent, called the EEC level. It also involves allowing EC member state currencies to fluctuate in the range of ±0.6 percent relative to the EEC, which means reducing the EC member state currencies' band of fluctuation relative to the US dollar from 1.5 percent to 1.2 percent. In other words, the EEC's maximum band of fluctuation relative to the US dollar (1.2 percent) would undulate within the band set under the Bretton Woods system (1.5 percent), and thus, would come to be referred to as a "snake in the tunnel".

[2] Report to the Council and the Commission on the realization by stages of economic and monetary union in the European Community: Werner Report, special supplement to Bulletin No. 11/1970 of the European Communities. The report was named after Pierre Werner, then prime minister of Luxembourg, who served as the group's chair at the time.

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However, in May 1971, massive US dollar selling/Deutsche Mark buying speculation occurred in Germany's Frankfurt foreign exchange market, and the country's central bank, Deutsche Bundesbank, purchased a massive 2 billion US dollars to prop up the US currency, which then closed the market. At an EC emergency finance ministers meeting held in response to this event, the EC failed to hammer out a unified position due to a disagreement between Germany and France. The former called for the introduction of a joint float against the US dollar (a floating exchange rate system), and the latter argued for maintaining a system of fixed rates to the US dollar. Thereafter, Germany and the Netherlands moved toward an independent floating exchange rate system and Belgium toward a dual exchange rate system,[3] resulting in a split among EC members on foreign exchange policy. The experiment that was designed to achieve the EMU collapsed without securing a reduction in the band of fluctuation in exchange rates.

1.2.2. *Snake*

The Bretton Woods system was finalized with the Nixon Shock of August 1971, and the Smithsonian fixed exchange rate system came to be maintained with the Smithsonian agreement that was concluded in December of the same year. Under the Smithsonian system, the fixed exchange rate between the US dollar and gold was lifted, the rates between the US dollar and the currencies of other countries were revised, and the bands of exchange rate fluctuation were widened. Amid this massive change in the international currency system, the European economic and monetary union (commonly referred to as the "snake") was launched in April 1972 as a voluntary cooperation entity of the central banks of the EC states. In June of that year, 11 states[4] participated, including Norway and Sweden, which were not EC member states.

[3] A fixed exchange rate system for current account transactions; a floating exchange rate system for capital transactions.
[4] The UK, Denmark, and Ireland joined the EC in January 1973.

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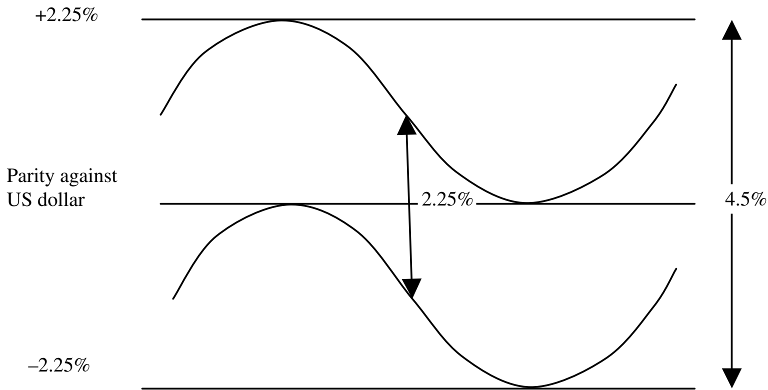

Fig. 1.1. Snake.

The contents of the snake were as follows:

(1) When the currencies of the states participating in the snake[5] fluctuate ±2.25 percent from the mean exchange rate versus the US dollar based on the Smithsonian agreement, the states must maintain the band of fluctuation through US dollar intervention.
(2) The states participating in the snake are to set a mutual intervention point of 2.25 percent (±1.125 percent), and when that level is reached, their central banks are to intervene using their states' currencies. See Figure 1.1. This system is called a "parity grid."

The name "snake" was designated because the image of the 2.25 percent fluctuation in the currencies of the member states resembled a snake within the 4.5 percent "tunnel" of fluctuation under the Smithsonian system. The snake differed from the EMU in that the member states did not relinquish their currency sovereignty, the snake rejected the possibility of establishing a supra-national central bank, and it phased in a reduction in the band of fluctuation. After the Smithsonian system collapsed in 1973, the snake moved to a joint float (a snake "out of the tunnel") and experienced a change in the number of member states and frequent changes in the parity rate

[5] See European Communities Monetary Committee (1974) pp. 58–60, and Hasse (1990, Chapter 3).

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of exchange. After the EC currency crisis of 1976, the states that remained in the snake included Germany, Belgium, the Netherlands, Luxembourg, Denmark, and non-EC members Norway and Sweden, and they effectively formed a Deutsche Mark zone, or “mini snake.” This mini snake was extremely stable.

1.2.3. *European Monetary System (EMS)*

A. Process followed through to establishment

During the EC currency crisis of 1976, the UK, Italy, and France, which had adopted floating exchange rate systems fell on hard economic times due to plunging currencies and inflation, while the Netherlands and Belgium which remained in the snake succeeded in quieting foreign exchange speculation through rate hikes and intervention. However, due to the impact of the EC currency crisis and the second oil crisis in 1979, EC states including Germany — the leader among the states participating in the snake — suffered stagflation (simultaneous recession and inflation). Amid economic stagnation, there was growing momentum led by Germany and France in favor of stabilizing the exchange rates within the EC and establishing a stable currency zone. Finally, in March 1979, the European Monetary System (EMS) was established by all EC states; however, its Exchange Rate Mechanism (ERM) was initiated by the eight EC states of Belgium, Denmark, France, Germany, Ireland, Italy, Luxembourg, and the Netherlands, excluding the UK.

B. Contents

The main contents of the EMS are as follows.[6]

(1) ERM: Similar to the snake and joint float, a parity grid system was adopted. For the strongest and weakest of the EC currencies (two currencies), which reached the upper and lower bounds of

[6]See European Communities Monetary Committee (1986) pp. 48–56, and Hasse (1990, Chapter 3).

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the fluctuation band of ±2.25 percent, the respective central banks implemented unlimited intervention. However, there were several differences between the snake and joint float. First, instead of median exchange rates relative to the US dollar, median rates relative to the European currency unit (ECU) were adopted. Furthermore, the states that had not participated in the mini snake at the end of the joint float were allowed to choose a broader fluctuation band of ±6 percent, and in addition to the traditional parity grid, a divergence indicator was newly established whereby an intervention obligation was applied to currencies that diverged beyond a certain limit from the median rate relative to the ECU. For currencies that reached this divergence limit, the central banks of the relevant states were called upon to adopt one or more of the following measures: (1) various interventions; (2) domestic monetary policy action; (3) changes to the median rate; and (4) other economic policies. Although these stipulations were non-binding, they were notable in that they marked the first time that available, objective indicators were introduced when EMS member states were implementing economic policy coordination.

(2) ECU creation: The ECU is a currency unit that reflects a basket comprised of certain amounts of each of the EC states' currencies. An exchange rate relative to the ECU is calculated for each state's currency relative to the US dollar. The composition of the ECU basket was set for review every five years; however, it underwent a change each time a new state joined the EC. The roles of the ECU were to serve as (1) the ERM display unit; (2) the basis of divergence indicators; (3) display unit for intervention and credit mechanisms; and (4) the means of settlement and reserve among central banks.

(3) Use of the ECU as a means of settlement: Whereas under the snake, the central banks of the relevant states conducting intervention formed a direct debit-credit relationship, under the EMS, a method for processing through credit and debt column accounts denominated in the ECU within the European Monetary Cooperation Fund (EMCF) was adopted. In addition to the US dollar and the currency of the creditor state, the ECU was also

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adopted as a means of settlement. This adoption was made on the basis of the intention to promote a move away from the US dollar in settlements among the central banks within the EC, to foster the ECU as a settlement currency, and to lay the groundwork for a single EC currency in the future. However, in practice, intervention in foreign exchange markets often occurred before divergence limits were reached, and because the selection of an intervention currency was unrestricted, the Deutsche Mark and US dollar were generally used. As such, the ECU saw an increase in private-sector use rather than in public-sector settlement.

(4) Expansion of credit to finance intervention: Intervention funds are essential for ERM management. First, the repayment terms for ultra short-term financial support which emerged as a result of mandatory ERM intervention, were eased. Moreover, short-term financial support — a system to cover temporary deterioration in the balance of payments — saw a nearly threefold increase in both debtor and creditor limits. Medium-term financial support, which is extended to EC member states directly facing imbalances in their balance of payments, saw an approximate 2.5 times expansion in the limits on credit extension.

C. Assessment

The EMS endured for roughly 20 years, until the single currency euro was introduced and the Exchange Rate Mechanism II (ERM II) was established in January 1999 following the EC currency crisis of 1992–93. The following can be cited as the results of the EMS during this period.

First, the exchange rates of the EMS member state currencies showed a stable trend as compared to the currencies of Japan, the US, the UK, and others. In fact, the coefficients of variation among the EMS currencies from 1975 to 1980 were small compared with the Japanese yen, US dollar, and British pound, and the intervals between parity realignment within the EMS became longer beginning in 1980.[7]

[7] See European Commission (1980).

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However, it is important to bear in mind that the EMS differed as a currency system, using fixed exchange rates which restrict fluctuations, versus the floating exchange rates seen in other countries. For that reason, it is impossible to make a simple comparison.

Second, the EMS achieved certain results in terms of its independence from the US dollar.

Third, monetary policy coordination among the EMS member states moved forward and brought a convergence of economic conditions (e.g., inflation) among those states. This means that the price stabilization policy vigorously promoted by the German Central Bank (Deutsche Bundesbank) which controls the Deutsche Mark — a currency that became the EMS anchor currency — permeated among the EMS member states.

Fourth, the stabilization and expansion of the EMS induced a concrete outlook for the EC's EMU. The stabilization and expansion of the EMS was promoted by the enforcement of capital controls and the advance of economic integration within the EC region. Through the enforcement of capital controls in the second half of the 1980s, massive amounts of foreign capital flowed into the EC. A typical example was the so-called "convergence-induced investment" involving active securities investment in states with high interest rates based on the expectation that the interest rate levels of the EC states would converge to the low interest rate levels in Germany. This effected the stabilization of the EMS without the implementation of parity changes to the currencies of those states with current account deficits, high inflation, and high interest rates. Furthermore, these inflows of foreign capital enhanced the attractiveness of the EMS, promoting the participation of Northern and Southern European nations, including the UK, which had not participated until then, as well as ECU pegging, and contributed to the realization of a stable foreign exchange zone centered around the EMS and spanning Northern and Southern Europe. However, the enforcement of capital controls triggered an unwinding of convergence-induced investment, one of the main factors behind the European currency crisis of 1992–93.

A lesson learned from the EMS experience is that the sustainable nominal convergence of each economy and fiscal discipline of each

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government are significant in the maintenance of stable foreign exchange rates.

As outlined in the following sections, the EMS member states from the end of the 1980s moved forward toward the realization of the EMU through the introduction of a single currency and establishment of a supra-national central bank. One driver of this was Germany's overwhelming presence in the EMS. Due to Germany's economic strength and the market's strong confidence in the Deutsche Bundesbank, the Deutsche Mark became the anchor currency of the EMS and the intervention of each state's central bank was effectively conducted using divergence from the rates centered around the Deutsche Mark, not the ECU, as a yardstick. As a result, the monetary authorities of each state had to pursue the Deutsche Bundesbank's anti-inflation monetary policies in order to maintain exchange rates against the Deutsche Mark, and often had to implement monetary tightening that ignored domestic economic conditions. Of course, as noted above, this clearly led to the decline and convergence of each state's inflation rate to the levels experienced in Germany; furthermore, it stabilized the EMS and brought confidence in the system. On the other hand, EMS participants France and Italy sought to dissolve the asymmetry with Germany, the anchor currency state of the EMS, and other surrounding states, and free themselves from their dependence on the Deutsche Mark and Deutsche Bundesbank.[8] To an extent, it was because of this that there was a vigorous push toward building the new framework of the EMU.

1.3. Contents of the Monetary Union

1.3.1. *Delors Report*

A. Background

EC states, especially those that were members from the initial launch, shared the perception that it was essential to introduce a single currency

[8] See Masera (1988).

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for a single market in the EC in order to maximize the merits of that market. There were a series of concrete developments toward the realization of the EMU from the end of the 1980s against the backdrop of advances in economic integration in the form of market integration, the success of the EC currency system, the desire to eliminate the asymmetry between the system's anchor currency state and its surrounding states, and the realization of financial liberalization through such actions as the elimination of capital controls. First, a concrete schedule for realizing the EMU in three stages was proposed in the Delors Report (officially, the "Report on Economic and Monetary Union in the European Community"), which was published in April 1989. This report was compiled under the strong leadership of European Commission President Delors of France, and accepted at the EC summit meeting in June of the same year.

B. Contents

As evident from the name "Economic and Monetary Union," the EMU is comprised of both an economic union and a monetary union. The Delors Report does not spell out the stages toward achieving economic union. Here, the contents of the monetary union are outlined. Monetary union was to be completed through the following three stages.

Stage one of the EMU began on 1 July 1990. At this stage, the strengthening of fiscal and economic policy coordination among states and the participation of all currencies of the EC member states in the ERM would be realized. Impediments related to private-sector use of the ECU would be eliminated and usage would be promoted.

Stage two of the EMU would establish the European System of Central Banks (ESCB). At this stage, however, monetary policy would be the jurisdiction of each state's central bank. The band of fluctuation in the ERM would be reduced.

In stage three of the EMU, the ECB would implement integrated monetary policy, make decisions regarding intervention with a third country currency and centrally manage official reserves. Moreover, exchange rates would be permanently fixed and a single currency would

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ultimately be introduced. Moreover, EC common rules and procedures in the area of macroeconomic policy (e.g., fiscal policy) would be accorded binding force.

C. Problems

On one hand, the Delors Report which outlined the three-stage process for the realization of the EMU was epoch-making, but on the other hand, it also left some ambiguity with regard to important matters. For example, detailed stipulations on the transition to a single currency were not established. Moreover, details on the ESCB at the core of the EMU were not discussed and the contents were left ambiguous. However, under the conditions prevailing at the time when there were substantial differences of opinion among various states, this ambiguity had to be a product of compromise to some extent.

1.3.2. *Maastricht Treaty*

A. Developments following the Delors Report

In the transition to stage two of the EMU, there was some opposition to and caution regarding the proposals in the Delors Report to revise and ratify the Treaty of Rome (the basic EC law signed in March 1957 and enacted in January 1958). However, by the end of the 1990s, a series of meetings among governments finally led to an EC summit and an agreement to discuss revisions to the treaty. In March 1990, the European Commission (1990) recommended a method for the issuance of a single currency that would not recognize the currency sovereignty of the EMU member states and the establishment of the ESCB with a high level of independence that would be modeled on the US Federal Reserve System (the US central bank organization). Then, at the Economic and Financial Affairs (ECOFIN) Council held in December, based on a decision reached at the European Council Summit held in June, a schedule was confirmed to compile and complete the ratification of proposals for the revision of the Treaty of Rome by 1992. As planned, stage one of the EMU was initiated in July 1990.

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Following these developments, an agreement on revisions made to the Treaty of Rome was reached at the European Council (EU Summit) held in Maastricht, the Netherlands, in December 1991. The Maastricht Treaty (officially the “Treaty on European Union”) was signed in February 1992 and took effect in November 1993. This was accompanied by a timetable for moving into stages two and three of the EMU, and it was officially agreed that stage two would begin on 1 January 1994. The Treaty outlined matters other than the EMU, including the establishment and contents of the EU and the strengthening of government cooperation in the political and internal administration areas of the common foreign affairs/security policy and judicial and internal affairs cooperation. Thus, the EU was created in 1993 as the basis of the EC in conjunction with the enforcement of the Maastricht Treaty.

B. Contents of the Maastricht Treaty

The contents of the Maastricht Treaty are as follows:

Each state was obligated to complete the liberalization of its capital movements and the liberalization of settlement by the beginning of stage two on 1 January 1994, and the European Monetary Institute (EMI) was established as an entity to promote monetary policy cooperation among the central banks of each state. Under the Delors Report, stage two was to call for the establishment of the European Central Bank (ECB). However, as a result of coordinating the opinions of each state, it was decided to first establish the EMI and then to carry out the preparatory work for establishing the ECB and introducing a single currency. With the establishment of the EMI, the EMCF was dissolved. Furthermore, in stage two, the fluctuation band and incorporation rate of the ECU currencies were fixed.

The transition to stage three required the fulfillment of certain economic criteria. If at least eight of the then 15 EU member states met these criteria by the end of 1996, the schedule for the transition to stage three would be determined by a majority vote at the EU summit. If a transition was not determined at that point, only the states that met the criteria would automatically make the transition to

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stage three from 1 January 1999. The conditions for transition to stage three were as follows: (1) price stability; (2) a sound government fiscal position; (3) low and stable interest rate levels; and (4) stable exchange rates.

After the transition to stage three, the ECB was immediately established as the successor of the EMI, and it began to manage the unified monetary policy. In conjunction with the initiation of stage three, exchange rates were fixed and the ECU was introduced as the single currency.

1.3.3. *EMI Report: The Changeover to the Single Currency*

In order to reduce the costs of the changeover to the single currency and avoid confusion among the public, as well as to sustain an environment that would enable confidence in and acceptance of the single currency euro,[9] the European Commission adopted the "Green Paper on the Practical Arrangements for the Introduction of the Single Currency" in May 1995 and the EMI published a report called "The Changeover to the Single Currency" in November of the same year. In these reports, it was proposed that stage three be divided into three periods from the final year of stage two and the introduction of the single currency.

First, in preparation for the first period, the EMI carried out tasks such as preparing the necessary organizational and legal framework and regulations for the ECB and ESCB to execute business in stage three of the EMU, preparing legislation related to the euro, and developing and testing the euro settlement system (TARGET: Trans-European Automated Real-time Gross Settlement Express Transfer System).

Period one was scheduled to begin in May 1998. First, after determining who would be the EMU member states, there would be action as soon as possible to select an ECB president, deputy president,

[9] The name "ECU" was used in the Maastricht Treaty, but was later changed to the single currency name "euro" after the member states strongly protested on the grounds that this was the name of the currency unit used in Medieval France.

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and governors, and to establish the ECB and ESCB. In addition, the production of euro banknote and coin currency would commence.

Period two was scheduled to commence on 1 January 1999, marking the beginning of stage three of the EMU. The exchange rates among the euro and the currencies of the EMU member states would be irrevocably fixed and the euro would be introduced in non-cash transactions (book transactions). TARGET also began to function, the euro was used in all operations involving ECB monetary policy and foreign exchange operations, and the issuance of euro-denominated bonds by the public entities of the EMU member states was launched. However, as the euro banknote and coin currency had not yet been introduced, the currency of each state continued to be used for cash transactions. As for non-cash transactions, it was thought that the euro could spread initially from transactions among financial institutions.

Period three was set to begin no later than 1 January 2002. From that date, the euro would officially become legal tender and each state's currency would start to be collected. The complete changeover to the euro would be completed by the end of February 2002 and each state's currency would lose its legal force.[10]

1.3.4. *Amsterdam Treaty*

Based on the November 1995 EMI report at the Madrid European Council in December of that year, the schedule related to the introduction of a single currency was finalized and it was officially agreed that stage three of the EMU would begin on 1 January 1999. At the European Council in Dublin in December 1996, a basic agreement was reached on fiscal discipline rules and new exchange rate mechanisms were introduced to replace the EMS. Then, at the European Council Summit in Amsterdam in June 1997, it was agreed that the Maastricht Treaty would be revised, thereby creating the Amsterdam Treaty (the revised version of the Maastricht Treaty), which was signed in October 1997 and took effect in May 1999.

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[10]The period for exchanges with the euro by commercial financial institutions was from the end of June to the end of December.

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The specific items related to the EMU as prescribed in the Amsterdam Treaty are as follows:

(1) The single currency is to be named the “euro”.
(2) The transition to stage three of the EMU is to begin on 1 January 1999, and the single currency in banknote and coin format is to be introduced on 1 January 2002. The details of the schedule are to be implemented in line with the proposals of the EMI report discussed above.
(3) The euro is to become legal tender with legal validity from 1 January 2002. For the period up to then (from 1 January 1999 to 31 December 2001), the euro will be legal tender and exist together with the currency of each state.
(4) The Stability and Growth Pact established fiscal discipline rules for the member states following the transition to stage three of the EMU. The Pact comprised (1) a framework of mutual surveillance for the realization of sound fiscal management, and (2) an agreement on the stipulations and control procedures related to excessive fiscal deficits. Under (1), all EU member states, including non-EMU member states, were required to publish fiscal programs outlining the medium-term fiscal balance targets and the actions to achieve them, and to indicate the fiscal conditions. Furthermore, based on the fiscal programs, the European Commission (the EU executive entity) and the Council of the European Union (the legislative entity) — in this case, the ECOFIN Council — would survey the fiscal management of each state and if it was judged that there was a danger of an excessive deficit in the fiscal balance, the European Commission and the ECOFIN Council would issue an early warning. Under (2), if a fiscal deficit reaches a level exceeding three percent of the nominal GDP, it is stipulated in principle as an excessive fiscal deficit. Sanction procedures were as follows. If the European Commission judged that a state’s fiscal deficit would exceed three percent of its nominal GDP, it would draft a report on that state’s fiscal condition. Based on this, the Economic and Financial Committee (EFC) would express an opinion within two weeks. Then, referring to this opinion, the European Commission

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would report to the ECOFIN Council. The ECOFIN Council, according to a majority decision, would then judge whether the said state has an excessive fiscal deficit and make a recommendation to that state regarding the corrective action that it should take with respect to the fiscal deficit. If even then the state fails to take action, ECOFIN would enforce sanctions. The content of the sanctions was an order for the state to accumulate non-interest-bearing deposits, and if an improvement in the fiscal balance was not seen after two years, those deposits would be collected as a penalty.

(5) Establish stipulations related to ERM II. The purpose of this action was to set a currency stability pact between the single currency euro area and the non-euro area, and to achieve exchange rate stabilization. The contents were as follows: (1) replace the EMS and ERM with ERM II at the beginning of stage three of the EMU; (2) make participation in ERM II voluntary; (3) establish rates centered around the euro, not a parity grid system determining a central rate for all of the currencies participating in ERM II; (4) set ERM II fluctuation bands at ±15 percent, as under the ERM; (5) the ECB and the central banks of the states participating in ERM II are to carry out voluntary and unrestricted intervention at critical levels in this band of fluctuation, with the euro as the currency used on those occasions; (6) the ECB and the central banks of the states participating in the euro area (EMU member states) are able to terminate market intervention if it is judged that the stability of the euro will be undermined.

(6) Establish stipulations related to the legal framework for euro usage. This is to handle the various issues related to changes in the display currency and the issuance of euro banknote and coin currency. Specifically, this consists of (1) stipulations related to such matters as the continuity of money contracts accompanying the introduction of the euro and the transition to the euro and rules for processing fractions derived therefrom; and (2) stipulations concerning relations between the euro and other currencies.

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1.4. EMI Roles

1.4.1. *Establishment and Organization*

Marking the beginning of stage two of the EMU, the EMI was established in Frankfurt, Germany on 1 January 1994. The stipulations related to the EMI were set according to the Maastricht Treaty and the EMI Statute, that is, the protocol attached to that treaty.

The EMI had corporate status and was managed by the EMI Council which was composed of the EMI president, vice president, and the heads of the central banks of the EU member states. It was decided that the EMI president must be someone with an extremely high level of specialized experience related to currency and bank issues, and the appointment of this individual would be recommended by the EMI Council and finalized based on the agreement of the EU summit following discussions with the European Parliament and the EU Council. Alexandre Lamfalussy of Belgium who had served as president of the Bank for International Settlements (BIS) was selected as the first EMI president. The vice president was selected from among the EMI Council members, as they had the right to make the appointment themselves.

1.4.2. *Mission*

According to the EMI Statute, the mission of the EMI was, in fact, broad: (1) to strengthen cooperation among the central banks of the EU member states (hereafter "member states"); (2) to strengthen monetary policy coordination among member states in order to realize price stability; (3) to monitor the management of the EMS; (4) to consult on issues impacting the authority of the central banks of the member states and the stability of the financial institutions and financial markets; (5) to assume the mission of the EMCF, which would be dissolved upon the establishment of the EMI; (6) to promote the utilization of the ECU and supervise it in order to realize the smooth operation and development of the ECU bill and check clearing system; (7) to prepare the means and procedures necessary for the ECB to enforce an integrated monetary policy in stage three of the EMU;

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(8) to promote harmony in the member states' practices and laws and regulations related to the collection, compilation, and dissemination of statistics in areas where the EMI authority was to be extended in order to prepare for the transition to stage three of the EMU; (9) to prepare the laws and regulations of operation that should be observed by the central banks of the member states within the ESCB; (10) to supervise the technical preparations of banknote and coin currency for the single currency; and (11) to boost the efficiency of international settlement systems. These can be categorized into three missions and considered as follows.

A. Coordination among Member States' Central Banks and Coordination of Policy

The EMI strengthened the cooperative relations among the central banks of member states and promoted coordination between monetary policies in order to facilitate the transition from stage two to stage three of the EMU. It had to complete the following tasks:

(1) Conduct studies and make recommendations related to the inflation targets and interim money supply targets of the member states.
(2) Monitor and report on the progress of the member states in achieving the standards for participation in stage three of the EMU.
(3) Make recommendations to the member states regarding monetary policy coordination.

In order to complete these missions, the EMI drafted Annual Reports and Convergence Reports each year beginning in 1995, publicized the progress of the member states with respect to their fulfillment of the EMU participation criteria, and submitted these reports to the governments of each member state and to the ECOFIN Council. The Convergence Reports touched not only on the progress of each member state in terms of its fulfillment of the EMU participation criteria (related to prices, interest rates, government fiscal position, and exchange rates) but also on revisions to the domestic laws and statutes of the central banks of the member states as per the Treaty on European Union (Maastricht Treaty). As the ultimate authority on coordination

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among the central banks of the member states and coordination of monetary policy belonged to the governments of each member state, the role of the EMI was limited to that of an advisory entity.

The EMI Convergence Report submitted in 1995 (European Monetary Institute 1995b) stated that less than 50 percent of the states fulfilled the EMU participation criteria. The ECOFIN Council held consultations based on this report, and at the European Council held that same year, it was officially decided that the plan to begin the transition to stage three of the EMU on 1 January 1997 would be abandoned and instead, the transition would commence on 1 January 1999.

B. Technical preparations toward the establishment of the European Central Bank (ECB)

In order to prepare for the transition to stage three of the EMU, the EMI advanced the technical preparations related to the establishment of the ESCB comprising the European Central Bank (ECB) and the national central banks (NCBs) of all EU member states. The system of the NCBs of the member states participating in the euro area was called the "Euro system". The mission of the EMI was to complete these preparations by the end of 1996 at the latest and outline a regulatory, organizational, operational, and technical framework for the ESCB. The ECB was modeled on Deutsche Bundesbank, the central bank of the EMS anchor currency state, Germany, not only in terms of the bank's organization but in virtually all respects including its high level of independence from the government and its monetary policy tools and operational methods.[11] This is because it was judged to be the best method for the ECB and the euro to inherit the domestic and overseas trust that had been obtained by Deutsche Bundesbank and the Deutsche Mark. The EMI's specific preparations included the following.

(1) The creation of an operational framework for monetary policy and related tools and procedures of the ECB: The main monetary policy tool of the ECB became open market operations centered

[11] According to the Maastricht Treaty and Protocol on the Statute of the European System of Central Banks and of the European Central Bank.

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around repurchase agreements adopted by such major states as Germany and France. General principles and procedures were also enacted for open market operations other than repurchase agreements (e.g., outright transactions and foreign currency swaps), standard facilities, and minimum reserve requirements. Furthermore, following the German model, the money supply was adopted as an interim target in terms of monetary policy operations.[12]

(2) The examination and assessment of the conditions surrounding revisions to the central bank statutes of the EU member states: The ESCB and the ECB were guaranteed independence from the government by Article 108 of the Maastricht Treaty, but it was essential for the central banks of the member states that formed the ESCB to also be legally guaranteed independence from the government. Therefore, each state was obliged to implement necessary structural reforms, including revisions to its respective central bank statutes, by the end of stage two of the EMU. The EMI encouraged each EU member state to implement the necessary structural reforms to ensure its central banks' independence from the government and, in the Convergence Reports, urged the member states to strengthen the independence of their central banks and assessed the conditions surrounding the revisions to the central bank statutes of each state.

(3) Building an efficient settlement system (TARGET): TARGET is a system for linking large-scale fund settlements in real time within the single currency zone by connecting across national borders the real-time gross settlement systems (RTGS) of the states within the region. Establishing a network linking the central banks of each member state through the construction of TARGET was important because most settlements and transfers accompanying commercial transactions were conducted in the form of increases or decreases in the central bank current deposit account balances of banks and other financial institutions. Another advantage of this real-time gross settlement system was that it lowered systemic risks

[12] See European Monetary Institute (1997a, 1997b).

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because there was one settlement conducted per transaction. The testing of TARGET began in July 1997 and after the transition to stage three of the EMU, TARGET was managed and operated by the ESCB. The RTGS of those states that did not participate in the EMU were also, in principle, able to connect to TARGET.

(4) The financial data and accounting criteria were unified.

(5) The design, size, and other aesthetic matters pertaining to the banknotes and coins of the new currency were finalized as necessary preparations for the introduction of the single currency.

C. Promotion of ECU utilization and monitoring of utilization conditions

The EMI promoted utilization and monitored utilization conditions primarily with respect to the official ECU. This was because after the transition to stage three of the EMU, it was the official ECU that was subject to exchanges at the exchange rate of one-to-one with the single currency euro. The official ECU was the ECU used, for example, in the medium- and long-term finance and financial support of states within the region and other regions implemented by EU institutions such as European investment banks, in EMS management, and in the foreign currency reserves of the states within the region.

However, the EMI also had to monitor the private-sector ECU that had developed in the form of finance and bond issuances in the private-sector financial markets. This is because substantial concern was voiced among private-sector financial institutions, companies, and investors regarding the sustainability of money contracts denominated in existing currencies, including the ECU, after the introduction of the single currency and the change in appearance of the new currency as compared to the existing currencies, requiring the EMI to implement practical agreements on these matters.

1.4.3. *Authority*

As noted above, the EMI does not have the authority to issue orders or enforcements with respect to the EU member states. However, on

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the condition of a two-thirds agreement of the EMI Council, the EMI does have authority with respect to the following: (1) to express its opinions or recommendations on related measures to be introduced in the member states and the overall guidelines and enforcement of each state's monetary policy and exchange rate policy, and to communicate these opinions or recommendations on paper to the currency authorities of the relevant states; and (2) to submit opinions and recommendations on policies that impact currency conditions inside and outside the EU, particularly the operations of the EMS, to each government and the Council of the European Union. Moreover, upon the unanimous agreement of the EMI Council, the EMI may generally disclose these opinions and recommendations.

1.5. Decision Process on State Participation in the Monetary Union

1.5.1. *EMU Participation Criteria*

In order to promote the success of the monetary union — the final stage of the EMU — it was essential to establish the necessary systems for the introduction of a single currency, as discussed in section 1.4, and to fully advance economic convergence among the EMU member states. The Maastricht Treaty stipulated that the following economic convergence criteria would have to be fulfilled for a member state to participate in stage three of the EMU:

(1) Price stability: Consumer price inflation on average during the year up to assessment[13] shall not be more than 1.5 percent above the average of the 3 countries with the lowest inflation rates in the EU.
(2) Long-term interest rate stability: Long-term interest rates on average during the year up to assessment shall not be more than two percent above the average of the three countries with the lowest inflation rates in the EU.

[13] More specifically, at the end of 1997.

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(3) Government fiscal deficit: The annual fiscal deficit of the general government (central government, regional governments, and social security accounts) shall not be more than three percent of the nominal GDP, or when the fiscal deficit shrinks on a real and continuing basis and reaches near three percent, or when any move above three percent is exceptional and temporary.
(4) Government debt balance: The public debt balance of the general government shall not be more than 60 percent of the nominal GDP, or it must fall at a sufficient rate toward the 60 percent level.
(5) Exchange rate stability: The currency of a state within the EMS has maintained the fluctuation band established by the ERM for the most recent two years and has not undergone devaluation.

However, the EU offered no official explanation for the basis of computing the figures in these participation criteria and the decision process, resulting in a system that lacked rigor. For example, the three percent figure for the fiscal deficit relative to the nominal GDP which became the most problematic of the participation criteria was said to be calculated loosely by assuming five percent nominal economic growth and asking to what percentage the fiscal deficit would need to be held on a single fiscal year basis in order for the government debt balance relative to the nominal GDP to be kept roughly within 60 percent of the average among the EU member states during the 1980s.[14] Hence, when determining which states would participate in the EMU, one can say that this allowed for extremely flexible interpretation and political judgment about the fulfillment of this participation criterion.

1.5.2. *Participation Criteria Fulfillment Conditions*

Whether the EMU participation criteria were fulfilled was judged on the basis of actual figures at the end of 1997, and at the European Council (EU Summit) in the composition of the Heads of State or

[14]See The Nikkei (1997).

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Government held in May 1998, the final line-up of the EMU member states was determined.

Table 1.2 compares each state's participation criteria fulfillment conditions at the end of 1996 and at the end of 1997 when they became subject to assessment.[15]

(1) In terms of consumer price inflation, most states had already fulfilled the criteria by the end of 1996, and only one state, Greece, had failed to do so at the end of 1997.
(2) In terms of long-term interest rates, as with consumer price inflation, most states had already fulfilled the criteria by the end of 1996 and only one state, Greece, had failed to do so at the end of 1997.
(3) In terms of the fiscal deficit relative to the nominal GDP, three states — Luxembourg, Denmark, and the UK — had fulfilled the criteria by the end of 1996. The latter two of these states had declared that they would not participate in the EMU immediately. The states that had yet to fulfill the participation criteria took severe fiscal deficit reduction measures, raised various taxes, and implemented expenditure cutbacks to the extent of reducing social security expenditure. As a result, 14 states, excluding Greece, had fulfilled the criteria by the end of 1997.
(4) The criteria regarding the balance of the government debt relative to the nominal GDP was arguably the most difficult of the participation criteria to fulfill. Four states — Finland, France, Luxembourg, and the UK — had managed to do so as of the end of 1996, and as of the end of 1997, there was no change in the EMU line-up.
(5) Exchange rates held stable overall after the ERM fluctuation band was widened to ±15 percent in August 1993. As of the end of 1996, five states had failed to fulfill the participation criteria: non-ERM participants the UK, Sweden, and Greece and ERM members for less than two years, Italy and Finland. This situation had not changed at the end of 1997.

[15] See European Monetary Institute (1998).

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Table 1.2. EMU Participation Criteria and Fulfillment Conditions.

	Consumer price inflation rate		Long-term interest rate		Government fiscal deficit/ nominal GDP		Government debt balance/ nominal GDP		Exchange rate stability	
	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997
Participation criteria	2.6	2.7	9.1	7.8	3.0	3.0	60.0	60.0	○	○
Austria	1.8	1.1	6.3	5.6	4.0	2.5	69.5	66.1	○	○
Belgium	1.8	1.4	6.5	5.7	3.2	2.1	126.9	122.2	○	○
Denmark	2.1	1.9	7.2	6.2	0.7	–0.7	70.6	65.1	○	○
Finland	1.1	1.3	7.1	5.9	3.3	0.9	57.6	55.8	△	○
France	2.1	1.2	6.3	5.5	4.1	3.0	55.7	58.0	○	○
Germany	1.2	1.4	6.2	5.6	3.4	2.7	60.4	61.3	○	○
Greece	7.9	5.2	14.4	9.8	7.5	4.0	111.6	108.7	×	×
Ireland	2.2	1.2	7.3	6.2	0.4	–0.9	72.7	66.3	○	○
Italy	4.0	1.8	9.4	6.7	6.7	2.7	124.0	121.6	△	○
Luxembourg	1.2	1.4	6.3	5.6	–2.5	–1.7	6.6	6.7	○	○
Netherlands	1.4	1.8	6.2	5.5	2.3	1.4	77.2	72.1	○	○
Portugal	2.9	1.8	8.6	6.2	3.2	2.5	65.0	62.0	○	○
Spain	3.6	1.8	8.7	6.3	4.6	2.6	70.1	68.8	○	○
Sweden	0.8	1.9	8.0	6.5	3.5	0.8	76.7	76.6	×	×
UK	2.5	1.8	7.9	7.0	4.8	1.9	54.7	53.4	×	×

Source: Convergence report 1998 (European Monetary Institute).

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1.5.3. *EMU Member State Decision Process*

Of the 15 EU member states at the time, the UK, Denmark, and Sweden were likely to choose to abstain from participating in the EMU and Greece effectively declared that it had abandoned its attempt to fulfill the criteria. This raised the question of how many of the remaining 11 states would be recognized for their participation in the EMU. Although some of the states failed to fulfill the participation criteria related to exchange rates and public debt balances, all 11 were recognized for EMU participation based on the following flexible interpretations.

First, in terms of exchange rates, the ERM participation period of Finland and Italy was less than two years,[16] but the ERM band of fluctuation in their currencies was relatively narrow,[17] as with the other 10 participants (including Denmark), and it was judged that stability had been maintained.

In terms of public debt balances relative to the nominal GDP, six states had levels exceeding the 60 percent benchmark specified in the criteria but less than 80 percent (Germany, Ireland, the Netherlands, Spain, Portugal, Austria), and two had levels of more than 100 percent, sharply exceeding the 60 percent level stipulated in the criteria (Belgium, Italy); however, it was judged that this would not hinder participation in the EMU, even in the latter case, on the grounds that the states' levels had declined steadily toward the 60 percent level each year.

Such flexible judgments in determining EMU participation can be viewed in the context of the somewhat weak economic basis behind the criteria themselves, as discussed above: the fact that the monetary union, even if it was achieved, would be meaningless if it excluded Germany and Italy, two major EU states; and the political consideration that it would be difficult to exclude Belgium and the Netherlands which had been members since the establishment of EEC. Thus, stage

[16]In Italy's case, this means the period after the return to the ERM.

[17]According to the EMI convergence report in 1998, the maximum band of fluctuation from the median rate based on a moving average of 10 business days was 3.5 percent (see European Monetary Institute 1998).

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three of the EMU began on 1 January 1999 with the participation of 11 states: Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain.

1.6. General Overview

In this final section, an attempt is made to summarize the factors behind the realization of the EMU in the EU.

(1) History of integration: The EU had a history of economic integration dating back to the launch of the European Coal and Steel Community (ECSC) in 1952 and the European Economic Community (EEC) in 1958, setting the stage for easier acceptance of a monetary union (i.e., the EMU) as an extension of economic integration.
(2) Taking a long time: Approximately 30 years were needed, starting with the snake at the beginning of the 1970s to the realization of the EMU in 1999. Certainly, the formation of the monetary union in the EU was delayed by several years from the initial plan because of the massive impact on Europe due to the dramatic changes in the international currency system, international economy, and financial conditions during this period. However, even without that delay, it is clear from the examination in this paper that the realization of the EMU was a process that demanded of the member states a long period of time spanning several changes of national leadership and the resolve to persist through that period.
(3) Small steps: The EU aimed to realize the monetary union first through the snake and then the EMS, starting with realistic systems that each state could easily implement under the conditions of the time, namely, fixed exchange rates that allowed for a certain amount of fluctuation, then gradually upgrading within the scope of feasibility equivalent to the state's conditions. If the introduction of a single currency and the establishment of a supra-national central bank had been put forward right from the beginning, the realization of the EMU would probably have had little hope of success.

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(4) Flexibility and tolerance: The realization of the EMU required not only resolve, but also flexibility and tolerance. In the cases of the snake and the EMS, the basic framework of the systems was maintained while tolerating exceptional measures on a case-by-case basis, including the widening of fluctuation bands within the system, the freedom to leave and return to the system, and even the freedom not to participate in the system.
(5) Leadership: Germany and France, major EU states, overcame their differences, consistently maintained their resolve to realize the EMU, and demonstrated leadership during important phases. This was one driving force for overcoming the various issues, crises, and clashes of opinion among member states to finally realize the EMU.
(6) Shared recognition among member states: Member states shared the basic recognition that sustained progress in the economic convergence of each state, observance of fiscal discipline in each state, and a high level of independence for each state's central bank were important in the realization of the EMU.

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