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EMU – The first 10 Years: Challenges to the Sustainability and Price Stability of the Euro Area - what does History tell us?

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16. EMU – the first 10 years: challenges to the sustainability and price stability of the euro area – what does history tell us?

Lars Jonung

1. INTRODUCTION¹

The creation of the EMU and the euro is a unique event. Never before has a group of independent nation states given up their national currencies to form a common monetary union based on a new unit of account under the leadership of a common monetary authority – while still retaining political independence. Economic policies – except for monetary policy – will primarily be framed by the individual Member States or by coordination through a system of persuasion, peer pressure and procedures presently being set in motion.

EMU is thus a gigantic experiment with no precedence in monetary history. EMU will have effects on practically every area of economic policy making in Europe: it will influence the allocation of resources, the distribution of income, stability and growth, as well as the formal and informal institutions on labour, product and financial markets within the euro area. EMU will most likely affect Europe's economic and political landscape in the future in fundamental, but as yet, unknown ways. In short, monetary history is presently in the making in Europe.

The euro, the newborn currency, will face a number of challenges during the first decade of the 21st century. The purpose of this report is to focus on two such challenges: first, the endurance prospects for the euro, and second, the inflation performance of the euro area during the coming ten years.

The history of monetary unions and of stabilization policies is exploited as the prime basis for the conjectures and forecasts presented. Of course, the future is by definition unknown territory, but history, 'properly' interpreted, can serve as a valuable source for extracting hypothetical conclusions concerning things to come. The science of economics can be viewed

as the search for common patterns across time, countries, cultures and institutions. This study is an exercise in this tradition. The use of history is a well-accepted methodology for forecasting. Actually, it is the only basis for forecasting.

This chapter is organized in the following way. First, the most common challenges suggested by the economics profession concerning the future of EMU are presented. Second, the major lessons for EMU from the history of monetary unions are summarized and confronted with these standard objections to evaluate how EMU will presumably respond to them. Here focus is on the viability of EMU. Next, as price stability is the prime policy goal of the ECB, challenges to this policy objective are considered in three steps. First, the historical record of monetary and fiscal stability in Europe is presented. Second, this evidence is used to describe potential shocks to the future price level of the euro area. Third, even if the ECB successfully maintains price stability in the coming decade, its policy may be challenged. We explore a number of such non-conventional challenges to the price stability goal, all pertaining to the policy paradigm enshrined in the legislation underlying the euro system.

Our basic benchmark is that by year 2010 Europe will have experienced ten years of far-reaching monetary unification. To illustrate the dynamics of European monetary integration and cooperation, the Appendix to this chapter presents counterfactuals to this benchmark by demonstrating how the European Union would have fared *without* the EMU and the euro during the coming ten years. Here we discuss the likelihood of European monetary unification to emerge through a different route than the Maastricht Treaty. In other words, we try to answer the question: is the euro bound to happen?

2. CHALLENGES FOR THE EMU²

Since the first plans were announced of the establishment of a single European currency, its future has been a constant source of forecasts and speculations. In this process, economists and other commentators have identified a number of challenges, weaknesses or flaws in the construction of the EMU, as well as proposed policy measures to remedy these.³ The methodology of these forecasts is commonly based on two stages, first, one or several shortcomings are identified, second, possible remedies are suggested.⁴

The vast literature on the future challenges for the EMU can be grouped under four main headings: (1) the process for fiscal policy making, (2) the process for monetary policy making, (3) the euro area as a non-optimal cur-

rency area, and (4) the legitimacy of EMU. No sharp lines of distinction can be drawn between these groups of arguments as they are commonly interconnected. For example, the actual conduct of fiscal policies within EMU will have effects on the design of monetary policies, on the degree of ‘optimality’ of the euro area, and on the political and popular support behind EMU, that is on the legitimacy of the common currency.

A number of problems concerning the various transition stages leading up to EMU have also been identified. These are ignored here as safely belonging to the past. Instead focus is placed solely on those challenges pertaining to the euro area once it became firmly established by the introduction of the single currency in January 2002 – the final stage on the road to the adoption of the euro. The discussion thus concentrates on the long-run evolution of EMU and the euro up to year 2010.

2.1. Fiscal Policy Making

The absence of central coordination of fiscal policies within EMU in combination with the criteria for domestic debt and deficits – as set out in the Maastricht rules and the Stability and Growth Pact (SGP) – is a common source of objection. According to many economists, this legal framework implies that EMU will not be able to respond to asymmetric shocks and disturbances in a satisfactory way.⁵ Further, the institutional framework may contribute to procyclical fiscal behaviour. During booms, there are no efficient limits to growth of public expenditures and to reductions in taxes. In recessions, on the other hand, the rules of the SGP force fiscal policy makers to reduce government expenditures and raise taxes. In short, the standard textbook recipe for Keynesian counter-cyclical policy prescription is turned upside down.⁶

2.2. Monetary Policy Making

Several weaknesses in the institutional framework for monetary policy making have been pointed out.

2.2.1. Lender of last resort

The euro area lacks an explicit central lender of last resort. The ECB has not been granted power by the Maastricht Treaty to perform this function. This stands in contrast with modern central banks, which exercise lender-of-last-resort responsibilities to guarantee the liquidity and functioning of the payments system.⁷ In the face of a liquidity crisis, the absence of a lender of last resort may weaken the euro.⁸

2.2.2. Financial supervision

The euro area lacks a central authority to supervise the financial systems, including the commercial banks, of the euro area. The Maastricht Treaty gives the ECB some supervisory functions but they are primarily the task of the Member States. This state of affairs portends that a future pan-European financial crisis may not be efficiently resolved, consequently undermining the stability of the euro system.⁹

2.2.3. Division of monetary power

The policy directives for the ECB are said to be inconsistent and badly designed. Although the ECB is to carry out 'domestic' monetary policy within the euro area according to the Maastricht Treaty, the exchange rate system for EMU is set by the Council of the European Union, that is by the Council of finance ministers of the euro area. The ministers can give general orientations to the ECB as well, which may undermine the credibility of the ECB.

2.2.4. Accountability and transparency

A common critique against the euro system and the ECB states that it lacks accountability and transparency. This critique suggests that the ECB will not work as efficiently as a traditional central bank.¹⁰

2.3. The Euro Area as a Non-optimal Currency Area

A common assertion by economists is that Europe is too heterogeneous a geographical area to form a well-functioning monetary union. In the parlance of economists, the euro area with its present 12 Member States is *not* an optimal currency area. This point, which dates back from the analysis of optimal currency areas initiated by Robert Mundell and others in the 1960s, has been debated continuously since the announcement of the plans for a monetary union in Europe. A sizeable body of empirical work reaches the conclusion that the euro area can hardly be looked upon as an optimal monetary union; at least it appears less suitable as a monetary union than its US counterpart.¹¹ The efficiency gains from lower transaction costs and increased trade through the use of one single currency do not outweigh the costs of surrendering control over national monetary policies.

The costs of giving up national monetary sovereignty depend on many factors: the incidence of asymmetric or idiosyncratic macroeconomic disturbances across the euro area, the degree of flexibility of wages and prices, the mobility of factors of production within the EMU, and the extent to which fiscal policies, either on a national or on a pan-European level, can

serve as a substitute for changes in the exchange rate and the interest rates of the domestic currency. European labour markets are commonly described as rigid, and labour mobility within the EMU members as limited.¹² Under these circumstances an asymmetric shock may set off an adjustment process that is slower and costlier within the euro area than would be the case if national currencies were maintained and the option of exchange rate adjustments was available.

Economists commonly conceive this point as a major objection to EMU. The abolition of domestic currencies and thus of the possibility to adjust nominal exchange rates and domestic interest rates reduces the scope of stabilizing the economies of the euro area when faced with asymmetric or country-specific shocks. However, the point has not been left uncontested. It is argued that, once formed, a monetary union will influence reaction patterns among wage earners, firms and trade unions such that shocks in the future will be met in a more efficient way than otherwise. There are costs of fluctuating exchange rates as well, in particular for small open economies, in a world of free capital mobility.

2.4. The Political Legitimacy of EMU

Several commentators argue that the EMU is lacking political legitimacy and acceptance: EMU and the institutions surrounding EMU such as the ECB, the euro and the SGP, are not 'embedded' into a broadly accepted political structure.¹³ By tradition, Europeans look upon their nation states as their fundamental political entity. They identify themselves with the nation state and its symbols such as the national flag, the anthem and the national currency. To Europeans, their nation states form the basis for their history, for their culture, for their political traditions, in short, for their identities. The boundaries of the individual nation states are as a rule the boundaries of a common language. The supranational and pan-European character of the euro, the single European currency, may for these reasons meet with doubt among Europeans.¹⁴

Weak political legitimacy may invite political critique against EMU and the euro. It may emanate from different sources. Should major economic problems, such as high unemployment, dismal growth and stagnation, arise within a single member or a group of members of the euro area, populist political movements may be tempted to exploit them in order to attack EMU. Facing a negative macroeconomic shock, such as a new oil price rise or a deep depression, requests for fiscal transfers, for protection and for exemption from the Maastricht rules and the SGP may undermine the credibility of EMU and the political cohesion required for a well-functioning monetary union. Blaming external 'foreign' decision makers for domestic

problems is a time-honoured political reaction pattern. The incentives for this blame-game will not disappear in the future.

The above list of the most commonly raised objections to EMU inspires us to ask how important and relevant they will be in the future.¹⁵ To answer this question, the history of monetary unions concerning these issues is summarized below.

3. LESSONS FROM THE HISTORY OF MONETARY UNIONS

The stability of the euro system has been in the centre of the theoretical analysis and the policy debate about the EMU and the ECB. For this reason, it is worthwhile to explore the lessons from the past concerning the conditions crucial to the sustainability of monetary unions. Ideally, the necessary and sufficient conditions for successful monetary unification should be distilled from history. However, history can hardly be read as a cookbook delivering such a recipe. At best it is possible to identify some features in the design of monetary unions important for their performance. This is the task of this section.¹⁶

A monetary union is commonly defined as a geographical area within which only one type of currency is circulating, serving as the unit of account, the medium of exchange and the store of value. The exchange rate is by definition irrevocably fixed within the union. Every part or member of the union is using the same currency or currencies tied to each other at truly fixed rates. Towards the rest of the world the monetary union has one exchange rate for converting outside currencies into the domestic money.

The 19th and 20th centuries saw high degrees of creation and destruction of monetary unions, primarily as a result of far-reaching political changes. When analysing the record of monetary unions during the past 200 years – their creation, performance, sustainability and decline – it is fruitful to distinguish between two types of monetary unions: those based on one single monetary authority, commonly a central bank, and those based on cooperation among many monetary authorities or central banks.¹⁷ The first type can also be classified as a centralized monetary union, the other type as a decentralized monetary union.

The political state, the nation state, is as a rule organized as a centralized monetary union where the political and monetary borders coincide. The United States, as one example, is divided into a number of Federal Reserve districts, each district headed by a Federal Reserve Bank issuing dollar-denominated notes. These notes are always interchangeable with each other at a fixed exchange rate. The Scandinavian monetary union – founded in

the 1870s and lasting into the 1920s – encompassing three nation states, Denmark, Norway and Sweden, is an example of a decentralized monetary union. Together the three countries formed a union but each retained a central bank that issued notes denominated in Scandinavian kronor. The notes traded prior to 1914 at par. Here the monetary union lacked a central monetary authority – which eventually proved to be a fatal flaw.

The reason why it is important to distinguish between these two types of institutional frameworks is that the sustainability of a monetary union is crucially dependent on how it is constructed from the outset. History demonstrates that centralized monetary unions are as a rule durable and permanent ones; more precisely, they are better able to adjust to and survive shocks and disturbances than are decentralized unions, which have a stronger tendency to break up under economic and political turmoil.

This conclusion is based on a comparison between centralized monetary unions of countries such as the United States, Germany and Italy and decentralized monetary unions like the Austro-German monetary union, the Scandinavian monetary union and the Latin monetary union. The latter three lacked a central authority for coordinating monetary policies across the members of the monetary area. When subjected to major shocks, the lack of a coordination mechanism eventually brought each union to an end.

Sovereign states may join a centralized monetary union as well. Examples are the CFA Franc Zone and the East Caribbean Currency Area (ECCA) or the long-lasting monetary union between Belgium and Luxembourg. The recent adoption of the dollar as the domestic currency in countries like Equador and El Salvador represents an exchange rate arrangement that should be classified as a centralized monetary union (see Table 16.1). As a rule, small economies tend to adopt the currency of the monetary power closest by, see for example the case of Andorra and Monaco.

Commonly in history, monetary unification has been a consequence of political unification.¹⁸ Once political unity is established through the creation of an independent state, a process of monetary unification is initiated. Monetary unity can come about through different routes. One route is through the existence of one dominant member, a hegemon, pushing for political and thus monetary unification. If the hegemon loses its position of power relative to the other members of the union, the union runs the risk of falling apart. This was the case for example with the Russian and Austro-Hungarian empires after World War I and with the Soviet Union in the 1990s. In a similar way the de-colonization process in the 1950s and 1960s brought about the break-up of monetary unions based on the currency of the colonial power. The hegemon can use either sanctions, for example

Table 16.1 Monetary and fiscal unions: a stylized historical picture

	Types of monetary unions	
	Centralized monetary unions (one monetary authority)	Decentralized monetary unions (many monetary authorities)
Centralized fiscal systems (one fiscal authority):	I Traditional nation states EU members like UK, Sweden	IV Few cases in history (competing money producers—currency substitutions)
Decentralized fiscal systems (fiscal federalism or independent fiscal authorities):	II 1. USA 2. Canada 3. Switzerland 4. Post WWII Germany prior to EMU 5. The German Reich 1875–1923 6. Austria-Hungary 1867–1913 7. EMU 8. Dollarized countries	III 1. Latin monetary union 2. Scandinavian monetary union 3. Austro-German monetary union

Note: Cases with no central banking are not covered by the table.

threat of military intervention, or subsidies and other forms of side-payments to maintain political and monetary cooperation.

Monetary unity can also be established and maintained through shared values concerning the benefits of cooperation among sovereign member states. These values can be traced back to common religious, cultural and historical factors, closeness in language and in geography. The creation of the Scandinavian monetary union is an example of such a union. It was part of an attempt to create various forms of closer linkages among the three member states.¹⁹

Monetary union creation and separation may take a long time in itself; witness for example the gradual rise of the US monetary union or the Italian monetary union.²⁰ As political unity is commonly the glue that holds a monetary union together, the disappearance of political unity has as a rule spelt the end of monetary unity. The break-up of states like Yugoslavia and Czechoslovakia in the 1990s illustrates this point. However, there are cases where a monetary union has survived political break-ups.

The Scandinavian monetary union, for example, was maintained after Norway declared itself completely independent from Sweden in 1905. Ireland, too, continued on the British pound standard after its independence in 1922 until joining the ERM.

Does monetary unification require fiscal unification as well? To answer this question, let us classify monetary unions according to their degree of fiscal unification. Two major types of fiscal union may be discerned; those based on centralized fiscal systems and those based on federal (decentralized) systems, bearing in mind that there is no sharp line of demarcation between the two systems. See Table 16.1 for a stylized picture.

In the traditional European nation state, commonly with a parliamentary system, monetary and fiscal policies are centrally determined, see region I in Table 16.1. However, monetary unification can exist with fiscal decentralization, see region II in Table 16.1. In federal states, like the US, Germany, Canada and Switzerland, monetary policy making is centrally coordinated – often through a central bank with a federal structure – while fiscal powers are decentralized to varying extents.

A group of politically independent countries may form a monetary union with minor or no coordination of fiscal policies. The ECB-system is constructed as a centralized monetary authority while fiscal policy making remains basically in the hands of the individual Member States of the euro area within the rules set out in the Maastricht treaty and the SGP.²¹ Dollarized countries are the extreme example of centralized monetary policy making with no fiscal coordination at all.

The pattern in Table 16.1 indicates that it has been easier to surrender monetary sovereignty than fiscal sovereignty to a central authority.²² Fiscal federalism has commonly been a method of gaining acceptance for politically unifying regions with different religions, cultures, ethnic backgrounds and histories. Still, some federations have not been able to survive as federal states. In these cases, monetary dissolution has also commonly been the result of political dissolution.

History suggests – as summarized in Table 16.1 – that decentralized fiscal systems are compatible with successful monetary unification as long as the monetary union has been organized as a centralized one; that is, as long as one decision maker has controlled the money supply. In this case, by definition, different fiscal jurisdictions do not have direct access to money supply creation.²³

To sum up, the record on monetary unification points at several conclusions concerning the sustainability of monetary unions. The following are probably the most important ones for analysing the long-run evolution of EMU:

1. History suggests that successful and lasting monetary unification is as a rule based on political unification. Political unity can be founded on either the existence of one dominant country that is able to superimpose its monetary system on others, or on a shared feeling of the benefits of cooperation manifested in a system of institutional linkages. This is the glue that holds a monetary union together. The desire to create a political unit like the nation state has been the dominating driving force behind monetary unification in the past.
2. History suggests that centralized monetary unions are permanent institutions compared to decentralized monetary unions – or at least more durable – as well as compared to all other forms of fixed exchange rate arrangements.
3. History suggests that the degree of fiscal federalism is *not* a prime determinant of the longevity of monetary unions. Monetary unification does not require fiscal unification as long as the money supply is centrally controlled. If the system determining taxes and expenditures across regions within a nation or group of states/regions is designed to facilitate and maintain political unity, this will enhance monetary unity as well.²⁴
4. History suggests that monetary unions and monetary institutions evolve gradually over time in response to exogenous events. Seen in a long-run perspective, they are flexible and adaptable arrangements.
5. Regardless of the choice of exchange rate arrangement – fixed or floating exchange rates – the economy of any country or group of countries has been the subject of negative macroeconomic disturbances, business cycle downturns and crises in the past. There is no foolproof or fail-safe monetary arrangement that guarantees a shock-free future. Thus, any type of monetary union will sooner or later run into hard times which will test the endurance of the union.

4. WHAT DOES HISTORY TELL US ABOUT THE SUSTAINABILITY OF THE EMU?

When forecasting the future of EMU, the first and most important issue to decide is whether EMU will function as a centralized or a decentralized union. As pointed out initially, in a historical perspective the ECB-system is a unique enterprise where politically independent countries surrender their monetary sovereignty to a common central bank while maintaining fiscal independence within the framework of their EU memberships.

Although EMU is a construction without precedence, much suggests that it will function as a centralized monetary union. The main reason is

that monetary policy making is carried out by one institution, the ECB, having the monopoly power of issuing the base money, the euro. The structure of the ECB system is that of a centralized monetary union. Membership in EMU is permanent too. There is no escape clause giving the members the right to an orderly exit.

This conclusion is the central one when considering the four standard challenges for EMU using the history of monetary unions as our guide. Our reasoning below is thus contingent upon EMU functioning as a centralized union.

4.1. Fiscal Policy Making

Most commentators agree that the coordination of fiscal policies in the euro area is crucial for the evolution of EMU. Presently the institutional framework for fiscal policy making is emerging. This process will continue during the coming decade as well. At a first glance, this evolutionary approach may appear as a sign of weakness. However, much suggests that it is rather a sign of strength. Policy making and institution building are trial-and-error processes. Basically, the euro group is involved in a learning process.²⁵ As long as the process is evolving in response to changing circumstances and challenges, influenced by critique and recommendations by outsiders, this improves the sustainability outlook for EMU.

At this point in time neither the policy makers nor the economics profession know to what extent fiscal policies ought be coordinated across the euro area. Actually, fiscal decentralization may be a suitable way to counter negative effects of the monetary centralization brought about by the EMU. The present criteria for debts and deficits may prove to be too strict or too lax – only time will tell.

From a historical perspective, centralized monetary unions like the EMU can exist with many types of fiscal systems, as suggested by Table 16.1. A necessary condition for viability is that national fiscal authorities do not have access to national central banks with the right to issue base money.²⁶

4.2. Monetary Policy Making

Several weaknesses in the monetary policy making process within the euro area were identified above. These challenges will be met by an ongoing learning-process similar to the case of fiscal policy making. Actually, it will be easier to deal with the challenges for monetary policy as the experience of traditional central banking can be used as a guide for the ECB system. It is more difficult to forecast the evolution of the fiscal policy process

for the euro area as there is no clear precedence for such an international cooperation among ministries of finance.

4.3. EMU as a Non-optimal Currency Area

History demonstrates that the predictive power of the theories of optimal currency area is extremely weak.²⁷ In short, monetary unions are not created or dissolved according to this approach. The establishment of EMU and the euro is due to decisions based on the desire to expand and deepen European integration. The weakness of the optimal currency area approach is found in its lack of political and historical dimensions, ignoring the path dependence that follows from political integration, more specifically from the existence of national borders. In theory, the optimal monetary area can be redrawn continuously without regard to existing national borders. Such borders, however, are permanent institutions that remain unchanged for long periods. For many countries borders have been permanent for centuries.

The optimal currency area theories stand out as too narrowly formulated in economic terms to be useful for forecasting the future of EMU.²⁸ Besides, the euro area is likely to move closer to an 'optimal' monetary union over time as expectations, behaviour and institutions change as a result of the introduction of the euro in January 2002.²⁹ The common currency, once circulating freely, increases the viability of the union as the memory of national currencies fades away.

4.4. The Political Legitimacy of EMU

History shows that political unity holds a monetary union together, either through the existence of one dominant member or through a commonly shared view of the benefits of monetary cooperation. This suggests that the most important factor behind the sustainability of EMU is the opinion held by all the members or at least the major members of EU that the benefits of the euro in broad political and economic terms exceed the costs. The major challenge in the coming years for EMU is to maintain the political backing behind and thus the legitimacy of the EMU project across the euro area. A sharp fall in the legitimacy of the common currency may threaten its existence. Thus, a forecast of the future of EMU should start from a forecast of the political landscape of Europe in year 2010.

The political and economic unification of Europe has continued since the treaty of Rome – albeit at varying speeds. At this point of time, the consensus among the present 12 full members of the EMU appears to be strong concerning the benefits of the common currency. Actually, the euro repre-

sents one of the most notable achievements – perhaps the most notable – of the European Union. The EMU project has been carried through a number of critical stages and crises. Considerable political capital has been invested in the project. The introduction of the euro in January 2002 gave additional credibility to the EMU project. It passed something of a point of no return with the disappearance of the national currencies within the euro area. The intrastate cooperation among the members of EU has by now created a close network of ties among the members, where EMU is part of this system of interlocking institutions.

To conclude, judging from history, EMU will most likely find solutions to the ‘traditional’ challenges discussed above during its first ten years. It will exist as long as there is a common political wish within EU to maintain monetary unity. Of course, EMU will be subject to negative economic shocks – which will have political consequences. But as long as the political acceptance and support exists, the EMU will adjust and adapt to changing circumstances.

5. WHAT DOES HISTORY TELL US ABOUT THE PRICE STABILIZATION OF THE EMU?

The historical evidence strongly suggests that the newly established EMU will endure as a monetary union by being a centralized monetary union with the necessary political legitimacy. Given that it will survive as an institution, the question then arises: will EMU deliver the monetary and fiscal stability as set out in the treaties and instructions surrounding the euro during the coming decade? To survive is one thing – to live up to its promise of creating macroeconomic stability in Europe is another and – much suggests – more challenging task.

Monetary and fiscal stability in the context of EMU can be defined as achieving three goals simultaneously: first, price stability, broadly interpreted as a rate of inflation in the medium term that does not surpass 2 per cent per year; second, a public debt-to-GDP ratio of less than 60 per cent, and third, budgetary positions close to balance or in surplus over the medium term. By fulfilling these requirements, EMU members should avoid breaching the 3 per cent central government budget deficit ceiling during economic downturns. These goals pertain to normal circumstances. Under exceptional circumstances the general government deficit is allowed to exceed the 3 per cent limit. There is thus an escape clause in the rules.

5.1. Monetary and Fiscal Stability in the Euro Area in the Past

One way to answer the question about the future macroeconomic stability within the euro area is to examine the macroeconomic record of the euro members in a historical perspective. This is displayed in three figures: Figure 16.1 shows the rate of inflation, Figure 16.2 public debt-to-GDP, and Figure 16.3 the central government budget deficit as a percentage of national income.³⁰ All figures cover the period 1880–2000. They are based on averages for the Euro-5 area, that is for Germany, France, Italy, Belgium and the Netherlands, where data is available.³¹

The macroeconomic record is also summarized in Table 16.2 showing descriptive statistics for these three variables: their mean and standard deviation. The standard deviation is a simple measure of convergence among the members of the Euro-5 area. The period is classified according to the following chronology of monetary regimes in Europe: the classical gold standard (1880–1913), World War I (1914–1919), the interwar period (1920–38), World War II (1939–46), the Bretton Woods period (1947–1971), the snake and EMS-period (1972–1995), and finally, the run-up to EMU (1996–2000).

The evidence displayed in Figures 16.1 to 16.3 and Table 16.2 makes it

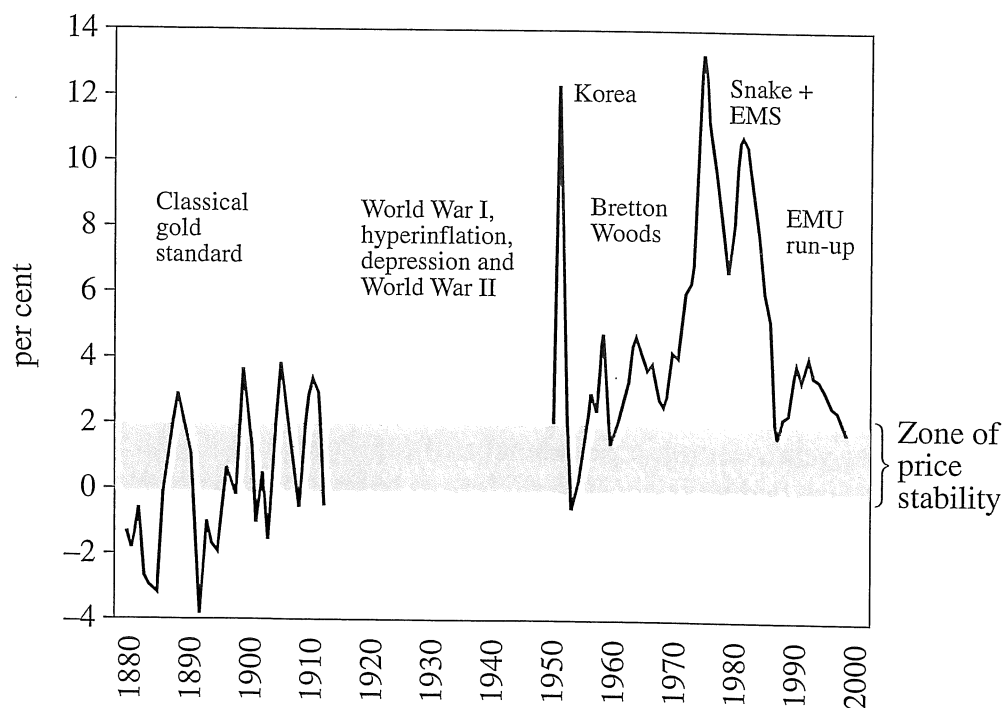


Figure 16.1 The rate of inflation in the EU-5 area, 1880–2000: annual average

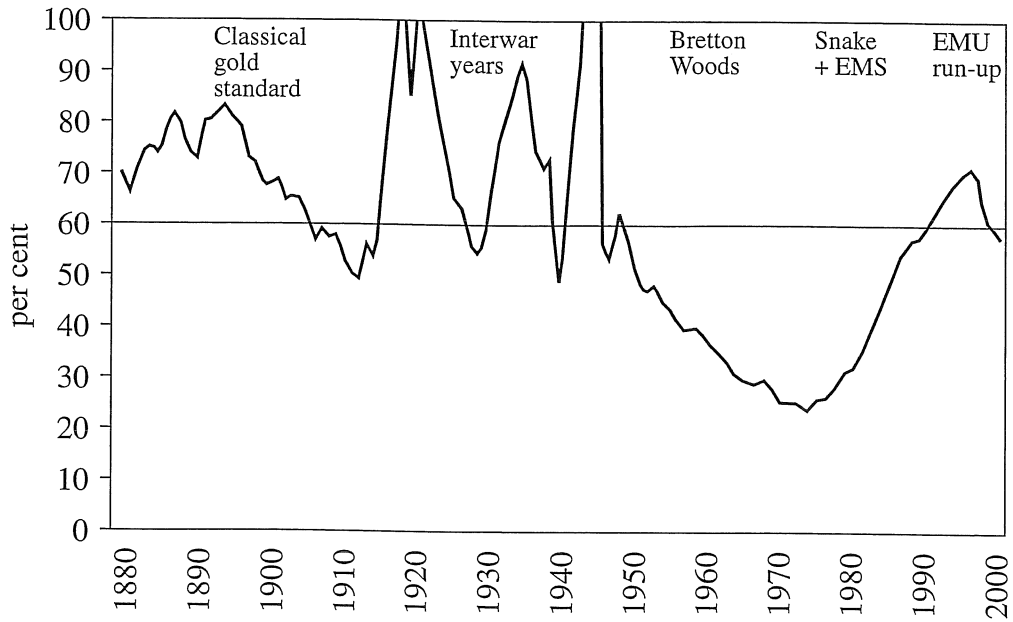


Figure 16.2 Public debt-to-GDP in the EU-5 area, 1880–2000: annual average

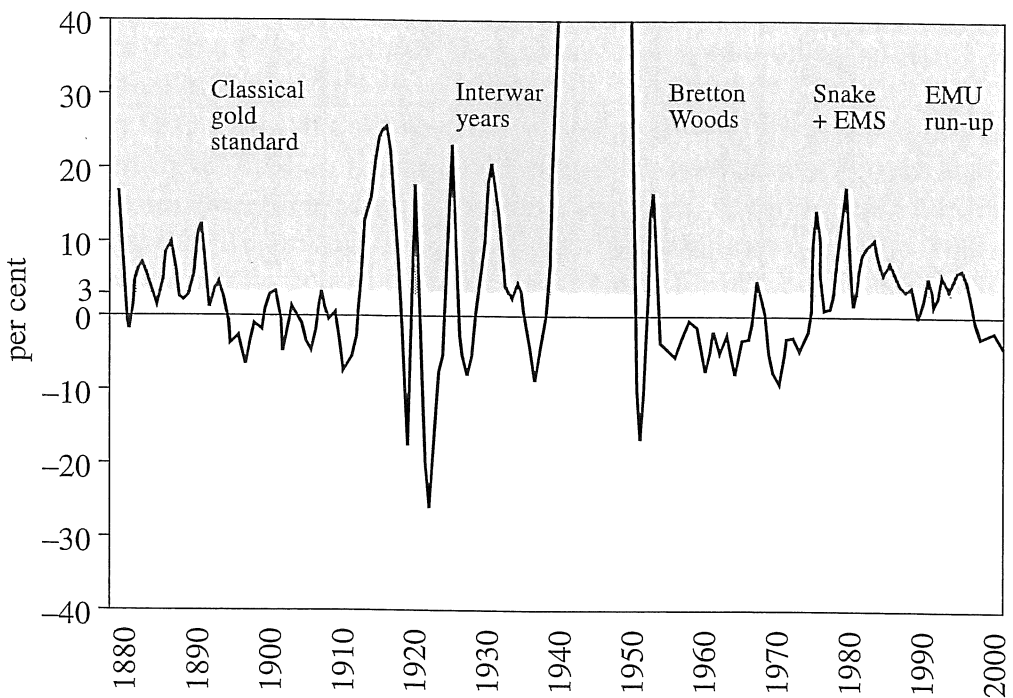


Figure 16.3 Central government budget deficit as a percentage of national income in the EU-5 area, 1880–2000: annual average

Table 16.2 The rate of inflation (per cent per year), public debt-to-GDP (in per cent) and central government budget deficits (per cent of GDP) in the Euro-5 area during different monetary regimes, 1880–2000

	Gold standard 1881–1913		WW1 1914–1919		Interwar 1920–1938		WW2 1939–1946		Bretton Woods 1947–1971		Snake + EMS 1972–1995		Run-up to EMU 1996–2000	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Rate of inflation	0.2	3.1	19.0	13.6	3.6	11.6	27.7	59.1	4.9	8.9	6.3	4.6	1.8	0.7
Public debt per cent of GDP	69.7	44.5	69.3	49.8	78.6	42.0	96.0	116.4	40.2	39.0	44.2	31.7	62.3	36.9
Central govt budget deficit per cent of GDP	1.5	7.8	19.3	44.9	0.3	27.2	35.6	46.8	5.2	16.6	5.0	9.3	-2.3	40.4

Note: The Euro-5 area encompasses Germany, France, Italy, Belgium and the Netherlands. The table is based on unweighted averages.

Data source: Bordo and Jonung (2001)

possible to carry out two types of comparison. First, past monetary and fiscal performance in the Euro-5 area can be studied using the goals of EMU and the ECB as they are benchmarked in Figures 16.1 to 16.3. Second, comparisons can be made across different regimes.

The classical gold standard was associated with a low and stable long-run rate of inflation. During the gold standard the debt-to-GDP ratio fell from the mid-1890s, reaching a level below 60 per cent in the decade prior to the outbreak of World War I. The budget deficit as a percentage of GDP fluctuated around the zero level from the early 1890s and up to World War I (see Figures 16.1 to 16.3).

The three figures and Table 16.2 demonstrate that during the classical gold standard the Euro-5 countries maintained monetary and fiscal stability as presently defined for them by the EMU system. However, when looking at the record, it should be borne in mind that the notion of using fiscal policy as a tool for stabilizing the domestic economy hardly existed prior to the depression of the 1930s. During the gold standard the guiding rule for monetary policy was the maintenance of the convertibility of the domestic money into gold at a fixed price. The major monetary instrument was the discount rate of the central bank. Other policy objectives were secondary to this rule or were not on the policy agenda at all, like the goal of full employment or high economic growth. In short, fiscal policy was subordinated to the goal of maintaining a fixed gold price. Actually, the members of the Euro-5 group³² formed a monetary union by adhering to the classical gold standard.³³

World War I brought about extreme monetary and fiscal instability as measured by the EMU criteria. The rules of the gold standard were abandoned. An unprecedented rapid rise in government expenditures and thus in budget deficits among the belligerents – see Figures 16.2 and 16.3 – forced governments to turn to their central banks for borrowing. Monetary policy became subordinated to the financing of the war effort as debt was monetized. The volume of base money and the money supply increased rapidly. As a consequence, the rate of inflation accelerated, reaching levels far above those of the classical gold standard – see Table 16.2. (Due to large fluctuations in the price level, the rate of inflation is not displayed in Figure 16.1 for the period 1914–49.)

The interwar period was also characterized by monetary and fiscal instability, primarily due to the monetary and fiscal imbalances created by World War I. Europe was not able to return to the macroeconomic stability associated with the prewar gold standard. The interwar years became a period of several monetary regimes with high and persistent unemployment and considerable swings in the price level. The depression of the 1930s caused the dissolution of the gold standard. Europe ended up in an

autarchic phase during the 1930s with far-reaching restrictions on the flow of trade and of capital across borders.

From a monetary and fiscal point of view, World War II was a re-run of World War I when huge budget deficits were financed by monetary expansion and followed by high inflation. The patterns for the two world wars are almost identical in the sense that fiscal policies determined the money supply process and thus the price level.

The Bretton Woods system, established after World War II, represented in major ways a return to a gold standard system as the US dollar was tied to gold at a fixed rate and the rest of the industrial world tied their currencies to the dollar. However, the free flow of capital across the borders of Europe was suppressed by exchange controls to lend short-run autonomy for national policies. The monetary and fiscal record of the Euro-5 area during the Bretton Woods period in the 1950s and 1960s resembles that of the classical gold standard. The rate of inflation – with the exception of the Korean inflation boom – was comparatively low, public debt was amortized and fell as a ratio of GDP, and central government budgets were kept in rough balance. See Figures 16.1–16.3 and Table 16.2.

Expansionary fiscal and monetary policies in the US as well as in Europe undermined the Bretton Woods system of fixed exchange rates. After its breakdown in the early 1970s and following the OPEC I and OPEC II energy price increases, the Euro-5 members used expansionary fiscal and monetary policies to maintain full employment and to counteract the terms of trade shock caused by the rise in oil prices. Budget deficits increased (Figure 16.3), the public debt-to-GDP ratio started to rise in the early 1970s (Figure 16.2), and the rate of inflation (Figure 16.1) peaked at double-digit levels in the 1970s. Exchange rate alignments within Europe became frequent. As capital movements were liberalized in Western Europe, a return to the pegged exchange rate system of Bretton Woods was made difficult.

Inflation rates and budget deficits were reduced in the 1980s as the Euro-5 members moved towards the German stability model when framing macroeconomic policies. This process of convergence was temporarily brought to a halt during the ERM-crises of 1992–93. After the crises, starting in the mid-1990s, convergence continued; inflation rates were reduced, budget deficits were brought down and the debt-to-GDP ratio fell below the 60 per cent level. Entering the 21st century, the Euro-5 members fulfilled the three criteria of monetary and fiscal stability anew. Convergence as measured by the standard deviation of the inflation rates in Table 16.2 is larger than during any other monetary regime. Now the question arises: for how long will the euro area members be able to maintain the monetary and fiscal stability they have reached today?

5.2. Conventional Challenges to Price Stabilization

Scanning across the monetary regimes prevailing in the Euro-5 area during the 20th century, two conclusions emerge concerning the achievement of monetary and fiscal stability for EMU. First of all, two periods of stability can be discerned: the classical gold standard and the Bretton Woods period after the Korea boom. These regimes maintained stability because, first, monetary policy was bound by the rule of convertibility of the domestic currency at a fixed rate into gold or dollar, and, second, fiscal policy was subordinated to monetary policy.

Secondly, monetary and fiscal stability was destroyed due to disturbances, which gave rise to rapid growth in government expenditures, causing budget deficits to be financed by debt expansion and money supply creation. The past identifies two such disturbances: the outbreak of war in 1914 and in 1939, and, during peacetime conditions, the terms of trade shocks in the 1970s when full employment was the prime goal of monetary and fiscal policies.

The record of the past thus suggests that a necessary condition for future monetary and fiscal stability within EMU is that the policy makers of EMU follow macroeconomic policy rules similar to those that prevailed during the gold standard and the dollar–gold standard. This task may be more difficult today than in the past when gold served as the nominal anchor for European monetary and fiscal policies. In the absence of a metallic standard, the ECB has constructed a nominal anchor for monetary policy under a paper standard in the form of an inflation target in the range between zero and 2 per cent annual rate of inflation.

It is reasonable to conclude that the introduction of EMU and the euro represents a return to a modified gold standard regime in Europe as the core of its rules are now replicated by the EMU.³⁴ However, the favourable macroeconomic conditions that allowed the gold standard to produce stability for several decades prior to 1914 may not be at hand. History suggests a number of possible disturbances to the European economies that would challenge the goal of price stability in the future – just as they undermined the gold standard. Let us briefly consider them.

5.2.1. Fiscal shocks

The EMU system is designed to let monetary policy dominate fiscal policies in order to guarantee the credibility and sustainability of the goal of price stability. Any major economic disturbance in the coming ten years that expands budget deficits would pose a risk to price stability. Such a negative shock would reduce the incentives of the members of the euro area to support the goal of price stability by a policy of fiscal prudence.

Requests for the financing of budget deficits within the euro area by money creation will be raised. Such requests are commonly met during wartime conditions as seen from Figures 16.1–16.3 and Table 16.2. War has been the mother of inflation in Europe – as everywhere else.

The risk of a war among the members of the EMU can safely be ruled out for many reasons, not least for empirical ones. There is no case in history where democracies have entered into war with each other – and all members of EMU are democracies. European economic and political integration is fashioned to reduce the risk of warlike tensions in Europe again. The creation of a common currency in Europe is actually the result of a long process inspired by the upheaval of World War I and II in Europe.³⁵

Under peacetime conditions, there is only one occasion of a shock causing a long-term rise in prices in the euro area: the terms of trade shocks (OPEC I and OPEC II) in the 1970s, following the breakdown of the Bretton Woods system. The response in many European countries was to counteract the negative effects of the rise in energy prices by deficit financing. Monetary and fiscal policies stimulated aggregate demand to maintain employment, contributing to inflationary pressure.

Terms of trade shocks similar to OPEC I and II may occur again – but the policy response in EMU is likely to be different from the reaction in the 1970s for several reasons. First, the lessons of OPEC I and II are fairly uncontroversial by now. Supply-side shocks like sharp oil price rises are not successfully met by expansionary demand policies. The goal of price stability dominates presently over the goal of full employment as well. EMU will maintain a flexible exchange rate towards the outside world, which would facilitate the adjustment to terms of trade shocks. European financial markets are more developed today than in the 1970s, which would make the adjustment process easier than in the 1970s, thus reducing political demand for expansionary measures. Most importantly, the large size of the euro area – and it will expand further through the enlargement process – makes EMU less vulnerable to terms of trade shocks than was the case for any single European country in the 1970s.

5.2.2. Other shocks

Macroeconomic disturbances other than wars and terms of trade shocks may hit the EMU area in the coming decade. The European economies have been subject to financial crises since at least the 17th century. The ERM project was severely damaged by a set of currency and banking crises in the early 1990s within Europe. Financial crises will occur in the future as well, the risk being largest in EU countries which have recently liberalized their financial systems.

Most of the severe financial crises of the past have been closely related

to exchange rate crises. Domestic banking crises have often been aggravated by currency speculation. The creation of EMU and the introduction of the common currency probably reduce the incidence and impact of financial crises in Europe as the exchange rate risk is eliminated as a force in financial crises. The introduction of the euro also contributes to the integration and development of financial markets within the euro area, making it easier to solve financial crises through market solutions across borders, for example through ‘good’ banks acquiring ‘bad’ banks, assuming that ‘good’ banks originate in EMU members with well-developed financial markets.

As a rule, financial crises *per se* have not been the cause of inflation in European history. Financial crises tend to occur during periods of falling rates of inflation, not during inflation. True, deep financial crises – like in Finland and Sweden in the early 1990s – threatening the entire financial system with bankruptcy put heavy stress on the fiscal position of the government as the ministry of finance – not the central bank – serves as a lender of last resort under such extreme circumstances.³⁶

In the future, the euro area will be hit continuously by various shocks emanating from the supply and demand side. These disturbances may be a threat to price stability in the short run. Still, long-run price stability can be maintained in the face of temporary shocks to the price level, given that the public believes that policy makers will revert to lower rates of inflation in the future.³⁷ As long as the EMU regime remains credible, policy makers may allow deviations from price stability in the short run. The inflation shock – the original impulse – during the Korea boom demonstrates this point – see Figure 16.1. This rise in price level in 1950 did not initiate a process of continuous inflation in the subsequent years.

To sum up, in the past the European economy has been the subject of a large number of macroeconomic disturbances. In the future EMU will be hit by symmetric as well as asymmetric shocks. As long as these shocks do not give rise to large budget deficits financed by money creation, they will not *per se* pose a threat to medium- and long-run price stability in the euro area. A major challenge for the EMU system is thus to minimize the risk of a fiscal shock. In a historical perspective this risk is the Achilles’ heel of price stability.

5.3. Non-conventional Challenges to Price Stabilization

So far we have considered the impact of inflationary shocks on the ECB goal of price stability while assuming that the policy preferences of the ECB remain constant. Such disturbances can be regarded as conventional or traditional challenges for EMU. Next, we contemplate a number of non-conventional challenges to price stability in the euro area related to the

policy paradigm underlying the EMU system. They may arise even if the ECB manages to maintain price stability in Europe for the whole period leading up to year 2010.

As the risk of a change in the ECB policy paradigm presently appears remote, the following discussion may emerge as highly speculative and unrealistic. However, in a long-run perspective, the policy preferences and thus the behaviour of central banks do change. At least two major reversals in central banking preferences, and thus in central banking behaviour, occurred worldwide in the 20th century. There are no guarantees that this will not happen again in the 21st century. Thus, we are of the opinion that the unconventional challenges to price stability deserve to be taken seriously – although they may seem of little interest in the immediate future. To understand the processes determining the policy preferences of monetary and fiscal authorities, it is necessary to revert briefly to the history of stabilization policies in the past century.

5.3.1. The rise of the policy paradigm behind the EMU

The conduct and design of monetary and fiscal policies in a country is based on the prevailing policy paradigm or policy model.³⁸ This model encompasses several dimensions: most importantly, the choice of goals, the choice of monetary and fiscal instruments, and the legal framework concerning the institutions for policy making. These dimensions of the policy paradigm are ultimately determined by the macroeconomic theory or philosophy underlying the policy paradigm. Commonly, an ideological aspect is tied to the underlying policy paradigm.

Two basic macroeconomic policy paradigms have prevailed in the post-World War II period in Europe. In the 1960s and 1970s, the Keynesian policy paradigm held a strong position, in particular in Northern Europe.³⁹ The major goal of stabilization policies was full employment and high growth. Behind the walls created by exchange controls, the arsenal of policy instruments was large. It included investment regulations, price controls, taxes and expenditures and various selective instruments as well as exchange rate realignments – predominantly devaluations. Governments controlled central banks so that monetary policy was subordinated to fiscal policy. Optimism was strong about the potency of stabilization policy, in particular about fiscal measures. Governments could and should stabilize the domestic economy and the business cycle using all available instruments, preferably by a strategy of ‘fine tuning’. The approach had a strong interventionist flavour. Governments should intervene actively to make the economy function properly in all policy fields, not only to stabilize the economy. The macroeconomic record of the 1950s and 1960s with high growth and full employment was taken as evidence of the success of the Keynesian approach.

This (normative) model of the conduct of stabilization policies was based on the (positive) Keynesian macroeconomic theory that dominated teaching and research in economics at universities in most of the world. The theoretical model held by the economics profession was thus similar to that held by policy makers – a state of affairs that facilitated the adoption and acceptance of the Keynesian approach. International organizations like the OECD spread the Keynesian policy in analyses and prescriptions in the 1960s and 1970s.⁴⁰

Several factors undermined the Keynesian policy paradigm in the 1970s and 1980s and replaced it by a new model for stabilization policy making. First of all, the economics profession moved away from Keynesian macroeconomics. As a result of work on adaptive and rational expectations, on monetarism, time inconsistency, credibility and so on, the field of macroeconomics was transformed in the 1970s and 1980s. Economists, rejecting the Phillips curve view that employment could be permanently increased by expansionary policies and questioning the efficacy of discretionary short-run monetary and fiscal policies, stressed the benefits of low and stable inflation through a rule-bound macroeconomic policy framed for the medium and long run. The new advice suggested the establishment of central banks independent of the executive power, with clearly defined and announced goals. The goal of monetary policy should preferably be that of low inflation, commonly described as price stability. In a large number of countries in the 1990s, inflation targeting was introduced as the proper strategy of central banks.

Secondly, the 1970s and 1980s were decades of macroeconomic turbulence in Europe: high and volatile inflation, frequent exchange rate realignments, rising government deficits and debts, dismal growth performance and high unemployment. This performance was associated with the Keynesian approach. It appeared incapable of finding successful solutions to these economic challenges. Rather, it was blamed for them. Its legitimacy was undermined and a search for alternatives was initiated by policy makers and by academic economists.⁴¹

Third, against this background, the German stability approach to monetary and fiscal policy making with an independent central bank focusing on low inflation appeared attractive within the European Union. Germany was the leading economic and political power in the EU as well. In short, Germany became the ‘macroeconomic leader’ in Europe: its model for policy making became gradually accepted as the proper model among all EU members – the acceptance was slower in countries like the UK and Sweden where the Keynesian heritage was strong.⁴² The rules of the treaties of Maastricht and Amsterdam defined the institutions and legal framework to ensure the enforcement of the stability view. This was the second

stage in the evolution of the European policy paradigm in the post-World War II period.

The creation of EMU, the ECB and the institutional framework surrounding the euro is the result of a unique coincidence of different factors. First, the views and preferences of policy makers (both of central bankers and ministers of finance) across the EU converged into a commonly shared policy paradigm.⁴³ Second, the views of the macroeconomic profession converged across countries into an almost identical approach to macroeconomic theory and policy. Third and finally, the models of the policy makers and of the academic profession coincided, facilitating the adoption and acceptance of the EMU, the ECB and the euro among the members of the EU.

To sum up, the Keynesian orthodoxy was eventually replaced by a new one, presently enshrined in the institutional framework for monetary and fiscal policy making in the euro area. Now the question emerges: for how long will the present macroeconomic paradigm reign and thus the intellectual unity behind EMU last?⁴⁴ Will it be replaced in the coming decade by a new policy switch similar to the fall of the Keynesian paradigm and the rise of the rule-bound stability view?

5.3.2. Challenges to the policy paradigm of the EMU

There is no generally accepted economic theory for changes (reversals or switches) in economic policies. Instead, we are forced to generalize from political and economic history. Policy switches are determined by a combination of factors; the most important being a perceived failure of the prevailing policy paradigm, the availability of an alternative approach, the presence of exceptional policy makers (the role of personalities) and political circumstances, commonly elections.⁴⁵

The record suggests that the basic requisite for a policy switch is a macroeconomic crisis – of an acute character or developing over a long period of time – which creates a ‘window of opportunity’, an opportunity for a re-evaluation of the goals, instruments and institutions for stabilization policy-framing. The crisis puts the old policy paradigm into question. It may appear as a failure, inadequate, even viewed as the cause of the crisis. The demand for a new model increases among policy makers and the public. The likelihood of a policy change is greater where an alternative policy paradigm exists and is advocated by leading economists, politicians and commentators.⁴⁶

History demonstrates a number of policy switches away from price stability as the goal of central banking.⁴⁷ In short, they arise when goals other than price stability appear more attractive to voters and politicians and thus to policy makers. In the past, the goals of full employment, of

growth and of fixed exchange rates have proven to be strong competitors/alternatives to the goal of price stability, the present goal of the ECB and the EMU. In the future they will be challengers as well. Let us briefly consider them below.

5.3.2.1. Unemployment and depression Price stability achieved by tying the domestic money to gold at a fixed price was the prime goal of monetary policy prior to the 1930s. The depression of that decade made unemployment the burning social issue and consequently the prime goal of monetary and fiscal policy. The eventual result was the demise of the classical approach to central banking and the rise of the Keynesian policy view. The inflation following the breakdown of the Bretton Woods system in the 1970s paved the way for the renaissance of the classical, now dressed as the neoclassical, view. After half a century the pendulum has swung back to the concepts of the pre-Keynesian era while the memory of the unemployment of the 1930s has faded.

The pendulum may again swing back from price stability to full employment in the future. Such a move is conceivable if Europe is hit by a major depression combined with a sharp rise in unemployment in the coming decade. In 1933 the unemployment rate in Germany, Belgium and the Netherlands – as an average for the three countries – reached a level of 25 per cent.⁴⁸ Suppose – for reasons unknown – the rate of unemployment in Europe reverts to such levels in the coming decade while the ECB at the same time maintains a rate of inflation below its maximum level of 2 per cent per year. Such a macroeconomic outcome would likely cause a social unrest similar to that of the Great Depression.

Under these circumstances, pro-Keynesian interpretations will quickly gain support and acceptance within the academic profession. Economists and commentators in the financial press will recommend prescriptions that run counter to the present EMU policy paradigm. Their advice will be exploited by political parties and interest groups and will influence the views of both the European Parliament and the European Commission. Political parties with full employment as their main platform will gain support – similar to the pattern of the 1930s.

The search for culprits for the depression will be hectic. A game of finding suitable institutions and policy makers on whom to blame the macroeconomic misfortunes will ensue. There is a great risk that the ECB will be chosen as the favourite target for the critique. It is an organization outside the traditional nation state, the euro is a new invention and the decision makers in the ECB in Frankfurt are unfamiliar to many. Even if the ECB policies are not the cause of the depression, it will be impossible for the ECB to avoid being pulled into this blame-game.

Pressure would be strong for a change in the stance of monetary policy in the euro area. As no central bank exists in a vacuum in a democratic society, independent of public opinion, the ECB will sooner or later feel obliged to replace – at least temporarily – its present policy of price stability with a different one. Most probably the ECB will settle for a more expansionary monetary stance, with lower interest rates and more rapid growth in the money supply. Such a policy may eventually raise the rate of inflation above the critical level of 2 per cent. The credibility of the price stability goal of the ECB will be undermined. The credibility of the ECB as an institution will be determined by the perceived outcome of the policy change. Deep and wide-reaching unemployment in the future thus may constitute a major challenge to the policy paradigm of EMU.⁴⁹

5.3.2.2. Slow growth and stagnation Suppose that the euro area will display price stability during the first decade of the new century – while at the same time European growth performance falls clearly below that of the rest of the world, notably that of the United States and the non-euro members of the EU. As a consequence, the euro area will appear as a region of relative stagnation in the world economy – a case of failed policies. Such an outcome is not unrealistic according to those commentators who argue that ‘eurosclerosis’ – allegedly caused by heavy regulations, lack of competition, extended welfare systems distorting incentives for work, strong trade unions and so on – causes slow growth in the euro area.

A long period of slow growth and relative stagnation in the euro area will foster demands for a change in ECB policy. The ECB and the euro will be the focal point for the critique, dragged into the blame-game concerning economic stagnation. Actually, there were signs of this process before the rapid decline in US growth at the end of 2000.

History suggests that demands for growth-enhancing monetary measures foster traditional ‘cheap money’ policies. Such policies aim at facilitating investments by holding interest rates below market rates. This was the case in several European countries after World War II. To foster investments and thus growth, interest rates were kept low by direct controls combined with regulations of the flow of credit and capital to insure that industries and sectors given priority obtained subsidized financing.

A cheap money policy would fundamentally change the policy paradigm of EMU. It would bring about a regulation of financial markets within the EU, as investment decisions are brought into the political sphere again, and undermine the free flow of capital within the euro area as well as across the borders between the EMU and the rest of the world. Before this phase, weaker forms of growth-enhancing measures may be taken, like subsidies to investment projects favoured in the political process. In addition, a cheap

money policy will cause inflation to re-appear, as a policy of keeping interest rates below market rates tends to lead to money supply creation.

5.3.2.3. A fixed exchange rate for the euro By tradition, central banks – in particular in countries not producing a reserve currency – have been opposed to flexible exchange rates. They have viewed a fixed exchange rate for the domestic currency as a way of achieving monetary stability under normal circumstances.⁵⁰ This propensity to hold exchange rates constant is deeply rooted among most central banks, not least those now forming the ECB. The creation of the euro should actually be regarded as a victory for the central bank view that a system of (irrevocably) fixed exchange rates is the route to achieve monetary stability within Europe.

In the Autumn of 2000, the euro-dollar rate was a source of controversy. Various suggestions for stabilizing or influencing the rate were presented. In the future, should the exchange rate of the euro display large and volatile fluctuations, requests for a change in the policy paradigm of EMU may arise.⁵¹ A fixed rate for the euro to the dollar or other attempts by the ECB to influence the external value of the euro would undermine the credibility of the price stability goal. No longer would price stability be the sole and single policy objective of the ECB.

5.3.2.4. Lack of macroeconomic leadership International monetary cooperation is facilitated by a strong power, a hegemon, accepting economic and political leadership.⁵² The United Kingdom served as such a power during the classical gold standard. The United States held a similar position during the Bretton Woods period. When British and American leadership was weakened and challenged, this contributed to the downfall of the gold standard and the Bretton Woods system, respectively. Within monetary unions, the role of a monetary leader is important too.⁵³

Germany was the macroeconomic hegemon within Europe during the establishment of the EMU. The German view on demand management was codified in the statutes of the EMU, the SGP and the ECB. As a result of this pervasive impact, active demand management through monetary policy is not presently an option for European policy makers. In the process of building EMU, however, the power of the Bundesbank – the major force behind Germany's macroeconomic leadership – has been reduced, as the Bundesbank is now one of many central banks influencing the ECB's decisions.

During the coming decade, so critical for the performance of the euro, the euro area would benefit from a macroeconomic leadership that fosters consensus about demand-side as well as about supply-side (growth) policies. Such a leadership would strengthen the present policy paradigm and

reduce the risk of changes to it. However, it is unclear at this point of time if any macroeconomic leader will emerge in the coming decade within the euro area similar to the role previously played by Germany. Besides, Germany has not been keen to serve as a leader concerning supply-side policies.

5.3.2.5. A new macroeconomic orthodoxy The thinking of the economics profession exercises a strong – but often indirect and lagged – influence on the design of economic policies. Economists at universities follow actual economic events in society; they interpret them and are prone to present advice to the public and to policy makers when they feel that outcomes can be improved upon. A superior way to make a scientific career, and to gain esteem and respect in the academic community, is to replace an old theory with a new one. As in all scientific disciplines, the field of economics is in a state of constant re-thinking and questioning of prevailing theories and notions.

This is particularly the case of monetary theory and policy as monetary issues often make headline news, thus making them a common concern to society. Hicks (1967, p. 156) makes this point succinctly:

Monetary theory is less abstract than most economic theory; it cannot avoid a relation to reality, which in other economic theory is sometimes missing. It belongs to monetary history, in a way that economic theory does not always belong to economic history. . . . a large part of the best work on Money is topical. It has been prompted by particular episodes, by particular experiences of the writer's own time. . . . So monetary theories arise out of monetary disturbances.

Presently, the economics profession, although not a homogeneous group, is roughly in agreement with the ECB policy paradigm. However, this may change for a number of reasons. The most likely would be a major economic disturbance, which would inspire new ideas and models for monetary policy making. History demonstrates several episodes where the basic economic theory for stabilization has changed, most prominently in the 1930s and again in the 1970s and 1980s.

Should the economics profession change its views on EMU and its goal of price stability in the future, the credibility of the ECB will be weakened. The greater the convergence and consensus on a new macroeconomic approach, the more likely a change in the policy paradigm for the ECB. The new model of stabilization policies will eventually flow from universities and research institutes into central banks – although the lags are long and variable.

5.3.2.6. *The danger of successful price stabilization* Another challenge to price stability – and indeed a highly unconventional one – is whether the ECB actually will succeed in keeping inflation low and stable during the coming decade. By achieving low and stable inflation for a long time, the ECB runs the risk of making voters and policy makers forget the benefits of price stability and whetting their appetites for other goals. A country that has gone through high inflation or hyperinflation tends to get ‘inoculated’ against inflation as long as the scars of high inflation are vivid in the minds of those who make economic policies. Once these generations are gone, the anti-inflationary stance may be weakened.

This pattern is similar to the impact of collective traumas like World War I and II on policy making in a large number of fields, from security and foreign policy making to the field of economics.⁵⁴ The Rome treaty and the European Union should be looked upon as the response of those who had the experience of World War I and II in their minds. Likewise the EMU should be looked upon as the result of the high and variable inflation of the 1970s and 1980s as well as the monetary instability of Germany during and after the world wars, making Germany more price-stability oriented than countries with less violent inflation histories.⁵⁵

If the ECB manages to keep inflation low in the coming ten years, it may face pressure to aim at other goals as well, like full employment and growth. The ECB may also be tempted to fine-tune price-level behaviour in the short run. Such a process took place in the 1960s and the 1970s within the Keynesian policy paradigm when belief in the power of counter-cyclical policies was at its height. Stabilization policies went from ‘coarse’ to ‘fine’ tuning, which contributed to the high inflation of the 1970s and 1980s in many European countries, and eventually, to the collapse of dominance of the Keynesian paradigm.

Central banks do change their policy paradigms over time. The US Federal Reserve system today responds in a way different from the pattern in the 1970s. The ECB has chosen to narrow down the range of its options by announcing a strict target range for price stability, thus pre-empting a more flexible interpretation. Still, the ECB may open up for other definitions of its objective function in the future, albeit at the risk of a reduction in its credibility.

To sum up, the policy paradigm of the EMU may be challenged in the future for a number of reasons. The process of changing the policy paradigm would be a complicated one, probably beginning with one or a few countries recommending a new policy approach, trying to convince other EMU members to concur. The rise of such a split in opinions may be due to different macroeconomic outcomes and/or different evolutions of macroeconomic thinking/theories among the members of the euro area.

6. SUMMARY

The creation of EMU is a gigantic experiment, probably the most gigantic monetary experiment in European history – and we have the privilege of seeing it unfolding before our eyes. How will this experiment evolve over the coming ten years? We have considered the first decade of the euro by using the history of monetary unions and stabilization policies to answer two questions: first, how sustainable is the EMU, and second, will EMU manage to deliver price stability? True, history is not a perfect guide to the future. No such guide exists. The answers presented here are highly tentative and speculative. They are not forecasts in the traditional sense, rather attempts to describe some scenarios and some possible policy responses. Given these reservations, the answers to the two questions can be summarized as follows.

Concerning the first question about the sustainability of EMU, our major assumption is that EMU is organized as a centralized monetary union. Such unions have in the past proved to be permanent arrangements, usually as long-lasting as the nation states to which they have been connected. The history of centralized monetary unions suggests that the shortcomings of the EMU identified by economists – such as problems concerning the fiscal and monetary policy making processes, Europe not being an optimal currency area and the lack of political legitimacy for the euro – are likely to be remedied or reduced in an ongoing process of learning and adaptation by policy makers in the euro area. They will suggest corrections and modifications that promise to maintain the system in the future. The EMU will thus change and adapt in response to the challenges it will face. EMU was created by a desire to unify Europe by a common currency. This political determination is the glue that maintains European monetary unification.

The endurance prospect of EMU increased considerably once the national currencies of the euro area were eliminated in January 2002. As Europeans get used to its new common currency and begin to forget their old national currencies, the euro will get a life of its own. The window to the monetary past will be closed. The euro will eventually be accepted as a normal element in daily transactions, as was the case of the former national currencies.

Concerning the second question about the price stability of the EMU in the coming ten years, it is more difficult to provide a straightforward answer. Now at the beginning of the new century, the euro area has achieved a monetary and fiscal stability which stands out as unique from a historical point of view. It is quite an achievement in its own right. The current situation has great similarities with the macroeconomic record in

Europe during the classical gold standard. This comparison suggests that price stability will be successfully maintained in the coming ten years given that the policy makers of the EMU adhere to rules similar to those of the gold standard, and given that the European future will be free from major macroeconomic shocks.

The actual inflation performance of the euro up to 2010 will depend on the type of shocks the euro area will be subject to. In the 20th century fiscal shocks – caused by wars – were the major threat to price stability in the euro area. This is not a likely inflationary force within EMU in the coming ten years. Fiscal shocks may still be a threat but only in the case that budget deficits are monetized by the ECB – an outcome that runs counter to the rules of the system.

The policy paradigm underlying the price stability programme of the EMU may also be subject to shocks. The existence of the EMU and the euro is based on a common notion of the proper macroeconomic model and macroeconomic theory to be used for framing monetary policy within the euro area. If this paradigm is changed in the future, the goals of the ECB may be changed accordingly, replacing price stability with other objectives. Although the risk of such a policy change appears to be remote for the immediate future, history has witnessed in the recent past major changes in the policy paradigm of central banking.

As stressed above, this study is an exercise in hypothetical thinking about the future of the EMU and the euro using the past as a guide. The most probable scenario for the future is that none of the scenarios considered here will actually take place and that none of the challenges to the EMU that has been considered here will turn out to be a major issue. Something else will be on the top of the policy agenda for the EMU in the coming ten years. The monetary future is full of surprises.

APPENDIX: IS THE EURO BOUND TO HAPPEN? A COUNTERFACTUAL EXERCISE

Our basic forecast is that by year 2010 Europe will have successfully been dominated by EMU and the euro, that is by truly fixed exchange rates between at least 12 EU members for a full decade. By year 2010 almost all EU members, including those taking part in the enlargement, will also be members of EMU or connected to the euro through various fixed exchange rate arrangements.

Europe will thus have experienced ten years of far-reaching monetary unification. One way to demonstrate the political economy of monetary cooperation is to discuss counterfactual outcomes illustrating how the European Union would have fared *without* monetary unification, that is without the euro. Such an explicit construction is rarely made – although it is implicit in much of the discussion of the future of the EMU.

The first step in our counterfactual exercise is to answer the question: which exchange rate system would characterize Europe were the euro *not* introduced? Given the crucial assumption that no controls on capital flows are introduced within the EU prior to 2010, the answer seems fairly straightforward.

In a Europe of free and unregulated capital flows, pegged exchange rate systems of the Bretton Woods type will not be a viable option. Pegged rates would sooner or later induce speculative attacks, bringing down the pegged rates. This was the fundamental lesson of the currency and financial crises of the 1990s throughout the world, from Europe to Latin America and Asia. Countries like Finland, Sweden and the UK were forced to adopt floating rates in the wake of the ERM-crisis and chose to introduce inflation targeting in the first half of the 1990s. The rise of a highly liquid international capital market – a crucial part of the globalization process – has fundamentally changed the framework for monetary policy making in Europe.

Two alternative exchange rate options thus remain to be considered in a Europe without the euro: either freely floating rates or close monetary cooperation based on more permanently fixed rates than under pegged systems. Both are likely to be adopted judging from the present international pattern outside the European continent. Several small EU countries will, under these circumstances, choose close monetary cooperation with a major nearby monetary power. Austria, Denmark, Holland, Belgium and the Czech Republic will gravitate towards Germany, establishing fixed rates to the German currency, in a way similar to the situation before the launch of the euro. This will also be the case of candidate countries like Estonia, Latvia, Bulgaria and several Balkan countries, adopting currency-board-type arrangements.

Large EU countries, on the other hand, will be prone to settle for floating

exchange rates, probably combined with inflation targeting (price stabilization programmes).⁵⁶ In short, besides Germany (or the German monetary area), Italy, France, Spain and the United Kingdom will most likely all have floating rates *vis-à-vis* each other. These five countries are too big to fix their rates *vis-à-vis* each other in a credible way – without forming a monetary union – and each of them is too small to fully dominate the monetary landscape of EU, with the exception of Germany. Thus EU will be divided into several major currency areas, with its smaller members like Finland, Sweden, Ireland, Greece and Portugal forming a monetary periphery of floating rates or being monetary satellites to larger currency planets.

How then will the described exchange rate system within Europe work? Let us consider three competing scenarios in our answer. All three will indicate, however, identical outcomes of the monetary and exchange rate politics in Europe. The scenarios are based on the political economy of exchange rate arrangements.⁵⁷

Scenario 1. Well-behaved Exchange Rate Movements

In this first scenario, such a system – given that it is based on a common monetary policy goal like price stability adopted domestically by every EU-member – will function smoothly and efficiently just as proposed by adherents of flexible rates. Movements in exchange rates will not be a major source of disturbances; instead they will reflect fundamentals, displaying the isolation properties as suggested by the standard theory of floating rates. Asymmetric shocks within the EU area will be efficiently handled by proper movements in exchange rates maintaining Europe-wide macroeconomic stability and growth. Overshooting will not be a problem. Trade, foreign investments and the growth of Europe will not be hindered, but enhanced by this arrangement.

European integration may continue in all other areas except within the field of monetary issues. Even in monetary matters there is scope for some coordination. The EU may make recommendations concerning the proper domestic rate of inflation that each individual EU member should aim for to establish overall European price stability, similar to the advice and surveillance presently carried out centrally in fiscal and budgetary affairs.

Let us assume that such a system of floating exchange rates – as outlined above – will be perceived as functioning smoothly for a long time, say a decade; that exchange rate fluctuations are viewed as small and insignificant; and that all EU members successfully maintain domestic price stability.

Under these circumstances there will be strong incentives for measures of establishing and maintaining stable exchange rates. Central banks will be tempted to introduce a system of fixed rates – the traditional propensity of

central banks in Europe since their establishment – and so will politicians in Europe. The likely outcome will be a locking of European exchange rates and a process of monetary unification ending in a monetary union of EU, a different route to EMU than the actual one, though the end result will be roughly the same.

Scenario 2. Politically Unacceptable Exchange Rate Movements

The second scenario denies that a system of floating exchanges based on domestic price stability will be a viable and stable long-run alternative accepted by the political system. Instead, it will gradually gravitate towards either a common European currency or a dissolution of the European Union into a Europe of nation states based on protectionism and cross-border regulations of the movement of capital and people, similar to the case of the Europe of the 1930s after the collapse of the international gold standard.⁵⁸ The reasons for this scenario are found in the political economy of floating exchange rates.

The recent past has witnessed overshooting and persistent movements in the exchange rate of floating currencies such as the dollar, the British pound, the yen and the euro – at least as perceived by many commentators. This may also be the case within a Europe of at least half a dozen major currencies. Exchange rate movements may be considerable, even assuming that each central bank aims for price stabilization. The credibility of a domestic goal such as price stability will continually be put to the test, initiating speculation and thus exchange rate movements. Some countries may not be able to muster the credibility needed and may instead fall back on other goals for monetary and fiscal policy, causing uncertainty about the future of price stabilization among its neighbours as well. Populist politicians may ask for measures that are inconsistent with price stability.

Differences in economic policies within the nation states of Europe may set off financial market reactions. Financial market actors will closely follow upcoming elections. They will be the source of speculation and thus of exchange rate fluctuations. Facing such pre-election speculations, central banks may feel forced to raise domestic interest rates, which will have domestic political repercussions, weakening the political legitimacy of the system of floating rates and of free capital mobility within the EU. Speculation will be described in the popular rhetoric as a danger to democracy – as has already been the case in several European countries.

Perceived excessive exchange rate movements will have major political and economic impact among European countries: the smaller the country, the larger the impact – even if economists can explain them as rational, reflecting fundamental forces.⁵⁹ However, finding credible theoretical evidence is

hardly likely as there is no firm theory for exchange rate fluctuations for the short and medium term, the pertinent time perspective in a political context.

Suffice it to say is that there is a great risk that movements in exchange rates will be judged by the electorate as large, excessive and unnecessary. History shows that whenever an important price moves – like the price of energy, the price of foodstuff, the price of housing or the exchange rate – it easily becomes ‘politicized’. Groups in societies, considering themselves adversely affected, will demand political measures – a time-honoured political practice.

History shows a number of political reactions towards perceived excessive exchange rate fluctuations. First of all, central banks, even a central bank like the ECB in 2000, covering most of the EU area, and the Bank of Sweden in 2001, may display a propensity to intervene to reduce volatility. This pattern emerges in spite of the fact that the central bank has declared price stability as its goal and in spite of strong empirical evidence indicating the ineffectiveness of interventions in the markets for foreign currencies. Such interventions to stabilize exchange rates, if carried out for a long time, would be inconsistent with price stabilization.

Secondly, perceived excessive exchange rate volatility poses a major threat to cross-border capital flows. A potential political reaction would be the re-introduction of controls on capital flows, like the recent case of Malaysia, reducing the free movement of capital. Another politically tempting step would be schemes for taxation of international capital flows; that is, the use of Tobin taxes. Controls will – judging from the history of price controls – first be introduced in mild doses, and as they fail and create disappointment, stronger medicine will gradually be prescribed.⁶⁰

A third effect of politically sensitive exchange rate fluctuations is that demands will be induced through the political system, asking for protection for industries and sectors perceived as negatively affected. Tariffs, non-tariff barriers to trade and subsidies are likely outcomes. Even if the initial change in the exchange rate is reversed, regulations on international trade and subsidies tend to remain in place.

To sum up our second scenario, the political economy of excessive exchange rate movements suggests that such movements would be a major threat to the single market, to the free flow of capital, services and goods and eventually, to the whole European Union project. Under these circumstances, politicians across the EU area will neither be able to maintain a system of floating exchange rates between the major currencies of Europe, nor support the free flow of capital and goods. Instead they will eventually settle either for a break-up of the EU or a more intensive and closer European monetary cooperation.

Given the benefits of economic integration and of international trade compared to the costs of autarchy, the most likely result will be a drive for

a version of a European monetary union and a common currency. EMU will thus reappear in new clothing, this time based on the negative experience of the highly volatile exchange rates of the first decade of the 21st century – and not on the high and volatile inflation of the 1970s and 1980s. The basic mechanism behind European monetary unification is still the same: the quest for establishing monetary stability and enforcing political unity and cooperation. The likely outcome is the same.

Scenario 3. German Monetary Dominance

A third counterfactual scenario of EU *without* the EMU stresses competition among the currencies of EU in a system of floating rates in Europe. In this process the German mark will be the most credible and attractive product. Other national European currencies will gradually gravitate towards the DM-zone. Countries like Italy, Spain and France will try to tie their currencies to the German mark at fixed rates. The candidate countries of Eastern Europe will move to the mark in various arrangements similar to that of Estonia which adopted the mark in the early 1990s as its reserve currency. Eventually the major share of Europe will be a DM-zone.

Such a D-markization of Europe will create political tensions, reactions and demands. Members of the EU will want to share the monetary power held by Germany. They will ask for cooperation concerning European monetary policies. In the long run, it will be difficult for Germany to resist such requests. It will be ready to surrender its currency in exchange for guaranties that the German approach is accepted as the norm for European monetary policies. EU will take steps for establishing a European institution to form a common monetary policy. Eventually, a new type of EMU will emerge as part of the integration of Europe. Here monetary unification will follow as a consequence of political integration of Europe.

Summary

According to these three counterfactual scenarios to EMU, monetary unification within Europe appears to be a deterministic process: the euro seems bound to appear, even if it had not been introduced by the Maastricht Treaty. This is too strong a conclusion to draw. Of course, the future can take other turns than moving Europe towards a monetary union. If this is the case, strong economic and political forces will still exist pressing towards monetary unification within EU. The political system in Europe appears to display the propensity to take almost any behaviour of exchange rates as an argument for closer monetary cooperation, thus pushing Europe towards one common currency.

NOTES

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2. Strictly speaking, the EMU covers all the members of the EU. The euro area presently includes 12 of the 15 EU member states. The United Kingdom, Denmark and Sweden are the 'outs'. However, in daily parlance EMU is commonly used to signify the euro area.
3. The challenges to the EMU have given rise to a flowering field of synonyms like 'sources of concern', Eichengreen (1997a), 'hazard area', 'weakness', 'potential fault lines', Obstfeld (1998).
4. Few academic economists paint a rosy picture of the future for EMU. There seems to be a bias of pessimism concerning the performance of EMU in many of their forecasts.
5. On the effects of the stability pact, see, *inter alia*, the contributions in Brunila, Buti and Franco (2001b). The counter-argument states that once EMU is created, private agents will adjust to the new rules of the game and smooth shocks through channels other than fiscal and monetary policies. See, for example, Mélitz (1997a). See also Alesina and Wacziarg (1998) and Buitier (1999) on objections to the institutional framework of the EMU.
6. The counter-arguments to this are found, for example, in Barrell and Dury (2001) and Dalsgaard and de Serres (2001).
7. This argument is set forth by, *inter alia*, Prati and Schinasi (1999).
8. There is no explicit rule for the ECB to provide liquidity in the event of a crisis. However, the counter-argument states that the ECB can serve as such a provider, if it chooses to do so.
9. See, *inter alia*, Prati and Schinasi (1999) and Obstfeld (1998). The counter-argument is that various working parties and committees are studying this issue. Presently, there is a belief that a centralized supervisory authority would lack the country-specific information needed for successful regulation of financial institutions. Consequently, the present system is considered adequate, leaving the Euro member states to be in charge of domestic financial supervision.
10. Monetary policy issues of the euro area system are critically assessed by, *inter alia*, Begg *et al.* (1998) and Buitier (1999). For a counterview, see Issing (1999). See also OECD (1998a).
11. See, for example, Eichengreen (1997b).
12. See, for example, Pissarides (1997) on the consequences of relatively low labour mobility within Europe for monetary unification.
13. See, for example, the contributions in Crouch (2000).
14. The Danish 'no' to EMU in the referendum in the Autumn of 2000 is a witness to the strength of these political sentiments. A large share of the Danish voters looked upon EMU as a threat to their national independence and to the welfare state of Denmark.
15. The list of challenges to EMU can be made longer. See, for example, Calomiris (1999) and Dornbusch (1996).
16. This section builds primarily upon Bordo and Jonung (1997, 1999). The history of monetary unions in Europe is dealt with in several contributions. See, for example, Theurl (1992) and Vanthoor (1996).
17. Many central banks were private or semi-private institutions in the 19th century. In the 20th century they were commonly nationalized. The conclusions in this section hold regardless of the ownership of the monetary authority.

18. Another force was a will to standardize coinage and notes in circulation. It explains much of the monetary unification among German states in the early part of the 19th century as well as the creation of the Scandinavian monetary union.
19. See Cohen (2000a) for a discussion of the influence of political factors on the sustainability of monetary unions.
20. On the length of the US monetary unification process, see Rockoff (2000).
21. Monetary and fiscal policies are interconnected through the intertemporal budget constraint of the fiscal authorities. The rules of the ECB are designed to cut this link between fiscal and monetary policies by prohibiting the ECB system from purchasing domestic government debt instruments.
22. See, for example, Capie (1998).
23. The Soviet Union in the 1990s is a case where members of the ruble zone could borrow from the central bank in Moscow to finance budget deficits. This situation led to excessive money creation and eventually to very rapid inflation. As a consequence, several members left the ruble zone. See Bornefalk (1998).
24. Fiscal decentralization may thus be a method of maintaining a monetary union. This is the case, for example, in Canada and Switzerland.
25. Several studies within political science, often under the rubric of 'social learning', examine how policy makers learn. See, for example, Bennet and Howlett (1992) and Hall (1993). Recently economists have studied economic policy making as a learning process. Oliver (1997) deals with British monetary and fiscal policies and Jonung (2001) with the Swedish record. Policy learning implies a process where the decision makers change their preferences. The standard approach in economics, however, is to assume constant preferences. This is one reason why economists have been less inclined to apply a learning perspective to the conduct of economic policies.
26. History suggests that exit from a monetary union is facilitated by the existence of a fiscal jurisdiction and authorities. A domestic treasury or debt office can fairly easily be converted into a prototype central bank.
27. This conclusion is well supported in the literature. See, for example, Cesarano (1997), Cohen (1998, 2000a) and Goodhart (1995).
28. Still, the theory identifies a number of adjustment problems within the Euro area.
29. On this point see, for example, Frankel and Rose (1997).
30. Figures 16.2 and 16.3 as well as Table 16.2 refer to *central* government expenditures. However, the Maastricht Treaty and the SGP refer to *general* government expenditures, which include central government (state budget), local government (municipalities and other lower levels of the government) and social security funds. Thus, this measure of fiscal stability used above is not identical to the measure set out in the EMU-legislation. However, lack of data forces us to use central government expenditures as a proxy for general government expenditures.
31. Data for Figures 16.1–16.3 and Table 16.2 are taken from Bordo and Jonung (2001).
32. Italy did not maintain gold parity during the whole period studied here as it had major budgetary problems. See Fratianni and Spinelli (2000).
33. The differences and similarities between EMU and the classical gold standard in Europe are considered in several contributions; see, for example, Eichengreen (1996a) and Flandreau *et al.* (1998). See also Bordo (1999) on the lessons from the classical gold standard.
34. This conclusion is developed in Bordo and Jonung (2001).
35. For an opposite view, see Feldstein (1997a) who argues that the design of EMU may encourage warlike conflicts among its members in the future.
36. The pattern of economic crisis worldwide is surveyed in Bordo *et al.* (2001).
37. The classical gold standard functioned as a commitment technology. Credible policy makers could leave the gold standard temporarily and return to it again after an inflationary burst without a rise in long-term inflationary expectations – given that the breaking of the rules was regarded as a temporary step due to extreme circumstances like a war. See Bordo and Kydland (1999).
38. See Pekkarinen (1989) who makes a distinction between the 'policy model' and the

- 'theory model' – the policy model is held by decision makers (ministers of finance and central bankers) in charge of the framing stabilization policies. The theory model is the dominating 'mainstream' model among academic economists.
39. See, for example, the surveys in Boltho (1994) and Hall (1993).
 40. See, for example, the Heller report, Heller *et al.* (1968).
 41. See, for example, Maes (1996, 2000) and Gros and Thygesen (1997).
 42. The Keynesian approach did not get as strong a hold in Germany as in many other European countries. See Hall (1993) for an explanation of this pattern.
 43. This was not a major problem in the creation of monetary unions in the past as these unions were based on currency convertibility into gold. Under such circumstances, it was easier politically to form monetary unions than today with the absence of a nominal anchor like gold.
 44. Of course, we do not find complete unity behind the EMU project among policy makers and economists. Rather, we should talk about relative unity in the sense that there is no major single alternative to EMU proposed for the moment by influential groups.
 45. Theories of policy switches are surveyed in Boltho (1994), Hood (1994) and Jonung (2001). See also OECD (1998b) for a series of case studies of policy switches.
 46. The switch to an alternative policy paradigm is not in itself a guarantee of a better stabilization policy paradigm. History reveals episodes of policy switches producing dismal outcomes.
 47. Sweden was the first (and so far the only) country to introduce and try officially a monetary programme of price-level targeting. The Swedish experience suggests a number of threats to price stability: most prominently the rise of other policy goals. Three such goals undermined the programme in the 1930s and 1940s: full employment, 'low' interest rates, that is interest rates below the market rate, and a fixed exchange rate for the domestic currency.
 48. The number is calculated from Mitchell (1992).
 49. Today, central bankers commonly try to minimize the threat of high unemployment by asking for supply-side measures to reduce present levels of unemployment. Much of the current debate on how to cure unemployment in Europe deals with supply-side policies. However, higher levels of unemployment than those of today will most likely be regarded as the outcome of insufficient demand, requiring demand policy measures.
 50. On the evolution of the goals of central banks, see, for example, Capie *et al.* (1994).
 51. Robert Mundell, for example, has recently recommended a fixed exchange rate between the Euro, the dollar and the yen; that is, he views the world as the optimal currency area.
 52. See Eichengreen (1990) for a survey of theories of hegemonic stability within the international monetary system.
 53. The Federal Reserve Bank in New York has held such a position in the US monetary union for a long period. According to our previous discussion, centralized monetary unions have a larger survival prospect than decentralized unions. The reason is that a centralized union, by definition, has a common 'leader'.
 54. See, for example, Bennet and Howlett (1992), May (1973) and Rose (1993) on how policy makers are influenced by the 'lessons' of past events when forming current policies. Jonung (2001) is an application of this approach to the framing of stabilization policies.
 55. It was Gorbachev – the first Soviet leader with no personal experience of World War II – that was ready to accept a Soviet withdrawal from East Europe. Most likely, Soviet leaders prior to him would not have contemplated such a retreat, given their first-hand experience of World War II.
 56. Inflation targeting has been adopted by a growing number of countries in the past decade. This is the case in New Zealand, Canada, Australia and Brazil. The alternative is close monetary coordination through currency boards or outright dollarization (Ecuador, El Salvador).
 57. Frieden (1993, 1994), for example, deals with the political economy of exchange rate systems.
 58. See, for example, Aldcroft and Oliver (1998) for a description of the monetary chaos that flexible exchange rates were believed to create in the 1930s.

59. The smaller the country, the greater the propensity to adopt a fixed exchange rate. Andorra, Monaco, Liechtenstein and Luxembourg are European illustrations of this proposition.
60. This is the dynamics of price controls – they may start as guidelines and oral pressure or gentlemen's agreements but end with legally binding regulations. See, for example, Jonung (1990) on the political economy of price controls.