1 Does Europe need its own central bank?

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1 Introduction

The initiatives to discuss the establishment of a centralized monetary authority in Europe, coming from government officials, have caught observers by surprise. The European Monetary System (EMS) has proved to the whole world to be a viable arrangement, and has been able to withstand the sizeable international financial shocks of the early 1980s: an immediate threat to the EMS is thus not evident. These initiatives, however, should all the more be applauded, since they signal the concern of governments with the fast evolution of the European economies and capital markets. The renewed debate on a European central bank reopens the questions of whether current monetary institutions will be obsolete and incapable of functioning in the face of the seemingly unstoppable trend towards market integration, and of the viability of new institutional arrangements among central banks.

In the significant body of research on the EMS there is little concern with the issue of a European central bank. Existing work concentrates on interpreting EMS experience, and evaluating the performance of that system. Hence this book represents a first attempt at analysing the various aspects of the problem of a centralized European monetary authority. While by no means exhaustive, this book brings the perspectives of both economic analysis and economic history to bear on this issue. The purpose of this essay is to describe the background to the question of monetary unification, the arguments according to which Europe would need its own central bank, and the problems of designing viable institutional arrangements, in the light of historical experience.

In Section 2 we list the reasons why the institution of a central bank is viewed – at least by some – as a desirable step to take in Europe. These include a desire to further the process of monetary unification that the EMS has not contributed to accelerate, and concern with the potential disruptive effects of the complete liberalization of financial markets planned for 1992. Section 3 surveys the contributions of this volume to the theory of optimum currency areas. Section 4 discusses the historical experience, and Section 5 considers proposals for institutional reform.

2 Background

It is possible to identify two separate arguments for the creation of a European central bank. The first stems from the recognition that the EMS has failed to spontaneously bring about monetary unification. This observation leads to asking the reasons for this failure: was the system ill-designed; did member countries wilfully resist monetary unification; or is the very concept of gradualism unworkable in the case of monetary reforms?

The second argument relates directly to the way monetary policy has operated during the EMS years: countries have not eliminated inflation differentials, and have resorted to periodic exchange-rate realignments to avoid ever-growing divergences in relative prices. The 'weak-currency' countries have preserved stability in their domestic financial markets by systematically resorting to capital controls: these capital controls have been essential for the smooth working of the EMS. The complete liberalization planned for the year 1992 would then seriously destabilize domestic financial markets, unless market participants perceived countries' commitment to a European monetary union as a credible one. According to this argument, the only credible commitment to a monetary union is the monetary union itself.

2.1 The EMS and the commitment to monetary unification

The EMS was viewed by its creators as an intermediate step towards monetary unification. The Conclusion of the Presidency of the European Council of 4 December 1978 stated:

> The purpose of the European Monetary System is to establish a greater measure of monetary stability in the Community. It should be seen as a fundamental component of a more comprehensive strategy aimed at lasting growth with stability, a progressive return to full employment, the harmonization of living standards and the lessening of regional disparities within the Community. The Monetary System will facilitate the convergence of economic development and give fresh impetus to the process of European Union.

The 'transition' role of the EMS is apparent in the features that represented institutional novelties over the experiments that preceded it in the second postwar period: the Bretton Woods System and the Snake.

Unlike its predecessors, the EMS is characterized by a special 'money' – the European Currency Unit (ECU)[1] – and by an institution to control the issuance of this money, the European Monetary Fund (EMF).

The ECU's functions, as laid out by the Resolution of the European Council on the establishment of the EMS (of 5 December 1978), were to serve: as numéraire for the EMS exchange rate mechanism (to establish bilateral central rates); as the basis for the indicator of divergence; as the numéraire for central bank financial operations; and as a means of settlement between monetary authorities in the European Community. The 1978 Resolution also established a two-year deadline after the start of the EMS for the full utilization of the ECU as a reserve asset and a means of settlement.

The role of the European Monetary Cooperation Fund was also much enhanced by the Resolution establishing the EMS. The Fund was supposed to provide a supply of ECU that served as means of settlement of central bank transactions, against the deposit of 20% of gold and 20% of dollar reserves held by member countries' central banks. Hence the Resolution created an embryo of a European central bank.

Has the EMS actually provided the 'fresh impetus to the process of European Union' hoped for by its creators? The experience of the last ten years suggests a plainly negative answer to that question. The symptom of the inability of the EMS to boost monetary unification is the lack of any substantial role played by the European Fund and the ECU. The former remained just an account at the Bank of International Settlements, used for the clearing of the bilateral credits arranged through the Very Short Term Financing Facility. The latter never rose to perform the functions of a European money, but has been used, in official and private transactions,[2] only as an accounting unit.

Indeed, the functioning of the EMS in its first ten years strikingly resembles the functioning of other fixed exchange rates regimes:[3] the gold standard and the Bretton Woods regime. Like the earlier experiences, the conduct of monetary policy was under the control of a 'centre' country – West Germany. The other countries either largely accommodated Germany's monetary policy, as did Ireland, at an allegedly high price in terms of domestic employment and welfare,[4] or achieved temporary monetary independence with the use of capital controls, as did France and Italy. This pattern also characterizes also earlier experiences: monetary policy was dominated by the United Kingdom during the gold standard and – at least to some extent – by the US during the Bretton Woods years.[5] Capital controls were also used by countries other than Britain during the gold standard,[6] and by the European countries, including West Germany, during the Bretton Woods years.

Was the failed promise of the EMS due to defective design of the institutions? Analysis of the regulations governing the EMS suggest that the institutions were clearly not designed to bypass the sovereignty of individual countries' monetary authorities, as would be needed to achieve monetary unification. The rules governing the use of the ECU and the European central bank, as well as the rules governing intervention and central bank financing, were loose enough to allow independent manoeuvre by individual countries. For example, the compulsory intervention in the foreign exchange market that is required by the EMS when two currencies reach bilateral fluctuation bands, does not impose any constraint on monetary policies, since countries can freely sterilize reserve flows.[7] The ECU has not functioned effectively as a common benchmark for monetary policies, since countries were not compelled to take specified corrective actions when the so-called divergence indicator reached the predetermined thresholds. These corrective actions were just presumed.[8] Similarly the EMS guidelines, while not precluding future enhancements of the role of the European Fund, do not in any way state the ultimate purpose of that institution.

In summary, the implementation of a monetary union is only a 'good intention' in the rules governing the EMS. The careful exclusion from those rules of all the features that could have brought about an infringement of monetary sovereignty have prevented any further autonomous evolution of the EMS.

2.2 Liberalization and the instability of financial markets

The second argument for a European central bank is based on the view that liberalization of international capital flows would make the EMS collapse. This view is re-proposed by the contribution of Rainer Masera in this volume.[9]

The collapse of a system of fixed (but adjustable) rates with perfect capital mobility could be caused by two sets of factors. First, there is the presence of different trends in monetary growth in the member countries. Although since 1979 inflation rates and monetary growth rates have converged significantly in Europe, countries like France and Italy are still viewed as 'weak' members, since their inflation rates are still roughly double those in West Germany. These countries afford higher inflation than West Germany by severing domestic financial markets from the rest of the world, and thereby preventing or minimizing the speculative attacks that take place in anticipation of the inevitable exchange rate depreciations.[10] The second set of factors which could account for the collapse of a system of adjustable parities with perfect international capital mobility is the possibility of *self-fulfilling* speculative attacks, that is runs on central banks that are not justified by divergent trends in monetary policies, relative to money demands. In the presence of self-fulfilling speculation, the very existence of different currencies – which is the implicit recognition that, at least remotely, their relative valuation can be changed – is enough to trigger speculators' activity.

What is the effect of speculation? The analysis of Euro-currency markets at times of turbulence provides a vivid illustration. When realignments of the order of 3–5% are expected to occur, short-term interest rates shoot up to 40–60% in the currencies expected to depreciate. These movements are fully consistent with the expectations about currency realignment: if the devaluation is expected to be 5% within one month, interest rate differentials on one-month deposits should be 60% (5% times 12) on a per-annum basis, to compensate for the expected capital loss. Hence it is safe to assume that, if international capital flows were fully liberalized, such short-term interest rate swings would affect domestic financial markets as well.

Supporters of the trend towards financial liberalization claim that free capital markets will force central banks to converge, without any need to unify the currencies by law. Historical experience, on the other hand, has shown that in times of crisis central banks have most frequently resorted to a temporary abrogation of the 'rules of the game' imposed by international monetary arrangements: this happened during the gold standard when the Bank of England suspended the convertibility of banknotes into gold in 1847, 1857 and 1866 (as Keynes, 1930; de Cecco, 1974a, and Dornbusch and Frenkel, 1984, documented), and has happened during the Bretton Woods years and the EMS years, when countries have resorted to various forms of regulations to stem speculative inflows[11] and outflows.[12] Since liberalization of capital controls cannot strip central banks of the right to make regulations concerning financial intermediaries and the use of currency, in times of crisis central banks would still have the option of temporarily invalidating international arrangements. Thus we are led to conclude that the liberalization of financial markets does indeed present a most serious threat to the stability of the existing monetary institutions in Europe.

3 Costs and benefits of monetary integration

Quite independently of the problems raised by the evolution of the EMS, the European currency question involves also the issues associated with the theory of optimum currency areas. The theory of optimum currency areas, started by Robert Mundell, considers the costs and benefits of common currencies, and by extension the relative desirability of fixed and flexible exchange rates. Assuming indeed that a system of adjustable exchange rates will not survive full liberalization of international capital markets, the theory of optimum currency areas can provide a guide to determine whether monetary unification might – or might not – be superior to a return to flexible exchange rates among European countries.[13]

The benefit of a common currency is that of a common medium of exchange among countries, i.e. a lowering of transactions costs. Casual empiricism suggests that the benefits from using money might be quite large: the opportunity cost of holding cash is large, and yet banknotes are a major means of payments in all industrial countries. Similarly, the benefits of a common currency are perceived to be very high by international traders and producers in different countries. The case of the monetary compensatory amounts in agriculture – a blatant exception to the principle of free trade in Europe – provides a good example of the aversion to exchange-rate changes.[14] Unfortunately, economic models which offer a convincing account of the welfare effects of money in modern economies, and a consistent justification of the costs of different moneys used by trading nations, are still lacking. Similarly, econometric evidence on the effects of exchange rate uncertainty on international trade is scant.

The costs of common currencies were seen by Robert Mundell as those of unemployment and inflation, caused by country-specific shocks that are not offset by movements of factors across the frontiers, nor by exchange rate changes. Mundell's theory relies on the presence of downward wage and price rigidity, which prevents adjustment of demand shocks in the goods and labour markets, and gives exchange rate realignments the power to affect relative prices.

The papers in the first half of this volume provide some interesting new perspectives on the theory of optimum currency areas. They concentrate on three sets of issues: the costs of relinquishing monetary independence, the determinants of factor mobility between countries, and the coordination problems of central banks in a monetary union.

Allan Drazen analyses the interactions of inflation convergence and capital markets liberalization from the perspective of public finance. Free capital markets and inflation convergence will force many European countries to a substantial restructuring of tax revenues, with direct and indirect taxes replacing the inflation tax. Drazen analyses the optimal transition to this steady state. He shows that maintaining inflation tax revenue high through increases of reserve requirements imposed on financial intermediaries might worsen public finances, by discouraging intermediation and the accumulation of productive capital.

The costs of relinquishing monetary independence are also analysed by

Vittorio Grilli, who discusses the empirical evidence on the use of the inflation tax by European countries. He documents the presence of asymmetries in the use of seigniorage, and explores the public-finance motivations to use different inflation rates in Europe. Grilli's results question the long-run sustainability of current budgetary policies in a number of European countries: such potentially disruptive divergences highlight the importance of an integration of public finance aspects into the discussion of the benefits and costs of common currencies.

The paper by Giuseppe Bertola deals with an important building block of the theory of optimum currency areas: the determinants of international factor mobility. Bertola proposes a new and potentially far-reaching theory of factor mobility. Rather than assuming *ad-hoc* adjustment costs, he argues that uncertainty is likely to be a major determinant of the international mobility of factors. By showing that, in general, the reallocation of factors in response to changes in relative prices is larger, the smaller the uncertainty about future changes in relative prices, Bertola indicates that there might exist increasing returns to stabilization activity. This insight suggests important new directions for empirical and theoretical research, aimed at quantifying the extent to which stabilizing nominal exchange rates might improve welfare. As he correctly emphasizes, the analysis is crucially affected – and complicated – by the assumptions about nominal price stickiness.

The problems of coordination of monetary policies are the focus of the papers by Alessandra Casella and Jonathan Feinstein and Carlo Carraro. Casella and Feinstein explicitly model central banks' objectives under alternative international monetary arrangements. They note that in a regime of fixed exchange rates monetary authorities have an incentive to free-ride on the partners' commitment to peg the exchange rate, and conclude that fixed exchange rates can be dominated, in a welfare sense, by flexible rates. Casella and Feinstein also offer a formal model of a common central bank, managed with a system of 'proportional representation.' They find that even in the presence of a central authority, the distortions that characterize a fixed exchange rate system are still present.

Carraro attempts to infer the tastes of European central bankers from time-series data on inflation, output growth, and other relevant macroeconomic variables. Evidence of this type is necessary to determine the scope for international policy coordination, and the sustainability of alternative cooperation schemes. Carraro's main results are that central bankers appear to have very short policy horizons, thus making cooperative outcomes difficult to sustain. He also does not find significant differences in central bankers' policy targets, a factor that facilitates policy coordination.

4 The lessons of history

Having surveyed the theoretical costs and benefits of a European Monetary Union which includes some form of common monetary authority, we should stop to consider the way in which it can actually come about, that is, its institutional feasibility. In this task, it is usually enlightening to bring back into focus some historical facts. The German and Italian experiences in the 19th century – described in the papers by Carl Holtfrerich and Valeria Sannucci, respectively – might be of interest as examples of monetary unifications, while the creation of the Federal Reserve system in the early 20th century – whose process and effects are analysed in Jeffrey Miron's paper – is an example of the creation of a 'federal' central bank.

The German and Italian experiences with monetary unification are deceptively similar at first glance. In both cases one state, Prussia and Piedmont, actively promoted political unity and, having achieved it through military victory, proceeded to establish its monetary system over the whole territory of the unified country.

But the similarity ends there. The Reichsbank and the Banca Nazionale nel Regno d'Italia (BNRI) managed to obtain a dominant position over bank note issue. The Reichsbank was a state institution, whose creation coincided with the proclamation of the German Reich. The BNRI, on the contrary, was a private bank (though its connections with the Government were close) while the banks of issue of the Kingdom of the Two Sicilies were public banks. This difference between the two cases helps to understand why the Italian monetary experience was much more chequered than the German one. The New Reich, moreover, started with hefty gold reparations of 5 billion francs paid by France, while the Kingdom of Italy began its life with a huge pile of public debt and an equally huge fiscal deficit. Even more important, before unification, Germany had become an integrated economic area and a united currency area, which was based on a silver standard. Italy, on the contrary, was a patchwork of economically heterogeneous states which, at the time of political unification, traded much more with foreign countries than with one another. Unlike the German states, they were not united by a network of railways. And the two main components of the new state, Piedmont and the Kingdom of the Two Sicilies, had currencies based on different standards, the former on bimetallism (like the French), the latter on a pure silver standard.

We have thus two cases that are extremely relevant for the present debate on European monetary union. The Italian case shows political and monetary unification preceding economic integration. The German case shows economic and monetary integration leading to political unification.

We are the latest in a very long line of researchers believing that Italian unification was a sudden and largely unexpected event, while German unification was a long and gradual process which occupied the best part of the 19th century. This basic difference can go far toward explaining the great difficulties which the new Italian state experienced in the economic and monetary fields, and in particular the long and difficult process of building a modern banking system around a publicly-controlled central bank. On the other hand, the great success of the German Reich can be attributed to the economic and monetary unification which preceded political unity. The influence of the immediate past over the present and future, both in the case of Germany and Italy, seems to have been overwhelming.[15]

Early attempts at European monetary unification, like that promoted in the Werner Report of 1970, can be likened to Italy in 1860 or even 1870. Economic and financial unity was not advanced enough in either case to justify the great step forward represented by monetary union. The economic integration of Europe in 1988 is arguably much greater than it was at the time of the Werner Report. The motorway network (which has had an impact on integration comparable to that of railways in the 19th century) is now much more complete than it was then, and it allows greater economic and social interchange (witness the much smaller size of firms engaged in intra-European trade). Total intra-European trade has stabilized for many years at a very high level, so that the interpenetration of the economies is much greater (witness the increased trade in intermediate, semiprocessed and component goods among EC countries). This evolution reminds us of Germany's experiences.

All three historical papers very clearly point out that monetary union, in its 19th century incarnation as free circulation of coins among states and in its present reincarnation as joint floating plus liberalization of capital flows, is altogether possible without political unification. A central bank to control monetary policy over the whole area of the Union, however, is the single most important step into uncharted territory, when it is not preceded by political union: Niels Thygesen convincingly raises this point in his remarks.

How were local interests reconciled by central monetary authorities? The Federal Reserve Charter, the Federal Reserve Act of 1913, is the expression of a much more heterogeneous economic reality than the Reichsbank foundation law, the Bank Act of 1871. The plurality of the Federal Reserve Banks witnesses that clearly, as it had been the case with the National Banking Act of 1861. But the problem of discretionary money creation was solved by the US decision to adopt the Gold Standard, just as it was solved by the German States by adopting silver convertibility and by the Reich by switching to the Gold Standard. The inelasticity of a commodity standard was, however, taken into account by the Federal Reserve Act and by the Bank Act, by allowing a possibility of exercising discretionary money creation. It is precisely that possibility that permitted the interest stabilisation which Miron attributes to the Fed and criticises as the Fed's main policy target. Interest stabilisation was one of the main policy targets of the pre-1914 Reichsbank too, widely admired, as the similar policy adopted by the Banque de France, by the members of the National Monetary Commission, and favourably contrasted with the vagaries of US and British interest rates.

Thus both the US and Germany worked on semi-automatic commodity standards, which gave central banks a wider discretionary space than is normally remembered in today's discussions. It might be useful to consider also that the Fed's regional pluralism over the conduct of monetary policy was imitated by the (American) designers of the present-day German central bank. Even this diffusion of power, however, is altogether different from what is at stake with the creation of a European Central Bank. In both the German and the US cases the greater devolution of powers over monetary policy takes place within the context of one Government and one currency. Neither has yet been achieved in Europe.

5 Feasible institutional reforms

What should then be the shape of a European monetary authority? As Rainer Masera suggests in his remarks, it is perhaps more useful to think in terms of a common monetary authority for Europe, rather than of a European Central Bank. This is what the Single European Act does, when it mentions the EC Monetary Committee and the Committee of Governors of the Central Banks as 'bodies to be consulted regarding institutional changes in the monetary area.' The distinction between a European Monetary Board (as Masera calls it) and a European Central Bank is not merely semantic. Without political union we can be quite sure that a European Central Bank, even one shaped like the Federal Reserve System or the Bundesbank, will not be feasible. An institutional step of this size implies a once-and-for-all abdication of monetary sovereignty which it is very unrealistic to expect from the EC countries.

But will such a loose arrangement be able to stand the pressure coming from the effects of intra-EC liberalization of capital movements? If 1992 brings about, as there is every indication that it will, the integration of European banking – freedom of establishment by European banks wherever they want on EC territory – another large chunk of traditional