European Monetary Union and Exchange Discipline

ALDO MONTESANO

1. Introduction

The process of monetary unification introduced with the Maastricht Treaty poses one of the biggest problems the countries of the European Union have to tackle. It is in fact the main problem, if only for the risks of disintegration it entails. It is also a two-fold problem since it involves both the decision each country must come to on participation in the process and the decisions Europe must make on the remaining stages of the process and on relations between the first countries to enter monetary union and the others. Whereas the former problem concerns the individual countries and the solutions are to be sought in terms of their particular interests, the latter regards the signatory countries of the Maastricht Treaty as a whole and the solution must be sought in terms of the general interests of Europe. In this paper I shall not dwell on the former problem: as I see it, the advantages of European unification (including monetary unification) are such as to make it worthwhile for each country to adopt the policies that can gain them admission. Here I intend to examine the salient aspects of the latter problem, and in particular: whether the process of macroeconomic convergence launched with the Maastricht Treaty can effectively lead monetary unification, whether the process needs revising and if so how, and in particular, whether the European Monetary System of exchange actually favours convergence or, on the other hand, tends to work in the direction of divergence.

Università Commerciale L. Bocconi, Istituto di economia politica, Milan (Italy).
2. The reasons for monetary unification

Before examining these points, however, it is worth considering why, from a strictly economic point of view, a single currency brings more advantages than the other possible alternatives. Let us take three possibilities: a system of national currencies, with flexible exchange rates; the same system with the addition of a European currency (i.e., issued by a Community Institution), also exchanged on a flexible basis; a totally liberalized monetary system in which currencies issued by private institutions can also play their part in a competitive market. As compared with a single currency, the big problem raised by the first of these is the very fact that uncertainty reigns in the exchange rates. Apart from the greater risk for economic agents, which frustrate investment and growth, we must also remember that current exchange variations and expectations do not always (hardly ever, we might say) reflect the fundamentals of economies but they do affect production and investment, thus entailing a loss in efficiency. Moreover, with a European central bank in operation there can be no question of curbs – explicit or otherwise – on capital flows within Europe, and real factors (plus fiscal factors, if fiscal systems are not duly harmonized between the EU countries) must eventually hold sway. Finally, the European central bank also reduces the probability of adventurous monetary policies, better protected as it is against the interests of government policies tending towards excessive public spending.

On the other hand, one advantage of having many national currencies and institutions issuing them is that each can adopt the best monetary policy at the right moment to deal with the conjuncture the country is going through. However, economic theory today no longer attributes monetary policy the task of real adjustment but, above all, that of controlling the general level of prices, thus checking inflation. Such control can best be exercised when policy regarding the institute of issue has real credibility, which should weigh the balance further in the direction of a single currency.

The introduction of a European currency alongside the national currencies would be something like a return to the monetary system of the late Middle Ages when, alongside local coin subject to the ups and downs of inflation, resort was made to a coin with fixed gold content (florin, sequin, etc.) for international trade and particularly hefty payments. The defects of such a system would be aggravated by the absence of gold from the European currency while the drawbacks of a system with fluctuating national currencies would remain, and to even greater effect. The presence of yet another fiduciary currency over and above the national currencies would eventually make money picture still more confused, since a national currency might even lose all value and be totally substituted in trade – domestic and foreign alike – with the European currency (granted it has the requisite status of legal tender).

The implications of total monetary liberalization are not always evident. In the first place, the presence of different currencies is not comparable with the presence of different tangible assets. The latter afford varied services, and we are better off with plenty of them, but different currencies do not offer different services: the service supplied by a currency is always that it enables us to purchase commodities and services in the future. It is in fact the organized markets, the banking and financial operators that offer manifold services, and these depend on the existence of various currencies only in terms of the exchange rates and associated risks. Secondly, private issuers (i.e., of currency that does not have the status of legal tender, which would at least qualify it for tax payments) must at any rate guarantee that their currency is convertible in tangible assets, or into the legal tender where it exists. Without such guarantees there would be nothing to stop everyone from issuing currency at zero cost, and the value of the currencies would inevitably plunge to zero (although they might benefit from the odd, short-lived speculation bubble). With guarantees, there would ultimately be nothing to distinguish the private issuers from deposit banks. Thus in the absence of legal tender we would have a monetary system based on real guarantees (gold or tangible assets), with all its advantages and drawbacks. Where there are legal currencies we have a monetary regime differing in no way from the single legal tender system, and the points made above apply equally to it.

In conclusion, if we are to have fiduciary monetary systems (i.e., with currencies not convertible into gold or tangible goods), then monetary union seems the best, most advantageous option for Europe.
3. Convergence towards a single currency

The Maastricht Treaty provides for a gradual approach to the introduction of a single currency and lays down certain conditions for participation which require justification. The process includes the convergence of certain macroeconomic aggregates related in one way or another to the task the monetary authorities have of curbing inflation, though not all of them depend upon the decisions of the central banks. The requisites for convergence range from the rate of inflation (which must not exceed that of the three countries with the lowest inflation rates by more than 1.5%), the annual fiscal deficit (which must not exceed 3% of the gross domestic product) and the public debt (which must not exceed 60% of the gross domestic product), the interest rates on long-term government securities (which must not exceed those of the three countries with the lowest inflation rates by more than 2%), and participation in the European Monetary System (implying a regime of quasi-fixed exchange rates) without any devaluation in the past two years. Apart from this last condition (which we examine in detail below), these requisites are in fact desirable ends in themselves for a smooth running economy, although not dictated by the essential conditions for monetary union (or at least not directly). The cases of monetary union history can show us (the most recent example being between West and East Germany) occurred without these or any other such conditions for convergence playing a vital role. There are no economic reasons why it should be necessary or desirable for these or any other macroeconomic indexes to converge for monetary union. It might indeed require no more than the progressive harmonization of monetary and credit institutions and monetary policies to ease transition from national currencies to the single European currency, and from monetary government by the national central banks to that of the European Monetary Institute.

An important rule to bear in mind here regards the problem of confusing behaviour and objectives, which can give rise to counterproductive effects. For example, we might compare the convergence requisite, which puts a ceiling to the rate of inflation, with the alternative requisite — not included in the Maastricht Treaty — which would mean a ceiling to the growth of the quantity of money (the quantity being assessed on the basis of one of the many defini-

tions in use). This requisite would touch more closely upon the behaviour of the central bank in each country. On the other hand, the rate of inflation depends not only upon the behaviour of the central bank but also upon a wide range of factors including the credibility acquired in the course of time by policies to course inflation, trends in the exchange rates, variations in indirect taxation, etc. Thus the inflation rate requisite means that the behaviour of the monetary authorities in the traditionally less rigorous countries (like Italy) be more restrictive than in the more rigorous countries (like Germany), with consequently greater risks of going off course and higher, more volatile interest rates. At the same time, this increased rigour would no longer apply once monetary union was achieved, when the European Monetary Institute would by and large take on the features characterizing the dominant central bank (i.e. the Bundesbank). On the other hand, a ceiling to the quantity of money would show quite clearly how each country was adapting to the European Monetary System; should differentials arise in inflation (due to the possible emergence of other, temporary factors), they would not denote enhanced or depleted credibility for the creation of the European model.

A point stressed in the relevant literature⁠⁠¹ is that the rate of inflation and foreign exchange are more readily assessed than growth in the quantity of money, thus representing qualitatively superior indicators. However, they are not so useful if we wish to assess the rigour of monetary behaviour over the short term, subject as they are to a host of other factors.

We may therefore say that the requisites for convergence introduced with the Maastricht Treaty are justified so much on economic as on political grounds. They represent an expedient to postpone decision on whether or not to bring about monetary union and between which countries. They derive from reluctance (above all in the case of Germany) to lose monetary sovereignty, and from the sensation that monetary union is less advantageous, if not actually harmful, to Germany than to the other countries of Europe. The sensation has no rational grounds, based as it is on a backward looking comparison of the sort: monetary union will lead to a rate of

¹ The literature on the EMS and monetary union is indeed vast and vastone I confine reference here to Gros and Tsygannik (1992) and Arcell and Di Giorgio (1995).
inflation representing the mean between the various countries involved, with lesser advantages if not actual harm for whose countries with traditionally limited rates. What is called for, however, is a forward-looking approach: failure to achieve the union will probably give Germany monetary leadership in Europe, but with considerable economic costs, and the German economy could look forward to a growth rate somewhat lower on average than that of the other European countries. Monetary pre-eminence is the consequence of economic success, not the cause of it, and implies overvaluation of the currency in the exchange rates (against purchasing power parity). Thus stimulus may be forthcoming for production in the supply of financial services but not in the rest of the economy and, as Keynes pointed out, the interests of finance tend to clash with those of the economy as a whole.

4. The vulnerability of the European Monetary System

For the process of convergence towards monetary union the Maastricht Treaty prescribes a stronger European Monetary System involving quasi-fixed exchange rates, i.e. fluctuating within a limited band. The advantages of the EMS are three-fold. In the first place, it anticipates the benefit a single currency offers of eliminating uncertainty about the exchange rate, otherwise an ever-present deterrent to investment and economic activity. Secondly, at the same time, it also removes a cause of disturbance in price and economic activities conditioned by variations in the exchange rate. Thirdly, a system of fixed exchange rates works in the direction of deflation since the countries with lower inflation rates have a competitive advantage in international trade, and all the countries are thus spurred to fight inflation with even greater vigour.

Nevertheless, the EMS has proved the weakest link in the entire mechanism, which is hardly surprising if we look back to previous experience with the European snake. Since 1993 the EMS has effectively ceased to exist since the exchange rates of the member countries fluctuate within bands so broad as to no longer represent a real restraint (the original EMS fluctuation band between central parities and other currencies conceived at ±2.25% now covers ±15%).

The cause behind the failure of the EMS is of general nature and involves the fixed-rate system itself once the burden of defending parity falls on the central bank of the currency the market pushes down.

The fixed exchange rate system yields to market speculation when two conditions obtain, that is when the defences of the central banks prove insufficient and the expectations are that the depreciation of the currency coming under the fire of speculation will persist once inroads are made. The former condition has always obtained in recent times in view both of the massive capital resources speculation can mobilize and of the fact that the burden of defence weighs most heavily on the central bank of the currency bought by speculators; on the other hand, it would not obtain if the central bank of the currency purchased intervened without any limitations. Such action is provided for in the European agreements and was attempted in the 1992 and 1993 crises, but not on a sufficiently large scale to counter speculation. Reluctance to launch a truly massive operation is not unreasonable given the need to keep control of the quantity of money. The point is, if we are ready for unlimited intervention, issuing currency when speculation demands it, then we should be all the more ready to enter into the process of monetary union without further delay. The second condition occurs – but to a limited extent – automatically as each new level reached in the exchange rate sets mechanisms in motion which tend to confirm it (suffice it to consider, for example, the influence exerted by the higher price not only of imported commodities but also of goods produced at home and marketable abroad, subsequent to depreciation). On the other hand, it occurs to a much greater – indeed decisive – extent when the official exchange rate is no longer justified by the fundamentals, as for example when an inflation gap has emerged (as in Italy in 1992, when the official parity failed to reflect the inflation gap of the previous years and the lira was widely held to be overvalued). When the latter condition obtains, speculators anticipate the possibility of repurchasing what was previously sold without restoring the price to its original value, and thus of making gains. Naturally, they face a risk, but with fixed exchange rates it is limited to the relatively minor cost of maintaining their position uncovered (transactions costs and costs due to the interest rate differential), there being no real exchange risk. Thus a speculative assault will be successful if the volume of sales of the currency to be depreciated surmounts the defensive limits of
the central banks, as is the case when speculators co-ordinate their attack. Such co-ordination is highly probable, as the following "game" suffices to show. Let us for the sake of simplicity suppose that there are just two currencies and two speculator-players (although the same will apply to any number of currencies and speculators), each with three possible moves: attack currency A, attack currency B, or refrain from speculating (NS). Let us suppose that currency A is unanimously held to be overvalued in the official exchange rate, i.e. the second of our two conditions obtains. In the following diagram the game is represented in its normal form:

<table>
<thead>
<tr>
<th>Speculator 1</th>
<th>Speculator 2</th>
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<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>A</td>
<td>10,10</td>
</tr>
<tr>
<td>B</td>
<td>-1,-1</td>
</tr>
<tr>
<td>NS</td>
<td>0,-1</td>
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</tbody>
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As we can see, if the attack is unsuccessful (as it will be if only one speculator acts), then the speculator gets negative pay-off (-1). If attack on the depreciable currency is successful pay-off is positive and high (10), but if both speculators attack the strong currency the pay-off is negligible (0). Thus we see that for both speculators strategy B (attacking the strong currency) is (weakly) dominated by strategy NS (not speculating) and there are two Nash equilibriums (strategies A-A and NS-NS). Another point that emerges, however, is that strategies A-A constitute a focal equilibrium, which has a very good chance of occurring spontaneously. Moreover, the chances will be so much the higher if - on the strength of their experience and understanding - the speculators show particular awareness of the occurrence of a situation as afforded by the above game.

All this only goes to show just how vulnerable a system of fixed exchange rates is when the chance arises to make gains through speculation, and the convergence of monetary and economic policies will not suffice to eliminate such chances. There are in fact further factors at work on the relative values of currencies, other than the policies of governments and the central banks, and among them we must include speculation itself. Even the exchange rate between the French franc and Deutsche Mark has succumbed to the assault of speculation despite France's rigorous monetary and financial policy, and might well do so again in the future if the EMS were to be restored with a narrow fluctuation band.

These points would apply not only in the case of a relaunched EMS but above all in the situation emerging from subsequent stages in the process of European monetary unification. First, in 1999 as planned or shortly after, there would be the single currency for countries wishing to join and qualified to do so according to the terms of the Maastricht Treaty, or whose shortcomings might be judged negligible. For those countries not admitted requisites would be prescribed for convergence, and these would have to be satisfied for subsequent admission. Among the requisites laid down by the Maastricht Treaty is respect of the EMS fluctuation margins for at least two years. Although the EMS should of course cease to exist once monetary union was achieved, this requisite would mean that quasi-fixed exchange rates would have to be maintained for countries awaiting admission. At the same time, if the burden of defending the exchange rate were to fall entirely on the country's central bank without due support from the European central bank, then the game of speculation would arise once again and it might prove impossible to preserve parity, even in conditions in which the exchange rate remained stable. If there were no commitment to intervene. Paradoxically, stable exchange rates could be achieved in a system of flexible rates more easily than with a fixed-rate regime.

The adamant exclusion of countries wishing to join monetary union and prepared to apply due rigour to their monetary and fiscal policy would be in the interests neither of Europe nor of the countries already admitted to the union, and not only in terms of political balance (what role would France have if Germany were the only other big country in the monetary union?). In fact, the advantages of monetary union are multilateral, while exchange rates dominated by uncertainty mean problems for all operators, and not only those in countries outside the monetary union.

Finally, maintaining a number of currencies in a fixed exchange system runs counter to the Europe-oriented principles of the market themselves. If it is deemed necessary to retain a number of currencies, then it must also be accepted that their exchange rates be determined by the market.
5. Conclusions

Three conclusions emerge from the points set out above:

a) While there is much to be said for both programmes to bring about monetary union and fight inflation, there are no compelling economic reasons why the second should precede the first, as is required by the process of convergence launched with the Maastricht Treaty. Indeed, in anticipation of monetary union the anti-inflation approach could more easily be applied and would thus also have greater credibility.

b) The EMS is vulnerable because it is essentially a system of fixed exchange rates maintained with the action of central banks of the countries whose currencies are pushed towards depreciation. If the system were to be prolonged for countries awaiting admission to the single European currency it could all too easily become a mechanism for exclusion, even though these countries applied all due rigour.

c) It would be more to the point if the programme to fight inflation were to set direct restraints on monetary and fiscal behaviour with less stress on variables like the rate of inflation which, while also conditioned by such behaviour, are subject to other factors and can give misleading indications of behaviour, especially in the short term. Moreover, with the present emphasis it is obviously difficult to adopt a more rigorous fiscal policy by raising indirect taxation, which also raises prices. It might well prove useful to go more fully into the question of inter-European fiscal coordination, launching a programme to curb public spending rather than concentrating solely on the deficit.

REFERENCES


European Financial Markets Integration and the Risk Premium on Italian Government Debt*

ALESSANDRO PENATI and FRANCESCO CORIELLI

Introduction

The Maastricht Treaty sets precise limits to the budget deficit and to the stock of government debt of the countries wishing to join the monetary union. Fiscal adjustment thus becomes a requirement for the common currency. The countries that lack fiscal discipline are those penalized by high interest rates on their government bonds, relative to those prevailing in Germany. If the interest rate differential of these countries is mostly explained by foreign exchange risk, then the Treaty, paradoxically, would make their fiscal adjustment harder to achieve. As Paul De Grauwe argues in his paper (pp. 33-45 of this issue), it would be much better to allow them into the Monetary Union first, thereby reducing their long-term interest rate and, in this way, the burden of the adjustment. However, countries with high government debts and deficits may pay a substantial default risk premium on their debt, because their policies lack credibility. In such a case, a monetary union would encourage investors from the virtuous countries to purchase these bonds, looking for better returns. Government debt issued by high yield countries could then become a source of systemic risk for the Monetary Union. It is therefore of great importance to disentangle the exchange risk component from the default risk component in the interest rate spreads of European countries. This is precisely the purpose of this paper, applied to the differential between the Italian and the German long-term government bond yields.

* A preliminary version of the paper was presented at the 1995 Annual Meeting of the Italian Economic Association.