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A SURVEY OF EUROPEAN MONETARY POLICY ISSUES: THE E.M.S. AND THE FUTURE OF MAASTRICHT

Christopher P. Twomey

This paper surveys the recent history of, and future possibilities for, European monetary coordination. It will begin with a discussion of the evolution of the European Monetary System (EMS) together with its current institutional structure, arguing that the EMS has been broadly successful at achieving its goals. Using the recent crisis in the EMS as a case study to illuminate potential problems in future European monetary policy, the issues of limited convergence in macro-economic variables, and asymmetric shocks affecting various European countries are highlighted. Finally, this essay will look toward the future by examining one proposal for European Monetary Union (EMU), the Maastricht Treaty. Analysis of the economic theory underlying currency unions and their application to Europe concludes that a monetary union, such as the one proposed in Maastricht, has numerous advantages. However, it will still have to contend with the same difficulties that the EMS has recently suffered. A multi-speed Europe is a likely solution to these problems.

Christopher P. Twomey is concluding his graduate studies at the University of California's School of International Relations and Pacific Studies. As a graduate student, he has concentrated on International Political Economy and International Relations. He holds a B.A. in Economics from the University of California, San Diego.

Europe is undergoing a profound period of change. As a result of the end of the Cold War and changes in the European Community (EC), the Europe of tomorrow will look different in many ways. This essay will seek to survey some of these changes in the area of international monetary relations.

THE BASIS OF THE EUROPEAN MONETARY SYSTEM

Concerns about monetary stability in Europe date back to the late 1960s (IMF 1990; Gros and Thygesen 1992). Successive attempts to minimize exchange rate fluctuations in Europe have repeatedly failed, although in doing so they provided valuable learning experiences for European nations.

The Pre-History of the EMS

When the EC¹ was founded in 1958, there was little need for exchange rate stabilization policies on a European-wide basis. The Bretton Woods system was functioning well, minimizing the volatility of foreign exchange rates (CEC 1990, 8). However, in the late sixties the Bretton Woods system came under severe pressures, and the intensity of trade within Europe increased. These changes inspired the Werner Report, of October, 1970, which advocated monetary coordination within Europe, culminating with European Monetary Union (EMU) in 1980. Unfortunately, with the collapse of the Bretton Woods system later that year, the goals of the Werner Report were abandoned (Archer and Butler 1992, 80). A persistent problem for EMU emerged in these early years: a reluctance by the European national governments "to accept the transfer of power (or sovereignty) implied by EMU." (EC 1990, 9) The governments were hesitant in this regard since any plan for EMU would inevitably require a delegation away of control over their individual economies.

The foreign exchange rate management embodied in the ensuing Smithsonian Agreement was too loose for many Europeans. Thus, the EC nations agreed to minimize any bilateral exchange rate fluctuation among themselves even further, instituting the "snake within the tunnel" system. The "snake" of European bilateral rates would move within the "tunnel" provided by the broader maximum variation against the dollar. However, the "snake within the tunnel" system eventually fell to pressures similar to those that overtook the Werner Report and was largely abandoned by the mid-1970s.

By 1978, attention had once again returned to the subject, leading to the creation of the European Monetary System (EMS) in 1979. Initially, eight nations participated (Germany, France, Denmark, Belgium, Luxembourg, Netherlands, Italy, and Ireland); later Spain (in 1989), the UK (in 1990), and Portugal (in 1992) joined.² Its primary goals were minimizing foreign exchange variability and inflation within Europe. The structure of this

agreement has remained essentially constant since 1978.³

The EMS Itself

The EMS has two major components: the European Currency Unit (ecu) and the Exchange Rate Mechanism (ERM). The ecu is a basket currency made up of specific amounts of European currencies. These amounts are adjusted roughly every five years and are loosely based on the size of a nation's economy. The ecu acts as a common denominator for intra-European government obligations, a point of reference for measuring a currency's divergence, a quantifier for intervention, and a reserve currency (Nielsen et al. 1991, 183). The most important of these roles is the second (see below), although today the ecu does not play a major role in the EMS.⁴

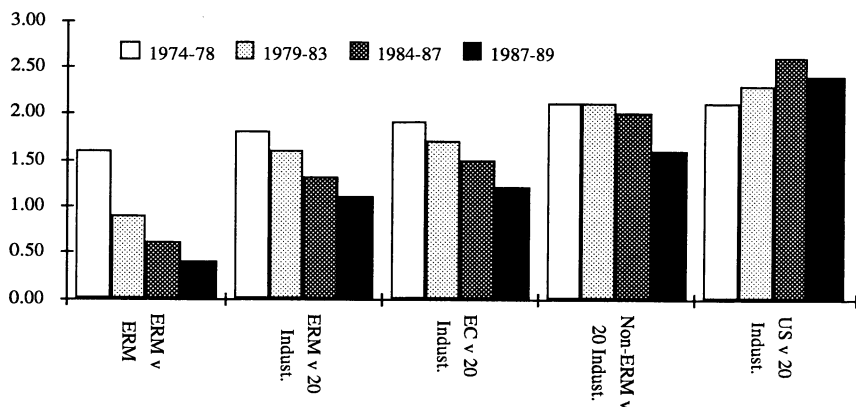
The Exchange Rate Mechanism (ERM) is the central element of the EMS. Instead of choosing to create a matrix or grid of bilateral currencies, the ERM sets a central rate in ecus for each participating currency. Each currency is then allowed a ± 2.25 percent variation around this central value.⁵ After a currency has moved three-fourths of the way from its central value toward the edge of its permitted band, the central bank of that country is expected to intervene in support of its currency (Archer and Butler 1992, 82). In recent years, intervention before reaching the threshold of mandatory action has occurred more frequently (IMF 1990, 2). The goal of choosing central rates against a basket currency, rather than a bilateral grid, was to spread the responsibility for divergence among both the strong and weak currencies. Realignments within the ERM are allowed; unilateral realignments are not.

EVALUATING THE EUROPEAN MONETARY SYSTEM

This section analyzes the success and failures of the EMS up to August, 1992. Since the main goals of the system are to stabilize exchange rates and minimize inflation, the amount of exchange rate volatility and the convergence of inflation are clearly important variables in this evaluation. The contention of asymmetry within the system will also be assessed.

Stabilizing Exchange Rates

As can be seen in Figure 1 below, the ERM has been very successful at limiting the fluctuations of both real and nominal exchange rates within the system. This result holds true whether the EMS period is compared to the pre-EMS period (1974 to 1978) or the countries participating in the ERM are compared to those who are not.⁶ The success of the ERM in this regard has been so great that it has, in the last several years, achieved levels of stability previously seen only under the Bretton Woods system (Gros and Thygesen 1992, 104).

Figure 1 - Evaluating the ERM: Exchange Rate Variability

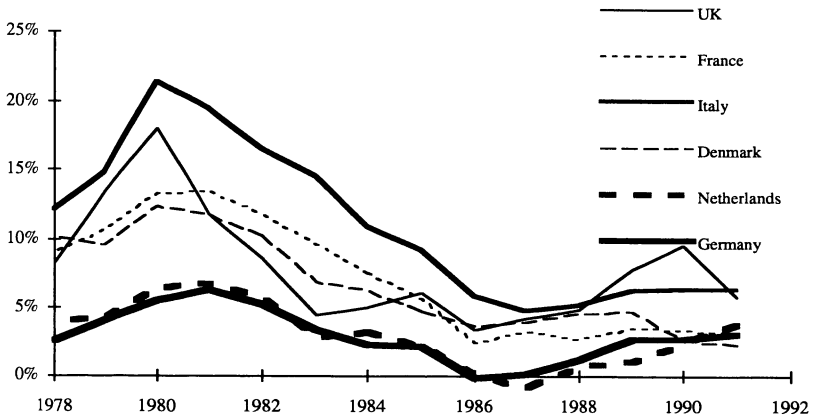
Source: (EC 1992a, Tables 3.4, 3.6). Variability refers to the standard deviation of an average (for ERM weighted by ecu weights) of monthly bilateral exchange rates.

Skeptics of the ERM's success argue that the decrease in volatility may be attributed to more frequent realignments. However, after 1983 both the number and the size of realignments actually declined dramatically, and virtually disappeared after 1987.⁷ This is even more impressive considering the turbulence of the period (e.g., the US stock market crash in 1987). (IMF 1990, 6) Some might also attribute the apparent success of the ERM to the way in which the currencies were defended; again, the EMS seems to score well. In fact, after 1990, capital controls were completely removed among all major EMS participants.⁸ This neither led to realignments nor even to substantial pressure on the currencies.

Macroeconomic Convergence

Given the ERM's contributions to external monetary stability, how has it performed in promoting internal monetary stability? Figures 2 and 3 show inflation⁹ and nominal interest rates respectively for a selection of EMS countries.¹⁰

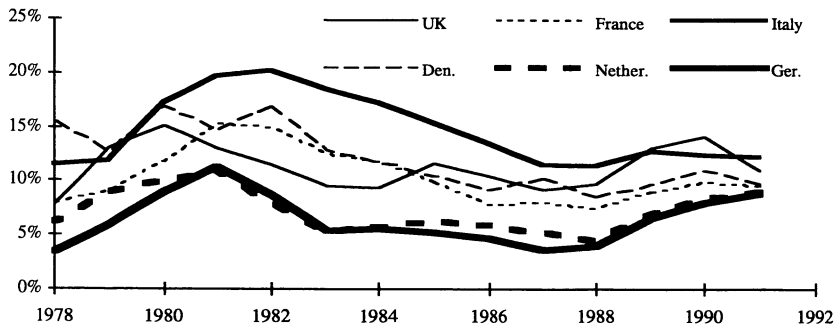
Figure 2 - Inflation



Source: (IMF 1992). Inflation as measured by annual change in consumer prices, line 64.

Especially after 1983, the EMS has succeeded in lowering inflation, although some differential remains between Germany and the rest of the Community. It should be noted that the recent convergence exhibited in the data may be overstated due to relatively high inflation in Germany (which was an unusually high 4 percent in 1991). Figure 3 shows that for the interest rates as well, some convergence is apparent, especially for the period after 1983. This result also holds true for real interest rates.

Figure 3 - Nominal Interest Rates



Source: (IMF 1992). Nominal rates for the money market rate as given in line 60b.

The lack of complete inflation rate convergence has profound implications for the system. The recent lack of realignments coupled with persistent inflation differentials has led to an appreciation of real exchange rates for many countries (relative to Germany and other "price-stable" nations). The devaluating realignments in the early period of the EMS had prevented this problem, allowing nations to maintain consistent real exchange rates (Gros and Thygesen 1992, 78; Barrell 1992, 10).

Asymmetry in the System

An additional important issue in evaluating the EMS is the degree of asymmetry within the system. The use of central values based on the ecu aimed to minimize this problem by obligating both strong and weak currency nations to take action. Disappointingly, an asymmetry remains, largely because the "loss of reserves constitutes a more effective constraint on the weak currency than the injection of liquidity in the country of the stronger currency."¹¹ (Gros and Thygesen 1992, 76) As a result, nearly all intervention in foreign exchange markets today is based on bilateral exchange rate deviations between nations and is done by the weak currency nation's central bank.

Furthermore, it should be noted that the use of the ecu as a divergence indicator is inherently asymmetric since the ecu itself represents a moving target. In the case of a general appreciation by a currency that is heavily weighted in the basket (for example, the D-mark represents 30.4 percent of the basket¹²), the entire basket appreciates. The other currencies will have to try to set their exchange rates at an increasing central value due to the appreciation of the entire ecu basket. On the other hand, if a less-heavily weighted currency appreciates (for example, the Luxembourg franc has only a 0.3 percent weight), the ecu would barely change. No nation would be forced to react. Thus, the large countries have relatively more autonomy in formulating their monetary policies. An appreciation or depreciation of their currencies will tend to pull the basket, which defines the central parity values for the other currencies.

Additional evidence of similar inequity can be found in other areas. For instance, one notices a bias against small countries in the area of realignments. Small countries are less likely to be permitted the full amount of their requested realignment than are large countries (Gros and Thygesen 1992, 51).¹³ As another example of this inequity, the Bundesbank still has a constitutional obligation to pursue domestic price stability, regardless of the implications that this has for exchange rate stability elsewhere. Other nations' monetary authorities do not have this luxury (Gros and Thygesen 1992, 76). On the other hand some statistical studies have found that the direction of causality between German monetary policy and that of France and Italy is, at best, ambiguous.¹⁴ It is clear that Germany is the "anchor"

of the EMS. It plays the leading role in setting monetary policy in the Community. However, in its formation of this policy it must consider, to some extent, the preferences of the other EC members.

TURMOIL IN THE EUROPEAN MONETARY SYSTEM

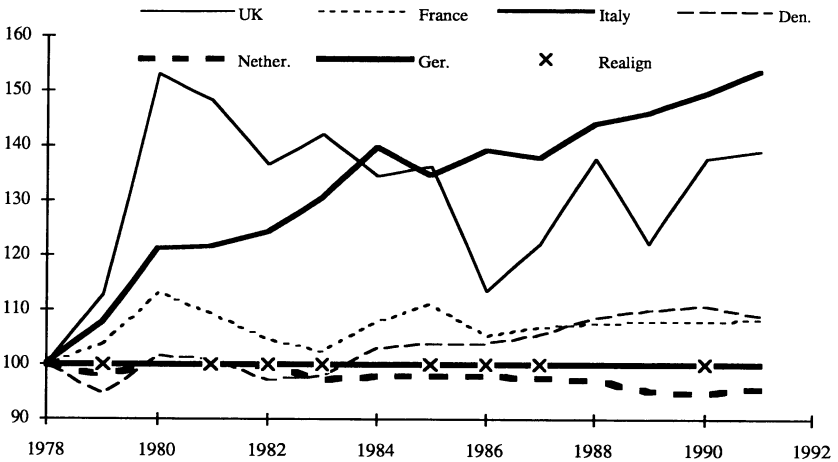
At the beginning of September 1992, Europeans could look at the history described above and expect to continue progress toward monetary union. But by the end of the following month, this evaluation changed dramatically. This section will examine the events of September and outline their causes.

The beginnings of the crisis in Europe can be traced to early speculation against the Italian lira and the British pound in mid-August, and the Nordic currencies in early September. After forcing Finland to surrender its ties to the ERM and Sweden to raise interest rates to astronomical levels, market pressure returned to the lira and sterling. Responding to these pressures, the German Bundesbank cut its interest rate, and the lira secured a devaluating realignment.

But pressures continued. Britain was forced to raise its interest rates and use \$15-20 billion of its reserves, while Germany may have chipped in another \$30 billion of purchases to defend the pound.¹⁵ Nevertheless, sterling continued to fall, and Britain suspended its participation in the ERM. The lira was forced out of its recently revised band and also suspended its participation. The Spanish peseta was forced to devalue by 5 percent. France's currency hovered at the bottom of its band for over a week, saved only by a commitment by the Bundesbank to stake its own reputation on the franc. Instability continued, with unrelenting pressure on the Danish krone, Irish pound, and French franc as well as a further devaluation of the Spanish peseta and the Portuguese escudo of 6 percent each. Five years of "hard" ERM had come to an ignominious end.

*Underlying Causes*¹⁶

The single most important cause of the crisis was the persistent *real appreciation* of most of the currencies in the EMS (see Figure 4). It is clear that the two nations most adversely affected by this were Italy and the UK. An additional factor increased the potential for instability. The capital market liberalization concluded in 1990 took away the last vestige of insurance for some governments to protect their currencies. Although this step was an important one from the "pro-European market" perspective, it may have been premature. In order to recognize the scale of the potential problem, one must realize that the ratio of M1 to foreign exchange reserves for EMS participants ranged from 6 to 1 for Germany to over 10 to 1 in France, Italy, and the UK late in the summer of 1992 (IMF 1992). The governments simply lacked the resources to cope with a serious crisis of confidence or a loss of credibility.

Figure 4 - Real Exchange Rates Relative to Germany

Source: (IMF 1992), supplemented with the author's own calculations. The Real Exchange rate versus Germany is an index of the exchange rate divided by the ratio of the consumer price index (line 64). The base period here is 1978. Cross-country comparisons are therefore valid as far as the Base Period exchange rates were set appropriate to purchasing power. Inter-temporal comparisons are valid regardless of the original exchange rate.

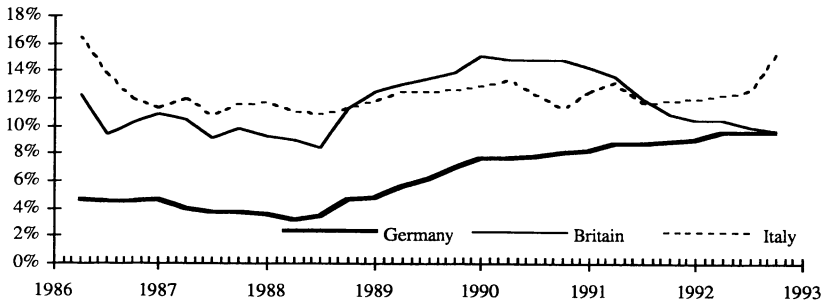
Immediate Causes of the Turmoil

The factors discussed above certainly suggest that there were some fundamental problems with the EMS as it stood in early September. However, as these factors had existed for a long period of time, there must have been other factors that served as a trigger in the middle of September, 1992.

The most commonly cited reason for the crisis in the EMS is the effect of German reunification on Germany's monetary policy. The conventional wisdom is that high German interest rates put pressure on other currencies in the ERM which had low interest rates. Germany's rates were high for two reasons: (1) to pay for reunification, and (2) to stem the inflationary pressures caused by the German monetary union at a generous exchange rate for the East German currency.

However, as can be seen from Figure 5, German nominal rates have not been higher than those in either Britain or Italy. For Britain, this picture is largely the same if real interest rates are considered instead. This is generally true for Italy as well, albeit to a lesser degree.

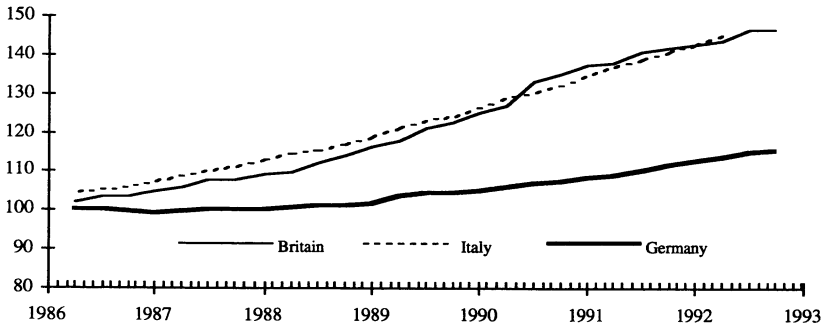
Figure 5 - Nominal Interest Rates in Germany, Britain, and Italy



Source: (IMF 1992). Nominal rates for the money market rate as given in line 60b.

If the capital market did not provide the main source of pressure on the lira and the pound, then perhaps the asset market did. Figure 6 makes it clear that there has been a persistent, and growing, gap in price levels between Britain and Italy and the anchor of the system, Germany.

Figure 6 - Consumer Prices in Italy, Britain, and Germany

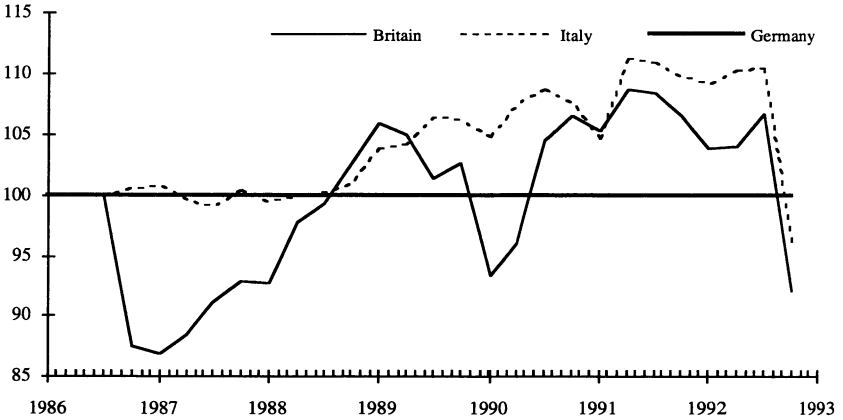


Source: (IMF 1992). Inflation as measured by annual change in consumer prices, line 64. Base Year 1985.

It is possible that these changes in relative price levels can be accounted for by movements of the exchange rate. However, given the lack of realignments from 1987 to 1992 and the evidence presented in Figure 4, it is clear that the exchange rate changes have not made up for the inflation differentials. Figure 7, below, provides quarterly data before and after the crisis. Obviously there has been substantial divergence in the real exchange rates for the UK and Italy relative to Germany. This fact is of greater importance for Italy.

Thus, for Italy, there seems to be some validity to the conventional wisdom that high interest rates in Germany have put pressure on its currency. Furthermore, the asset market also seems to have applied some pressure on the lira. However, both of these factors are less significant for the UK. One must look elsewhere for the causes of sterling's decline.

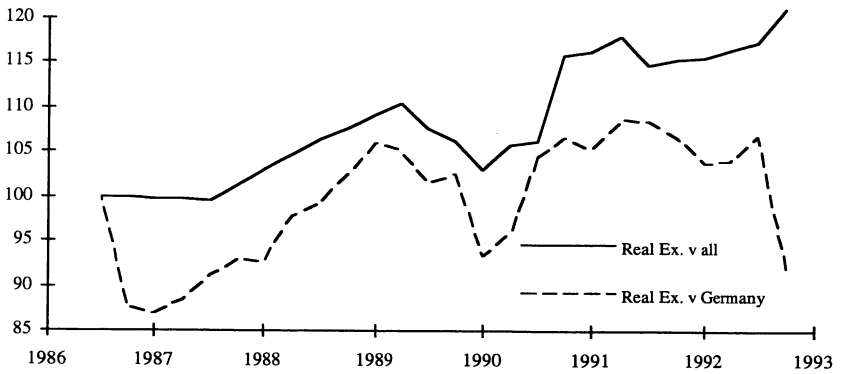
Figure 7 - Real Exchange Rates for the UK and Italy, Relative to Germany



Source: (IMF 1992). Real Exchange rate versus Germany defined as above. Base period 1986, second quarter. Estimates for quarters 3 & 4, 1992 for Italy.

One cause of Britain's problems is apparent in Figure 8. This graph charts the changes in British real exchange rates versus those of Germany, as above, but also against the UK's other trading partners (weighted by trade volume). A persistent gap has existed since 1987, and widened in early 1991.

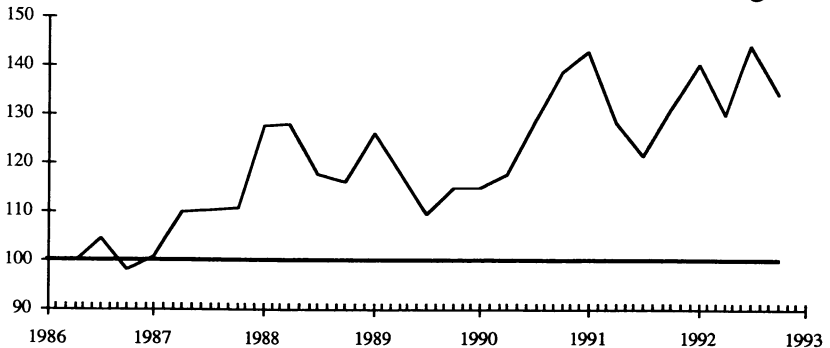
Figure 8 - Britain's Real Exchange Rate Relative to those of Germany and All Nations



Source: (IMF 1992). Real Exchange rate versus Germany defined as above. Real Exchange rate versus all is the Real Effective Exchange Rate as reported by the IMF, line reu. Base Period 1986, second quarter.

The real appreciation of the pound was due not only to the depreciation of the D-Mark, but also to the depreciation of the US dollar. The importance of the American relationship should not be understated given the relatively high US-UK trade ratio and the similarities with which international investors view the dollar and the pound. The dollar's decline in mid-1991 pressured the pound, given Britain's need to maintain its international competitiveness in trade with America (see Figure 9). The interest rate differential between Germany and the United States played the key role in the depreciation of the dollar—this differential was on the order of 6 percent. Thus, it was in this way that high German interest rates led to the eventual British devaluation.

Figure 9 - Britain's Real Exchange Rate Relative to the US Exchange Rate



Source: (IMF 1992). Real Exchange rate versus US defined as above. Base Year 1986, second quarter.

A final cause of the crisis was the uncertain future of the Maastricht Treaty which would institutionalize the EMS. The French people voted on the Maastricht Treaty in a referendum on September 20th. Since the vote was as predicted, yet quite close, the future of the EMS was uncertain. In times of uncertainty, the D-mark appeared to be a safe option. The pound and lira appeared less secure and suffered as a result.

In summary, low interest rates relative to Germany and a lack of devaluations to compensate for inflation differentials were the fundamental causes of Italy's eventual departure from the ERM. For Britain these factors were also important. However, the additional impact of the UK's loss of competitiveness with the United States, an important trading partner, was vital. Once it became apparent that Britain's competitive position internationally was unsustainable, speculators were presented with a golden opportunity.

AN INTRODUCTION TO EUROPEAN MONETARY UNION

The above discussion has focused on the events in Europe over the past fifteen years. This section turns to the future, as proposed by the Maastricht Treaty. Before looking at the treaty itself, this discussion will briefly outline the economics of currency unions and the implications of this theory for Europe.

The Economics of Currency Unions

In considering the goal of monetary union, economists consider several criteria in order to determine the "optimality" of any potential currency union. An optimal currency area will be characterized by the following: (1) high intensity of intra-area trade, (2) high mobility of labor, (3) efficient (i.e. flexible) wages and prices, (4) similar response to external shocks, and (5) similar economic goals for society (EC 1992a, 46).

Based on these characteristics, how does Europe compare? On the negative side, half of all trade by European nations is not intra-European trade and a large non-tradable sector exists (Bean 1992, 35). Labor mobility within the EC remains low, and unions are loath to agree to pay cuts (Nielsen et al. 1992, 198; Bean 1992, 35). Furthermore, there is reason to expect that Europe will not respond to external shocks symmetrically (EC 1992a, 46). On the other hand, Europe benefits from high mobility of capital and widespread agreement regarding the goal of price stability. On the issue of trade, not only are trade ratios growing in Europe, but European trade is increasingly characterized by "intra-industry" trade (EC 1992a, 136). European nations also have similar, and well diversified, structures with regards to trade flows. Thus, optimal currency area theory provides support, albeit with some reservations, for an EMU.

The Maastricht Treaty

The EMU proposed in Maastricht suggests a three stage progression culminating in full monetary union, with one currency for all participants (EC 1992b, Chapter 4; Archer and Butler 1992, 86-95; Fratianni et al. 1992). The nations of the EMS are already in the first stage, maintaining the EMS and concentrating on achieving convergence of certain macroeconomic variables. An intermediate stage is to be characterized by further coordination and convergence. During the final stage, participating nations will cede most monetary authority to a European Central Bank (ECB).

In order to move into the final stage, a nation must meet four requirements (EC 1992b, Art. 104a, 109, 303, and relevant Annexes): convergence in inflation, convergence in long-term interest rates, limits on the ratios of governments' deficits to GDP, and limits on the ratios of gross debts to GDP. Some flexibility is allowed in achieving the latter two requirements. Additionally, the nation must exhibit relatively stable exchange rates. It is interesting to note that as of 1990 only Germany, Denmark, France, and Luxembourg met these requirements (Fratianni et al. 1992, 22) and by the end of 1991 only France and Luxembourg were still eligible (Bean 1992, 44).

The role of the ECB is crucial, and therefore warrants further discussion. The treaty states that "the primary objective [of the bank] shall be to maintain price stability." (EC 1992b, Art. 105) The treaty also contains relatively strong language regarding the institutional independence of the bank. This should help to minimize political intervention with aims other than fighting inflation.¹⁷ However, potential problems may arise due to unclear jurisdiction in setting foreign exchange policy (Bean 1992, 43).

EVALUATING THE MAASTRICHT TREATY

In judging EMU's effects, one must consider: efficiency, international equity, constraints on national economic policy, and the role of asymmetric shocks.

Efficiency Gains

Few would dispute that EMU will lead to more efficiency. Studies abound showing that the costs of changing £100 from one EC currency to another, until all twelve had been tried, can leave the unlucky tourist with £50 or less (EC 1992a, 66). These costs will vanish with EMU. However, quantifying these, and other gains in efficiency for the economy as a whole, is difficult. One author places the gains due to transaction efficiency at 0.25 percent to 0.5 percent of GDP, annually. The European Commission has estimated the annual gains due to eliminating currency risk at 2 percent of the EC's GDP (Currie 1992, 253). Estimates of other efficiency gains are more difficult to find. Since this is the fundamental basis for most arguments in support of Maastricht, the lack of more study is distressing.

Nevertheless, the estimates that do exist are promising for the future economic prospects of Europe.

International Equity Effects

While there is a possibility that Maastricht will decrease the equity across countries, especially in the short term, the preponderance of evidence supports the proposition of a more equal Europe (Barrel 1992, 220-30).

It is generally agreed that, initially, there could be some worsening of the relative performance of some countries. This is partially because of the loss of policy tools with which to deal with external or internal shocks that is implicit in the move to the currency union. Additionally, while some countries currently rely on seigniorage, they will be unable to do so after EMU. These issues are taken up more fully below.

Yet there are likely to be gains from savings due to the higher foreign exchange transaction costs in poorer countries. With their more inefficient capital and foreign exchange markets, these gains could be significant as the need for such transactions vanish. Similarly, since most of the poorer countries in Europe have higher rates of inflation, the decrease in inflation and its variability should lead to bigger savings in the real interest rate for these same poorer nations. Since EMU should stimulate growth generally, this too should help decrease the disparity in Europe. Disparity tends to rise more when growth is weak. Finally, increased use of the cohesion fund, as mandated under the EMU treaty, will also benefit the poorer nations.

Constraints on National Economic Policy

The EMU proposed in the Maastricht Treaty would constrain national policies in at least three different ways. First, and most obviously, it would **remove monetary authority** from the hands of the national central banks and put it in the control of the ECB. The conventional wisdom is that, by appropriate use of monetary policy, governments can take advantage of the tradeoff between inflation and unemployment (i.e., the Phillips Curve). However, economists are increasingly rejecting the existence of such a tradeoff, suggesting instead that in the long term, low inflation leads to lower unemployment. It should be noted that the statistical evidence is weak on either side of this argument.

In the short run, many still feel that monetary policy might stimulate employment. This is the case only if the monetary expansion is "unexpected" by the public, which requires a perception of credibility for the national central banks that few possess (outside of Germany). The ECB, given its institutional structure, may be much more credible as an inflation fighter than many countries' central banks, allowing it to use a *few* surprise monetary expansions to provide short-term stimulus (Gros and Thygesen

1992, 131). Either way, the loss of control over monetary policy seems likely to cause little harm for individual nations in the long term.

The treaty would also constrain **fiscal policy**. Many voice concerns that EMU will give countries an incentive to rely on debt-financed fiscal policy too frequently. The rationale behind such fears is that there is an implied commitment on the behalf of the ECB to back up the debts of the national banks, thus creating a problem of "moral hazard." However, this should not be a problem under Maastricht. First, the treaty quite strictly states: "The Community shall not be liable for or assume the commitments of central governments, regional, local or other public authorities." (EC 1992b, Art. 104b) Furthermore, there are several other provisions within the treaty that will discipline governments on the matter of debt funding of budgets (EC 1992a, 101).

In fact, an under-provision of fiscal policy is more likely. The treaty's encouragement of balanced budgets will not account for how a potential deficit might have been spent (i.e., investment in infrastructure). Additionally, countries will realize that the rewards due to any domestic fiscal expansion will be shared across the community, while the costs will remain in the hands of the national governments—a classic public goods problem (Gros and Thygesen 1992, 131).

A final constraint on domestic economic policy due to EMU will be the **loss of seigniorage** privileges. Although for several poor countries this source of income is important, it is also clear that it has substantial societal costs in the form of inflation.

Furthermore, the potential for seigniorage income will not be lost, but transferred to the EC level. The EC ecu will provide an even greater potential for seigniorage income at any given inflation rate than any national currency because it will serve as a major international currency, used for trade, offshore savings, and as a reserve currency (EC 1992a, 23-30). Printing money for these uses will not fuel European inflation.

Asymmetric Shocks

The final issue regarding the implications of Maastricht is that of asymmetric shocks. Many of the policies discussed above are used by governments to cushion the blow of external shocks to their economies. Loss of these policy options will lead to major problems since Europe is likely to face shocks that have differentiated impacts on the countries of the continent. Under the Maastricht plan for EMU, nations will lose substantial autonomy in economic policy making. Not only will their monetary and fiscal policies be constrained, but they also will be unable to use their control over nominal exchange rates to react to external shocks because there will be no "internal" exchange rate (Nielsen et al. 1992, 168).¹⁸ Additionally, the option of using the *real* exchange rate to adjust exchange rates, by varying the rates of growth of wages and other prices, seems

beyond the abilities of most governments. Exchange rate adjustment options will only be implemented at the Community level. It should be noted that this same constraint exists, to a limited extent, in the current EMS (EC 1992a, 136).

Asymmetric shocks are only a concern if they are likely to occur. Some authors suggest that this probability is low, pointing to the similarities across the EC, the role of intra-industry trade, and the increasing cohesion (never precisely defined) in Europe (Nielsen et al. 1992, 169; EC 1992a, 136). Unfortunately for the EC, this assessment is overly optimistic: the probability of asymmetric shocks is high. There are many influences which could divide the European Community: the wealth of the north relative to the south; the production of oil in the UK, Norway, and the Netherlands; the strong UK-US trade relationship; Germany's traditional interest in Eastern and Central Europe; or France's concern with its inefficient farmers. Each of these divisions could easily be exploited by an international economic shock that would hurt some countries while benefiting others. The ERM crisis of September discussed above is a prime example of the effects of the UK-US trade relationship and German reunification. One should not expect that these types of shocks will disappear in the future.

CONCLUSION

While predicting the future is never easy, the above discussion has laid out a framework for some tentative conclusions concerning the future of European monetary policies.

First, if one looks at the EMS as it existed in August of 1992, it is clear that an important international regime had been created. Continual (although not always steady) progress on the internationalization of monetary policy in Europe was traced back to the late 1960s. Macroeconomic policies had converged for at least nine years, and the system was "hardening" as evidenced by the five year absence of revaluations within the system. It would be unlikely for this momentum to stop in the early 1990s, regardless of the current problems in the EMS and of the changes in the international system as a whole.

Second, the ERM crisis of September, 1992 showed that the pace towards stronger institutions had probably moved too quickly. In retrospect, divisions within the system were obvious and plainly unsustainable. The system was being pulled in three directions at once: exchange rate stability embodied in the "hard" ERM, financial integration with the abolishment of capital controls in 1990, and autonomous monetary policy as evidenced by Germany's tight monetary policy while the rest of the EC attempted monetary expansion. If monetary union is to be the ultimate goal for the EC, then monetary autonomy will have to be sacrificed. It is unclear if the national governments are willing to delegate this power yet.

Third, the proposal for monetary union, as embodied in the Maastricht Treaty, appears sound on the basis of achieving both internal and external monetary stability in Europe. The institutional structure outlined in the treaty will create a well-functioning supra-national economy with low inflation. Achieving the entry conditions of high convergence of macroeconomic variables is vital for the success of the union. This will require substantial attention by the participating nations.

Fourth, Maastricht, or its successor, will have to find a way to face the problems of asymmetry, whether these arise from external shocks or German dominance. Monetary union *is* a positive sum game for Europe. However, distributing those benefits equitably is a task that must be addressed.

Finally, it seems likely, based on the above points, that a multi-speed Europe is the best way to proceed. Issues of convergence and asymmetric shocks are less likely to adversely affect a small subset of nations. The "fast" Europe would probably include: Germany, France, Netherlands, Belgium, and Luxembourg. A second tier of nations who are close to the core would include: the UK, Ireland, Italy, and Denmark. The slower nations of Spain, Portugal, and Greece have much work before they are ready for union.

As the end of this millennium approaches, Europe is poised to undergo a historic transformation. Careful attention to the points mentioned here will ensure that the Europe of the future can benefit from the progress in the past.

Notes

- ¹ Referred to at that time as the European Economic Community.
- ² Greece remains outside of the EMS.
- ³ Subsequent to the enactment of the EMS Agreement in 1979 there was only one important revision, the Basle/Nyborg agreement of 1987 (Gros and Thygesen 1992, 166).
- ⁴ However, it has played a major role in the private financial market.
- ⁵ The UK and, for a time, Italy have opted for wider bands of $\pm 6\%$.
- ⁶ Although in this latter case the contrast is less dramatic: exchange rates in general have been less volatile after the 1979-80 oil shock (Archer and Butler 1992, 83). For real vs. nominal variability see (Nielsen et al. 1991, 191).
- ⁷ Italy's realignment of 1990 essentially represents a strengthening of the system. Italy chose to move from its $\pm 6\%$ band of fluctuation to the norm of $\pm 2.25\%$ band used by other participants. In doing so it also chose to devalue its central rate modestly. Since Italy's new, narrow band was entirely within its old, wide band, this move represented a positive shift for the EMS as a whole.
- ⁸ For further discussion of capital flow liberalization, and its effects on monetary stability see (EC 1991).

- ⁹ Throughout this essay, inflation will be measured as change in the Consumer Price Index. While this measure certainly has its shortcomings with regards to the topic in question (e.g., inclusion of non-tradables, under-emphasis on production costs, etc.) it has been chosen for reasons of data availability; CPI indexes are available across countries and have relatively standardized definitions.
- ¹⁰ Note: the UK did not join the ERM until 1990. It is included here for the sake of comparison.
- ¹¹ It is interesting to note that this same criticism was frequently, and correctly, raised under the Bretton Woods system.
- ¹² All ecu basket percentages are from October 1990 and are taken from *Danmarks Nationalbank, Beretning og Regnskab*, 1990 cited in (Nielsen et al. 1992, 183).
- ¹³ Having permission for realignments is vital given the ERM's prohibition against unilateral moves.
- ¹⁴ Numerous studies have performed Granger causality tests on the leading role of German, French, Italian, etc. monetary policy on the rest of the EC. The results, while rejecting the strong notion of German dominance, are ambiguous. A good survey of these issues is provided in (Gros and Thygesen 1992, 136ff).
- ¹⁵ A rare example of the ecu divergence indicator working as it should, forcing both the high and low currencies to act. See "Some are more EMU than others," *The Economist*, Oct. 3, 1992.
- ¹⁶ The analysis of causes will focus primarily on Britain and Italy, for reasons of data availability. However, the lessons learned are broadly applicable, especially from Italy to Spain and Portugal.
- ¹⁷ However, some authors have noted that the example of Germany may be misinterpreted in this regard. Perhaps it is not the independence of the Bundesbank that keeps German inflation so low, but the overwhelming consensus of the German people that inflation should be minimized. If this is the case than concerns regarding the relative independence of the ECB are irrelevant.
- ¹⁸ Similarly, governments will be unable to react to *internal* shocks that affect the tradable and non-tradable sectors differently.

References

- Archer, Clive and Fiona Butler. 1992. *The European Community: Structure and Process*. London: Pinter Publishers.
- Barrel, Ray, ed. 1992. *Economic Convergence and Monetary Union in Europe*. London: National Institute of Economic and Social Research.
- Bean, Charles R. 1992. European Monetary Union in Europe. *The Journal of Economic Perspectives* vol.6, no. 4 (Fall).
- Britton, Andrew and David Mayes. 1992. *Achieving Monetary Union in Europe*. London: National Institute of Economic and Social Research.

- Currie, David. 1992. European Monetary Union: Institutional Structure and Economic Performance. *The Economic Journal: the Journal of the Royal Economic Society* vol. 102, no. 411. (March) .
- European Community, Jean Victor Louis. 1990. *From EMS to Monetary Union*. Luxembourg: Office for Official Publications of the European Communities.
- European Community, Dominique Servais. 1991. *The Single Financial Market*. Luxembourg: Office for Official Publications of the European Communities.
- European Community, Michael Emerson, et al. 1992a. *One Market One Money: An Evaluation of the Potential Benefits and Costs of Forming an Economic and Monetary Union*. Oxford: Oxford University Press.
- European Community. 1992b. *Treaty on European Union*. Luxembourg: Office for Official Publications of the European Communities.
- Fратиanni, Michele, et al. 1992. The Maastricht way to EMU. *Essays in International Finance* no. 187 (June).
- Gros, Daniel and Niel Thygesen. 1992. *European Monetary Integration*. London: Longman Group.
- International Monetary Fund, Horst Ungerer, et al. 1990. *The European Monetary System: Developments and Perspectives*. Washington, D.C.: IMF.
- International Monetary Fund. 1992. *International Financial Statistics Yearbook* vol. 45. Washington, D.C.: IMF.
- Nielsen, Jorgen Ulf-Moller, et al. 1991. *An Economic Analysis of the EC*. London: McGraw-Hill Book Company.